

Finmeccanica demonstrates air-to-ground Mode 5 Reverse-IFF capability with Italian Typhoons

- **This technology helps to avoid collateral damage due to friendly fire during close air support operations**
- **In the demo, an Italian Air Force Typhoon was able to identify friendly NATO vehicles during a simulated mission**
- **The technology development, integration and demonstration took place at Italy's Official Test Center - National Support Centre EF2000 in Pratica di Mare near Rome**

Rome, 22 April 2016 – Finmeccanica, with the Italian Defense General Staff, has demonstrated the successful integration of a Mode 5 Reverse-IFF (Identification Friend-Foe) system, providing air-to-ground IFF capabilities for a Tranche 1 Eurofighter Typhoon. The demonstration was witnessed by representatives from the NATO Battlefield Combat Identification Capability Team.

An IFF system provides pilots with the ability to distinguish between 'friendly' vehicles and potential threats by sending out an interrogation signal and verifying the responses from other aircraft.. A reverse-IFF system uses the same concept to interrogate ground forces, allowing a pilot to understand where surface-level friendly forces are located before deciding whether to use weaponry. The system is called 'reverse' IFF because the aircraft uses its transponder, usually used to reply to interrogations from other aircraft or from the ground, to scan the ground vehicles.

To demonstrate the solution, an Italian Air Force Typhoon simulated a Close Air Support mission over Pratica di Mare (Rome) air base in Italy, flying toward and interrogating a number of Italian Army Lince armoured vehicles with its reverse-IFF system. As the Lince vehicles returned 'friendly' signals, the Typhoon held off from providing air to ground support that might otherwise have caused collateral damage. to the friendly forces.

NATO is considering the Mode 5 Reverse-IFF system as one of the possible short-to-mid-term solutions for air-to-surface identification, to avoid friendly fire when cooperating with coalition forces. The integration solution developed by Finmeccanica has shown that it is possible to

Information note:

Following the divisionalisation process of the Finmeccanica Group please note that as of January 1st, 2016: the "Helicopters" Division has incorporated the activities of AgustaWestland; the "Aircraft" Division has incorporated part of Alenia Aermacchi's activities; the "Aerostructures" Division has incorporated part of Alenia Aermacchi's activities; the "Avionics and Space Systems" Division has incorporated part of the activities of Selex ES; the "Electronics for Terrestrial and Naval Defence" Division has incorporated part of the activities of Selex ES; the "Security and Information Systems" Division has incorporated part of the activities of Selex ES; the "Defence Systems" Division has incorporated the activities of OTO Melara and WASS.

Finmeccanica is among the top ten companies in the world in Aerospace, Defence and Security, and the main Italian industrial company. Operational since January 2016 as *one company* organised into Business divisions (Helicopters; Aircraft; Aerostructures; Avionics and Space Systems; Electronics for Terrestrial and Naval Defence; Defence Systems; Security and Information Systems), Finmeccanica competes in major international markets leveraging its technological leadership and product areas. Listed on the Milan Stock Exchange (FNC IM; SIFI.MI), as at 31 December 2014, Finmeccanica recorded restated consolidated revenues of 12.8 billion Euro and boasts a significant industrial presence in Italy, the UK and USA.

introduce such a significant capability in a simple, low-impact fashion using the aircraft's existing transponder.

The integration activities were conducted at the Italian Reparto Sperimentale di Volo National Support Centre EF2000 (IT NSC) within the Experimental Flight Test Centre (Centro Sperimentale di Volo), located at the Pratica di Mare Air Force base near Rome. At the IT NSC, Air Force specialists worked alongside industry engineers, largely from Finmeccanica, to integrate and demonstrate the solution.

The demonstration with the Italian Air Force highlights Finmeccanica's leading role in IFF technology. The latest Mode-5 standard was conceived in the late 90s and developed in the 00s by Italian industry before being adopted by NATO as the new standard for military platforms which will be mandatory across NATO members from around 2020.

About the Reparto Sperimentale di Volo and the Italian National Support Centre (IT NSC EF2000)

The Reparto Sperimentale di Volo (RSV) is the flight department of the Experimental Flight Test Centre (Centro Sperimentale di Volo), led by the Italian Air Force. Inside the RSV is the Italian National Support Centre (IT NSC EF2000) based in a sophisticated integration laboratory which includes an avionics integration rig and a software development facility. The IT NSC can support the full development and qualification of avionics modifications carried out at a national level.