

Leonardo-Finmeccanica: SW-4 'Solo' Rotary Wing Unmanned Air Vehicle and Advanced Airborne Sensors at Unmanned Warrior 2016

- **SW-4 'Solo' Rotary Unmanned Air System (RUAS) demonstrated in maritime environment**
- **SAGE Electronic Support Measure (ESM) and Osprey E-Scan radar systems are supporting intelligence, surveillance and reconnaissance mission demonstrations**
- **Leonardo's new technology unmanned air vehicles and sensors offer navies cost effective solutions for a wide range of maritime missions**

Rome, 16 November 2016 – Leonardo-Finmeccanica attended Royal Navy's Unmanned Warrior 2016 from 9th to 21st October, the largest demonstration of maritime autonomous systems ever held. Leonardo demonstrated the capabilities of its advanced SW-4 'Solo' Rotary Unmanned Air System as well as its airborne sensors such as the SAGE electronic warfare and Osprey E-Scan radar systems integrated using its skylSTAR mission management system in order to support intelligence, surveillance and reconnaissance missions. Unmanned Warrior provided Leonardo the opportunity to demonstrate to the Royal Navy and other international observers the capabilities of its unmanned rotorcraft and airborne systems in a tactically representative maritime environment. The company has been investing in unmanned rotorcraft technology which it believes can deliver or contribute to the delivery of a wide range of missions cost effectively and also complement its range of manned naval helicopters.

Admiral Sir Philip Jones, First Sea Lord and Chief of Naval Staff, said: "The growing scale of Unmanned Warrior is a clear demonstration of the Royal Navy's ambition to lead and win through technological innovation. Unmanned maritime systems will change how we operate, but they're just the start. Our pursuit of new technologies and ideas will ensure we remain one of the most capable and successful navies in the world."

The SW-4 'Solo' Rotary Unmanned Air System (RUAS) is based on the proven SW-4 light single engine helicopter. It is designed for both piloted (Optionally Piloted Helicopter, OPH) and unmanned operations, for maximum operational flexibility. The RUAS version of the SW-4 is capable of performing a number of roles, including intelligence, surveillance and reconnaissance and cargo re-supply, in both land and naval environments. When piloted, the SW-4 'Solo' can undertake manned activities including transportation of personnel, surveillance and intervention. The SW-4 is EASA certified, ensuring safe operations when operating in the manned and unmanned modes.

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.

SAGE is an Electronic Warfare support system for intelligence, surveillance and reconnaissance missions. It passively collects data from Radio Frequency (RF) emitters at a tactically significant range, compares them with an emitter library identifying and geo-locating any threats. The system is sufficiently flexible to be integrated onto a very wide range of aerial vehicles including fixed and rotary wing aircraft, plus unmanned aerial systems. SAGE is available for export for rotary and fixed wing platform applications.

Leonardo is an international leader in radar technology and the Osprey is the world's first radar to provide E-Scan coverage without moving parts or the need for a bulky external radome, all in a package light enough to fit on the SW-4 Solo unmanned helicopter. The 1-panel version of the Osprey demonstrated during Unmanned Warrior provides a 120 degree instantaneous field of view and a range of digital modes including weather detection, air-to-air targeting and a ground moving target indicator (GMTI). Osprey has already been selected (in its 3 panel, 360 degree version) for the Norwegian AW101 search and rescue helicopter and the radar has also been chosen by customers in the United States.

The skylSTAR state-of-the-art mission management and sensor system has been used to integrate and manage the electro-optical sensor, Osprey radar and Sage ESM all mounted on board the 'Solo' RUAV. During Unmanned Warrior, the advanced mission management capability within skylSTAR demonstrated its advanced algorithms covering sensor planning, multi sensor tracking, data fusion and data exploitation. This capability reduces the sensor operator workload and provides a coherent and prioritised overall picture allowing the Royal Navy to readily exploit the information across the rest of the exercise.