



PRESS RELEASE

PIAGGIO AERO INDUSTRIES AND SELEX ES PRESENTS AT IDEX 2013 THE P.1HH “HAMMERHEAD” - UNMANNED AERIAL SYSTEM

Abu Dhabi (UAE), February 18th, 2013: Piaggio Aero Industries, together with Selex ES a Finmeccanica company, today presented at IDEX 2013, the Piaggio Aero P.1HH “HammerHead” - Unmanned Aerial System (UAS).

The P.1HH “HammerHead” programme objective is the development of a multipurpose state-of-the-art **Unmanned Aerial System** designed to meet the need for a robust and high-tech solution for Intelligence, surveillance and reconnaissance missions (ISR). The Piaggio Aero P.1HH Unmanned Aerial System includes an unmanned aircraft platform, specific mission equipment and systems and a remote Ground Control Station (GCS).

After two years of development, the P.1HH “HammerHead” UAV has been rolled out and it successfully completed its first engine start and run way taxi on 14th February at an Italian Air Force base. The Piaggio Aero P.1HH - UAS first flight is scheduled for this year following the completion of the Vehicle Control & Management System integration and the ground test programme.

The Piaggio Aero P.1HH aircraft features automatic take-off and landing capabilities and is able to fly at up to 45,000 feet, with an outstanding endurance of 16 flight hours. The Piaggio Aero P.1HH “Hammer Head” UAV will also be compliant with the STANAG USAR 4671 standards that enable it to fly both in restricted and unrestricted flight areas.

Like the Piaggio Aero MPA - Multirole Patrol Aircraft - presented in July 2012, the Piaggio Aero P.1HH “HammerHead” unmanned aircraft - part of the P.1HH Unmanned Aerial System - is a derivative of the Piaggio Aero P.180 Avanti II platform newly designed for multi mission purposes such as aerial, land, coastal, maritime and offshore security, COMINT/ELINT missions, and electronic warfare.

The P.1HH “HammerHead” unmanned aircraft’s main features are an enhanced airframe, increased aerodynamic configuration with a reinforced wing providing an increased surface and higher aspect ratio. The aerodynamic configuration is based on the development of new wings providing a 15,5 m wing span with the subsequent modification of the previous P.180 aerodynamic design but maintaining Piaggio Aero’s patented 3 lifting surfaces configuration now employed in roles and applications that the Piaggio Aero’s P.180 designers only envisioned.

The P.1HH “HammerHead” aircraft features a removable external section wing in order to guarantee easy ground transportation and provide operational flexibility in any environment. This modified aerodynamic configuration underwent extensive low speed/high speed wind tunnel testing to validate both its design and performance.

The P.1HH “HammerHead” aircraft will be remotely controlled from a autonomous mission control ground station (GCS) by both a Line Of Sight (LOS) and Beyond Line Of Sight (BLOS) satellite communication system. The Piaggio Aero UAS features a state of the art Vehicle Control & Management System (VCMS) combined with a sophisticated Air Data Terminal (ADT) and a customised Mission Management System (MMS) for the control of all mission specific equipment.

The P.1HH “HammerHead” unmanned aircraft is powered by two Pratt & Whitney Canada PT6-66B turboprop engines, rated at 950 shp, and features newly designed, low noise Hartzell 5 curved blades propellers. The propulsion system will be remote-controlled by an engine interface unit which is part of the P.1HH Vehicle Control and Management System.

“The P.1HH “HammerHead” Unmanned Aerial System program represents the most important and challenging project for Piaggio Aero. It supports Piaggio Aero’s vision of becoming a prominent player in the surveillance and security sector producing leading edge Unmanned Aerial Systems and world class Multirole Patrol Aircraft” stated Mr. Alberto Galassi, Chief Executive Officer of Piaggio Aero Industries. *“In today’s military, unmanned systems are highly regarded for their versatility for different roles and applications. Being ideally designed to perform at the highest, sensitive mission level in patrol , detection and reconnaissance environments, the P.1HH UAS will provide sophisticated stand-off capabilities for any surveillance and security need.”* He added *“With the development of a new generation of Multirole Patrol Aircraft and Unmanned Aerial Systems, Piaggio Aero is creating its future, with the fundamental support of our world class shareholders, Mubadala Aerospace and Tata Ltd”* .

Piaggio Aero has selected **Selex ES**, a Finmeccanica company, for the development of the Mission Management System, , the Vehicle Management and control System, air Data Terminal and the Ground Control Segment for the Piaggio Aero P.1HH “Hammer Head” UAS. Selex ES has been selected as the Piaggio Aero UAS systems partner after an extensive international evaluation process.

Selex ES grants to Piaggio Aero an outstanding contribution thanks to its capabilities, products and experience in developing UAS surveillance systems, contributing mainly with its avionics and mission system, its sensor suite featuring SeaSpray 7300E Radar, Comms and Data Link solutions, cooperating with Piaggio Aero for effective integration.

“We are proud to have been selected by Piaggio Aero as partner in this unique and very ambitious programme that brings together the expertise of two leading Italian companies in the aerospace and defence domain” said Fabrizio Giulianini, CEO of Selex ES. *“This achievement rewards the effort and investment that Selex ES has dedicated to the development of key enabling technologies and know-how in autonomous unmanned systems. These are integrated into our SkyiSTAR system solution that, after less than two years from its launch, is now securing its first customer. This programme is a step forward in bringing to market a truly European MALE ISR UAS”*.

Its Mission Management system, based on Selex ES’ skyiSTAR innovative technology will redefine the concept of patrolling and ISR missions, to encompass threats that range from terrorist attacks to illegal immigration, protection of Exclusive Economic Zones (EEZ), infrastructures and critical sites / infrastructures.

Sensor fusion technology, data management and exploitation features of skyiSTAR will enable highly effective border control, wide area surveillance, targeted surveillance (overt or covert), environmental and disaster control missions.

The characteristics of the P.1HH “HammerHead” UAS will make it uniquely suited for a wide range of surveillance intelligence, reconnaissance and security missions and it will be developed by Piaggio Aero with a variety of operational capabilities according to individual customer requirements.

EDITOR'S NOTE

PIAGGIO AERO INDUSTRIES S P.A.

Piaggio Aero Industries S.p.A. is active in aircraft design, manufacturing, maintenance and overhaul. The company also manufactures Aero-Engines parts and maintains, repairs and overhauls engines under license. Piaggio Aero has facilities in Genoa, Finale Ligure and Naples, Italy and a subsidiary covering the Americas in West Palm Beach, FL, U.S.A. (Piaggio America, Inc.). Piaggio Aero's shareholder structure is composed of: Tata Limited, a British company, part of the Indian Tata Group, Mubadala Aerospace, the development and investment company driving the economic diversification of Abu Dhabi, and the Italian Ferrari and Di Mase families.

SELEX ES

Selex ES, a Finmeccanica company, is an international leader in electronic and information technologies for defence systems, aerospace, data, infrastructures, homeland security and protection and sustainable "smart" solutions.

The company was created on 1st January 2013 from the merge of SELEX Galileo, SELEX Elsag and SELEX Sistemi Integrati to answer the growing demand for enhanced capabilities in the national security and military domains as well as in the management of complex civil infrastructures, by leveraging on collective strengths and capitalizing on the synergies within key business areas.

Selex ES has a workforce of approximately 18,000 people, revenues in excess of EUR 3.5 Billion Euros, main operations in Italy and the UK and a strong industrial and commercial footprint in the US, Germany, Turkey, Romania, Brazil, Saudi Arabia and India.

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