

Leonardo to provide UK defensive aids suite for British Army's new Apache AH-64E helicopters

- **Leonardo will integrate a suite of UK sensors and countermeasures on the Army's new Apache helicopters to ensure they are protected against current and future threats**
- **Leonardo provides defensive electronic warfare capabilities across UK Armed Forces helicopters including for the AW159 Wildcat, AW101 Merlin, Chinook and Puma**
- **Leonardo is Europe's leader in airborne electronic warfare, with equipment in service on numerous platform types internationally. Notably, the company leads the provision of the integrated defensive aids sub-system for the Eurofighter Typhoon**

Santiago, 3 April 2018 – Leonardo has announced, at the FIDAE exhibition in Chile (3-8 April), that it has been contracted by the UK Ministry of Defence (MOD) to provide a defensive aids suite (DAS) for the British Army's new fleet of Apache AH-64E helicopters. Under related contracts from the UK MOD and Boeing, Leonardo will integrate sensors and countermeasures to ensure that UK Apaches remain amongst the best protected attack helicopters in the world.

Combat helicopters like the Apache fly at relatively low speeds compared to fighter jets and often at low altitudes, so they are vulnerable to a wide range of threats including infrared-guided missiles and anti-tank guided weapons. An integrated defensive aids suite helps protect a helicopter from threats in a joined-up way. A complete system includes sensors to identify threats to the helicopter, countermeasures to defeat these threats and a computer that coordinates the whole system, linking the incoming warnings with protection techniques such as chaff or flares.

Minister for Defence Procurement Guto Bebb said "UK Apaches provide our Armed Forces with world-leading capabilities in the field of combat. Today's announcement will see our aircraft fitted with cutting-edge British protection to rapidly detect and defeat inbound threats. This is a welcome boost for UK jobs and investment which is part of the Government's recently announced Defence Industrial Policy Refresh."

Every Apache AH-64E that comes off the production line, regardless of its end user, already has a built-in Leonardo defensive aids suite computer, known as an 'AGP' (Aircraft Gateway Processor). This project will see Leonardo take the UK's Apache defensive aids suite a step further by integrating a number of sensors and countermeasure systems onto the AH-64E to enhance its situational awareness and survivability.

The helicopters' sensor fit will include Leonardo's SG200-D radar warning receiver (the UK-specific variant of the company's SEER family) and will re-use a number of systems that are currently on-board the Army's fleet of Apache AH Mk1. These re-used sensors and effectors include Leonardo's S1223 laser warning receiver, the BAE Systems AN/AAR-57 missile approach warner and the Thales Vicon countermeasure dispensing system. Initially these systems will be taken from

spares stores and the remainder will become available when the AH Mk1s retire from service in 2023/24. This means that the British Army will experience a seamless transition to the new helicopter type with both old and new models being equipped with integrated protective suites on operations.

Integration will be conducted by Leonardo in Luton and the complete system will then be installed by Boeing on its AH-64E production line in the United States. All 50 helicopters being procured by the UK MoD will be capable of operating with the integrated defensive aids suite.

A key benefit to the British Army of equipping the Apache AH-64E with a UK sovereign defensive aids capability is that the MOD will be able to continue to re-program the helicopter's defensive aids suite to respond to changing battlefield conditions. This is a critical support function known as 'Electronic Warfare Operational Support', or 'EWOS', which the UK has developed a world-leading capability in at the MoD's Air Warfare Centre at RAF Waddington, supported by Leonardo at its EWOS facility in nearby Lincoln. Being able to keep the defensive suite up-to-date without needing to consult another country gives the UK essential freedom of operation.

Leonardo already provides defensive aid suites across the UK Armed Forces' helicopter fleet and provides EWOS support to all of these platforms. Existing Apache AH Mk1 helicopters are all equipped with the company's HIDAS system, which stands for 'Helicopter Integrated Defensive Aids Suite'. Leonardo's AW159 Wildcat helicopters, which are operated by the British Army and Royal Navy, also carry HIDAS systems.

As well as providing defensive aids suites for new UK helicopters, Leonardo has retro-fitted all of the UK's Chinook helicopters with defensive aids suite capabilities (including the latest HC Mk 6 standard). Under this project, Leonardo brought together all of the Chinook's existing sensor and effector systems into an integrated system that offers similar decision making capabilities to the HIDAS system. The company has also conducted a similar retro-fit integration on the UK's Puma fleet and is currently doing so for the Merlin helicopter under the HC Mk 4 upgrade programme. Like the Apache AH-64E, both RAF Puma and Chinook helicopters are also receiving updated radar warning capabilities in the form of Leonardo's SG200-D which in the case of the Puma and Chinook is replacing the platforms' previously installed Leonardo Sky Guardian 200 systems.

In addition to helicopters, Leonardo also provides integrated defensive aids protection for combat jets, leading the EuroDASS consortium (which also includes Leonardo's Italian partner Elettronica as well as Hensoldt in Germany and Indra in Spain) to provide the Praetorian Defensive Aids Sub System for the Eurofighter Typhoon jet. The company has recently been contracted to upgrade the system on RAF Typhoons to ensure that Praetorian can continue to identify and defeat known and emerging threats.