

# British Army Air Corps takes its first Apache Longbow

STEWART PENNEY/LONDON

GOVERNMENT handed over the first WAH-64 Apache Longbow attack helicopter to the British Army Air Corps (AAC) on 15 March. The AAC has 67 Apaches on order, all equipped with the Northrop Grumman Longbow radar.

AAC machines are powered by Rolls-Royce Turboméca RTM322s instead of the General Electric T700s in all other Boeing AH-64s.

Other features unique to UK Apaches are manual blade-folding, to allow routine operation from navy ships in support of Royal Marine amphibious operations; rotor de-icing; provision for air-to-air missile (AAM) carriage; and the reinstatement of the back-up control system, which has been deleted on US Army AH-64Ds during the upgrade from AH-64A standard.

Additional differences to other AH-64s will include use of the BAE Systems Helicopter Integrated Defensive Aids Suite (HIDAS), which will be fitted from aircraft 22 and retrofitted to earlier machines; an improved identification friend or foe, with Mode S capability; and a basic health and usage monitoring system.

Boeing vice-president US Army programmes and helicopters

Chuck Vehlow says a memorandum of understanding, to be signed shortly, will allow the flowback of UK-specific systems and capabilities to the US Army's machines.

A UK Defence Procurement Agency source says the in-service date for an AAM has slipped by two years to 2005. Although there is funding to equip the Apache with an AAM, the source says a balance of investment exercise is determining whether the money would be better spent on other changes, such as giving the HIDAS an active jamming capability. While the Shorts Missile Systems Starstreak is considered the most likely AAM, others include the Matra BAe Dynamics (MBD) Mistral, Ray-

theon Stinger and, "as a long shot", the MBD ASRAAM short-range infrared-guided missile.

Other possible improvements include second-generation forward looking infrared systems for the piloting and targeting sensors, but such upgrades may be linked to similar moves by the US Army.

The first machine is instrumented to support military aircraft release testing, while other key testing for the non-marine Apache includes clearing the machine for use on Royal Navy ships from later this year.

The UK Apaches will be split between four regiments – three at Wattisham in Suffolk and one at Dishforth in Yorkshire. □



The first WAH-64 Apache has been handed over to the British Army

## Allied Force prompts Joint STARS upgrade

LAST YEAR'S NATO air war against Yugoslavia has resulted in "quick reaction" modifications to the US Air Force's Northrop Grumman E-8C Joint Surveillance and Target Attack Radar System (Joint STARS). Meanwhile, Northrop Grumman expects to be under contract next month to begin engineering and manufacturing (EMD) of the Radar Technology Insertion Programme (RTIP).

Operation Allied Force underlined the need for Joint STARS to operate with other command and control and intelligence-gathering platforms, such as the Boeing E-3 Sentry Airborne Warning and Control System and the Boeing RC-135 Rivet Joint electronic surveillance aircraft.

As a result, Joint STARS is to exercise regularly with such platforms. In December, the E-8, Sentry and RC-135 were flown together, with the crews exchanging ideas on tactics, techniques and procedures. Joint exercises will be conducted quarterly, with the next one due this month.

During Allied Force, the E-8C's 16 mission specialists were on duty for up to 15h without relief. Under the fast-track Combat Readiness Exploitation Workstation (CREWS 2000) programme, six flat-screen displays have been added to an E-8C's crew rest area, allowing extra operators to be carried. Operations concepts for CREWS 2000 will be developed in upcoming exercises, but USAF programme officials say the workstations will become permanent Joint STARS equipment.

The RTIP upgrade – worth \$1.3 billion – will keep Joint STARS in service until at least 2017. It includes the APY-X two-dimensional electronically scanned active array radar. The 105-month RTIP EMD was approved in January, with a contract expected next month. The first five RTIP E-8Cs will not be operational until 2012.

Northrop Grumman delivered the seventh Joint STARS earlier this month. □

## F-22 flights halt for flaperon rib repairs

NEW FLAPERON ribs are being installed on Lockheed Martin/Boeing F-22 Raptors at the US Air Force's Edwards AFB, California, flight-test centre. The action follows discovery of a damaged rib during static testing.

Delamination of a composite rib in the left-hand flaperon was discovered late last month, during ultimate-load testing of the F-22 static-test article at Lockheed Martin's Marietta, Georgia, plant. The damage was caused by excessive strain, the company says.

Lockheed Martin will replace the affected component with a titanium rib in the left- and right-hand flaperons. F-22 flight testing has been halted as a precaution until the new ribs are installed. The first aircraft is due to be back in the air on 23 March, followed a few days later by the second aircraft.

The third F-22 arrived at Edwards on 15 March, after a cross-country ferry flight from Marietta, and will be fitted with the new ribs before entering the flight test programme. Lockheed Martin

says the rib problem has had no impact on schedule or cost.

■ The US General Accounting Office says F-22 development can stay within budget provided that there are no more programme extensions or cost increases.

The Congressional watchdog says the USAF and contractors have found \$860 million in savings to offset potential cost increases of \$757 million. This will allow development to stay within the increased Congressional cost cap of \$20.4 billion. □