

UPGRADES PAUL LEWIS / WASHINGTON

Boeing digitises Apache

Flight testing of the enhanced AH-64D begins despite cutbacks in improvements

Boeing has started flight testing an AH-64D equipped with a set of incremental enhancements, as the US Army faces the difficult task of curtailing investment in Apache improvements in order to focus on the near-term needs of sustaining the problem-plagued attack helicopter fleet.

A pre-production Apache Longbow is being used to test a series of planned improvements earmarked for inclusion as part of the second multi-year buy of 269 AH-64As remanufactured to AH-64D standard. Changes focus on the upgrade and addition of four digital avionics boxes incorporating for the first time commercial-off-the-shelf (COTS) technology.

The update is intended to allow the AH-64D to participate in the US Army's digitised battlefield. This will provide expanded access to off-board data, imparting large video files for real time display in the cockpit or storage, as well as a digital map and an enhanced position and reporting system. The last four



The updated AH-64D will use COTS technology

lots of Multi-Year II helicopters, totalling 217 machines, will feature the digital suite starting with Lot 7 deliveries in 2003.

COTS, in addition to providing future growth capability, is expected to produce a 20% cut in system acquisition costs. The army at the same time is attempting to reduce the AH-64D's average flight costs from \$3,084/h to \$2,230/h and sustain a mission capable goal of 75%.

Since 1999, the Apache has been

hit by series of groundings as the result of accessory gearbox clutch and hanger bearing assembly failures and, more recently, faulty tail rotor swash plates.

As a result the army has embarked on a recapitalisation programme to improve availability and reliability by overhauling or replacing mechanical components such as actuators and gearboxes. Boeing is working with the army to define the full scope of work, but an interim 21 items have already been identified for the AH-64D and another eight for the AH-64A.

This is forcing planners to divert funds away from longer-term modernisation efforts, with the Multi-Year II buy having already been trimmed by 29 helicopters. According to a newly released General Accounting Office report, the army is short of more than \$168 million this year and another \$158 million in 2002 for required component and airframe upgrades.

TRAINING PETER LA FRANCHI / CANBERRA

Australian navy plans commercial helicopter training service by 2004

The Royal Australian Navy (RAN) is to launch a tender process late this year for the provision of a fully commercialised helicopter training service to replace its Eurocopter AS350BA Squirrel aircraft.

RAN officials told a closed-door industry briefing on 25 July that the service is seeking new twin-engine aircraft equipped with glass cockpits, instrument flight rated and capable of short-term shipborne operation. The aircraft would enter service around 2003-2004.

An invitation to register for the requirement is tentatively set for release in October, followed by a restricted request for tender in the first half of 2002. Decisions are still

to be made on whether the programme will be run as part of the fledgling Australian Defence Private Financing Initiative.

The requirement will seek the supply of a fully integrated training syllabus for RAN helicopter pilots. RAN officials told the briefing that the baseline requirement for aircraft would be predicated on 4,000h of flying operations a year, but this could rise to 14,000h.

RAN officials said that, while the requirement was not included in the Australian Defence Capability Plan released at the end of June, it was hoped money would be found through operational savings to enable the programme to proceed.

Companies invited to the briefing included AgustaWestland, BAE Systems Australia, Bell Helicopter and Raytheon Australia.

The full Australian Defence Force training complement of 18 AS350BAs were transferred to the service earlier this year after a decision in 2000 to separate RAN and Australian Army helicopter pilot training into different streams following basic training. The RAN also has six AS350BAs in operational service as utility aircraft aboard its FFG7 class frigates.

The Australian Army is set to launch its own commercially outsourced helicopter training requirement in late 2002.

UNMANNED VEHICLES

Race is on for Dragon Eye UAV contract

The US Naval Research Laboratory (NRL) has selected AeroVironment and BAI Aerosystems to competitively build a batch of Dragon Eye manportable unmanned air vehicles (UAVs) for US Marine Corps field testing.

Should the small backpack-size UAV prove successful, the USMC will award a single production contract for more than 1,000 Dragon Eyes and 200 ground control stations (GCS) to satisfy its Interim Small Unit Remote Scouting System requirement and to meet the US Navy's over-the-hill reconnaissance initiative.

NRL in collaboration with the Marine Corps Warfighting Laboratory (MCWL) developed Dragon Eye, a 1.8kg (4lb) hand-launched autonomous UAV that breaks down into five pieces. The battery-powered UAV, which carries a .45kg (1lb) daylight, low light or infrared sensor, can fly for 30min and has a top speed of 74km/h (40kt). The "wearable" GCS consists of a touch screen computer and associated gear carried on a vest.

The vehicle and the GCS are likely to cost \$3,000 and \$10,000, respectively, in full-rate production. A Marine battalion would be issued with four Dragon Eye systems, each with five air vehicles, one GCS and associated sensor payloads.

NRL previously manufactured a handful of vehicles in-house for experimentation by the MCWL, and AeroVironment and BAI Aerosystems were subsequently awarded contracts to build a further small batch.

NRL on 18 July awarded AeroVironment \$1.34 million to build 20 additional air vehicles. BAI Aerosystems received \$515,000 to produce an equal number of the UAVs. The US firms must deliver all 40 Dragon Eye UAVs by 1 January 2002. The USMC would begin fielding Dragon Drones in fiscal year 2003.