Leotard confirms importance of NH-90 funding

The French defince minister, François Leotard, has come out strongly in favour of continued financing for the four-nation NH-90 tactical transport helicopter programme.

In a letter to a parliamentary defence commission reviewing France's spending plans between 1995 and 2000, Leotard says that the multinational NH-90 is "essential" for equipping European forces, and for the future of Eurocopter.

The statement contradicts recent reports that France was considering cancellation of the NH-90, which will cost Fr9 billion ($1.5 billion) to develop. France, Germany, Italy and the Netherlands are involved in the programme, which envisages production of up to 750 helicopters. The French navy is worried that funding the helicopter may put pressure on the budget for its M5 nuclear missile.

Eurocopter says that the NH-90 programme could employ up to 13,000 in the four countries when it enters full-scale production later in the decade. □

RAF Tornado update

The Royal Air Force's Panavia Tornado interdictor-strike aircraft's £750 million mid-life upgrade (MLU) is on the brink of final approval from the UK Ministry of Defence, according to sources close to the project.

The much-delayed and revised programme to upgrade the Tornado from GR.1 to GR.4 standard is believed to cover 80 aircraft, with an option on an additional 60.

The MLU package includes a global-positioning system and other cockpit and avionics improvements. The terrain-referenced navigation system has been dropped from the project on cost grounds, however. □

Eurofighter looks to use key X-31 technology

BY DOUGLAS BARRIE

German Eurofighter lead industrial partner Deutsche Aerospace (DASA) is proposing to use key technologies from the Rockwell/DASA X-31 demonstrator programme to address the problems affecting the Eurofighter digital flight-control system (DFCS).

DASA has developed and implemented the control laws for the X-31's FCS and it is now proposing to Eurofighter that it can take these and transfer them to the Eurofighter DFCS.

Although the present Eurofighter control laws were developed by DASA within the project, the implementation for the FCS was carried out by UK-based GEC-Marconi Avionics (GMAv). Relations between DASA and GMAv are understood to have become strained because of the difficulties.

Senior DASA officials hint that it would draw on the X-31 project, but decline to go into details. Other sources close to the programme, however, have confirmed that DASA is trying to take software developed for the X-31 and push it towards the Eurofighter project as a "more graceful" solution.

The structure of the FCS programme is itself under review. DASA holds system-design responsibility, but both British Aerospace and GMAv are being considered to take an increased risk-sharing role in this system.

Some officials question both the ease with which DASA could transfer the X-31 software, without substantial — and costly — modifications, and its rationale.

Delays to the development of the DFCS, say sources, have been ascribed by some DASA officials to the way in which GMAv implemented DASA's control laws for the aircraft, a view which is hotly contested by GMAv.

DASA is keen to retain its role in the DFCS development, since it is viewed as one of the leading technologies on the aircraft. The company is also looking to transfer experience which it has gained in the military area to its civil-sector customer programmes for flight controls for commercial passenger aircraft. □

See X-31 flight-tests, P17.

USN to test AEW/JTIDS concept

The US Navy is to begin airborne tests of a system designed to combine and enhance the anti-air warfare benefits of airborne early warning (AEW) and the joint tactical-information distribution system (JTIDS).

The equipment suite, known as the co-operative engagement capability (CEC) system, is eventually intended for installation on Grumman E-2C Hawkeye AEW aircraft. To demonstrate the CEC during a year-long series of exercises, Lockheed has modified a US Customs Service P-3 AEW aircraft to carry a proof-of-concept CEC suite.

Modified P-3 will carry CEC suite

The concept, proposed by the Johns Hopkins Applied Physics Laboratory, of Washington DC, involves networking air-defence data from ships and aircraft in and around a battle group, to form a distributed sensor and weapons suite.

"It's better than JTIDS because it also gives you radar measurements [bearing, heading, distance and speed], as well as being more immediate and having better reliability," says Don Michaud of Johns Hopkins, which is also the USN's designated programme technical-direction agent.

The core elements of the CEC are produced by E-Systems' ECI division and consists of a co-operative engagement processor (CEP) and a data-distribution system (DDS). The CEP tracks airborne threats and positions them within a constantly maintained gridlock. The DDS automatically establishes a network and distributes key sensor data to the battle force. A belly-mounted active-aperture antenna provides an advanced "Link 16 plus" datalink to other CECs in the group.

Lockheed Aeronautical Systems (LASC) manager for AEW systems, Timothy Douglas, says: "The system will be evaluated to around 1997 and I anticipate a final design would be conceptualised by then. After that, we'll start active fleet tests with equipment in aircraft. Ship-to-ship tests are going on and the tactics groups are already aware of the system's potential."

Modification work for the CEC, funded through the US Navy Program Executive Office, Theater Air Defense, was undertaken for LASC by Lockheed Advanced Development's new "Skunk Works" in Palmdale, California. □