

NEWS IN BRIEF

■ USN PC-9 PLAN

The US Navy plans to buy or lease two Pilatus PC-9 turbo-prop trainers, "or equivalent aircraft", to use as chase aircraft for the Bell Boeing V-22 Osprey tilt-rotor flight-test programme. The aircraft will be required for five years beginning in April 1997. The Navy is calling for a level-flight speed range of 110-260kt (200-480km/h), with a dive speed of at least 280kt.

■ V-22 PRODUCTION

The US Navy has awarded Bell-Boeing a \$1.4 billion contract to begin low-rate initial production of the V-22 Osprey tilt-rotor aircraft for the US Marine Corps. The award covers the first lot of four V-22s and holds options for the second and third production lots of five and seven aircraft, respectively. The USMC will begin receiving aircraft in 1999.

■ P-3 FLIR UPGRADE

The US Navy wants to replace with new staring-array infra-red and long-range visible-light imaging systems the AAS-36 forward-looking infra-red (FLIR) and AVX-1 electro-optical sensors used on the Lockheed Martin P-3C maritime-patrol aircraft. A combined sensor may be procured, to minimise the weight, power, cooling and installation requirements.

■ BOTSWANA BUYS CF-5S

Botswana continues its arms build-up with the purchase from Canada of 13 Northrop CF-5A/Ds for \$50 million. Bristol Aerospace, appointed in 1994 to market Canada's 60 surviving CF-5s, will deliver ten upgraded single-seat CF-5As and three two-seat CF-5Ds to Botswana between the third quarter of 1996 and mid-1997. They are the first surplus CF-5s to be sold. Botswana recently acquired 50 German-built Leopard 1 main battle tanks.

NASA will use its HARV F-18 to tackle "falling-leaf" problem

GUY NORRIS/LOS ANGELES

NASA's McDonnell Douglas F-18 HARV (high-alpha research vehicle) is to be converted for use in a joint US Navy/NASA Langley test programme aimed at solving a control problem experienced on F-18s and other high-performance aircraft.

"At certain points in the flight envelope they get into a 'falling leaf' condition where they just begin rocking back and forth and basically fall out of the sky," says NASA Dryden Flight Research

Center HARV programme manager, Denis Bessette. The aircraft are normally recovered automatically at "around 11,000ft to 12,000ft", he adds.

Aerodynamicists at NASA Langley have developed a theory about the cause of the condition, which is, "...part of a continuum between Dutch roll and spin," according to Bessette. "If roll and yaw are in sequence then the aircraft can go into the falling leaf. If they are out of sequence it can develop into a spin which is pure yaw without Dutch roll."

NASA performed some falling-leaf spin-entry work with the USN in mid-1995 and the data that was collected "supports the theory", he adds. The HARV aircraft has been chosen because it is the only F-18 fitted with a spin parachute. The two-phase refurbishment will clear the way for the falling-leaf, or advanced-control-research, programme to start in 1998.

The HARV aircraft's distinctive thrust-vectoring paddles will be removed for the Navy programme but they will be retained for other research flights. □

Lockheed Martin steps up C-130J testing

GRAHAM WARWICK/ATLANTA

LOCKHEED MARTIN is to add aircraft and increase flying in a bid to recover delays in flight-testing the C-130J Hercules 2. The second C-130J had its first flight on 4 June — only the programme's second since the delayed maiden flight of the first aircraft on 5 April.

Al Hansen, executive vice-president of Lockheed Martin Aeronautical Systems, says that the company proposes to add three C-130Js to the five-aircraft certification flight-test programme. Each aircraft is now scheduled to be flown on two 8h test-flights a week, instead of the originally planned single 5h mission.

With these changes, Hansen believes, Lockheed Martin should be able to deliver the first C-130Js to the Royal Air Force, US Air Force and Royal Australian Air Force on a schedule understood to be "very close" to the original. Avionics-integration problems had caused the first flight to be delayed from late 1995 and certification from late 1996 to mid-1997.

The planned increase in flight-test tempo is based on the reliability observed on the first two flights, Hansen says. The second aircraft was returned from its 6h 14min first flight with "only one minor discrepancy", he says. Lockheed



Additional C-130Js will join the flight-test programme

Martin plans to have three C-130Js flying by the end of June and hopes to accumulate up to 50h a month per aircraft, instead of an originally planned 15h based on its previous flight-test experience.

"It could be we will not need eight aircraft," Hansen says. The three additional aircraft would be used for reliability testing towards the end of the certification programme. "We have alerted customers to a potential schedule slip, but we have the opportunity to recover lost time," he says.

Lockheed Martin is responding to a Turkish air force request for proposals for three airborne early-warning (AEW) aircraft, offering a version of the C-130J Hercules 2. The company plans to have an AEW mission-system demonstra-

tor available for customer evaluation by December.

A Royal Australian Air Force team has evaluated a demonstrator at the Syracuse, New York, plant, where Lockheed Martin manufactures the APS-145 radar already used in the Northrop Grumman E-2C and offered on the C-130J.

This will be incorporated in an expanded demonstrator, including systems, at the company's Marietta, Georgia, plant, says Hansen.

Australia has a stated requirement for AEW aircraft and is expected to issue a request for information in the near future, after which it plans to award study contracts to interested bidders. Hansen says that a South Korean air force RFP for four to six AEW aircraft is expected "any day now". □