Boeing 757 used for ATF testing

Flight testing of avionics for the Lockheed/Boeing/General Dynamics YF-22A Advanced Tactical Fighter (ATF) candidate has begun with the prototype systems being carried in a specially modified Boeing 757.

Boeing says: “The 757 is demonstrating the avionics systems against targets of opportunity. The 757 will fly 32 missions over four months.”

Sensors being tested include the active-array radar system (built by Westinghouse teamed with Texas Instruments), the communications - navigation identification system (manufactured by TRW), the electronic combat system (produced by the Lockheed Sanders-General Electric joint venture team), and the dual-band, infra-red search-and-track system (by General Electric teamed with Martin Marietta).

The communication-navigation-identification-system support the ATF’s integrated communication, navigation, identification avionics. The electronic combat system is part of the YF-22A’s version of the integrated electronic warfare system being developed for ATF.

The YF-22A is set for a 30 June first flight (Flight, 25 April-1 May). Its rival in the ATF competition is the Northrop/McDonnell Douglas YF-23A.

India researches air-to-air missile

India has started research into air-to-air missiles. The Indian Ministry of Defence says that it has completed a pre-feasibility study into an air-to-air missile.

The programme, known as Astra, is investigating the design of a beyond-visual-range missile. Although it has not been confirmed that Astra is part of India’s Light Combat Aircraft programme, the two are complementary.

Astra falls outside India’s five missile Integrated Guided Missile Development Programme (IGMDP) and has a permanent project staff of ten. Considerable part-time use of manpower and computer time is taking place from the six defence research establishments involved in IGMDP, however.

The Indians have also released photographs of the first Nag anti-tank missile firing which took place at the Defence Research and Development Organisation’s Chandipur test range.

The firing follows successful tests of the Prthvi and Agni surface-to-surface missiles in 1988 and 1989 respectively.

Nag, which means snake in Hindi, is being developed primarily for the Indian Army and uses command guidance via radio link to penetrate armour in the top-attack mode.

The missile has a diameter of approximately 13cm. The Army version is scheduled to go into production in 1994.

An air-launched variant is also under development and is due to enter production in 1995. It would have a clear application for India’s Advanced Light Helicopter and for its Light Attack Helicopter variant (Flight, 25 April-1 May).

The Indian Ministry of Defence believes that it will be approved for export sales. As yet, no decision has been taken on whether imaging infra-red or a millimetre-wave guidance system will be used.

IGMDP’s short-range surface-to-air missile Trishul (Trident) has completed 13 flight trials with another 30 to 36 slated before production starts. The Army and Air Force versions of Trishul have been integrated with the Signal Flycatcher radar produced under licence in India. A radar for the Navy version has not yet been identified.

The third warhead was tested last month for the Prthvi missile. More flight trials in association with the Army and Air Force are planned.

The Agni long-range programme continues apace following its first test firing last year. According to the Ministry of Defence the medium-range surface-to-air missile, Akash, is to be flight tested shortly.

Politicians fail to back Condor II

Argentina has suspended research and development of the Condor II ballistic missile, according to Humberto Romero, Argentina’s defence minister.

“The Condor project is paralysed,” says Romero, who adds that the suspension is due for political reasons, “and because we do not have the funds or the budget to finance an initiative of this nature”.

With an estimated range of around 700km and thought to be nuclear-warhead Condor II was being developed by Argentina, Egypt and Iraq.

HINDUSTAN LAH SHOWS SIGN OF MBB DESIGN

The first design drawings of the Hindustan Aeronautics Light Attack Helicopter (LAH) show a similarity to the Advanced Light Helicopter (ALH) it is designed with help from MBB. The LAH uses the same integrated dynamic system with its protection for cyclic and collective pitch controls. The tail rotor and tail fins appear to be identical to those of the ALH although to compensate for their height the tailwheel assembly is unusually long for an attack helicopter. The LAH (Flight, 25 April-May), including its blades, will be largely of composite structure. The helicopter will incorporate an integrated multiplex databus system, an anti-resonance isolation system and full-authority digital engine control. Other diagrams show stub wings each with two weapons pylons.