1985. The JASDF has ordered around 200 of the tandem-seat aircraft.

KOREAN AEROSPACE INDUSTRIES (KAI)

Korean Aerospace Industries, 6 Manseog-dong, Dong-gu, Inchon, South Korea; tel: +82 (32) 760 1114; fax: +82 (32) 762 1546; www.koreaaero.com

KT-1 WOONG BEE

DESIGN work on the KTX-1 turboprop trainer began in 1988. Daewoo (now KAI) won an order for 85 KT-1 production aircraft in August 1999 for delivery through to 2003. These are likely to be followed by 20 armed aircraft for forward air control.

Daewoo modified the basic design because of handling shortfalls with the first prototypes. The current KT-1 is bigger, heavier, the tail surfaces are mounted in a different position and it has a more powerful P&WC PT6A-62 in lieu of the earlier -25. The aircraft can be equipped with rockets and gun pods for weapons training.

The KO-X forward air control (FAC) variant will fly in 2003. Development will begin with modification of the fifth KTX-1 prototype. Deliveries will be completed in 2005.

KAI/LOCKHEED MARTIN

KAI, Samsung Life Bldg, 15th Floor Sung-Won Building, 141 Samsung-dong, Seoul 135-716, South Korea; tel: +82 (2) 3467 7000; fax: +82 (2) 3467 7080; www.koreaaero.com

T-50/A-50 GOLDEN EAGLE

SAMSUNG (now KAI) and Lockheed Martin completed the preliminary design review for the KTX-2 advanced trainer/light combat aircraft in July 1999. This was followed by a freeze of the aircraft's aerodynamic design the following November.

Lockheed Martin is responsible for the flight control system, avionics integration, wing design and supply of the APG-67 radar. GE will supply the F404 engine.

The prototype T/A-50 is due to fly in June 2002 – six prototypes will be built. Two are for static testing, two will be flying prototypes configured as advanced trainers and two will be fighter lead-in trainers. Series production is set to start in August 2003, with roll-out of the first T-50 in October 2005.

The prototype's forward, centre and aft fuselage sections were mated with the tail surfaces on 15 January 2001, three months early. Prototype roll-out has also been brought forward three months.

The South Korean air force requires 94 T-50s and has options on another 100 light combat A-50s.

LOCKHEED MARTIN

Lockheed Martin Aeronautics, PO Box 748, Fort Worth, Texas 76101, USA; tel: +1 (817) 777 2000; fax: +1 (817) 763 4797; www.lmaeronautics.com

C-5 GALAXY

THE USAF awarded Lockheed Martin and Honeywell an initial $451 million contract early in 1999 to upgrade and modernise the cockpit of 126 C-5A/Bs to keep them in service until 2040. Flight testing of a C-5 equipped with TCAS, phase one of the programme, began in January 2000. First delivery of fully retrofitted C-5s is set for mid-2001. The C-5 Avionics Modernisation Programme includes a digital flight control system and six liquid crystal displays. The communications/navigation suite will include GPS, satcom and VHF datalink for GATM.

In August 2000, the GE CF6-80C2 turbofan was chosen for the USAF's planned $8 billion C-5 Reliability Enhancement and Re-engining Programme (RERP). The CF6-80C2L1F is capable of 60,000lb (267kN) thrust but will be de-rated to 50,000lb. It replaces the 41,000lb-thrust GE TF39. The greater thrust improves take-off and climb performance, and initial cruise altitude. A flight test programme will use two C-5s. The production programme would begin with C-5Bs. A total of 81 C-5As and 50 C-5Bs was built.

C-130 HERCULES

THE FIRST operational C-130Js were handed over to the UK Royal Air Force, Royal Aust-ralian Air Force and USAF Reserve in 1999. The UK purchased 25 C-130Js, while the RAAF ordered 12 stretched C-130J-30s. Other customers include Italy, the US Air National Guard (command-post EC-130Js and weather reconnaissance WC-130Js) and the USMC, which is receiving KC-130J aerial-refuelling aircraft. The USAF requires 168 C-130Js, with the first two to be funded in FY2000.

The C-130J is a major upgrade of the Hercules, with four R-R AE2100 turboprops and a two-crew cockpit. In mid 2001, Lockheed Martin began equipping C-130Js with Block 5.3 software, which provides full operational functionality.

The USAF has launched a $4 billion C-130X Avionics Modernisation Programme to standardise earlier Hercules with a common cockpit and engine. Between 65 and 85 aircraft a year would be modified with a flight management system and INS/GPS. Cockpit changes will include multifunction flat panel displays, dual head-up displays, a new autopilot, terrain warning and collision avoidance systems and GATM enhancements. Bidders will include a Lockheed Martin/Rockwell Collins team, Boeing, Raytheon and probably BAE Systems with Snow Aviation.

Marshall Aerospace is upgrading South Africa's C-130s with Thales avionics.

F-16 FIGHTING FALCON

DEVELOPMENT of the F-16 continues, with the UAE signing a contract for 80 Block 60 aircraft in early 2000. Deliveries are due in 2004-7. The "Desert Falcons" will be equipped with the active-array Agile Beam Radar (ABR), internal forward-looking infrared and targeting system (IFTS) and integrated electronic warfare system – all developed by Northrop Grumman.

The ABR will simultaneously perform air-to-air and air-to-ground functions, including multitarget tracking, SAR imaging and terrain following. The IFTS will detect and track air and ground targets and provide laser ranging and designation.

The UAE aircraft will have an increased maximum take-off weight of 22,680kg and engine thrust of 32,000lb. Conformal fuel tanks and 2,275litre underwing tanks will increase range by up to 50% over the Block 50 F-16.

Block 40 aircraft continue to be built, while Greece and Israel have ordered Block 50-plus aircraft with conformal tanks, Northrop Grumman APG-68(V)X radar, colour MFDs and modular mission computers.

Lockheed Martin, meanwhile, has established generic F-16 export configurations in an attempt to reduce the aircraft's cost. Packaging popular features into a common core configuration reduces engineering costs. The Viper 2000 configuration is based on the Block 50-plus and the Viper 2100 on the Block 60.

The USAF's F-16C/D production version is an improved Block 50, which includes some equipment developed for the European F-16A/B Mid Life Update (MLU) programme, including colour displays, modular mission computer and digital terrain system.

The USAF has launched a $1 billion programme to upgrade 700 in-service Block 40 and 50 F-16C/Ds to a common hardware and software configuration, with elements common with the F-16A/B MLU. Flight tests are planned for 2001; upgrading finished in 2005.

Four European operators – Belgium, Denmark, the Netherlands and Norway – began upgrading 343 F-16A/Bs in 1996 under the MLU programme, which includes the Block 50 cockpit and an improved Northrop Grumman APG-66 radar compatible with AMRAAM.

The F-16 was first flown in February 1974, and the 4,000th was delivered in May 2000.

F-117 NIGHTHAWK

A NAVIGATION system upgrade is under way on USAF F-117A stealth fighters, to keep them in service beyond 2015. The F-117A was first flown in June 1981 and 59 were built.

P-3 ORION

PRODUCTION of the maritime patrol Orion was halted in 1995 after delivery of eight P-3Cs to South Korea, which still requires another eight aircraft: a 2001 offer of P-3s to Taiwan could be the catalyst to re-open the line.

Lockheed Martin plans to offer Germany