China starts to flight test new F-10 fighter

CHINA HAS BEGUN flight testing the new Chengdu F-10 fighter, but there is continuing uncertainty as to whether the programme will progress beyond the prototype stage.

The first prototype made its long-awaited maiden flight at the end of March from Chengdu Aircraft's plant in the southern province of Sichuan.

It is understood that the Chinese air force's chief test pilot, Li Chen, was at the controls during the 40min flight.

According to local sources, the first flight was initially delayed as the result of problems with the prototype's braking system, experienced during taxi trials in February. The single-seat fighter has since completed at least a further eight test flights.

Israel Aircraft Industries (IAI) has been providing China with technical assistance to design and develop the fighter. The F-10 strongly resembles IAI's now defunct Lavi fighter, originally developed for the Israeli air force in the early 1980s.

The fighter is powered by a single Klimov RD-33 afterburning turbofan supplied by Russia.

It is unclear if the air force has yet selected a multi-mode radar for the aircraft. The choice is between the Israeli Elta EL/M2035 with an enlarged 680mm-diameter antenna and Phazotron's Zhemchoug system. China's 14th Technical Research Institute is also pushing its own JL-10A pulse-Doppler radar, which may also include Phazotron components.

There is further uncertainty as to whether the air force regards the F-10 project as a technology demonstrator or intends to put the fighter into full-scale production. Chengdu is known to be working on a larger twin-engine, tandem-seat fighter design, which has been loosely referred to locally as the F-12, or as the XXJ by the US Office of Naval Intelligence.

The air force appears to be working towards a high-low mix of fighters, with its more immediate needs met by the Sukhoi Su-27/30MK and improved Chengdu F-7E/MG fitted with a multi-mode GEC-Marconi Super Skyranger radar. China recently signed a memorandum of understanding with Pakistan to jointly develop the Chengdu FC-1, or Super Seven, light fighter as a follow-on to the F-7.

Pakistan has been pressing China to commit to ordering the FC-1, but there is believed to be some resistance to this within the air force.

The single-seat fighter is tentatively scheduled to fly in late 1999 and enter service in 2002, but this is subject to Beijing and Islamabad finalising an industrial co-operation agreement. ❑

The latest Embraer regional jet, the 37-seat ERJ-135, has been rolled out and could be joined by larger models

Embraer studies market for larger regional jet

GRAHAM WARWICK/**SAO PAULO**

EMBRAER WILL decide within a year whether to develop a larger member of its regional jet family. Speaking at the roll-out of the 37-seat ERJ-135 on 12 May, president Mauricio Botelho said: "We think there is a market, but we are not sure if it is for 70, 75 or 80 seats. We will have a full definition completed within a year."

The Brazilian manufacturer has been studying the 70-seat market for some time, but has now expanded its efforts to include larger aircraft. "The market does exist, but the size of the market and the characteristics of the aircraft are not clear," says Botelho. Aircraft with fewer than 70 seats are also being looked at, the Embraer chief says.

"We are not sure of the market," agrees industrial vice-president Satoshi Yokota. One reason for looking at aircraft with more than 70 seats is Crossair's requirement for an 80/100-seat aircraft. Embraer, meanwhile, continues to study a range of cabin cross sections and performance targets.

Embraer plans to fly the ERJ-135 in July, followed in October by the second prototype. Brazilian and US certification and first deliveries are planned for July 1999. The first and second aircraft have been modified from the first two ERJ-145s.

The two versions retain 94% part number commonality, with no system architecture changes. This has reduced the certification flight-test requirements, Embraer says.

ERJ-135 production will start at three a month and Embraer plans to build a combined total of 12 ERJ-135s and ERJ-145s a month, beginning in September 1999. The company has 73 firm orders for the 37-seater, launched last September.

At the roll-out, the manufacturer introduced a long range variant, the ERJ-135LR, which has a derated version of the more powerful Allison AE3007A1 on the newly certificated ERJ-145LR. The ERJ-135LR offers a range of 2,780km (1,500nm), compared with the basic ERJ-135ER's 2,200km. More importantly, hot and high performance has been improved substantially. ❑

Star Alliance adds Australasian net

AIR NEW Zealand (ANZ) and Ansett Australia are to join the Star Alliance in March 1999, adding a comprehensive Australasian presence to its rapidly growing network.

ANZ already has various agreements with Star members. It has an alliance with United Airlines, a "strategic partnership" with Air Canada and frequent flier agreements with Lufthansa, SAS, Thai and Varig.

Ansett International and Ansett Australia, 50% owned by ANZ, joined the airline in signing the memorandum of intent, which gives them observer status, to allow a co-ordinated route structure to be drawn up.

ANZ says the deal will add 84 destinations to the network.

Meanwhile, Star has not yet formally confirmed that Singapore Airlines (SIA) and All Nippon Airways (ANA) will become members of the alliance, despite ANA's new individual tie-ups with Star Alliance founders Lufthansa and United (*Flight International*, 18-24 March).

SIA signed a separate deal with Lufthansa in November 1997, which is seen as a precursor to its joining Star. The Singapore airline also has agreements with ANZ and Ansett Australia. ❑