

## COMMERCIAL AIRLINERS DIRECTORY

be increased from around 165,000kg to 170,000kg, plus a new interior and improved avionics.

Around 270 examples of all versions have been built, but production ceased during 1994. Uzbekistan Havo Yullary has ordered Honeywell/Racal six-channel satcoms and Honeywell TCAS for at least one aircraft.

### II-76

Ilyushin is still exploring the possibility of re-engineing the Il-76 with CFMI CFM56s, although other re-engineing programmes have greater priority. Aeroflot Russian International Airlines plans to have 20 aircraft re-engined with Perm PS-90A turbofans replacing the existing Aviadvigatel DK-30s. First flight of that version, and of the similarly re-engined, but also stretched by 6.3m, Il-76MF were scheduled for 1994. The latest freighters are designated Il-76-TD for Aeroflot's successors and Il-76-MD for the military.

### II-86

Ilyushin ceased production of the Il-86 during 1994 after disappointing sales results and the breakdown of talks with CFMI over re-engineing with CFM56 turbofans. The Il-86 was designed for high-density routes, but its range performance has been unsatisfactory. A version re-engined with the Soloviev PS90A used on the Tu-204 and Il-96-300, to improve the range, entered service in 1990. A total of 103 aircraft are understood to have been built.

### II-96-300

The Il-96-300 entered passenger service with Aeroflot Russian International Airlines (ARIA) on 14 July and is being used on Moscow-New York services. The carrier has ordered 20 Il-96s, of which up to ten may be -300s.

The maiden flight of the first prototype was in October 1988 and the type was the former Soviet Union's first fly-by-wire airliner. Collins has fitted its TCAS to ARIA aircraft to permit their entry into the USA.

### II-96M

Leasing company Partnairs is the first customer for the Westernised Il-96M, which has a stretched, 375-passenger cabin, P&W PW2037 engines and Rockwell-Collins cockpit avionics. Partnairs has ordered five aircraft, with five options, for some \$700 million. The sale package allows some of the aircraft to be Il-96T freighters. Construction of the first production Il-96M was under way at Voronezh in late 1994 and P&W, Collins and Ilyushin had agreed to series production. ARIA has ordered ten Il-96Ts for delivery beginning in 1996, together with ten Il-96Ms. Smiths Industries supplies the flight-management system for the aircraft, consisting of three flight-management computers and three multi-purpose control-display units. Litton supplies three of its laser-gyro LTN-101 combined global-positioning, air-data and inertial-reference systems and two LTN-2001

global-positioning systems for each aircraft. Ilyushin says that the basic price is \$68 million.

### JADC

Japan Aircraft Development, Toranomon Daiichi Bldg., 2-3, Toranomon 1-Chome, Minato-Ku, Tokyo, 105 Japan. Tel: 81 (3) 3597 9241; Fax: 81 (3) 3504 0368.

### YSX/NEW SMALL AIRCRAFT

Japan Aircraft Development (JADC) is conducting a joint feasibility study with Boeing to develop a 90- to 110-seat passenger aircraft. The ¥550 million (\$5.5 million) study will be completed by March 1995, after which a final decision is expected from JADC and Japan's Ministry of International Trade and Industry (MITI).

Earlier proposals to build a 75-seat aircraft in collaboration with European manufacturers appear to have been dropped in favour of development of a larger aircraft, offering commonality with the new Boeing 737-600/700/800 series. China has been mentioned as a possible third programme partner.

The aircraft would be built in Japan by a consortium of local manufacturers, led primarily by Mitsubishi, Kawasaki and Fuji Heavy Industries. MITI has requested a further ¥2,752 million in funding for fiscal year 1995, including ¥500 million for a YSX engine study. Front runners in the 71-89kN class include the BMW R-R BR.715 and derated IAE V2500 turbofan engines.

### LOCKHEED AIRCRAFT SERVICE COMPANY

86 South Cobb Drive, Marietta, Georgia 30063, USA. Tel: +1 (404) 494 4411; fax: +1 (404) 494 6263.

### L-100 COMMERCIAL HERCULES

The L-100-30 is the civil version of the C-130 Hercules military transport. It is certificated under FAR Part 25 to carry 97 passengers when appropriately modified or manufactured. The passenger version has structural re-

inforcement, windows, additional doors and cabin amenities, plus improved environmental conditioning and emergency lighting. Modification from the basic freighter adds 12,712kg to the MTOW.

### L-100J

The L-100J is the proposed commercial version of the C-130J updated Hercules now in advanced development. It is intended initially as a freighter. The aircraft will have a glass cockpit, with provision for head-up displays, Allison AE2100D3 turboprops and Dowty R391 six-bladed propellers providing lower fuel consumption and noise. A side cargo-door option provides a 3.5m-wide door in the forward fuselage, which allows an additional, sixth, pallet to be carried. A seventh pallet can also be carried, courtesy of a modified ramp. Compared with an early-model Hercules, Lockheed promises a 61% better maximum payload range, a 15% increase in block speed, 21% decrease in fuel consumption, 38% decrease in crew cost and 69% decrease in maintenance costs.

### L-1011 TRISTAR

The L-1011 continues to provide good airline service, but a new lease of life as a freighter conversion has also been found for the aircraft. Lockheed has its own programme, called the Lockheed 2000, which includes provision of a 4.3 x 2.9m cargo door giving an outsize-load-capable freighter with a range of some 4,600km and payload of 55.4t. Optional weight increases can take the load to 69.9t. With the agreement of Lockheed, the UK's Marshall Aerospace (Airport Works, Newmarket Road, Cambridge, CB5 8RX. Tel: +44 (223) 61133; fax: +44 (223) 321032; telex: 81208 MARFLY G) is developing a freighter TriStar. The design includes a top-mounted 3.9 x 2.9m freight door and strengthened floor. Maximum payload is 51.3-66.5t. A launch order for three aircraft has been secured.

Lockheed also produces kits to convert TriStars into the -150 version with a range of 5,800km compared with 4,500km for the -1 and a MTOW of 213,000kg, but with the orig-



Long in airline service, TriStar will find a new lease of life as a freighter