Boeing offers long-range 7J7

SEATTLE

Boeing's planned 7J7 airliner might carry a full 147-passenger load up to 4,250 n.m., reports David Learmount from Seattle.

Now that the US manufacturer has gone firm on rear-fuselage-mounted General Electric unducted fans (UDFs) as the 7J7's pusher power plants, it has begun calculating potential performance figures to offer when the marketing exercise and the final definition stage go into top gear at the end of this month.

Boeing intends to have the 7J7 fully defined by September, and launched by the end of the year.

One option is a centre-wing fuel tank, an arrangement whereby the in-fuselage section of the wing will be "wet". If the customer takes this higher-gross-weight option then the 7J7's range with the standard two-class 147-passenger load increases from about 2,700 n.m. to 4,250 n.m.

With a two-class cabin using 2-2-2 seating in the tourist section, the range with the resulting 166 passengers is 2,250 n.m. or 3,900 n.m. using the centre wing tank. The Airbus A320-200 can carry 150 passengers 3,150 n.m. and the 155-passenger MD-92X has a range of 2,300 n.m.

Apart from being UDF-driven, Boeing intends the 7J7 to incorporate all available "state-of-the art" early-1990s technology, and a twin-aisle cabin with 2-2-2 seating. Although the 7J7 is designed to be a cheap aeroplane to operate and maintain, Boeing has not attempted to estimate a purchase price, and says that this could not be done until late this month.

Boeing's 7J7 engine choice followed rejection of the International Aero Engines V.2500SF SuperFan on the grounds of high weight and fuel consumption inferior to that of the UDF. The Pratt & Whitney/Allison geared Prop-Fan was rejected by Boeing on the grounds that its core could not deliver the power required for the 7J7 and any derivatives. McDonnell Douglas will continue to test both propfans because it believes that the geared engine has the potential to be about 7 per cent more fuel-efficient than General Electric's UDF.

Boeing seems to be confident of incorporating all the new-technology items, from Dacat databus systems to seat-back flat-panel passenger entertainment systems, which it has talked about for some time. Only one planned system has visibly hit the dust; that is the planned "power-by-wire" hydrostatic actuator system which was to have operated the control surfaces. Boeing is reverting to "distributed hydraulics because equipment suppliers had not overcome the leakage problem.

Unit price will be a primary key to 7J7 commercial success, because Boeing must recover the considerable development costs and make a profit, which it claims Airbus Industrie can never do at the price at which it sells A320s.

McDonnell Douglas concedes that its all-new propfan-powered MD-94X will not see the light of day unless fuel prices increase significantly in real terms; it will simply sell the far cheaper, lower-owner-ship-cost propfan-powered MD-91s and -92s. Finally, Boeing's market research department predicts that during the remainder of this century fuel prices in real terms will not rise significantly.

Hawk 200 flies early

DUNSFOLD

British Aerospace's pre-production single-seat Hawk 200 made its maiden flight seven days ahead of schedule on April 24, after a build programme of only nine months.

Flying from BAE's Dunsfold airfield, the second Hawk 200 was flown by project test pilot Chris Roberts. For the 1 hr first flight the aircraft was unpainted and had no external stores fitted. On subsequent flights the Hawk 200 will be camouflaged in a two-tone green "European One" scheme, and will carry ordnance. The Hawk 200's international debut will be at the Paris Air Show in June.

BAe and MBB develop laser Warner

LONDON

British Aerospace's Naval and Electronic Systems Division and MBB's Dynamics Division have signed a collaborative agreement to develop and market a laser warning and countermeasures system.

The agreement covers marketing of the MBB common opto-electronic laser detection system (Colds) by BAe, and joint development of laser countermeasures by the two companies.

The growing use of lasers for range finding, target designation, and missile guidance has highlighted the need for laser warning. MBB developed ColdS for this reason, and the system is in an advanced state of development.

Colds is suitable for use with aircraft, ships, and vehicles, and has a coverage of 360° in azimuth and plus or minus 45° in elevation. The received laser signal is analysed in pulse code, pulse repetition frequency, and wavelength to determine if it poses a threat.

Oman might postpone Tornado deal

MUSCAT

The planned purchase by Oman of up to eight Panavia Tornado IDSs from Britain, might now be postponed until 1992 at the earliest. The Omanis are negotiating with Britain to rearrange financing for the deal.

Last year's collapse of oil prices produced a 20 per cent fall in Oman's gross domestic product and has led to this latest retrenchment. The sale has already been postponed once. Oman has also indicated that, should oil prices fall again, the entire deal could be in jeopardy.

The £250 million Tornado sale to Oman was the first export order for the Panavia consortium, and heralded the 24,000 million order for 72 Tornadoes from Saudi Arabia.

Chris Roberts takes the pre-production British Aerospace Hawk 200 on its 1 hr maiden flight from Dunsfold