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MPC-75 FEEDER CIVIL AIRCRAFT

by

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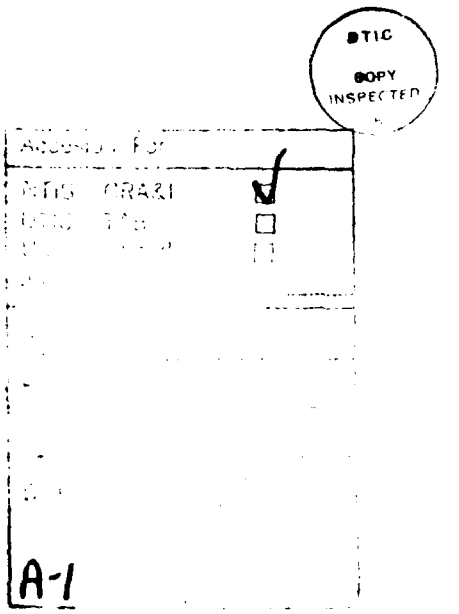

MPC-75 FEEDER CIVIL AIRCRAFT

Ke Ming
Aviation Exhibit Report

The project model and partial prototype of the MPC-75 feeder civil aircraft, which was jointly developed and manufactured by the China Aviation Technology Import-Export Company and the MBB Company of the Federal Republic of Germany, was placed at the center of MBB Company exhibition platform in this year's Aviation Exhibit, and it drew a huge crowd.

The MPC-75 is a class of feeder civil aircraft with 75 - 90 seats. Based upon an extensive market investigation and analysis conducted by the two companies, this aircraft was selected to be the model to fill the open market for feeder civil aircraft with over 60 seats but under 100 seats. Currently the BAe146 civil aircraft (Great Britain) is the only one available in this seat-class range, and others with similar seat capacity also include the ATR-72 (France) and Fauk-100 (Netherlands). According to projections, the demand for this seat-class aircraft in the world civil aircraft market will reach 1,000 between 1996 and 2006. Compared with the former three kinds of civil aircraft which are presently available, the MPC-75 has adopted a great amount of new technologies that are being utilized in main line civil aircraft in the hopes of being favorably positioned in the competition.

China [illegible], (1994)

The MPC-75 is a prop-fan type feeder civil aircraft on which two GE38 prop-fan engines each having a thrust of about 44 kilonewtons are slated to be its power device. Its fuel consumption is lower than that of turbo-prop engines currently in service. Newly developed metal and composite materials will be used extensively on the airframe structure. Aluminum-lithium alloy structure will be employed for its fuselage and the wing box of its wing and the vertical stabilizer will all be composite material structures. In the areas of payload systems and equipment, the said aircraft will employ electrical control systems (with spare mechanical type systems available) and advanced cockpit layout. These new technologies are simply not to be found on feeder aircraft already in service, and the newly unveiled Faulk-100 also just employs a portion of them.

According to plans the advance development stage of the said aircraft will continue into early 1991. A decision on formal production will be made at that time with batch production to begin in 1993. The Airworthiness certificate for the produced models will be obtained in 1995 and then they will be turned over for service.

(1) 四种支线民航机的比较

	MPC-75	ATR-72	BAe146 -200	福克 100 (16)
翼展 (2) 米	28.59	27.05	26.34	28.08
机长 (3) 米	32.05	27.17	28.80	35.53
翼面积 (4) 米²	75.0	61.0	77.30	94.70
机翼翼弦比 (5)	10.9'	12.0	9.0	8.33
最大起飞重量 (6) 千克	30000	21500	42188	41505
结构空重 (7) 千克	17295	11040	~21000	21000
使用空重 (8) 千克	18825	12303	22906	23125
最大商载 (9) 千克	8500	7097	10206	11575
载客量 (10) 座	76	60	96	107
发动机 (11)	GE38-B5	PW124	ALF502-R5	"泰" (17)
发动机数量 (12) 台	2	2	4	2
海平面起飞功率或推力	44千牛	1788千瓦	31千牛	59千牛
	(13)	(14)	(15) (14)	(14)

Key: (1) Comparison of four types of feeder civil aircraft ; (2) Wing span, m; (3) Length, m; (4) Wing surface area, m^2; (5) Wing chord ratio; (6) Maximum take-off weight, kg; (7) Structure tare weight, kg; (8) In-service tare weight,kg; (9) Maximum commercial payload, kg; (10) Seating capacity, seat; (11) Engine; (12) Number of engines; (13) Sea level take-off power or thrust; (14) Kilonewton; (15) Kilowatt; (16) Faulk; (17) "Tai".

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