

NAMC

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YS11 There has been a marked revival in the fortunes of the NAMC YS-11 during the past year, following the announcement of the improved version and in the light of successful operating experience. Largest of all twin-turboprop feederliners (and the only aircraft designed from scratch for the most powerful version of the ubiquitous Rolls-Royce Dart), the YS-11 has been used by several Japanese carriers since April 1965, and during the past twelve-month three airlines outside Japan (Hawaiian, LANSAs and Cruzeiro) have joined the ranks of users now flying a total of some 42 YS-11s. This operational experience has been a valuable sales point for the YS-11A—the developed version announced last year and subject of recent intensive world-wide campaigns that have included demonstration tours of North and South America. The most important commercial success so far was announced early this month: the sale of ten YS-11s to Piedmont Airlines.

Faced with a booming sales potential, NAMC is stepping up production. With the support of the Japanese Government, output will shortly be raised to two aircraft per month, then to three per month, and finally to five per month by next year. NAMC is committed to building ten YS-11s by the end of 1969.

The manufacture of the YS-11 was first proposed by the Japanese Ministry of International Trade and Industry in 1956. The Transport Aircraft Development Association (TADA) was established in 1957 to run the project, and was superseded by NAMC in June 1959. Manufacture of the YS-11 is divided between six private companies: Mitsubishi Heavy Industries Ltd, Kawasaki Aircraft Co Ltd, Fuji Heavy Industries Ltd, Shin Meiwa Industry Co Ltd, Japan Aircraft Manufacturing Co Ltd and Showa Aircraft Industry Co Ltd. NAMC retains overall responsibility.

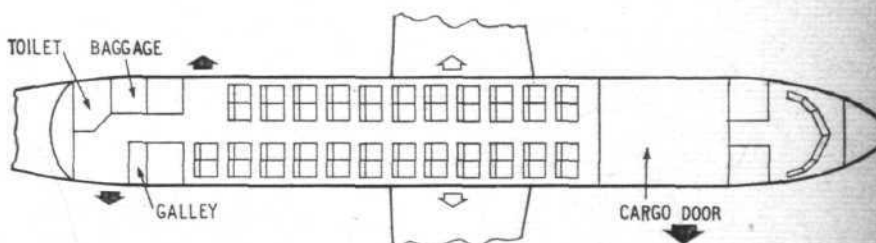
The newly developing YS-11A is offered in three versions: the Series 200 for all-passenger work; the Series 300 mixed-traffic version with a 98in x 72in side door towards the front of the cabin; and the Series 400 all-freighter, with a 120in x 72in door on the port side aft. All versions of the YS-11A have the same kind of engine and overall dimensions as the original YS-11, but the maximum permitted operating weights have been increased following a strengthening of the wing structure. The first Series 200 is due to fly this month, and the first Series 300 next June.

YS-11 orders: All Nippon Airways, 7 (all delivered, from July 1965); Japan Domestic Airlines, 10 (all delivered, from March 1965); Toa Airways, (all delivered, from April 1965); Japan Civil Aviation Bureau, 3 (2 delivered, from March 1965); Aeronautics College, 2 (on order); Japan Air Self-Defence Force, 4 (all delivered, from March 1965); Japan Maritime Self-Defence Force, 2 (1 delivered, from March 1967); Maritime Safety Agency, 1 (on

order); Filipinas Orient Airways, 4 (all delivered, from October 1965); Hawaiian Airlines, 3 (all delivered, from November 1966); Lineas Aereas Nacionales, 4 (3 delivered, from April 1967); Servicios Aeroos Cruzeiro do Sul, 12 (4 delivered, from August 1967); Piedmont Airlines, 10 (delivery from March 1968). Total order, 56 (42 delivered).

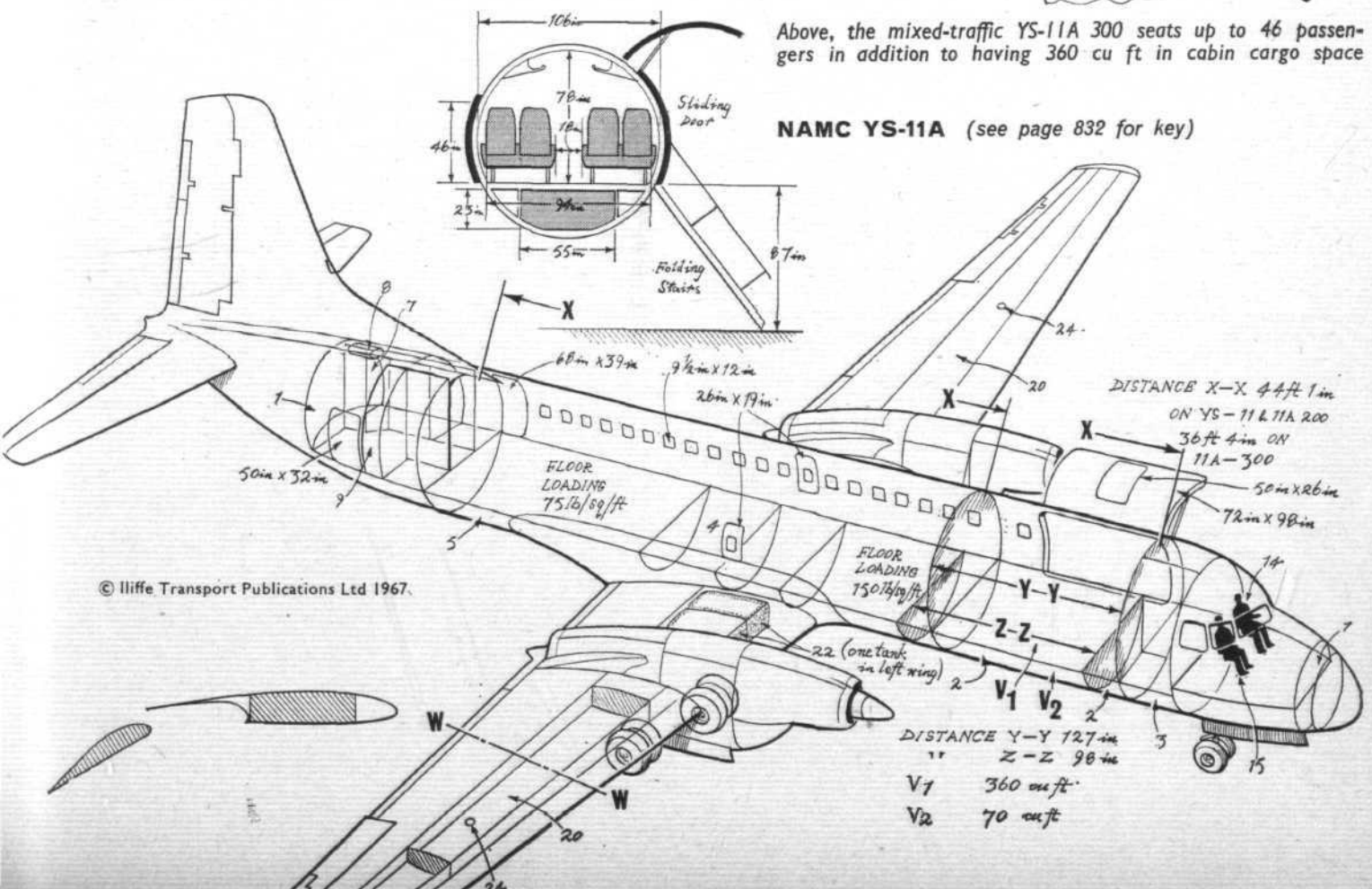
YS-11 and YS-11A Data

Powerplant: two 2,660 e.s.h.p. (or 3,060 e.s.h.p. with water methanol injection) Rolls-Royce Dart Mk 542-10. **Dimensions:** span, 105ft; length, 86.4ft; height, 29.5ft; wing area, 1,020 sq ft; wing sweep ($\frac{1}{4}$ chord), 3°; wheel track, 28.2ft; wheelbase, 31.2ft. **Weights:** take-off, gross, 51,000lb (YS-11), 54,010lb (YS-11A); max landing, 49,600lb (YS-11), 52,910lb (YS-11A); max zero fuel, 45,640lb (YS-11), 48,500lb (YS-11A); equipped empty, 32,165lb (YS-11, 60-seater), 31,970lb (YS-11A 200, 60-seater), 32,740lb (YS-11A 300, 46-seater mixed-traffic), 31,750lb (YS-11A 400, all-freight). **Fuel capacity:** 1,073 Imp gal (standard tanks), 1,541lb (total optional tanks). **Accommodation:** 60-seats (YS-11 and YS-11A 200), 46-seats and 360 cu ft of freight vol (YS-11A 300), 2,110 cu ft freight hold (YS-11A 400); cabin pressurisation, 4.16lb/sq in. **Performance (YS-11):** FAR take-off field length (ISA, s.l., g.w.), 3,180ft; take-off speed, 100kt; FAR landing field length (ISA, s.l., max land wt), 3,500ft; approach speed, 95kt; max cruise speed, 258kt at 15,000ft; max permitted altitude, 20,000ft; engine-out service ceiling, 8,400ft; max payload-range (ISA, still air, no reserves), 12,350lb over 750 n.m.; full-std tanks payload-range (same conditions), 9,500lb over 1,150 n.m., full opt tanks payload-range (same conditions), 5,800lb over 1,720 n.m. **Performance (YS-11A):** FAR take-off field length (ISA, s.l., g.w.), 3,530ft; take-off speed, 101kt; FAR landing field length (ISA, s.l., max land wt), 3,610ft; approach speed, 97kt; max cruise speed, 255kt at 15,000ft; max permitted operating altitude, 20,000ft; engine-out service ceiling, 6,500ft; max payload-range (ISA, still air, no reserves), 15,320lb over 610 n.m. (Series 200), 14,660lb over 610 n.m. (Series 300), 16,310lb over 610 n.m. (Series 400); full standard tanks payload range (same conditions), 11,662lb over 1,120 n.m. (Series 200), 11,002lb over 1,120 n.m. (Series 300), 12,672lb over 1,120 n.m. (Series 400); full optional tanks payload-range (same conditions), 8,007lb over 1,690 n.m. (Series 200), 7,347lb over 1,690 n.m. (Series 300), 9,017lb over 1,690 n.m. **Price:** \$1.3 million (£465,000).



Above, the mixed-traffic YS-11A 300 seats up to 46 passengers in addition to having 360 cu ft in cabin cargo space

NAMC YS-11A (see page 832 for key)



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