



Commercial
Aircraft
of the World

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Fokker F.27 Friendship of Ansett-ANA
(Rolls-Royce Dart RDa.7)

Powerplant: Four Pratt & Whitney JT3D-3 turbofans of 18,000lb static thrust. No water injection.

Dimensions: As above.

Weights: Max take-off, 310,000lb; landing, 199,500lb; zero fuel, 168,500lb; capacity payload, 36,500lb; weight less fuel and payload, 124,529lb.

Payload accommodation: As above.

Fuel capacity: As for DC-8-40.

Performance: Max cruise thrust cruising speed at 220,000lb weight, 509kt (585 m.p.h.); FAA take-off field length at max weight, 9,750ft; FAA landing field length at max landing weight, 6,590ft at 130kt (150 m.p.h.); max still-air range, 5,150 n.m. (5,930 st.m.).

DC-8A This is an unofficial designation of a swing-tail all-cargo project, one of a number that Douglas has prepared as candidates for the big MATS strategic freighter contract soon to be placed by the USAF. The following facts and figures have been quoted by Douglas: powerplant, P & W JT3D-9 turbofan (wet) or Rolls-Royce RCo.42; max take-off weight, 350,000lb; max landing weight, 273,500lb; max zero fuel, 247,500lb; max fuel (at 6.7lb/gal), 154,540lb; max revenue payload (palletized), 111,941lb.

Douglas say that a prototype DC-8A (JT3D) could be flown early in 1962. Orders of between 5 and 10 would be needed to begin production; unit cost has been reported as about £2½m.

FAIRCHILD Fairchild Aircraft and Missiles Division, Fairchild Engine and Airplane Corporation, Hagerstown, Maryland, USA.

F-27 Construction of the F-27 by Fairchild in America followed from a long-standing association of Fokker and Fairchild. An agreement was concluded in April 1956 and work began two months later, and the first Hagerstown-built aircraft flew on April 12, 1958.

Three versions are offered by the US manufacturer: a local service airliner with up to 44 seats, an executive aircraft with provision for 1,380 Imp gal fuel, and a cargo aircraft (the F-27B) with a strengthened floor and a larger forward door. Most of Fairchild's airline customers—which total 13—have specified the higher-powered Rolls-Royce Darts, but both RDa.6 and RDa.7 versions are on offer. The standard version is now the RDa.7-equipped F-27A. US-built aircraft include some American equipment and provision is made for nose radar. First delivery was to West Coast Airlines on June 22, 1958, and this airline inaugurated the world's first Friendship services on September 28, 1958. Basic price of the RDa.6 F-27 is about £239,000. Order book: see *Flight*, January 8, 1960. Some 83 F-27s have now been sold.

Powerplant: As Fokker F.27.*

Dimensions: As Fokker F.27 except length, 77ft 2in.

Weights: Max take-off, 37,500lb; max landing, 36,000lb; zero fuel, 34,000lb; capacity payload, 10,193lb; weight less fuel and payload 23,807lb.

Payload accommodation: Cabin volume (less flight deck), 2,118 cu ft; baggage and freight volume, 180 cu ft; cabin length (total), 47ft 4in; max usable floor area (less flight deck), 225.5 sq ft; max seats, 44. Remainder as Fokker F.27.

Fuel capacity: As Fokker F.27.

Performance: Typical cruising speed, 260kt (300 m.p.h.) at 20,000ft and 33,000lb; corres specific fuel consumption, 0.632lb/s.h.p./hr; SR422 take-off distance, 2,750ft; actual landing distance from 50ft, 2,195ft; range A (max payload), 350 n.m. (404 st.m.); range B (max fuel), 2,100 n.m. (2,412 st.m.); corres payload, 2 passengers; corres cruising speed, 208kt (240 m.p.h.).

*RDa.7 version.

FOKKER Royal Netherlands Aircraft Factories, Fokker, Schiphol-Z, Amsterdam, Holland.

F.27 Friendship Fokker's DC-3 replacement is another type that, since this issue was last compiled, has blossomed out into a host of new versions. In all, there are now nine: F.27 Friendship airliner with Rolls-Royce RDa.6 engines: the same with RDa.7s; F.27 Friendship-de-luxe (RDa.6 or RDa.7); F.27 Freightship (RDa.6 or RDa.7); F.27M Troopship (RDa.6 or RDa.7); F.27S short field version (RDa.6 or RDa.7); F.27 "Long Friendship" stretched version with RDa.7s or RDa.10s; F.27 high-density Friendship; and F.27 high-density Long Friendship. From an airline point of view, the most important new version is probably the Long Friendship, which has been offered to Eastern by Fairchild in America and which—in one form or another—will be built in Holland. The fuselage is stretched by 8ft 3in to accommodate up to 64 passengers; direct costs for the high-density version are 0.89 pence per seat mile. The "STOL" F.27S is primarily a military variant, although it has interesting commercial possibilities as it embodies rear-end loading, double slotted flaps, a v.i. tailplane, 37lb/sq in tyres and has a take-off length of 660ft at 37,500lb. Max payload is 12,220lb. This and other new variants were described in *Flight*, July 15, 1960; see also November 20, 1959.

Fokker have now sold 85 aircraft and have options on another 19. Airline customers are: Aer Lingus, 7 (RDa.6); All-Nippon, 3 (RDa.7); Australian airlines, 9 (RDa.7); East-West, 1 (RDa.6); IAC, 5 (RDa.6); KLM, 2 (RDa.6); Lufttransport Unternehmen, 1 (RDa.6); MacRobertson Miller, 1 (RDa.7); NZNAC, 8 (RDa.6); PIA, 5 (RDa.7, 1 Freightship); PAL, 2 (RDa.6); Sudan Airways, 3 (RDa.7); TAA, 10 (RDa.6 and RDa.7); and THY, 5 (RDa.6). Basic price of the RDa.6-powered F.27 is £229,000; of the RDa.7 200-series aircraft, £250,000; and of the RDa.6-powered Freightship £245,000.

Fokker F.27 Series 100

Powerplant: Two Rolls-Royce Dart 511 RDa.6 turboprops of 1,600 s.h.p. driving 12ft diameter Rotol 4-bladed propellers.

Dimensions: Span, 92ft 2in; length, 74ft 9in; height empty, 22ft 6in; wing area, 756 sq ft.

Weights: Max take-off, 37,500lb; max landing, 35,700lb; zero fuel, 35,200lb; capacity payload, 12,623lb; weight less fuel and payload, 22,175lb (40 seats).

Payload accommodation: Gross cabin volume, 2,130 cu ft; baggage and freight volume, 225 cu ft; cabin length, 47ft 6in; max internal width, 8ft 4in; max height, 6ft 8in; max usable floor area (less flight deck), 312 sq ft; dimension of largest door, 47in x 41in; max seats 40 at 35.4in pitch (normal) or 52 at 30in pitch high density.

Fuel capacity: 1,137 Imp gal (1,367 US gal).

Water-methanol capacity: 66 Imp gal (79 US gal).

Performance: Typical cruising speed, 236kt (271 m.p.h.) at 17,000ft and 35,000lb; corres fuel consumption, 0.172 n.m./lb; balanced field length, max weight, SL, ISA, 5,760ft; ISA + 15°C, 5,100ft; range A (max payload), 395 n.m. (455 st.m.); range B (max fuel, 1,620 n.m. (1,865 st.m.); corres payload, 5,525lb; VNE, 259kt (298 m.p.h.) IAS; VNO, 227kt (261 m.p.h.) IAS; VSO, 76 m.p.h. RAS.

Fokker F.27 Series 200

Powerplant: Two Rolls-Royce Dart 528 RDa.7 turboprops of 1,910 s.h.p. each driving 11.5ft diameter Rotol 4-bladed propellers.

Dimensions: As 100 series.

Weights: As 100 series except zero fuel, 35,100; capacity payload, 12,580lb; weight less fuel and payload, 23,110lb.

Payload accommodation: As 100 series.

Grumman Gulfstream
(Rolls-Royce Dart
RDa.7)

