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climb and cruise altitude performance and allows take-offs at substantially greater weights than the unmodified aircraft from hot-and-high elevation runways. The CF'M56-2-C5 is capable of pro-ducing 106.7kN, but is derated to 97.8kN to reduce maintenance costs and increase engine life.
The first modernised, re-engined DC-8, a United Airlines DC-8-61, flew in August 1981. This was certificated as a Super 71 in April 1982. Certification of a Super 73 (lormerly DC-8-63) was complete in June and the Super 72 (formerly DC-8-62) followed in September. The cost of a basic conversion was approximately $17.5 mil-lion.
Programme status: DC-8-70, all models: orders, 110; delivered, 110. Production complete.

Fokker Aircraft
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Fokker is studying a family of airliners based upon its Fokker 100 and known as the Fokker JetTine. A formal launch decision is expected by the end of 1991.
New types under study include the Fokker 130, a 130-seat version of the Fokker 100, incorporating a stretched fuselage, increased wingspan and more powerful engines. The Fok-ker 80, an 80-seat derivative of the earlier F28 model, with a slightly stretched fuselage, would use Fokker 100 technology.
The Fokker 130 would have a standard capac-ity of 137 seats and the Fokker 80 would seat 77 passengers.
Potential powerplants include R-R Tay variants and the new joint-venture BR700 series from BMW Rolls-Royce.
Certification development is expected to take five years, with possible first deliveries late in 1996.

Fokker F28 A specially developed hushkit for the Stage 2 F28 is to be produced by Fokker in conjunction with the French airline, TAT. De-signed to bring the aircraft up to FAA Stage 3 noise regulations standards, the first hushkits should be available in late 1993. TAT will be the lirst airline to install the modification on its fleet of 22 F28s.
A wing-drag reduction kit is included in the retrofit package, to compensate for the small loss in performance caused by the modification. The cost of the upgrade is expected to be around S2.5 million for each aircraft with a potential market of 200.
Fokker is proposing modifications for ageing F28s and is recommending to its airworthiness authority that eight service bulletins covering structural modifications be made mandatory. Corrosion resistance is covered in a further 15 service bulletins.
The prototype F28 made its first flight in May 1967. Production aircraft ranged through seven versions, ending with the Mk4000, the last of which was sold in 1987. A total of 241 F28s were ordered.
Programme status: F28, all models: orders 241; delivered 241; production ended.

Fokker 100. Producing 33 aircraft in 1990, Fokker plans to expand annual production to 67 aircraft a year by 1993. Airlines now have more than 70 of the type in service, from the USA to

the Far East, since the first production model was delivered in February 1988. The order book stands at 162 aircraft and customers hold options on a further 119 aircraft.
Powered by two R-R Tay turbofans, the 100 is claimed by Fokker to be the world's quietest airliner, meeting the most stringent international noise regulations. In 1989, the aircraft was accepted for operations at John Wayne Airport, Orange County, California, which imposes one of the strictest noise limitations in the world. Customers can choose the 61.63kN Tay 620 or, for improved take-off and climb performance, the Tay 650 with 67.19kN thrust.
Increased MTOWs are 44,492kg and 2,775km range, compared with 43,130kg and 2,312km of the standard model and, from early 1993, further increases in MTOW to 45,854 and range to 3,145km will be available using R-R Tay 650 engines. Structural modifications will be made to cope with the higher loads and Fokker says the economic repair life of 90,000 flight cycles will be unaffected.

An integral centre-wing fuel tank will become
a standard feature on Fokker 100s from 1993, replacing wing-bag tanks.
Airlines are being offered the lowest operating costs in its class with the Fokker 100, by combining Tay turbofans with advanced wing design, smooth aerodynamics and low structural weight, which allows a 30% saving in fuel consumption compared with older-technology types of similar size, according to Fokker. Claimed to have the quietest cabin of any jet aircraft in operation, the Fokker 100 is said by its manufacturer to be setting new standards of cabin quietness in the industry. External noise levels are claimed to be 5 to 5.5EPNdB below FAA FAR Part 36 Stage 3 and International Civil Aviation Organisation Annex Chapter 3 limits. Passenger comfort is high in ^he standard, single-class configuration, the five-abreast seating

at 81.5cm pitch giving generous leg-room be-tween seat rows and plenty of stowage for carry-on baggage.
In first-class/economy layout, twelve first-class passengers are accommodated at 91.4cm seat pitch, with 85 economy-class seats at 81.5cm pitch. In high-density layout with 122 seats at 73.6cm pitch, a Type 1 rear emergency exit is installed.
Fokker 100 Quick Change (QC) models will be manufactured as standard Fokker 100s, then modified by a subcontractor to QC standard. It is aimed at increasing productivity by using the same aircraft for passengers during the day and freight at night.
A large cargo door, 3.40m x 1.93m, will be fitted in the left forward-fuselage section and 11 quickly removable pallet-mounted seat units will accomodate 88 passengers at 80cm seat pitch, with a central aisle. Smaller overhead luggage bins are supplemented by side bins installed next to window seats.

Five LD-9/LD-7 type containers as used in widebodied aircraft, plus a half-size container, can be carried in cargo configuration. Only the seat pallets need to be removed, other passenger fittings remaining aboard. The changeover is expected to take three groundcrew 20min. Struc-tural payload capacity is 11,500kg. Fokker 100 QC range is around 2,800km in both passenger and cargo configurations. Category IIIB autoland capability and low noise make .the aircraft an attractive proposition to the 24h operator. Orders include: Air Gabon, 1*; Air Tittoral, 6; American Airlines, (75); Garuda Indonesia, (12); Intair, 7**; Iran Air, 6; Ivory Coast Government, 1; Pelita 1; Portugalia, 3*; Sempati Air, 4*; Swissair 2(2); TAM Brazil, 4*; TAT France 4(12);
USAir 25(15). Teases: GPA Fokker 100, 12*(46);
ILFC 7**.
Programme status: delivered, 70; on order (162),
options on 119.

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