

MCDONNELL DOUGLAS DOUBLE DECKER MD-12 AIRCRAFT PICTURES HISTORY AND FACTS



The McDonnell Douglas MD-12 was an aircraft design study undertaken by the McDonnell Douglas company in the 1990s.



Development

McDonnell Douglas studied improved, stretched versions of the trijet MD-11, with a possible lower-front passenger deck with panoramic windows. The design then grew into a much larger aircraft with four engines and two passenger decks extending the length of the fuselage, and was announced in April 1992. This was similar in concept to the Airbus A380 and Boeing NLA, and would have been larger than the Boeing 747. Douglas had also studied double-decker design in the 1960s.

General Characteristics - MD-12

	Long Range	High Capacity	Combi	Freighter
Design Weights				
■ MTOGW (lb)	949,000	949,000	949,000	949,000
■ MLW (lb)	642,000	642,000	665,000	735,000
■ MZFW (lb)	602,000	602,000	625,000	695,000
■ OEW (lb)	413,700	429,200	434,800	383,000
■ MEW (lb)	390,300	402,700	411,800	379,400
Capacity				
■ 3-Class Seats	430	511	430	0
■ Space-Limited Payload (lb)	118,570	132,420	142,710	274,600
Engines				
	CF6-80C2	CF6-80C2	CF6-80C2	CF6-80C2
Performance				
■ TOFL at MTOGW SL/86°F (ft)	10,100	10,100	10,100	10,100
■ Range				
■ Psgrs & Bags (n mi)	8,020	7,170	7,400	-
■ Space-Limited Payload (n mi)	7,310	6,580	6,230	4,360
Relative Fuel Burned/Seat vs. 747-400 at 3,000 n mi (%)	-1	-12	-	-

Despite aggressive marketing and initial excitement, especially in the aviation press, no orders were placed for the aircraft. The study was perceived as merely as a public relations exercise to disguise the fact that MDC was struggling under intense pressure from Boeing and Airbus. It was clear to most in the industry that MDC had neither the resources nor the money to develop such a large aircraft, and the study quickly sank without trace. The MD-12 went unordered and was quietly forgotten after the 1997 merger between McDonnell Douglas and Boeing.

General Arrangement - MD-12

Wing

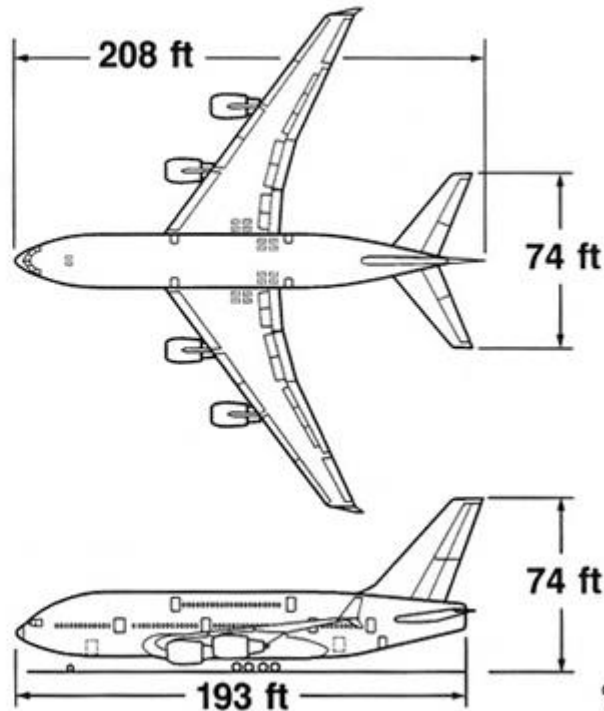
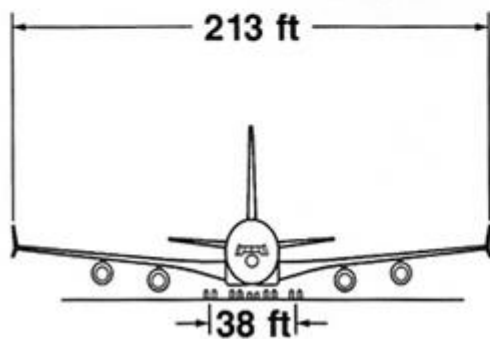
- Adjusted Area 5,846 ft²
- Sweep 35 deg

Horizontal Tail

- Area 1,225 ft²

Vertical Tail

- Area 1,035 ft²



GENERAL ARRANGEMENT OF THE MD-12 DOUBLE DECKER AIRLINER

In retrospect, a new double-decker widebody has proved to be extremely expensive and complex to develop, even for the remaining aerospace giants Boeing and Airbus. A similar concept to the MD-12, the massive Airbus A380 has been successfully brought to fruition. However, the A380 project has been hit with delays and significant cost overruns since 2005.

Specifications (MD-12 HC, as designed)
(Data from MDC brochure)

General characteristics

Crew: 2 (1 pilot, 1 copilot)

Capacity: 430 Passengers in 3-class arrangement, up to 511 passengers in high-capacity layout

Length: 208 ft 0 in (63.40 m)

Wingspan: 213 ft 0 in (64.92 m)

Height: 74 ft 0 in (22.55 m)

Wing area: 5,846 ft² (543.1 m²)

Empty weight: 402,700 lb (187,650 kg)

Max takeoff weight: 949,000 lb (430,500 kg)

Powerplant: 4× General Electric CF6-80C2 turbofans, 61,500 lbf (274 kN) each

Performance

Maximum speed: Mach .85 (656 mph, 1,050 km/h)

Range: 7,170 nmi (9,200 mi, 14,825 km)

Wing loading: 162.3 lb/ft² (792.7 kg/m²)

Configuration Features - MD-12



MD-12 AIRLINER CONFIGURATION SHEET

http://www.aviationexplorer.com/md-12_facts.htm