

A Brief Look at the Orbis MD-10 Flying Hospital



A Brief Look at the Orbis MD-10 Flying Hospital

By Mike Jones

Cessna Pilots Magazine, originally published: April 2022

The McDonnell-Douglas DC-10 is an iconic, three-engine wide-body plane designed to compete against the Boeing 747. The DC-10 first flew on August 29, 1970. American Airlines made the first commercial flight in August 1971 and the last passenger commercial flight was in February 2014. Production ended in 1989, with 386 delivered, plus 60 KC-10 tanker aircraft for the U.S. Air Force.



Many cargo airlines, including FedEx, continue to operate the McDonnell-Douglas jets today and the KC-10 Extender (based on the DC-10-30) is a U.S. Air Force tanker. When Boeing bought McDonnell-

Douglas, that company upgraded many DC-10s the MD-10 standard. The most important aspect of that upgrade was a glass cockpit which eliminated the need for a flight engineer.

The Orbis aircraft has a 46-seat classroom in the forward passenger compartment. It also includes an administration room, state-of-the-art AV/IT room, a patient care and laser treatment room, one operating room, one sterilization room, and a pre- and post-operative care room.

The design of the aircraft is unusual, with a turbofan jet engine under each wing and a third in a nacelle at the base of the vertical tail. (This makes it easy to distinguish a DC-10 from the Boeing 727 which had all three engines in the tail or from the Lockheed L-1011 which had the tail engine embedded in the fuselage.) The cabin used the normal twin-aisle layout but the plane always flies with a pronounced nose-high attitude, a function of the wing design.

The plane had a reputation as being tricky to land and had a poor safety record in early years. Once those design flaws were rectified the plane earned a safety record comparable to other jets and developed a reputation as a strong, sturdy, reliable heavy-hauler. This author was on a United DC-10 over the Rockies that was hit by lightning and saw a “ball of fire” roll through the cabin with no effect on the airplane. I also once rode a United DC-10 from Oakland International to San Francisco International, a flight of eleven miles, which was a treat.

MD-10-30 Specifications

Cockpit crew	2
Passengers (Max)	380
Length (Ft.)	181.6
Height (Ft.)	57.6
Wingspan (Ft.)	165.3
Cabin Width (inches)	224
Empty Weight (lbs.)	266,191
MTOW (lbs.)	555,000
Fuel capacity (gals.)	36,652

Engines ×3	GE CF6-50C
Power (lbs/thrust, each)	51,000
Cruise (Typical)	Mach 0.88, 507 knots
Range (naut. Miles)	5,200
Max Service Ceiling	42,000

About the Author

Mike Jones is a 4,000 hour commercial-rated pilot who has more than 50 aircraft types in his logbook. His pride and joy is a Cessna T210, which has carried him to every corner of the U.S. and Canada for more than twenty years. He's always accessible at PilotMike2012@gmail.com.

