

TYPE: McDonnell Douglas (Boeing) MD-11



Measurements and Performance

Lengh:	58,6 m
Height:	17,60 m
Wingspan:	51,70 m
Engine:	3x Pratt & Whitney PW4460
max. Range:	12.600 km
max. Capacity	410 Passengers or 91 tons in cargo configuration
mx. Cruise Speed:	Mach 0,88 (945 km/h)



First Flight:

10. Jan 90

Number of aircraft built:

200

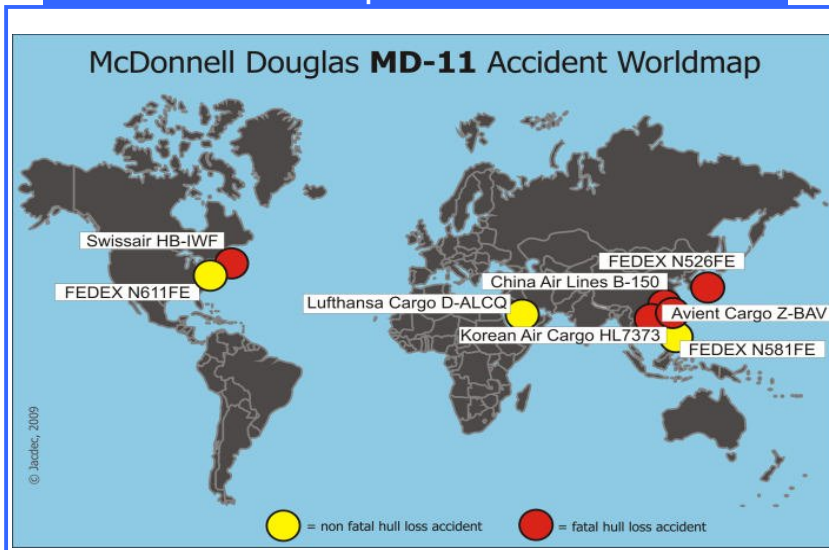


Largest Fleets (as of End 2009):

FedEx (USA):	59	World Airways (USA):	15
UPS (USA):	38	KLM (Netherlands):	10
Lufthansa Cargo (Germany):	18	EVA Air Cargo (Taiwan):	8

McDonnell Douglas (Boeing) MD-11 Safety Statistics

MD-11 Worldmap of Hull Loss Accidents



Number of aircraft built:	200
Number of Hull Losses:	8
Number of Fatalities:	240
Fatalities per loss:	30,0
Fatalities per Aircraft:	1,2
Worst Hull Loss Accident:	02.SEP.1998, 229 Fatalities


Contributing Accident Factors

	No of cases	in %
Pilot Error:	4	50,0 %
Engine Failure:	0	0,0 %
Fire:	1	12,5 %
Avionics:	0	0,0 %
Weather:	0	0,0 %
Inflight Seperator:	0	0,0 %
Hydraulics:	0	0,0 %
Sabotage / Terrorism:	0	0,0 %
Unknown/Pending Investigation:	3	37,5 %

Accident Phases

	No of cases	in %
Take-off	1	12,5 %
Climb-out	1	12,5 %
En-route:	0	0,0 %
Descent:	0	0,0 %
Approach:	1	12,5 %
Landing:	5	62,5 %
Taxy:	0	0,0 %
Stationary/Parking:	0	0,0 %
Unknown:	0	0,0 %

McDonnell Douglas (Boeing) MD-11 Hull Loss Accident Review

8 Date: 2010-JUL-27
 Location: Riyadh-Intl AP, Saudi Arabia
 Registration: D-ALCQ
 Constr.No.: 48431
 Model Variant: MD-11F
 Operator: Lufthansa Cargo 
 Flight: Intl. Cargo
 Occupants: 2 crew
 Fatalities: 0

On approach to runway 33L at Riyadh International Airport, the crew declared an emergency because of an onboard fire indication. Some ground witnesses observed the MD-11 was trailing smoke while on final approach. After coming to a standstill the fire intensified causing its fuselage to fail just aft of the wings. Both crewmembers were able to escape with injuries. The aircraft is a complete loss.

ACCIDENT REPORT UNAVAILABLE

7 Date: 2009-NOV-28
 Location: Shanghai-Pudong Intl AP, China
 Registration: Z-BAV
 Constr.No.: 48408
 Model Variant: MD-11F
 Operator: Avient Aviation 
 Flight: Intl. Cargo
 Occupants: 7 crew
 Fatalities: 3

During take-off run on runway 35R(ight), the aircraft failed to get airborne after rotation, its tail struck the runway before the pilots rejected the take-off. Other eye-witness accounts stated the aircraft was fully airborne and had gained about 10 ft. when its tail struck the runway and control was subsequently lost. However, due to its high speed, the MD-11 failed to stop within runway length and ran beyond the end of the runway where it broke apart and caught fire when it travelled over uneven ground. The wreckage came to a standstill in a ravine about 400 metres north of the runway. It is understood that three of the seven crewmembers did not survive the accident. One more crewmember is critically injured. Runway 35R/17L is 4.000 metres in length. Local weather at the time was good. NOTE: The accident aircraft was only nine days in service with Avient, it was handed over to the airline on November 20th.

ACCIDENT REPORT UNAVAILABLE

McDonnell Douglas (Boeing) MD-11 Hull Loss Accident Review (Part 2)

6 Date: 2009-MAR-09
 Location: Tokyo-Narita Intl , Japan
 Registration: N526FE
 Constr.No.: 48600
 Model Variant: MD-11F
 Operator: FedEx
 Flight: Intl. Cargo
 Occupants: 2 crew
 Fatalities: **2**



Seconds after a normal touch down on runway 34L(left) at Tokyo-Narita Airport, the MD-11 bounced high in the air again, then entered a nose-down attitude and lost height. The aircraft impacted nosegear-first and simultaneously rolled to the left where its left wing and stabilizer broke off causing a massive blaze. The MD-11 broke apart and came to rest on its roof about 100 meters to the left of the runway at about mid-point. Both crewmembers were killed in the crash or postcrash fire. At the time of the accident, strong winds were blowing at Narita Airport with gusts up to 35 knots. A preceding aircraft reported windshear on final approach below 600 feet altitude. The runway remained closed for 26 hours disrupting all US and most of the flights to Europe.

5 Date: 1999-OCT-17
 Location: Subic Bay Intl Airport, Philippines
 Registration: N581FE
 Constr.No.: 48419
 Model Variant: MD-11F
 Operator: FedEx
 Flight: Intl. Cargo
 Occupants: 2 crew
 Fatalities: 0



The aircraft was arriving at Subic Bay Airport in darkness at about 23:00, as flight FDX 087 from Shanghai. On landing runway 07 at Subic Bay the aircraft performed a late touchdown at a higher than normal airspeed resulting in a overrun. The MD-11 collided with the ILS-localizer antenna and ground radar installation before it broke apart and came to a stop in the shallow waters of the bay. The crew managed to evacuate the aircraft with only minor injuries. At the time of the accident, light rain was falling but visibility was reported being good. Investigation revealed the pilots received indication about a airspeed disagreement because of clogged pitot drain holes which the flightcrew failed to address properly during their approach to Subic Bay.

ACCIDENT REPORT UNAVAILABLE

4 Date: 1999-AUG-22
 Location: Hong Kong-Intl AP, China
 Registration: B-150
 Constr.No.: 48468
 Model Variant: MD-11
 Operator: Mandarin Airlines
 Flight: Intl. Passenger
 Occupants: 300 pax +15 crew
 Fatalities: **3**



The aircraft was operating on behalf of China Airlines on flight CI 642 from Taipei to Hong Kong. At the time, a tropical storm swept through the Hong Kong area with violent winds and lots of rain. The flight became established on the ILS for runway 25L(left) in crosswinds conditions (320 degrees with 25 knots in gusts to 36 knots). When over the runway, the pilots were unable to arrest the descent resulting in a violent touchdown with a right bank angle. When the right engine struck the runway, the right main gear collapsed and the right wing to break. The MD-11 rolled inverted in flames before it came to a stop on its roof 1.100 metres from the runway threshold. All but 3 persons survived the accident. Probable cause of the accident was the failure of the crew not to use engine thrust to compensate the high rate of descent on final approach and the decision to continue to land despite adverse weather conditions. (x-wind component was outside the maximum)

ACCIDENT REPORT AVAILABLE

3 Date: 1999-APR-15
 Location: Shanghai-Hongqiao Intl AP area, China
 Registration: HL7373
 Constr.No.: 48409
 Model Variant: MD-11F
 Operator: Korean Air Cargo
 Flight: Intl. Cargo
 Occupants: 3 crew
 Fatalities: **3 + 5**



Shortly after take-off from runway 18 at Shanghai on a cargo flight to Seoul-Kimpo Airport, the MD-11 suddenly entered a violent pitch-down attitude and crashed a few kilometres to the south of the airport. The crash location was close to a highway on a construction site. Beside the 3 crewmembers, five ground workers were killed in the crash. During their flight preparations, the crew mixed up their altitude measurement in metres with feet also they had difficulties of properly identifying their departure route. After an ATC call to maintain 3.000 metres, the pilot-in-command believed the aircraft being too high and forced the MD-11 in a steep dive from which recovery was not possible.

McDonnell Douglas (Boeing) MD-11 Hull Loss Accident Review (Part 3)

2 Date: 1998-SEP-02
 Location: off Halifax, Nova Scotia, Canada
 Registration: HB-IWF
 Constr.No.: 48448
 Model Variant: MD-11
 Operator: Swissair
 Flight: Intl. Passenger
 Occupants: 215 pax + 14 crew
 Fatalities: **228**



Flight SR 111 from New York-JFK to Geneva and Zurich was flying en-route in darkness at 33.000 feet, when the pilots noticed a strong odor and observed smoke in the cockpit. They sent a distress message and ATC cleared the flight towards the airport at Halifax, Canada. Whilst descending, the situation on board took a turn to the worse when dense smoke filled the flightdeck reducing the forward visibility to almost zero. The MD-11 was sent to a holding pattern over the Atlantic Ocean south of Halifax in order to dump fuel for the landing. Whilst in the holding, all instruments went blank resulting in a loss of spatial orientation causing the aircraft to enter a steep descent until it crashed into the ocean. There were no survivors. Investigator revealed the fire resulted from a short circuit in cables inside a roof panel above and behind the pilots.

ACCIDENT REPORT AVAILABLE

1 Date: 1997-JUL-31
 Location: New York-Newark Intl AP, NJ, USA
 Registration: N611FE
 Constr.No.: 48604
 Model Variant: MD-11F
 Operator: FedEx
 Flight: Domestic Cargo
 Occupants: 3 pax + 2 crew
 Fatalities: 0



On a night landing on runway 22R(ight) at Newark Airport, the MD-11 bounced and rolled to the right until it made a 2nd hard touchdown. The riht engine struck the fground and the right wing broke. The MD-11 flipped over on its back and skid to a stop 1.600 m from the runway threshold. A fire broke out which quickly consumed much of the aircraft. Alle 5 persons on board survived the accident. Investigation report cited the pilot's faulty technique to "overcontrol" the airplane during the landing and his failure to execute a timely go-around from a destabilized flare.

ACCIDENT REPORT AVAILABLE