

# MD-11 fleet analysis

The MD-11 fleet is divided freighters and passenger aircraft available for conversion.

The MD-11 can be sub-divided into a number of categories: aircraft powered by PW4000-94 engines; aircraft powered by the CF6-80C2D1F; passenger-configured aircraft; freighter-converted aircraft; and factory-freighter aircraft. There were 200 MD-11s built between 1990 and 2000.

Although it was rejected as a passenger aircraft, the MD-11 has proved popular as a freighter. Its relatively high maximum zero fuel weight (MZFW) gives it a high payload for its size. It is also in a class of its own with respect to its freight capacity. A large number have been converted to freighter, and fewer than 40 are potentially available for modification. The MD-11 will no doubt continue to be a popular freighter, and its limited numbers are likely to keep its market values high.

Of the 200 built, 195 are still in operation or inactive, with five having been destroyed in accidents. Out of 195 aircraft, 58 are factory-freighters, and 76 have been converted to freighters since 1996. There are also another four Combi configured aircraft.

This leaves another 57 aircraft, 23 of which are in storage or inactive, and 21 have been acquired by UPS or FedEx for conversion to freighter. There are also 34 in passenger configuration, but eight of these have already been acquired by FedEx or UPS for conversion to freighter, leaving 26 passenger aircraft that have not yet been acquired for conversion.

Most aircraft, 117 units, have CF6-

80C2D1F engines and 78 have PW4000-94 powerplants (see table, this page).

## Passenger fleet

There are 17 PW4000-powered and another 17 CF6-powered MD-11s operating as passenger aircraft.

Of the 17 active PW4000-powered aircraft, eight have been acquired for conversion to freighter. Three are ex-Delta aircraft have been bought by United Parcel Service (UPS) for conversion to freighter, and are currently on lease to Ethiopian Airlines and World Airways. Another five ex-Swissair/Swiss Airlines aircraft are on short-term leases to VARIG and have been acquired by UPS for conversion to freighter.

This leaves just nine passenger-configured PW4000-powered aircraft potentially available for conversion to freighter. These include on aircraft on lease to Air Namibia, two Saudi Arabian Government aircraft and six aircraft leased to World Airways.

There are 17 active aircraft equipped with CF6-80C2D1F engines, including seven operated by Finnair, four of which were originally delivered to the airline, two were acquired from City Bird and one from VARIG. Finnair will not add to its MD-11 fleet. Another 10 are operated by KLM. All 17 are potential candidates for freighter conversion in the future.

There were also five Combi-configured aircraft built for Alitalia. Four of these remain in Combi configuration.

## Factory freighters

There are 58 factory-built freighters and convertible aircraft in operation, 13 of which are equipped with PW4460/62 engines. China Cargo Airlines, a subsidiary of China Eastern Airlines, operates one, FedEx has three, Martinair has six and World Airways has two.

The other 45 aircraft are powered by CF6-80C2D1F engines. FedEx has the majority with a fleet of 18, EVA Airways has nine aircraft, Lufthansa cargo has 14, and Saudia has four.

## Converted freighters

There are 76 converted freighter aircraft in operation, although the number is constantly increasing as more become modified. The fleet of modified aircraft is dominated by FedEx and UPS. The fleet is split between 35 aircraft equipped with PW4460/62 engines and 41 equipped with CF6-80C2D1F engines.

The PW4000-powered fleet includes six ex-Swissair and four ex-China Airlines aircraft operated by FedEx, five ex-China Eastern aircraft operated by China Cargo Airlines, four ex-LTU/Swissair aircraft operated by Transmile Air Service, two ex-LTU/Swissair and 10 ex-Japan Airlines aircraft operated by UPS, and single units operated by VARIG LOG, Air Canada, Martinair and World Airways.

The 41 CF6-powered converted freighters comprise a single ex-Alitalia aircraft converted to freighter and 40 ex-passenger aircraft. These 40 are dominated by 18 ex-American and three ex-Garuda aircraft operating with FedEx, four ex-Delta and VARIG aircraft operating with Gemini Air Cargo, five ex-VASP and Alitalia aircraft operating with Lufthansa Cargo, and seven ex-VARIG and VASP aircraft operating with UPS. EVA Airways operates two of their own converted aircraft and Shanghai Airlines has a single ex-EVA Airways aircraft.

## Stored aircraft

Twelve ex-Delta aircraft are in storage awaiting conversion to freighter. Three of these aircraft are for UPS and nine are for FedEx. Another five ex-VARIG CF6-powered aircraft, that do not have engines, are in storage. There is speculation these will be converted to freighter for operation by Aeroflot.

There are also four ex-Thai CF6-powered aircraft stored that have been bought by UPS.

FedEx has acquired a total of 57 MD-11s, and UPS has 37. Both carriers are likely to attempt to acquire more. [AC](#)

### MD-11 FLEET SUMMARY

	PW4000	CF6-80C2D1F	Total
Active passenger	9	17	26
Active passenger acquired for freighter conversion	8		8
Combi		4	4
Factory freighter	13	45	58
Converted freighter	35	41	76
Stored acquired for conversion	12	9	21
Stored/inactive	1	1	2
<b>Total</b>	<b>78</b>	<b>117</b>	<b>195</b>

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