

MD-80/-90 fleet analysis

Most MD-80s remain in service, and American & Delta account for more than 450. Aircraft with -217C & -219 engines are the most desirable.

There were 1,194 MD-80s and 117 MD-90s built. Of these, 1,042 MD-80s are still in active service and 105 MD-90s are operational. Production of MD-80s started in 1980 and continued until 1999, while the MD-90 was manufactured for just five years from 1995 until 2000.

The MD-80's initial customers was a concentrated group of airlines. These included American Airlines (261), Delta Airlines (121), TWA (57), Alaska Airlines (34), Texas Air (38), PSA (28), SAS (66), Alitalia (91), Swissair (25) and Iberia (24). These 10 carriers ordered 745 aircraft between them.

Other smaller fleets were also originally ordered by Aero Lloyd, Aviaco, Finnair, Japan Air System (JAS), Korean Air, Midway, TOA Domestic and USAir coming to another 111 aircraft between them. Eighteen airlines therefore ordered more than 850 MD-80s.

While the MD-80 fleet has started to be sold and dispersed to secondary users, many aircraft remain with their original operators. Furthermore, several original operators have acquired more MD-80s from other airlines. American has been especially active in increasing its MD-80 fleet and has acquired aircraft from Alaska Airlines, Swissair, Inex Adria Airways, Paramount Airlines and Boeing (ex-Chinese airlines aircraft). American also acquired TWA, and picked up 61 MD-80s in the process. American now has a fleet of 364 MD-80s, of which 337 are active, and the remainder are in storage.

Allegiant, Spirit Airlines, Lion Air and Jetsgo have all emerged as new MD-80 operators.

MD-81

The MD-81 was the second least popular of all MD-80 variants, mainly because of its low gross weight and short-range performance. Aircraft can be upgraded to MD-82 standard relatively inexpensively (see *MD-80 modification & upgrade programmes*, page 14), however. There are still 54 of the original 80 MD-81s operational. Most MD-81s were ordered by Swissair (9), Austrian (4), TOA Domestic (11), JAS (12) and SAS (13).

Japan Airlines (JAL) Domestic now operates some of TOA Domestic's and JAS's aircraft. Ex-Swissair and ex-Austrian aircraft are now used by Midwest, Aero Colombia and Spirit Airlines. The majority of MD-81s still operating have a gross weight of 140,000lbs and 41 have the more desirable JT8D-217C engine rated at 20,000lbs thrust.

MD-82

The MD-82 is the most numerous variant of the MD-80 series, with 603 being manufactured between 1981 and 1997. Production was between line numbers 1,001 and 2,189. More than 500 are still operational.

American Airlines operates 242 of these active aircraft, all of which have a maximum take-off weight (MTOW) of 149,500lbs and standard fuel capacity of 5,840USG. Most of these are powered by the JT8D-217C (230) and another two by the -219. American will not phase out its MD-82s, and will put its fleet through a major refurbishment programme.

The other 263 MD-82s in operation are used by a variety of carriers. The largest fleets are Alitalia, SAS, China Northern, China Southern and China Eastern. Smaller original fleets are those of Aeromexico and Finnair, while fleets of used aircraft are operated by Spirit Airlines, Continental, Allegiant, Jetsgo, Comair, Bouraq, Lion Airlines, MNG and Eurofly. Most of these aircraft have gross weights between 140,000-149,500lbs and a standard fuel capacity of 5,840USG. One hundred and ten are powered by JT8D-217C. The majority are operated by Alitalia, but others are operated by Meridiana, Jetsgo, SAS, Far Eastern Air Transport, China Northern, Spirit, Midwest, Spanair and Aeromexico. Another 35 are equipped with the -219 and operated by Spirit, Nordic Airlink, SAS, Finnair, Aeromexico and Far Eastern Air Transport.

MD-83

The MD-83 is the second most numerous of MD-80 variants, with 277 being built between 1987 and 1999. The

first line number was 1,370 and production ceased with line number 2,287. The MD-83 did not sell in larger numbers, despite having the highest MTOW, fuel tank and engine specification. By the time of its conception, however, alternative aircraft like the A320 were being offered.

Out of the 277 manufactured, 255 are still operational. American Airlines has 95 of these, which with its 242 -82s, account for all its MD-80s still in operation. All except two of these MD-83s are equipped with the JT8D-219. American will keep its MD-83s operational.

The remaining 160 MD-83s in service are mainly used aircraft. All except three of these aircraft are equipped with the -219 engine. Only Alaska Airlines' fleet of 25 aircraft are the other major original fleet. Most other MD-83s are used aircraft operated by second-tier and third-tier users, including Austral, Helvetic, Spirit Airlines, Spanair, Allegiant, Nordic Airlink, Allegro Airlines, Lion Airlines and Meridiana.

MD-88

The MD-88 is almost the reserve of Delta Airlines. Out of 158 aircraft built between 1986 and 1993, 155 remain operational and 120 of these are utilised by Delta. These all have the standard specification of a gross weight of 149,500lbs and fuel capacity of 5,840USG.

The other 35 aircraft are operated by Onur Air, Iberia, Midwest, Aeromexico and Aerolineas Argentinas. The last three carriers operate 17 aircraft leased by GECAS. Iberia's fleet of 13 are powered by the JT8D-217C, while the other 142 aircraft are equipped with the -219.

MD-87

Only 76 MD-87s were built, from line number 1,326 in 1986 to line number 1,985 in 1992. Seventy one of these aircraft are still operational. All are equipped with the JT8D-217C or -219.

The MD-87's largest users are Iberia (24), SAS (16), JAS/JAL Domestic (8) and Austrian Airlines (4). The remaining aircraft are used examples, operated mainly by Aeromexico, and Allegiant Air.

MD-90

The MD-90 fleet is concentrated in a small number of fleets operated mainly by JAL Domestic (16), Delta Airlines (16), SAS (8), Saudia (29), China Northern (13), China Eastern (9) and Uni Airways (11). The majority of aircraft are with their original operators, although a few have changed hands. SAS's aircraft are available on the market, and Delta will phase out its fleet over the next few years. **AC**