

# 737-200 values & aftermarket

**Values and lease rates of 737-200s are at all-time lows. The aircraft is a bargain for freight carriers requiring net payloads of up to 35,000lbs.**

**V**alues and lease rates of 737-200s have been steadily dropping as the number in service continue to decline.

This process began prior to 11th September 2001, but was subsequently accelerated as several major US carriers speeded up fleet rationalisation. Few airlines now actively acquire the 737-200, but it provides a bargain for those looking for cheap capacity, either as a passenger- or freighter-configured aircraft.

## Aircraft selection

There are still more than 600 737-200s in service (see *737-200 fleet analysis, page 8*). The best candidates for possible acquisition are units built after 1980 that have been hushkitted and have accumulated less than 50,000 flight cycles (FC). There are about 200 of these.

There are several fleets to choose from, with Delta offering the single largest group of aircraft. It operates 49 aircraft fitted with the Nordam hushkit system. These have accumulated a low

number of FCs, with most below 50,000.

Ryanair is operating the last of its aircraft, also fitted with Nordam hushkits, while Southwest will stop operating its AvAero-hushkitted aircraft in January 2005. Southwest's fleet has been highly utilised, with all of them accumulating more than 60,000FC.

A large number of aircraft acquired in recent years have been broken for parts. This implosion of the fleet has had consequences for both aircraft and engine values.

## Aircraft values

Because of the age variation on 737-200s and declining fleet, younger build -200As are the most sought after variants.

Avitas puts the current market value for a 1971-built, hushkitted and JT8D-9/9A-powered 737-200A in passenger configuration at \$300,000 or less. This rises to about \$1.3 million for a 1985-built hushkitted aircraft with the same engines and about \$1.8 million for a 1987/88-built aircraft.

Aircraft with the preferred -15 or -17

engines are in more demand and have higher values. Early build -200As might be able to realise about \$600,000, while a 1985-built, hushkitted aircraft would realise about \$1.6 million and one of the youngest -200As might demand up to about \$2.0 million.

The constant decline of the type, however, has pushed values lower. The value of the active and youngest aircraft with the highest specifications is now below the \$1.5 million level.

Despite this fall, the supply of aircraft that meets all these criteria is low. This leaves the Delta fleet of 49 as a large number of good quality aircraft when they come onto the market.

The weakened demand for 737-200s has also pushed down lease rates. Better quality passenger aircraft with JT8D-15 or -17 engines can now be leased for \$50,000-60,000 per month. While the arguments against the 737-200 would be that it has high fuel burn and fewer seats than the 737-300, at this level of lease rates the 737-200 provides capacity with a total seat-mile cost than is hard to ignore. Similarly to MD-80s and Fokker 100s, the 737-200 is a low-risk aircraft for small operators.

## Engine values

The accelerated retirement of 737-200s, 727s and DC-9s after 11th September 2001 caused a glut of JT8Ds on the aftermarket. This has occurred in two previous recessions and resulted in the values of time-continued engines falling below the cost of a typical shop visit. In these circumstances many airlines took the opportunity to lower their cash outlay by acquiring time-continued engines on the open market rather than put used engines through a shop visit. This only reduces cash outlay temporarily, since by continuing this practice airlines use up the supply of good quality time-continued engines. This increases their value again, making it more economic to put engines through a shop visit.

The value of JT8Ds depends on the variant and its maintenance condition. Values generally reached a trough in 2002 and 2003 and have since increased. "Values and prices have nearly doubled over the last two years as the supply of



*High quality hushkitted 737-200s that were built after 1980 and have accumulated less than 50,000FC have values in the region of \$1.5 million. Aircraft that do not have these criteria are not in demand and have only a scrap value.*

Prospective buyers of 737-200s should be aware of the number of FCs that some aircraft have accumulated in service. There are about 200 good quality 737-200s remaining that make suitable candidates for conversion to freighter. The total cost for preparing a 737-200 for freighter service is less than \$4.5 million, and the aircraft has a net structural payload of 34,000-35,000lbs and volumetric capacity of 4,307 cubic feet.



surplus engines has diminished,” says Rob Conrad, senior vice president sales & leasing at Aerothrust. “This is because fewer aircraft are being disassembled, many time-continued engines have been used up and the calendar time of many engines has expired.”

Conrad says there is now little demand for JT8D-7s. Some demand still exists for -9s, with refurbished engines commanding \$200,000-250,000. Two engines thus account for most of the value of an older aircraft with -9s.

Values of -15s are higher, with time-continued engines probably fetching \$150,000-200,000 and refurbished engines getting \$300,000-350,000. The highest values are realised by -17s which get up to \$175,000-250,000 for time-continued units and \$400,000-450,000 for refurbished engines. Two time-continued -15 or -17 engines therefore account for up to about half of the value of a later build aircraft with good maintenance condition.

The retirement of large numbers of JT8Ds after 2001 also resulted in many being parted-out to supply the overhaul market. This high supply of engine material has lowered the cost of hot section inspections and overhauls by as much as \$100,000 per shop visit. The balance between buying time-continued engines and putting used ones through a shop visit has therefore shifted.

## Freighter conversion

A small number of 737-200s have been converted to freighter, but the type in recent years has been overlooked by most freight airlines as they look towards the 737-300 as a possible conversion candidate. When the costs of acquiring,

converting and preparing a 737-200F for service are examined, it becomes apparent that it provides a freighter for a total cost that is less than half the amount required to bring a 737-300SF to service. This difference has to be considered in relation to the freight capacities of the two aircraft.

The difference in total costs to prepare the aircraft for service is mainly due to the difference in values of passenger-configured -200As and -300s. The maximum market value of the best -200A candidates for conversion have a maximum value of about \$1.5 million. This has to be added to the cost of conversion and probable maintenance costs incurred during the conversion process.

The cost of conversion for the 737-200 is \$1.5-2.0 million, which differs little from the standard prices offered by those marketing conversion programmes for the -300.

Additional maintenance for the -200A is likely to be for an engine shop visit and C check, plus some work on components. A requirement for high maintenance expenditure will be reflected in the value of the aircraft. A 737-200A in good condition may still require a light engine shop visit at a cost of about \$400,000 and a C check at a cost of about \$200,000-250,000. The need for component maintenance will depend on time since overhaul, but an additional allowance of \$100,000 should be made.

This takes maintenance expenditure to about \$750,000 and the total to bring the aircraft to service to about \$4.25-4.75 million. In return the operator is provided with an aircraft that can accommodate eight maindeck containers and a total of 4,307 cubic feet of freight capacity. The

aircraft has a net structural payload of 34,000-35,000lbs (*see 737-200 modification & upgrade programmes, page 10*).

The total cost for preparing a 737-300SF for service is considerably higher compared to the additional freight capacity. The market value for 737-300s has climbed back from the market lows of 2002-2003 to \$5-8 million for the oldest aircraft. Freight conversion will add another \$1.9 million.

Additional expenditure for maintenance is potentially higher for the 737-300. An engine shop visit will add in the region of \$1.0 million, while a C check will add \$200,000-250,000. A further \$100,000 for components will take total allowance for additional maintenance to \$1.35 million.

The total cost for preparing a 737-300SF for service will thus be \$8.3-11.3 million: up to almost three times the cost of preparing a 737-200F for operation.

The 737-300SF has a net structural payload of 37,000-39,500lbs; only 3,000-4,500lbs more than the -200AF. The -300SF can accommodate one more maindeck container than the -200AF, giving the -300SF 340 more cubic feet of freight carrying volume. The 737-300SF does, however, have lower fuel burn and an older airframe. The difference in maintenance costs between the two is not large enough to favour the -300SF when trip and ton-mile costs are analysed.

The 737-200A thus represents a bargain aircraft for freight operations. The type meets Stage 3 noise legislation and has a payload capacity only seven or eight per cent less than the 737-300SF. The 737-200AF is an economic choice for freight carriers with turboprops or small jets that need additional capacity. **AC**