The Boeing 737: Banking on Life's Economical Airplane

Families who want to keep a balanced budget in the home are more successful when they rely on a solid financial system that helps keep track of expenses. When no surprises show up in daily expenditures, there's a better chance of responding to life's unexpected events and planning for a secure future.

A disciplined financial system may sound rather mundane to most people, but it's based on the same kind of reliability and flexibility from which Boeing 737 airline operators benefit in today's volatile business climate.

The people who operate commercial airplanes for a living appreciate the lack of surprises with the 737 models. They rely on the airplane's ability to produce consistent low-cost results flight after flight, day after day. They depend on its high quality and low maintenance costs.

Airline operators today bank on the 737 -- more than ever before.

"We have found through years of experience that the Boeing 737 provides the unbeatable cost economies and reliability you need to run a profitable low-fare airline," said Michael O'Leary, chief executive of Ryanair. "But Boeing also provides market-leading customer service. That combination helps Ryanair set the low-fare standard for Europe."

Friedrich Keppler, managing director of Hapag Lloyd, the TUI German airline, said Boeing 737s are vital to his company's low-cost success.

"We fly them hard," Keppler said. "It is essential to us that we have cost efficiency and reliability in the fleet. It's why we like the airplanes that we have, because they reduce our costs and allow us to pass those reduced prices on to our customers. They are fundamental to our success."

Listen to the customer

When determining which airplane performs best in the short- to medium-range market, customers help provide the answer. And more times than not, customers point to the Boeing 737.

Customers provide airplane manufacturers technical and mechanical dispatch reliability data that tells how well the airplanes operate in service -- mainly whether airplanes leave the gate on time, experience flight cancellations or are forced to return to the airport.

Steve Hayes, airline economic analyst for Boeing Commercial Airplanes, said Boeing uses a reliability value calculator that associates costs with each interruption of service reported by the customer. Boeing zeroes in on the technical and mechanical dispatch reliability information and eliminates weather or traffic control issues for a very important reason.

"We want to know if there are any problems related to the airplane itself that cause delays, cancellations or air turn-backs," Hayes said. "We can't control the weather or air traffic issues, but we can control performance of our airplane."

What does the data tell Boeing?

"For some time now, the 737 has been leading its direct competition," Hayes said. "In fact, the data shows that the 737 fleet, with 99.3 percent gate dispatch reliability, might be THE most reliable airplane flying today. This means passengers who fly on a 737 are leaving on time, and getting to their destination when they're supposed to."

The value from even the slightest performance advantage is significant for customers, Hayes said. If a flight is cancelled or doesn't leave the gate on time, it can quickly translate into thousands of dollars spent on drink coupons, meals and hotels to retain the goodwill of inconvenienced passengers.

Born to be efficient

The people who operate commercial airplanes for a living rely on the airplane's ability to produce consistent low-cost results flight after flight, day after day. They also depend on its high quality and low maintenance costs. Airline operators today bank on the 737 -- more than ever before.
The 737 has a stellar reputation for being an uncomplicated airplane. For years airlines have praised its solid performance, reliable service and value to their fleets.

That successful history is what convinced airlines and Boeing that 737 performance could be taken to another level. In the mid 1990's, Boeing asked customers for feedback, and then built a better airplane. The result was launch of the Next-Generation 737, an airplane that today flies higher, faster and farther for less cost than its predecessor and the competition.

"The newer 737 airplane -- the -600, -700, -800 and now the -900 -- entered service at a fairly high reliability rate," said Mike Burris, airline economic analyst for Boeing Commercial Airplanes. "It's an absolute testimony to the design of the airplane, and the fact that we really did our homework as far as lessons learned on the 777 and previous 737 in-service experiences."

The only changes made to the airplane were those that met the "higher, faster, farther, less-cost" criteria, Burris said. Foremost in the thinking was the mission of the airplane -- to fly short-to-medium range routes with quick turn-around times.

"In terms of dependability and reliability, anything that had proven to be stellar has stayed with the airplane," Burris said. "Areas were addressed only where there was opportunity for improvement. It was a systematic assessment of the entire airplane structure, systems and materials."

The modern 737 structure benefited from the successful 737 in-service experience. Where there was too much structure, it was trimmed down; where there was too little, it was beefed up.

"Consequently, the Next-Generation 737 is a very structurally efficient airplane as we've continued to hone the fuselage," Burris said.

Structural efficiency has brought an advantage in weight -- about 7,700 pounds (3,515 kilograms) lighter than the Airbus A320 series airplane. This advantage translates into lower operating costs in fuel burn, engine maintenance from lower thrust requirements, dash speed and wear and tear on landing gear, tires and brakes.

Less operating weight also means lower weight-based landing and navigation fees at airports.

The flight deck was one area where technology improved the most, yet all of it had to earn its way onto the airplane.

"The airplane is essentially new in the area of systems," Hayes said. "Everything added had to provide value in either enhanced safety or operating cost -- something we have been requiring for years on all of our airplane advancements."

The Heads-up Display, for example, enhances safety and minimizes delays by providing eye-level flight and safety information to the flight crew so they can fly or land when visibility is low. Navigation Performance Scales reduces flight delays and increases airspace capacity by providing precise position awareness so the flight crew can accurately navigate the airplane through a narrower flight path.

There's the Integrated Approach Navigation, which enhances the landing approach capability of the airplane by simplifying and potentially reducing the number of pilot approach procedures. And Liquid Crystal Displays improve readability of flight information, weigh less, require less power and generate less heat, which provides greater reliability and longer service life.

The savings add up

When you add it all up, it doesn't take an economic genius to understand why the 737 continues to make sound, financial sense. Quite simply, you can count on it.
Savings in operational economics also are derived from the airplane flying higher, where it can take advantage of the jet stream for better economics and speed. The new more aerodynamic wing provides better economics overall. In cases where airlines might have to make up time for late departures, the 737 has more economical dash speeds through lower fuel burn than the competition.

"From a schedule standpoint, because of the mission of the 737, that's important," Burris said. "You want that airplane to arrive on time so you can turn it around quickly and leave on time. Keeping the airplane flying -- and flying on schedule -- is a real key advantage for low-cost airlines."

Quick turn-time is the claim to fame for the 737. Because it's low to the ground, it has the quickest turn times in the industry, offering easier access to cargo, general servicing and engines.

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