The New Boeing 737 MAX Family – Efficiency, Reliability, Passenger Appeal

Boeing’s newest family of single-aisle airplanes – 737 MAX 7, 737 MAX 8 and 737 MAX 9 – will build on the Next-Generation 737’s popularity and reliability while delivering customers unsurpassed fuel efficiency in the single-aisle market. Last year the program launched the 737 MAX 200, a new variant based on the 737 MAX 8 that can accommodate up to 200 seats, increasing revenue potential and providing customers up to 20 percent better fuel efficiency per seat than today’s most efficient single-aisle airplanes.

Development of the 737 MAX is on schedule with firm configuration of the 737 MAX 8 achieved in July 2013. First flight is scheduled in 2016 with deliveries to customers beginning in 2017. Already a market success, the 737 MAX has more than 2,800 orders from 58 customers.

A family of airplanes in a range of sizes

The Next-Generation 737 family is currently offered in three sizes, ranging from 126 to 220 seats.

- The 737-700 is capable of carrying up to 149 passengers.
- The 737-800 can seat up to 189 passengers. Finally, the 737-900ER is the longest 737, capable of carrying up to 178 passengers in a two-class layout and is certified for up to 220 passengers in a one-class layout.

Listening to customers

Airline customers who were involved in the development of the Next-Generation 737 models delivered a very clear message: They wanted advanced technology that

* Based on: U.S. Domestic rules, 800-nmi mission, Two-class seating, Fuel price: $3.00 per U.S. gallon, 737 MAX 8
allows for simplicity, reliability and low cost -- not just technology for technology's sake. They also wanted flight-deck commonality with earlier 737s.

In addition to airline customers, Boeing chief mechanics and field service representatives participated in the airplanes' development.

**Maximum efficiency**

The 737 MAX will deliver the big savings in fuel that airlines require for the future. The 737 MAX 8 is the first in the family to be developed and represents the heart of the demand in the single-aisle market. The 737 MAX 8 reduces fuel use and CO2 emissions by an additional 14 percent over today's most fuel-efficient single-aisle airplanes – and 20 percent better than the original Next-Generation 737s when they first entered service. The 737 MAX family is powered by CFM International LEAP-1B engines and include design updates such as Boeing’s Advanced Technology winglet, that will result in less drag and further optimize the 737 MAX performance especially on longer-range missions.

When compared to a fleet of 100 of today's most fuel-efficient airplanes, this new model will emit 350,000 fewer metric tons of CO2 and save more than 250 million pounds of fuel per year, which translates into more than $112 million in cost savings*. The 737 MAX 8’s fuel use is expected to be 8 percent per-seat lower than the A320neo.

The 737 MAX will extend the Next-Generation 737 range advantage with the capability to fly more than 3,500 nautical miles (6,510 km), an increase of 405-580 nmi (750-1,075 km) over the Next-Generation 737. With a lower operating empty weight than the competition but higher maximum takeoff weights, customers can fly further or carry more payload.

The 737 MAX’s more efficient structural design, less engine thrust and less required maintenance add up to substantial cost advantages for customers. The 737 MAX 8 will have the lowest operating costs* in the single-aisle segment with an 8 percent per-seat advantage over the A320neo.

The 737 MAX will incorporate the latest quiet engine technology to reduce the operational noise footprint of the airplane by up to 40 percent. Emissions will be approximately 50 percent below the International Civil Aviation Organization’s (ICAO) Committee on Aviation Environmental Protection (CAEP)/6 limits for nitrogen oxides (NOx).

**Maximum reliability**
The 737 MAX will build on the best reliability record of any airplane, with 99.7 percent of Next-Generation 737 flights ready to depart within 15 minutes of schedule (based on industry data). On-time performance is the major positive influence on passengers’ perception of their experience on short flights and saves operators maintenance, flight and crew costs.

The design superiority of the 737 translates into fewer passengers being inconvenienced every year when flying on a Boeing 737 versus the competition. For a fleet of 100 Next-Generation 737 airplanes flying five to six flights a day – common for many single-aisle operators and particularly low-cost carriers – the 737s will have on average 590 fewer delays and therefore avoid disrupting 65,000 fewer passengers when compared to a fleet of A320s.

While Boeing is making the upgrades necessary to give customers the fuel savings they need for the future, the 737 MAX will continue the superior design reliability of the Next-Generation 737.

Maximum passenger appeal

The passenger-preferred Boeing Sky Interior will come standard on the 737 MAX. Drawing from years of research inspired by the travel experience, the 737 Boeing Sky Interior features new, modern-sculpted sidewalls and appealing features reveals that draw passenger eyes to the airplane’s windows, giving passengers a greater connection to the flying experience.

The interior also features larger, pivoting overhead stowage bins that add to the openness of the cabin. The bins give more passengers room to store a carry-on roll-aboard near their own seat, adding both extra convenience and extra leg room.

Boeing redesigned reading-light switches so passengers can find them more easily and avoid accidentally pressing the flight-attendant call button.

Speakers integrated into each row’s passenger-service unit improve sound and clarity of public address operations, while the new air grill is tamper-proof and improves operational security.

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Contact: Boeing Commercial Airplanes Communication, +1 206-766-1345