



Farnborough 2020

737 Max certification remains urgent for Boeing even as new-jet demand sags

By Jon Hemmerdinger | 14 July 2020



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With Boeing 737 Max jets flying again this month on Federal Aviation Administration (FAA) test flights – the first movements since a March 2019 crash followed a similar tragedy in October 2018 to take the type's death toll to 346 people and prompt regulators to ground it globally – recertification of the troubled narrowbody may finally be in sight. Indeed, analysts consider a third-quarter 2020 approval as a reasonable expectation.



Source: Boeing Boeing 737 MAX 10

But restarting production and deliveries will be just the start of a long process of recovering the financial and reputational damage done to Boeing by the long-running Max saga. Compounding the troubles piled up at Boeing via the failings of its best-selling product is the onset of what looks to be a long and deep aerospace recession sparked by the coronavirus lockdown of the airline industry.

As far as liquidity is concerned, Boeing at least looks to have averted any short-term crisis by raising some \$25 billion in financing earlier this year. But while the Chicago-headquartered airframer may not face an imminent cash crunch, its underlying financial health depends on revenue from Max deliveries. "Their liquidity issues are basically entirely based on the Max not flying, and piling up inventory," says Sheila Kahyaoglu, aerospace equity analyst at investment bank Jefferies. "It puts a strain on the stock."

Boeing also needs 737 Max production and deliveries to flow to support a struggling supply chain – companies Boeing will need to underpin its eventual 737 replacement, says Michel Merluzeau, aerospace analyst at consultancy AIR. "All the other associated suppliers [must] get themselves back into a cash-flow positive situation," Merluzeau says. "Failure to do so by the [autumn] introduces all





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sorts of issues."

While 737 Max recertification may be imminent, the bar has been set high. FAA administrator Steve Dickson insists his agency will clear the Max only when it is safe.

In a recent hearing he laid out the remaining steps before certification. In addition to flight testing, a Joint Operations Evaluation Board composed of representatives from the FAA, other countries' regulators and pilots, must complete a pilot training assessment. Then, a Flight Standardization Board must develop pilot training requirements and a Technical Advisory Board must evaluate final Max design documents.

The FAA will lastly issue an airworthiness directive laying out actions airlines must take to resume Max flying, Dickson said.

Although issues with the Max's Maneuvering Characteristics Augmentation System (MCAS) triggered the grounding, *The Seattle Times* recently reported that European and Canadian regulators are seeking other, non-MCAS-related changes to its flight-control system. However, regulators may allow those changes to be addressed after certification.

In addition to the grounded Max 8 and Max 9, Boeing is still seeking certification for its Max 7, Max 10 and a high-capacity, 200-seat Max 8 variant. Boeing has disclosed few recent details about those certification efforts.

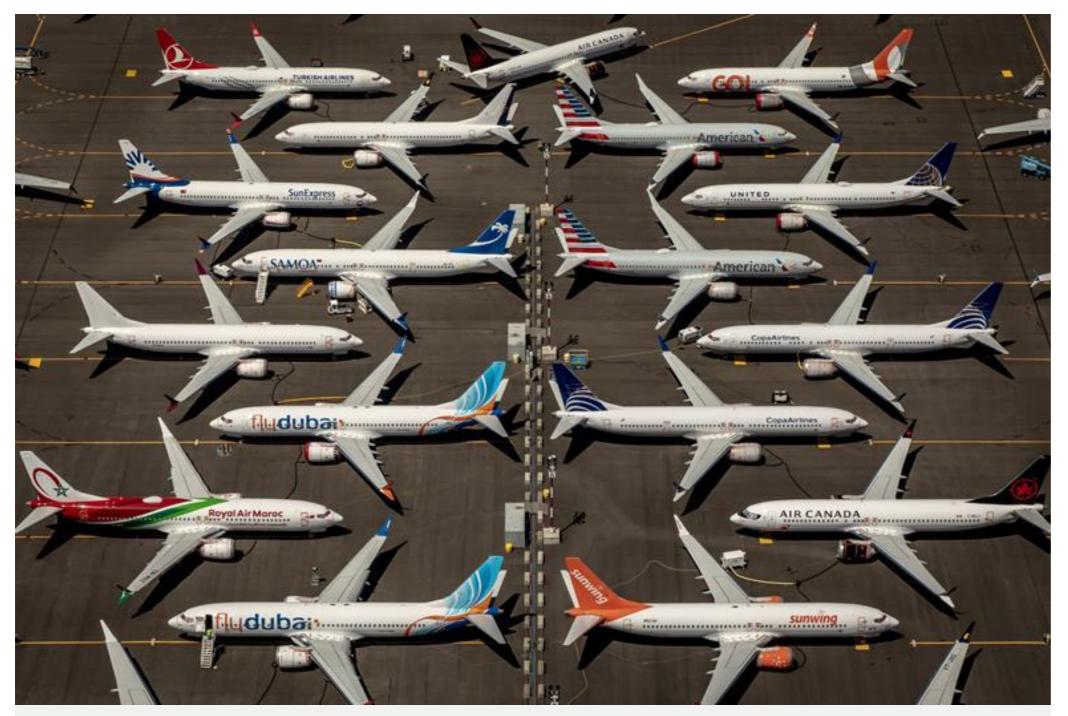
PRODUCTION

After the March 2019 grounding, Boeing continued producing Max aircraft, resulting in a stockpile of about 450 undelivered jets before halting production in January this year. Then in late May, it resumed work at a "low" but unspecified rate. Boeing says it will ramp up production at a "very gradual pace" that will increase to 31 aircraft per month in 2021.

Jefferies expects Boeing to produce and deliver 45 Max aircraft in 2020, but it predicts that deliveries will outpace production next year as Boeing also delivers stockpiled examples. It estimates the airframer will produce 198 and deliver 360 Max aircraft in 2021, then produce 372 and deliver 480 in 2022.

At that rate, Jefferies reckons it will be mid-2024 at the earliest before Boeing draws down its 450strong stockpile.

But the Max will be returning to a market that bears little resemblance to the ramp-up days of 2019. Today, "nobody needs new jets", says Teal Group aerospace analyst Richard Aboulafia. Speaking during a recent webcast hosted by the American Institute of Aeronautics and Astronautics, he noted that in a typical down year, airlines might ground 12% of their aircraft, but this year groundings hit an "all-time high" of 65%. However, some airlines, such as those that already secured financing, will surely want to take Max deliveries once regulators clear the jet, Aboulafia adds.



Source: Gary He/EPA-EFE/Shutterstock Boeing 737 Max aircraft parked at Boeing Field in Seattle in July as the global grounding continued

Today's aircraft market reminds Merluzeau of the 1990s-2000s tech bubble and the past decade's real estate boom: "You have a surplus of capacity, of available assets, that you need to process through before you get back to an equilibrium of demand."

Between January and May, Boeing logged 313 Max cancellations and removed from its backlog another 320 aircraft ordered by customers that Boeing suspects may be unable to take delivery. Those adjustments brought Boeing's May backlog to 3,776 Max aircraft.

The world's airlines may cancel more orders for Max and other types, including the competing Airbus

A320. But additional cancellations might be minimal because government aid packages have kept most airlines out of bankruptcy, says Aboulafia. He also notes that Boeing headed off some cancellations by renegotiating sales contract provisions that can otherwise allow customers to cancel orders for aircraft grounded for more than a year.

"So far backlogs are holding up," Aboulafia says, noting airlines have cancelled less than 1% of commercial aircraft orders since the pandemic started. "Deferrals are another story. Deferral requests are coming thick and fast."

Boeing has said it is working to accommodate customers by deferring deliveries and swapping Max orders for other jets when possible. This year's Max cancellations include at least 19 aircraft that airlines converted to other types, Boeing says.

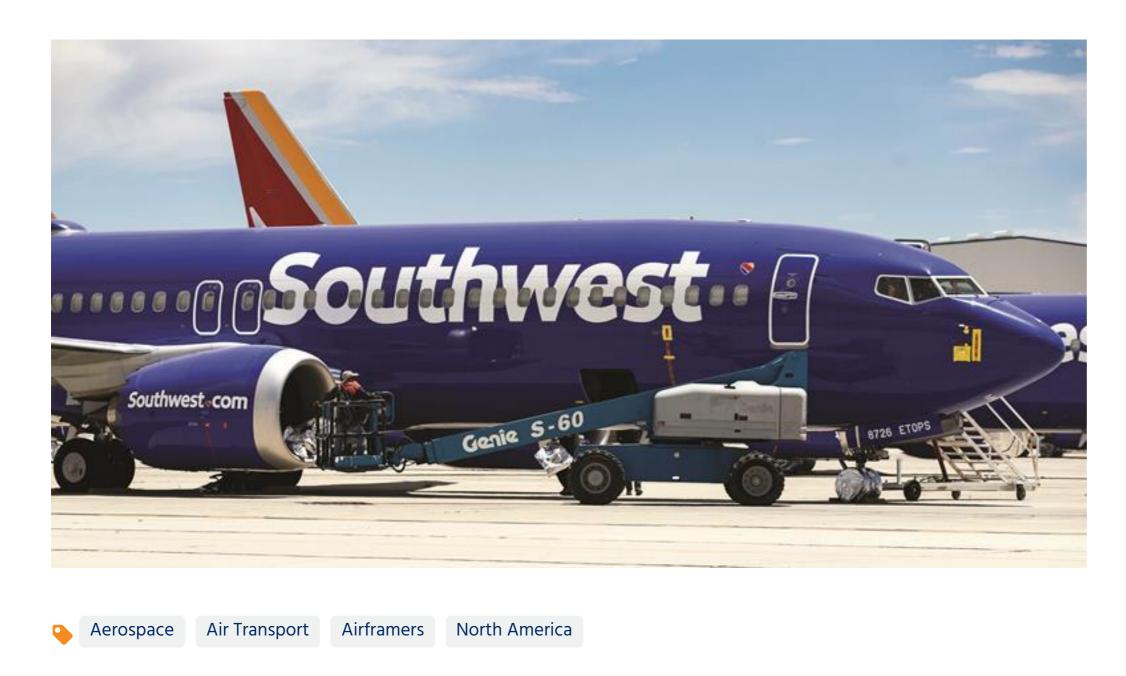
Jefferies views orders from lessors and airlines from Latin America and the Middle East, as most "at risk" for deferrals. Those customers hold some 1,200 Max orders, or 30% of the backlog. The Jefferies report cites particular uncertainty about orders from Flydubai, Lion Air and SpiceJet – carriers that have far more Max orders than aircraft in their current fleets.

WHAT NEXT?

The size of the Max backlog and the programme's financial recovery may also affect Boeing's plan to develop a replacement narrowbody. In Merluzeau's view, "Boeing needs [the Max] for at least the next decade to just prepare themselves financially for what's coming after."

Boeing's current Max backlog would allow for about seven and a half years of production at a 42aircraft monthly rate. And although more cancellations could materialise, so too could new orders, especially post recovery. But the Max's struggles, and risk that Airbus might act first, could lead Boeing to launch its own narrowbody replacement a bit earlier than the ideal time. "Boeing will probably... do something sooner to gain customer traction," Merluzeau says, suggesting a programme launch could come between 2025 and 2028 with service entry in the early 2030s.

But jumping too early has risks; the aircraft could be unable to accommodate advanced powergeneration technologies, new composite structures or improved production automation. "One wonders", he adds, "how much can Boeing regain from a strategic initiative standpoint? How much can Boeing prepare for what is coming from Airbus."





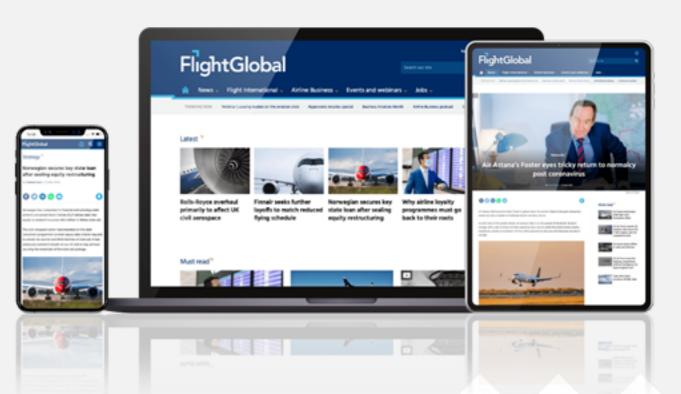
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