

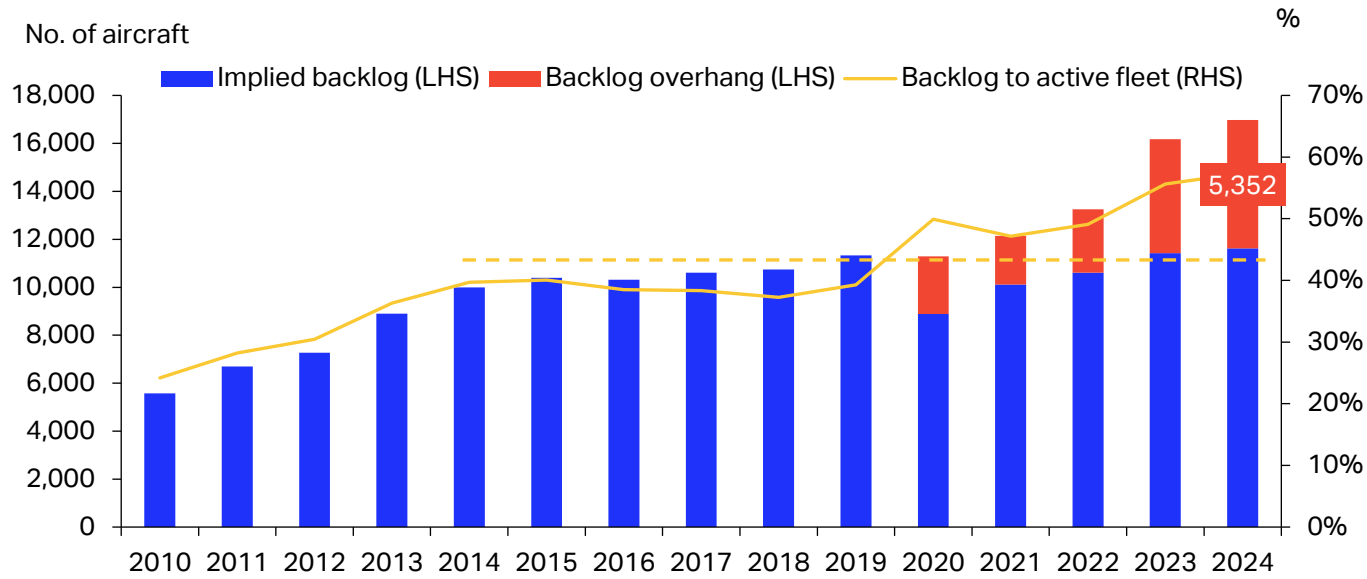


Chart of the Week

20 June 2025

How many aircraft are we missing?

Implied backlog, based on the constant ratio to the active fleet and implied overhang of backlog compared with the historical average



Source: IATA Sustainability and Economics, Cirium Fleets Analyzer

- Aircraft shortages have become a severe capacity constraint, limiting airlines' ability to satisfy growing demand. Persistent supply chain disruptions, particularly in engine manufacturing and component logistics, cause delays in deliveries of new aircraft, ground existing planes, and prolong the operational life of older, less efficient aircraft models.
- The roots of today's bottlenecks can arguably be traced to lean manufacturing models and just-in-time inventory management. The pandemic then brought production to a near standstill, leading to labor attrition, supplier insolvencies, and lost industrial know-how.
- These pressures have now become rather structural. When manufacturers run backlogs that stretch over more than a decade, airlines have to adjust their fleet planning, investment timelines, and cope with different competitive dynamics across the industry as a consequence.
- How large is the global aircraft shortfall? One way to answer the question is to assume continued trend growth in the production of aircraft, averaging 1.7% per year over the past decade. Under this assumption, the market has accumulated a shortfall of approximately 4,814 aircraft between 2019 and 2025. We can also integrate the aircraft order backlog in the estimation. Today, the backlog is at a historic high. If we compare this to a situation with a stable historical ratio of the backlog to the active fleet, it suggests that the industry is short of 5,352 aircraft, or an additional 538 aircraft short.
- Utilization metrics provide further evidence. Available Tonne Kilometers (ATK) per aircraft reached a record 54 million in 2024, compared to 42 million on average in the decade to 2019. If this increase in utilization were solely a response to aircraft scarcity, it would imply a structural shortfall of around 3,092 aircraft.
- Finally, for further perspective, had there not been the covid-period or any other demand shocks, an additional 10,000 aircraft would be needed today to meet that theoretical demand. This illustrates the magnitude of the supply gap and underscores the severe impact supply-chain disruptions have on the airline industry.

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economics@iata.org