

Boeing 737 Max 9

Impact of aircraft type's temporary grounding

January 2024

FAA temporarily grounds Boeing 737 Max 9

Alaska Airlines incident sparks grounding

Following a January 5, 2024 incident involving a Boeing 737 Max 9 operated by Alaska Airlines, the U.S. Federal Aviation Administration (FAA) issued an emergency airworthiness directive against the aircraft type. It called for the temporary grounding of certain Max 9 aircraft operated by U.S. airlines or in U.S. territory (operated by non-U.S. airlines to the U.S.). The ruling was directed at aircraft installed with the same mid-cabin exit door plug, which appeared to have been torn off the Alaska Airlines aircraft.

Very soon after the incident occurred, Alaska Airlines grounded its entire fleet of 65 Max 9s. United Airlines, the only other U.S. operator of the Max 9, and its biggest customer to date, also grounded its fleet of 79 aircraft. From their initial inspections, both carriers found installation issues relating to the door plug on the Max 9.

By January 8, the FAA had approved and issued to affected carriers a method to comply with its directive.¹ This will clarify the inspection process for the grounded aircraft and any requirements for returning them to service. The FAA requires operators to complete enhanced inspections, including both left and right cabin door exit plugs, door components and fasteners. By its own initial estimates, United Airlines believes the inspection process could involve up to five technicians working for several hours on each aircraft.²

[It's not clear when inspections can formally start or when the first aircraft may return to service.](#) Operators must also complete corrective action requirements based on findings from the National Transportation Safety Board (NTSB), which is only in the early stages of its investigation. As its enquiries proceed, the NTSB may make broader safety recommendations, if needed.

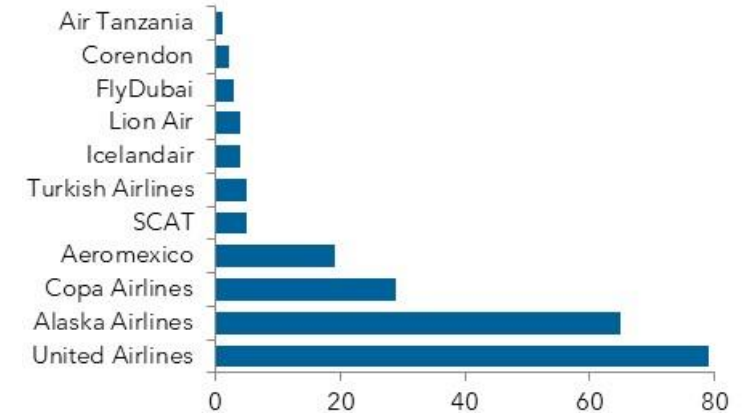
11 airlines impacted around the world

The global Boeing 737 Max 9 fleet currently comprises [217 aircraft](#). With 79 examples, United Airlines is the world's largest operator of the type, closely followed by Alaska Airlines. Panamanian carrier Copa Airlines quickly joined the U.S. carriers in suspending the operations of its entire fleet of 29 Max 9s. But the disruption to its schedule may only be brief. Even before the initial findings of the NTSB investigation had been released, Copa Airlines claimed to have initiated the necessary technical inspections. It expects its Max 9s to resume operations in a matter of days.

Despite having a different configuration to the Alaska Airlines aircraft, Indonesia has temporarily grounded the three Max 9s in Lion Air's fleet until further notice. Turkish Airlines has grounded all five of its Max 9s to enable a precautionary examination of the aircraft. The aircraft will remain grounded until the technical investigation and any recommended remedial measures are completed.³

In India, aviation regulator, the Directorate General of Civil Aviation (DGCA), ordered a one-time [precautionary](#) inspection of the emergency exits on all Boeing 737 Max 8 aircraft.⁴ No Indian carriers presently operate the Max 9, but the decision impacted low-cost carrier Akasa Air's entire fleet of 22 aircraft, which are all Max 8s, as well as aircraft operated by Air India Express and SpiceJet. The disruption, however, proved to be temporary, with the regulator reporting that all inspections had been performed satisfactorily.

Boeing 737 Max 9 operators

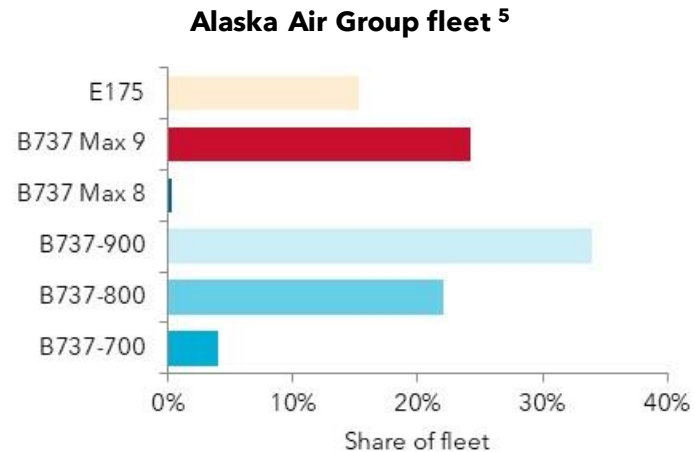


Impact on Alaska Airlines of Max 9 grounding

One quarter of group's aircraft grounded

Alaska Airlines has grounded its entire fleet of 65 Max 9s. Across the wider Alaska Air Group, which includes regional operator Horizon Air, the Max 9 was the second most common aircraft type in operation. Before the grounding, it had accounted for 24% of the entire group fleet and 29% of Alaska Airlines' own fleet, which is built around various Boeing 737 models.

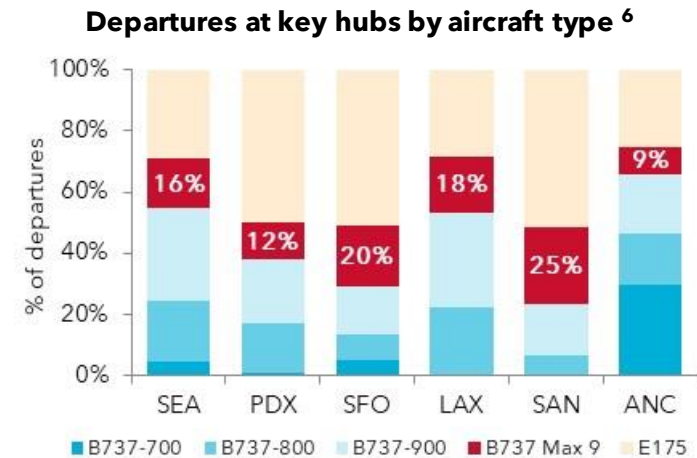
The grounding of the Max 9 has affected 21% of the seat capacity that Alaska Air Group was originally scheduled to operate in the week commencing January 8, 2024.⁶



Variable impact on Alaska Air Group network

The impact of the grounding varies across Alaska Air Group's network. At what is by far its largest hub, Seattle (SEA), the Boeing 737 Max 9's contribution to the schedule is modest at 16% of departures. But this figure rises to 25% at San Diego; albeit one of the airline's smaller operations.

Faced with a sudden shortfall of capacity, Alaska Airlines cancelled flights on routes where the Max 9 operated. Depending on the duration of the grounding, the effects may even spread to routes where the Max 9 was not previously deployed. Alaska Airlines might transfer other Boeing 737 models from marginal routes to backfill capacity lost in more profitable markets. Or it may even consider switching some Horizon Air Embraer E175 from regional to mainline routes.



Potential impact on Alaska Airlines' schedule at Seattle

Boeing 737 Max 9 operations from Seattle Tacoma airport

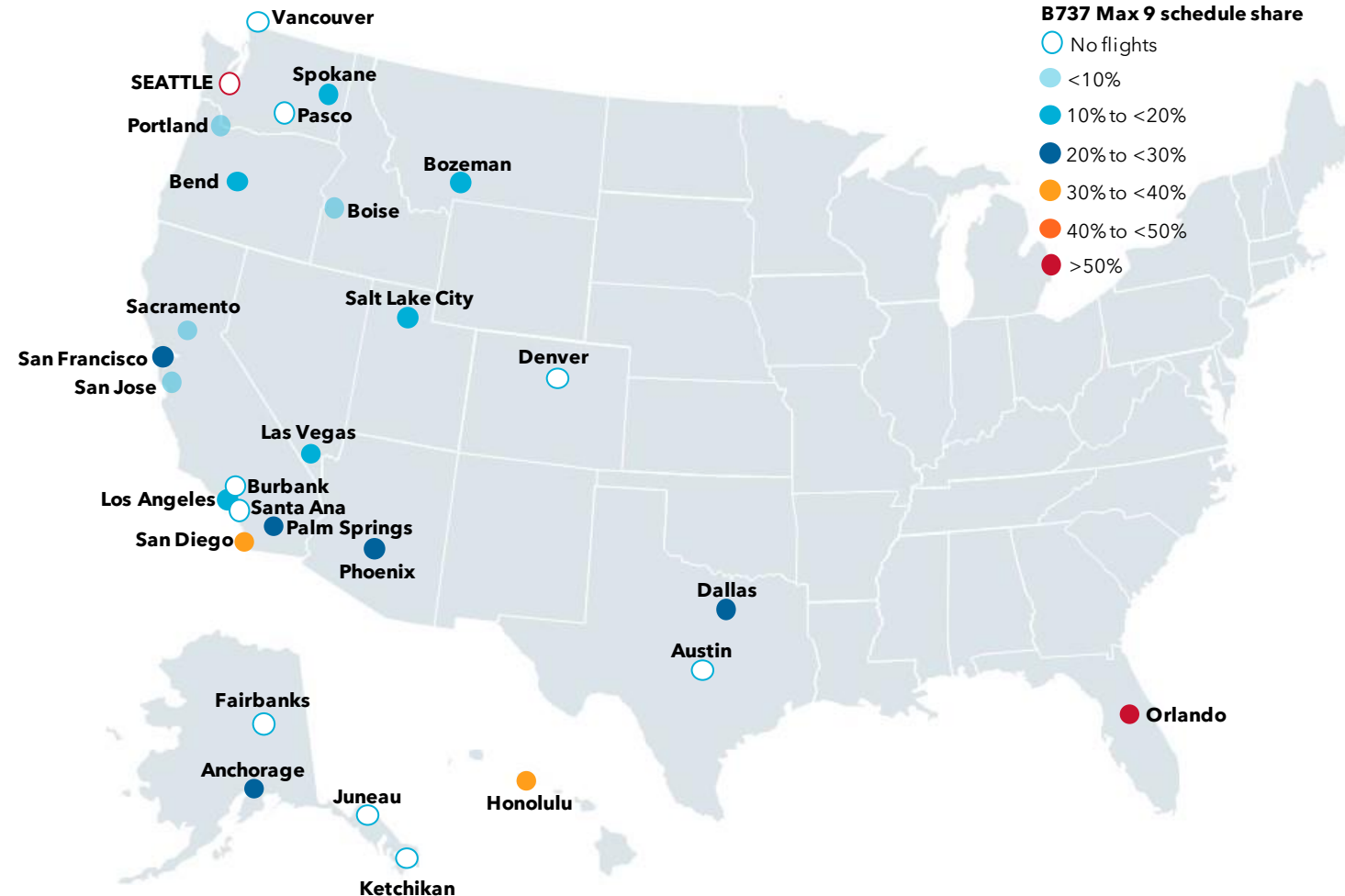
Seattle-Tacoma International Airport is Alaska Air Group's most important hub, accounting for 25% of its systemwide departures. Focusing on those routes where it operates three or more daily flights, an assessment has been made of the vulnerability of the schedule to the grounding of the Boeing 737 Max 9.

Nine of the top 27 routes should not be directly affected, as the Max 9 is not deployed. Flights within Washington state and to destinations in nearby states Idaho, Montana, Oregon, Utah and northern California should also see limited impact.

At more risk are services to Anchorage, Dallas, Palm Springs, Phoenix and San Francisco. But many of these routes are served with high frequencies, so passengers may find that alternative flights on other aircraft types are available in the schedule.

Around one-third of the schedule from Seattle to Honolulu and San Diego relies on the Max 9. Its withdrawal should have a noticeable impact.

Alaska Airlines' 25 weekly flights from Seattle to Orlando appear to be the most exposed, with 20 (80%) of the flights dependent on the Max 9.



United Airlines and the Boeing 737 Max 9

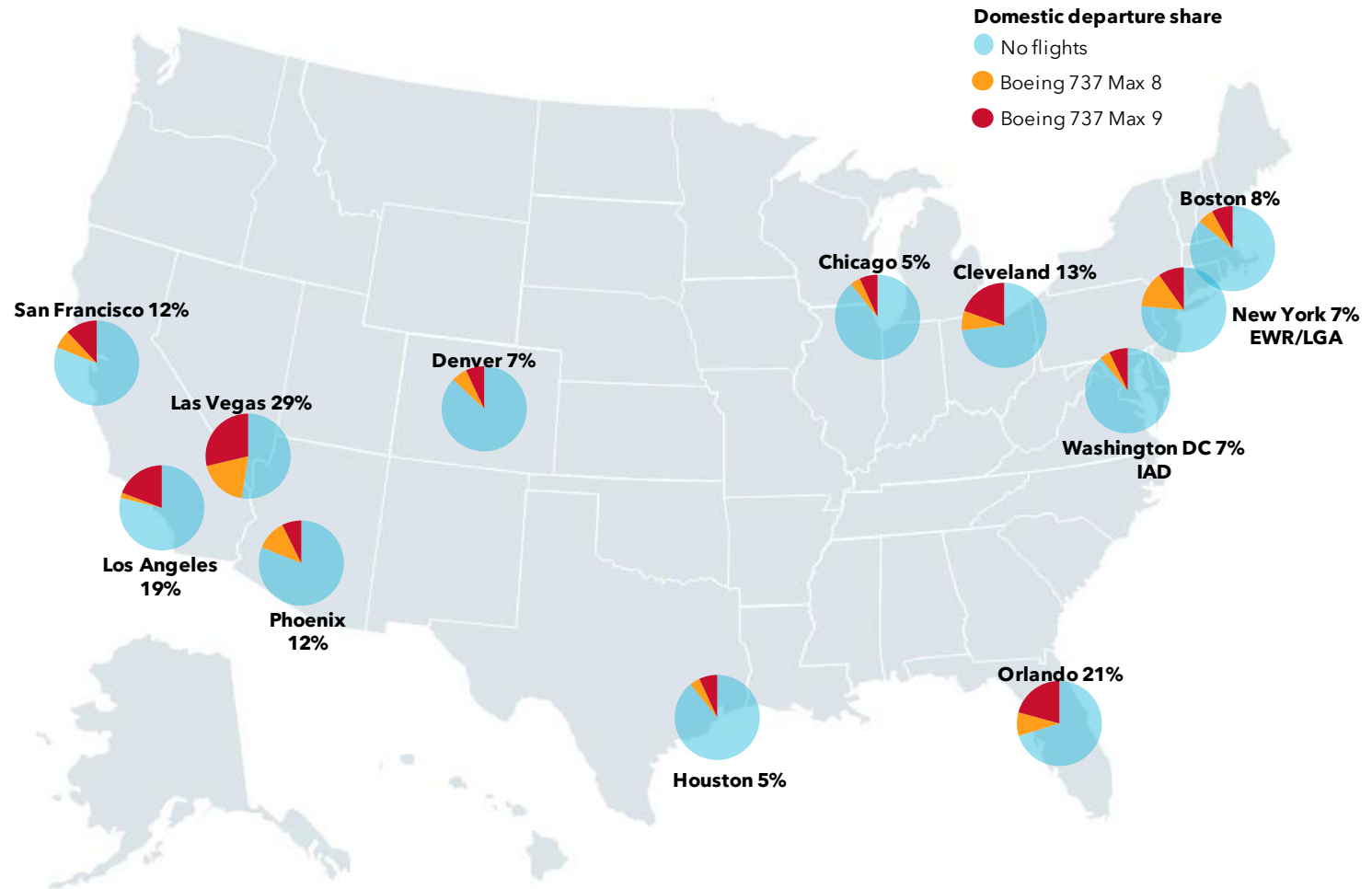
Exposure of domestic operations to the Max 9

On Jan. 8, 2024, United cancelled 226 flights, or 8% of its scheduled departures, with significant cancellations expected on Jan. 9.⁷ However, by switching to other aircraft types, it has been able to avoid around 30 cancellations per day.

Across its domestic network, United Airlines typically relies on the Max 9 for 7% of its flights. But the type's contribution to the domestic schedule varies considerably across the airline's top U.S. hubs.

The grounding of the Max 9 is likely to have the biggest impact at Las Vegas, United's ninth-largest domestic operation. The type is used for almost 30% of the airline's 279 weekly departures from the airport. Most exposed is San Jose, where all four of the weekly services rely on the Max 9. The type also accounts for more than 40% of United flights to Chicago, Los Angeles and San Francisco.

United's schedules at its seventh- and eighth-largest hubs, Los Angeles and Orlando, may also be vulnerable, with one-fifth of departures at each airport using the Max 9. At Los Angeles, Max 9s operate at least 75% of the flights to Baltimore, Kona and Kahului. At Orlando, San Francisco service is particularly exposed, with Max 9s used on 73% of flights.



End

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Note: Analysis may be based on data sourced from third parties