

## Safety fears over ageing US jet fleet

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The **US airline industry** could face more incidents similar to the fuselage rupture that forced a **Southwest Airlines** jet to make an emergency landing last week as the fleet ages, say safety experts and former government officials.

“Southwest may be the tip of the iceberg in terms of looking at problems. You have most of the major carriers getting a considerable amount of time on their fleet,” said Jim Hall, a former chairman of the National Transportation Safety Board, the federal agency that investigates aviation accidents.

The Southwest episode has jolted the industry. **Southwest temporarily grounded 79 aircraft** and US regulators ordered airlines to make additional inspections of older Boeing 737 models. About 175 aircraft will initially be affected.

Although investigators are examining the specific incident, problems associated with ageing aircraft have long been recognised. Each time an aircraft takes off, the cabin is pressurised, inflating the fuselage like a balloon and fatiguing metal joints and causing cracks.

Experts say it was no surprise a Southwest aircraft was affected. As a short-haul operator known for its quick turnarounds, its fleet does more cycles – take-offs and landings – than peers.

Tom Hendricks, senior vice-president of safety, security and operations at the Air Transport Association, said that accidents due to aircraft age were “extremely rare” thanks to vigilance and co-operation between airlines, regulators and manufacturers.

The Federal Aviation Administration introduced an ageing aircraft programme in 1988 requiring more scrutiny of older aircraft after the Aloha Airlines accident in which one person died when sections of the fuselage broke away in mid-flight. But the issue remains a concern. According to data from Ascend, the aviation consultancy, the average age of the US fleet has increased over the past decade, as airlines’ financial constraints have limited the purchase of new equipment.

In November 2010 the FAA introduced rules to tackle “widespread fatigue damage” in aircraft. The rules require makers to evaluate the resilience of their aircraft and could force operators to retire aircraft once they become susceptible to metal fatigue.

Predicting when fatigue might cause an accident is not easy. On Tuesday, Paul Richter, Boeing’s chief engineer for out-of-production aircraft, said the company had anticipated issues with joints on older 737s, but not until later in their life.

William Voss, head of the Flight Safety Foundation, a non-profit body that campaigns for aviation safety, said the FAA had been moving in the right direction but that a more proactive approach was vital.

“We were already inspecting a row of rivets three feet away from where this other section broke lose [on the Southwest aircraft] but the same level of inspection wasn’t required in this other area,” Mr Voss said.

John Goglia, a maintenance expert and former NTSB member, said the “band aid” approach to monitoring and repairing known areas of weakness needed to be replaced by a top-to-bottom review of heavily used aircraft, preferably by the FAA.

Safety experts have concerns about the alternative to old aircraft – newer models with new materials. “We know quite a bit about cracks and repairs in metal structures,” Mr Voss said.

“The worry is that as we move into an age of composite materials we will have to climb the learning curve again.”

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