

Boeing 757-28A, G-OOOB, 19 February 2001 at 1440 hrs

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INCIDENT

Aircraft Type and Registration: Boeing 757-28A, G-OOOB
No & Type of Engines: 2 Rolls-Royce RB211-535E4 turbofan engines
Year of Manufacture: 1987
Date & Time (UTC): 19 February 2001 at 1440 hrs
Location: Las Palmas
Type of Flight: Public Transport
Persons on Board: Crew - 9 - Passengers - 232
Injuries: Crew - None - Passengers - None
Nature of Damage: APU bleed air duct burst
Commander's Licence: Airline Transport Pilot's Licence
Commander's Age: 42 years
Commander's Flying Experience: 12,469 hours (of which 6,776 were on type)
Last 90 days - 132 hours
Last 28 days - 62 hours
Information Source: Aircraft Accident Report Form submitted by the pilot

History of the Flight

The aircraft was allocated to a scheduled passenger flight from Las Palmas to Glasgow. During taxi for departure a loud bang was heard in the rear cabin by passengers and cabin crew in the rear galley. The cabin crew supervisor advised the flight crew of the event. The flight crew had not heard the bang, but had been aware of a slight change in the cabin pressure. There were no abnormal indications on any of the flight deck displays. After a short discussion with the cabin crew who had heard the event, the commander elected to return to stand. During the shut down checks on stand, the flight crew were advised of smoke in the rear cabin. As the aircraft was parked on a remote stand and airstairs were not available, the commander ordered an emergency evacuation using the emergency escape slides. The evacuation drills were completed and the aircraft was successfully evacuated with no serious injuries.

Some difficulties were experienced by the flight crew in communicating with the Chief Fire Officer at Las Palmas because of his poor command of English and it was necessary to utilise the airline's local handling agent to relay information to him.

Engineering investigation

It was established that the event had been caused by the rupture of an Auxiliary Power Unit (APU) bleed air duct, which had failed at a welded joint. There was no evidence of a fire. The duct, part number 212N3076-9, is one of a series of ducts which carry pressurised air supplied by the APU compressor to the air conditioning packs, to enable conditioned cabin air to be provided whilst the aircraft is on the ground. The duct is not normally pressurised in flight. The failed duct was located close to the forward bulkhead of the aft cargo compartment, behind cargo compartment liner panels and was surrounded by insulation material. The smoke reported in the rear cabin is likely to have been dust and insulation material which was blown into the cabin after the duct ruptured. The duct had been fitted since aircraft build in 1987 and had accumulated 60,474 hours and 20,717 cycles since new.

After the incident the operator carried out an inspection of the APU ducts on the remainder of their Boeing 757 fleet. Two other part number 212N3076-9 ducts were found with cracks and were replaced. These ducts were also installed at aircraft build and had accumulated in excess of 55,000 hours and 18,000 cycles.

In 1989 the aircraft manufacturer made a design change to the APU ducts to stress relieve them after manufacture and carry out a hydrostatic test. The part number of the 212N3076-9 duct was changed to 212N3076-10 to reflect the design change. The aircraft manufacturer had incorporated this as a production change only and so no Service Bulletin was issued to allow aircraft already in service, such as G-OOOB, to be modified with the new duct.

The operator has since replaced all of the -9 ducts on his fleet with the -10 ducts. There have been no reports to date of any failures of the -10 ducts.