
Electrical smoke on climb, Boeing 777-236, G-VIIE

Micro-summary: This Boeing 777-236 experienced electrical smoke in the cabin on climb.

Event Date: 1999-08-08 at 2000 UTC

Investigative Body: Aircraft Accident Investigation Board (AAIB), United Kingdom

Investigative Body's Web Site: <http://www.aaib.dft.gov/uk/>

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Boeing 777-236, G-VIIE

AAIB Bulletin No: 1/2000 **Ref: EW/G99/08/08** **Category: 1.1**

Aircraft Type and Registration: Boeing 777-236, G-VIIE

No & Type of Engines: 4 General Electric 90-85B turbofan engines

Year of Manufacture: 1997

Date & Time (UTC): 8 August 1999 at 2000 hrs

Location: En route over Bristol

Type of Flight: Public Transport (Passenger)

Persons on Board: Crew - 15 - Passengers - 261

Injuries: Crew - None - Passengers - None

Nature of Damage: None

Commander's Licence: Airline Transport Pilot's Licence

Commander's Age: 46 years

Commander's Flying Experience: 10,235 hours (of which 192 were on type)
Last 90 days - 45 hours
Last 28 days - 29 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

During the climb after departure from London Heathrow (LHR), whilst passing FL260, a blue/grey haze and acrid fumes were noted in both the flight deck and the passenger cabin. An emergency was declared as a 'PAN' and a return to LHR commenced. The flight crew went onto oxygen immediately and actioned the smoke removal and fuel jettison checklists. A normal autoland was completed, the runway was cleared, and after the fire services confirmed that there were no signs of smoke, the aircraft was taxied to the stand for a normal disembarkation.

During diagnosis on the ground the engines and their associated air-conditioning packs were run, as well as the Auxiliary Power Unit (APU). The defect was not reproduced. Engine and APU pneumatic ducting were found to be free of signs of oil residue or contamination. However, further inspection of the APU buffer air circuit revealed that its vent tube was blocked.

As a result of several previous experiences of oil contamination resulting from the APU buffer air system, which supplies air pressure to the back of the carbon seal at the rear of the APU load compressor, it was decided to replace the APU as a precaution. The left air-conditioning pack dual heat exchanger was also changed for suspected oil contamination. On completion of this work,

engine and APU ground runs were carried out and no odours were noted. The aircraft has re-entered service with re-occurrence of the problem.

The APU was returned to the manufacturer for investigation under warranty.