
Smoke on takeoff, BAe 146-200, EI-COF at Manchester Airport

Micro-summary: Smoke on takeoff led to this BAe 146-200 declaring an emergency and diversion

Event Date: 1997-11-24 at 2000 UTC

Investigative Body: Air Accident Investigation Unit (AAIU), Ireland

Investigative Body's Web Site: <http://www.aaiu.ie/>

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AAIU Report No:- 1998/ 010
AAIU File No:- 19970057
Published: 26/11/1998

Aircraft Type and Registration:- BAe 146-200, EI-COF
No. and Type of Engines:- Four(4) AVCO Lycoming ALF 502R/3A
Year of Manufacture:- 1983
Date and Time (UTC):- 24 November 1997; circa 2000 hrs
Location:- Manchester Airport
Type of Flights:- Public Transport
Persons on Board:- Crew - 5 Passengers - 43
Injuries:- None
Nature of Damage:- None
Commanders Licence:- Airline Transport Pilot's Licence
Commanders Age:- 57 years
Commanders Flying Experience:- 17,400 hours
Information Source:- AAIU Accident/Incident Report, submitted by the Commander.

History of the Flight

On 24 November 1997, EI-COF departed Dublin for London City Airport at 1930 hours. A strong smell of fumes was noticed by all the crew during take-off and initial climb out, which became worse as the flight progressed. (On an earlier sector the same fumes were noted but they quickly dissipated).

All the crew then experienced stinging of the eyes and nose, dryness of the throat, headache and breathing discomfort. The cabin crew were more affected than the cockpit crew, who also said that they experienced some dizziness. The source of the fumes could not be isolated by alternate Pack operation.

At FL 210 an emergency was declared to ATC by the Wallasey VOR and, while extreme difficulty was found trying to operate and communicate with ATC with oxygen masks donned, the flight diverted to Manchester Airport where it landed without further incident. There were no complaints from the passengers regarding the air quality.

Aircraft Examination

After extensive engine ground running by the Operator, the fault was traced to the No. 3 engine. Fumes and smoke in the cabin were caused by oil from the No. 1 bearing seal entering the bleed air system. The aircraft was then flown to Malmo Airport, with the bleed air selected OFF, for an engine change.