Pressurization failure, Boeing 737-204ADV, EI-CJG

Micro-summary: **This Boeing 737-204ADV experienced a pressurization failure in cruise.**

Event Date: **2002-10-15 at 0650 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 737-204ADV, EI-CJG

AAIB Bulletin No: 4/2003	**Ref: EW/G2002/10/12**	**Category: 1.1**
INCIDENT		
Aircraft Type and Registration:	Boeing 737-204ADV, EI-CJG	
No & Type of Engines:	2 Pratt & Whitney JT8D-15 turbofan engines	
Year of Manufacture:	1994	
Date & Time (UTC):	15 October 2002 at 0650 hrs	
Location:	25 nm north of Birmingham Airport	
Type of Flight:	Public Transport	
Persons on Board:	Crew - 5	Passengers - 122
Injuries:	Crew - None	Passengers - None
Nature of Damage:	None	
Commander's Licence:	Airline Transport Pilots Licence	
Commander's Age:	46 years	
Commander's Flying Experience:	15,900 hours (of which 9,080 were on type)	
	Last 90 days - 170 hours	
	Last 28 days - 40 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and subsequent AAIB enquiries	

The aircraft was on a flight from Prestwick to Beauvais and was level at FL330 in the vicinity of Birmingham when the pressurisation warning horn sounded. The crew observed that the cabin altitude had exceeded 10,000 feet and was continuing to climb at about 400 ft/min. They hoped to be able to control the cabin altitude manually but as a precaution, they asked ATC for clearance to descend, initially to FL250. They then donned their oxygen masks and carried out the checklist procedure. Whilst executing the procedure, it became apparent that the cabin pressure control valve was in the closed position, although the cabin altitude was continuing to climb. Unable to control the cabin altitude, the crew then commenced an emergency descent notifying ATC. ATC then cleared them to FL100 and maintained their separation from other aircraft during the descent.

Although the cabin pressure exceeded 10,000 feet, throughout the incident it remained below 14,000 feet: the altitude at which the passenger masks automatically deploy. However, on being called to the flight deck to be briefed on the situation, the senior cabin crew member manually deployed the passenger oxygen masks. This was done in accordance with company standard procedures; whenever they see the pilots wearing their oxygen masks during a decompression, the cabin crew had been trained to deploy the cabin masks manually if they had not deployed automatically.

During the emergency descent the commander noticed the cabin pressure, now being manually controlled, was descending rapidly at about 2,000 feet per minute and ordered the First Officer to reselect the pressure control to automatic. Having done so the cabin pressure continued to descend but at a more normal rate of between 500 and 700 ft/min. When the aircraft was level at 10,000 feet the crew requested a diversion to Stansted where they carried out an uneventful landing. The emergency services were in attendance, however the only reported problem was with one lady passenger who felt nauseous. After being examined by paramedics she was able to continue her journey that day, along with the other passengers, on another aircraft.

The aircraft which had suffered the decompression underwent engineering checks at Stansted, although no fault could be found. As a result, the aircraft was flown pressurised but without passengers, to the companys main engineering base for further investigation. There an intermittent fault was then found with the cabin pressure control valve. The cabin pressure controller and the pressure control panel were replaced before the aircraft was returned to service.