

BAe 146-100, G-MABR

AAIB Bulletin No: 1/2004	Ref: EW/G2003/06/30	Category: 1.1
INCIDENT		
Aircraft Type and Registration:	BAe 146-100, G-MABR	
No & Type of Engines:	4 Lycoming ALF502R-5 turboprops	
Year of Manufacture:	1984	
Date & Time (UTC):	26 June 2003 at 1350 hrs	
Location:	160 nm NW of Nice, France at FL250	
Type of Flight:	Public Transport (Passenger)	
Persons on Board:	Crew - 5	Passengers - 67
Injuries:	Crew - 2 (Minor)	Passengers - None
Nature of Damage:	Nil	
Commander's Licence:	Airline Transport Pilot's Licence	
Commander's Age:	37 years	
Commander's Flying Experience:	9,000 hours (of which 2,000 were on type)	
	Last 90 days - 30 hours	
	Last 28 days - 10 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

The aircraft was established in the cruise at FL250 en route from Manchester, Lancashire to Nice, France. Some minutes before the incident, high intensity (red) radar returns were detected straight ahead of the aircraft, which indicated the presence of cumulonimbus activity, and the pilots requested and received approval from ATC to deviate to the east of this weather. The seat belt signs were selected to ON and the cabin crew made a public address announcement requiring passengers to return to their seats and fasten their seat belts.

The aircraft was passing about 20 nm to the east of the intense weather activity, when the pilots noticed a low intensity (green) weather return on the radar about 10 miles ahead. They selected 10 nm range on the radar and the return seemed to grow and split. The pilots selected a route to pass between the indicated weather but, as they were clearing the area of these radar returns, the aircraft experienced a sudden and severe turbulence encounter. The autopilot tripped to OFF and the aircraft pitched to about 15° nose-up before the crew were able to intervene manually. The pilots estimated that the encounter lasted about one minute, during which the aircraft climbed to about FL255.

In the passenger cabin, two of the three cabin crew were able to sit down, but the Senior Cabin Crew Member (SCCM) was unable to reach her seat and crouched in the aisle during the encounter. Drinks were thrown into the air and a significant number of overhead baggage lockers opened, spilling their contents on to passengers. Fortunately, none of the passengers were injured but the SCCM and one other cabin crew member required treatment for minor injuries. Two passengers, although physically uninjured, required medical attention.

Discussion

Occasional, heavy thunderstorms had been forecast for the route and, in such conditions, it is not unusual to find rapidly building cells appearing on the radar. Since the weather was detected at short

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range the pilots had to plan their avoidance quickly, and they chose what appeared to be the best route through the area of low intensity activity.

The injuries to the two cabin crew members were caused by the fact that they were not seated at the onset of the turbulence and the sudden and severe nature of the encounter. The operator has issued a safety notice to cabin crew requiring them to check that baggage does not protrude beyond the forward edge of the locker sill before closing and that they should make a visual check that the locker latch is engaged once the door is closed.