

ACCIDENT

Aircraft Type and Registration:	Cameron Z-275 hot air balloon, G-CDIH	
No & Type of Engines:	None	
Year of Manufacture:	2005	
Date & Time (UTC):	8 August 2009 at 1905 hrs	
Location:	Keynsham, Bristol	
Type of Flight:	Commercial Air Transport (Passenger)	
Persons on Board:	Crew - 1	Passengers - 13
Injuries:	Crew - None	Passengers - 1 (Minor)
Nature of Damage:	Damage to balloon basket consisting of scuffs, buckling and a small hole. Ornamental stone steps damaged	
Commander's Licence:	Commercial Pilot's Licence (Balloon)	
Commander's Age:	35 years	
Commander's Flying Experience:	969 hours (of which 103 were on type) Last 90 days - 11 hours Last 28 days - 3 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

Following an uneventful flight, varying wind conditions and a late change of touchdown point resulted in the balloon striking an obstacle on the ground. The balloon basket was damaged and one passenger sustained minor injuries. The obstacle, stand-alone ornamental steps, was also damaged.

History of the flight

The balloon had departed from Ashton Court Estate, on the outskirts of Bristol, at 1810 hrs for a local sightseeing flight. At the end of the flight, the pilot selected a landing site at a sports field that was suitable for the forecast conditions and which he had used before. About nine other balloons had already landed at the

site, including one piloted by the operator's chief pilot. The balloon pilot estimated that the surface wind was from 230° at about 4 to 8 kt, based on the distance he had observed some of the other balloons being dragged across the ground during their landings. This compared with a wind of 260°/5 kt which had been forecast for the Bristol area. Accordingly, the pilot established the balloon on an approach to the field and stopped the descent at a height of about 30 ft, 300 m from the property boundary. While level, the wind veered to 290° at 6 kt and the pilot selected a position just inside the boundary as his landing point. At a distance of about 30 m from the boundary the chief pilot called up to him, advising that the balloon was going to land on

a golf putting green. In order to avoid damage to the green, the pilot climbed the balloon to a height of 50 ft and selected what he thought was a suitable landing site about 300 m further on. His view of this landing site was slightly obscured by trees but the pilot was confident that this would only be relevant if the wind backed again towards a direction of 230°. He operated the parachute¹ to initiate a relatively steep descent into this site, at which point the wind backed and increased in strength, possibly as much as 12 kt. The balloon drifted into the area of the landing site that had been obscured from the pilot's view, revealing stand-alone ornamental stone steps. The pilot attempted to abort the landing by operating two burners but this had little effect, so he switched off the burners and deployed the deflation system fully.

The balloon basket struck a low pillar on the end of a wall on the stone steps, which penetrated the basket structure at a point where there was no padding. The basket was dragged through another low wall on the

steps and came to rest, on its side, approximately 5 to 10 m further on. One passenger who was braced against the non-padded section of the basket received bruising to his back, which required an overnight stay in hospital.

Pilot comment

The pilot commented that his decision making was based on the forecast and observed winds and that he did not leave sufficient margin for the unexpected. The balloon landed with one hour of fuel remaining but with only about 30 minutes of daylight available. His inability to abort the landing was, he believes, due to the wind curling over the tops of the adjacent trees.

Witness comment

An experienced balloon pilot, who was flying in the area at the time and witnessed the accident, confirmed that the surface wind was greater than that at altitude and commented that other balloons appeared to have found the landing conditions challenging.

Footnote

¹ The balloon deflation system which allows the controlled release of hot air (venting) and the complete deflation of the envelope.