

ACCIDENT

Aircraft Type and Registration:	Cameron N-77 hot air balloon, G-BEEI	
No & Type of Engines:	None	
Year of Manufacture:	1978 (Serial no 249)	
Date & Time (UTC):	25 March 2012 at 1707 hrs	
Location:	Bozeat, Northamptonshire	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - 2
Injuries:	Crew - 1 (Minor)	Passengers - 1 (Minor)
Nature of Damage:	Minor burns to basket and holes in balloon envelope	
Commander's Licence:	Private Pilot's Licence (Balloons)	
Commander's Age:	18 years	
Commander's Flying Experience:	26 hours (of which 20 were on type) Last 90 days - 2 hours Last 28 days - 1 hour	
Information Source:	Aircraft Accident Report Form submitted by the pilot and further enquiries by AAIB	

Synopsis

The balloon sank unexpectedly during an approach to land and struck high voltage transmission lines, coming to rest with the basket suspended about 15 m above ground level. The three people on board, two of whom sustained very minor injuries, were rescued by the emergency services once the power lines were confirmed safe.

History of the flight

The balloon took off in good weather conditions and an east-north-easterly wind of about 5 to 8 kt. On board were the pilot and two passengers. The flight progressed uneventfully at about 500 ft agl, in the company of five other balloons. About 15 minutes before the accident,

the pilot flew an approach to low level at an alternative landing site before climbing again, experiencing no adverse conditions. Groundspeed was steady at about 5 kt.

The pilot identified a landing site in playing fields on the eastern side of the town of Bozeat, about 7.5 nm downwind of the takeoff location. Although the field itself was otherwise ideal, 132 kV transmission lines ran adjacent to it, from approximately north-west to south-east, passing about 250 m to the east of the field. This meant that the balloon would need to pass over them on its approach to land.

A few minutes before the accident, the pilot of another balloon, which was flying about 1 km ahead, called the pilot of G-BEEI to warn him that he had experienced windshear at a height of about 160 ft agl, while landing in the same area.

The pilot of G-BEEI continued the approach, flying towards the power lines and descending to fly level about 20 m above them. Suddenly he became aware that the balloon was descending steeply toward the power lines, so he put both burners on. He quickly realised that the balloon would not avoid the wires, so he turned off both pilot lights and took action to rapidly deflate the balloon, to minimise the risk of the more vulnerable basket and burner/fuel lines contacting the power lines.

The balloon struck the power lines above burner and basket height and then slid along them until it came to rest against a support pylon, with the basket suspended about 15 m above ground level. The pilot and one passenger sustained very minor singeing injuries and a small fire in the basket quickly extinguished itself. The pilot disconnected hoses from the fuel tanks, while witnesses alerted the emergency services, who quickly arrived on scene.

Circuit protections operated correctly to remove electrical power instantaneously when the balloon came into contact with the transmission lines. Before emergency services could be permitted to commence rescue operations, strict safety protocols and procedures had to be followed to ensure that circuits were correctly isolated and earthed. As the accident site was on the border of two electricity distribution network operators, this process was made more difficult and entailed the attendance of engineers at three separate locations. Consequently, rescue operations did not commence until about 2130 hrs.

The pilot, who gained his licence about six months earlier, reported that he had encountered a level of windshear on the approach which was greater than he had experienced before. Other pilots in the group that day also reported experiencing low level windshear, both in the landing area and en route.

The pilot later considered that he had not made an allowance for the possibility of unusual atmospheric effects in response to the other pilot's warning. Faced with a similar situation in future, he said he would aim to modify his approach accordingly or seek a more appropriate landing site.