

**AAIB Bulletin No: 9/94**

**Ref: EW/G94/05/06**

**Category: 3**

**Aircraft Type and Registration:** Cameron A-250, G-BUZY

**No & Type of Engines:** N/A

**Year of Manufacture:** 1993

**Date & Time (UTC):** 2 May 1994 at 0745 hrs

**Location:** Near Williton, Somerset

**Type of Flight:** Public Transport

**Persons on Board:** Crew - 1                      Passengers - 17

**Injuries:** Crew - 1 Minor                      Passengers - 8 Minor

**Nature of Damage:** Moderate to basket and burners, minor to envelope

**Commander's Licence:** Commercial Pilot's Licence (Balloons)

**Commander's Age:** 35 years

**Commander's Flying Experience:** Approximately 2,000 hours (of which 570 were on type)  
Last 90 days - 11 hours  
Last 28 days - 6 hours

**Information Source:** Aircraft Accident Report Form submitted by the pilot

The balloon departed Taunton at 0645 hrs for a Public Transport passenger flight. The BBC weather forecast for midday on the day of the accident gave a surface wind of 160°/15 kt, 20 miles visibility and no significant weather. The commander's weather observation at the launch site at 0645 hrs indicated a surface wind of 145°/03 kt, 20 miles visibility and no significant weather. A passenger observed that there was a gentle breeze at the time of the takeoff.

The flight progressed in an uneventful manner with a climb to 2,000 feet and the balloon drifting in a northwesterly direction towards the North Devon coast. At some time during the flight, the passengers were briefed on the correct procedure to be adopted during landing, ie to face away from the direction of landing, bend the knees slightly and maintain a firm grip on the handholds provided. Approaching the coast, the commander remarked to some of the passengers that he was now looking for a landing site as he did not wish to run out of suitable places before reaching the sea. As the balloon descended, passengers became aware that the balloon was travelling quite fast, one estimated the speed as 25 mph as they crossed low over the roof of a barn during the final approach. The commander estimated that the wind on landing was 12 to 15 kt and an aftercast provided by the Meteorological Office at

Bracknell gave the surface wind in the area as 10 to 15 kt gusting to 20 kt. The aftercast also stated that 'there may have been some local variability in the winds experienced at the crash site as a result of local topography, especially given the vicinity of the Quantock Hills to the south east of Williton.'

On landing in a field of long grass, the balloon bounced at least once in what the passengers describe variously as a 'crash' and 'a real thud'. The commander stated that after landing from a normal approach, he was pulling 'enthusiastically' on the parachute line which spills air rapidly from the top of the balloon on landing, when the basket tipped over and he was pulled out by the pressure being exerted by the parachute line. A passenger who was sharing the pilot's compartment also fell from the basket at this time.

Following the loss of two occupants, the residual lift of the balloon exceeded its weight and it began to climb. The commander, who was slightly injured during his exit from the basket, ran after the balloon calling to the passengers to pull on the parachute line to reduce the lift of the envelope. Before the dazed and confused passengers were able to comply with the commander's instructions, the balloon had climbed to over 100 feet. Once the parachute line had been pulled, the balloon began a rapid descent. At some stage, one of the passengers had pulled a rotation line which allows the balloon to rotate about its vertical axis and the passengers were now facing in the direction of travel of the balloon instead of the preferred orientation for landing of having their backs to the direction of travel. The basket's initial ground contact was with the A358 road. It then bounced into a seven foot high hedge before toppling onto its side back onto a pavement bordering the road. The balloon's recovery team and friends of the passengers who had been following the flight in cars were quickly on the scene and attended to the injured passengers. The emergency services were quickly on the scene and several passengers were taken to hospital. None were detained.

The commander considered that a faster than average horizontal speed, a higher than usual vertical speed and the hard nature of the ground combined to produce a firm but not exceptionally heavy landing and, in the absence of any other factors, he would not have anticipated any problems on touchdown. However, he considered that the additional factors of the unexpectedly high back pressure on the parachute line together with the possibility that the passenger who was occupying the pilot's compartment with him may not have been holding on as briefed, exacerbated the situation to the point where the accident occurred.

The British Balloon and Airship Club recommends that pilots of Public Transport balloon flights wear a restraint harness but there is no current regulation in the Air Navigation Order that requires them to do so. At the time of the accident the CAA was investigating the feasibility of introducing a requirement for pilots of Public Transport balloon flights to have an approved form of restraint during critical phases of flight. This work is on going and, depending on its outcome, an appropriate recommendation will be considered.