

Thunder and Colt 180 A Balloon, G-BSUU, 28 April 1996

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Aircraft Type and Registration: Thunder and Colt 180 A Balloon, G-BSUU

No & Type of Engines: Nil

Year of Manufacture: Not known

Date & Time (UTC): 28 April 1996 at 0750 hrs

Location: Westergate, Sussex

Type of Flight: Public Transport

Persons on Board: Crew - 1 Passengers - 9

Injuries: Crew - Nil Passengers - 1 Minor

Nature of Damage: Wicker basket abraded

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

Commander's Age: 58 years

Commander's Flying Experience: 1500 hours - (Balloons)

Information Source:

AAIB inquiries following initial reports to the British Balloon and Airship Club by the operator

History of the flight

A pleasure flight in a hot air balloon had been planned for 28 April 1996 from Petworth, West Sussex for nine passengers, comprising seven young adults and two children aged 6 and 8. The pilot had obtained a detailed 'ballooning' meteorological forecast from Bristol the previous evening and backed this up with a further forecast from Bracknell at 0500 hrs on 28 April. Both forecasts indicated ideal conditions for the flight with a surface wind of 360°/5 to 8 kt, good visibility and little cloud. The weather conditions at the launch site were described by the passengers as 'clear, calm and sunny'. Once the passengers were installed in the basket they were briefed by the pilot on the landing procedure and were required to demonstrate their understanding of this briefly by adopting the correct positions.

The take off and initial portion of the flight were described by the pilot as 'entirely normal' and by the passengers as 'peaceful, pleasant and uneventful'. As the balloon crossed the South Downs the pilot became aware of a significant increase in the wind from about 5 kt to about 15 kt with some attendant light turbulence. He began to look for a suitable landing area, selected Tangmere airfield and told the passengers to prepare for the landing. However, he discontinued this approach when he suspected that the balloon would drift towards an extensive area of glass houses. He then selected another field which he described as 'ideal' and proceeded to land.

The touchdown was described by the pilot as 'firm' and by the passengers as a 'pronounced thump' and then the basket tipped over. It was then dragged on its side for approximately 150 metres before coming to rest with the open end of the basket against a bramble hedge and with the canopy deflated across an adjacent railway line. The pilot had already shut the burner fuel off and extinguished the pilot light. He climbed from the basket followed by the passengers, some of whom had trouble extricating themselves from the brambles. Once the pilot had ascertained that there were no injuries his focus switched to the canopy draped over the live track. The pilot called the police using his mobile telephone and his support crew using his radio and told both parties to contact British Rail and ask for the power to be switched off. Meanwhile he remained close to the track to attempt to warn any approaching trains.

When the police arrived they first of all informed the pilot that trains had been stopped and, later, that the power had been removed from the line. The pilot then went back to the passengers and asked if anybody was hurt in any way. One of the passengers complained of a cut hand and a bang to the head but declined the offer of a first aid kit. All the passengers then helped to recover the basket and the canopy and joined in a celebratory glass of champagne before returning to Petworth and then departing on their own.

Balloon Investigation

This particular model of balloon had entered service with an original deflation system which consisted of a parachute which plugged a hole; when the parachute was pulled away the air escaped

through the now open hole at the top of the balloon canopy. Problems identified in service with this system were that the deflation hole was less than optimal and that the routing of the operating cords to initiate deflation could be improved to reduce friction and thus response time. Modifications to address these issues were incorporated by the manufacturers but, since the original design met current airworthiness requirements, it was not mandated and therefore not incorporated in this particular balloon by its successive owners.

This was the first flight of G-BSUU since its acquisition by the operator. Since the incident the Chief Pilot (who was also the commander of the incident flight) arranged for the operating limits for this particular balloon to be restricted to surface wind conditions that do not exceed 8 kt. Flights in it were to take place only in the evenings when the wind condition and hence landing speeds were expected to be lower. Subsequently some 50 flights have been successfully operated without incident.