

No: 9/92

Ref: EW/C92/7/2

Category: 1c

**Aircraft Type and Registration:** Piper PA-28-161 Cherokee Warrior II, G-BPJT

**No & Type of Engines:** 1 Lycoming O-320-D3G piston engine

**Year of Manufacture:** 1988

**Date & Time (UTC):** 12 July 1992 at 1628 hrs

**Location:** Oxford Airport, Kidlington, Oxfordshire

**Type of Flight:** Training

**Persons on Board:** Crew - 2                      Passengers - None

**Injuries:** Crew - 2 fatal                      Passengers - N/A

**Nature of Damage:** Aircraft destroyed

**Commander's Licence:** Airline Transport Pilot's Licence

**Commander's Age:** 40 years

**Commander's Flying Experience:** 4,818 hours (of which 141 hours were on type)  
Last 90 days - 61 hours  
Last 28 days - 39 hours

**Information Source:** AAIB Field Investigation

Sunday 12 July 1992 was the day of the British Grand Prix motor race at Silverstone and Kidlington Airport was in use as a feeder airport for helicopters to refuel and transfer passengers to and from the race circuit. There was therefore, unusually for a weekend, a large number of aircraft movements at Kidlington. The weather was fine with a moderate westerly surface wind and the grass runway 27 was in use.

At about 1619 hrs the PA-28, G-BPJT (JT) with an instructor and student on board was cleared for take off at the pilots' discretion for a training flight of circuits and landings. At 1620 hrs the Sikorsky S-61N helicopter, G-BHOF radio callsign Pink Echo (PE), reported approaching the Kidlington zone. The Kidlington Aerodrome Flight Information Service Officer (AFISO) advised PE to report low level via the eastern boundary, and this was acknowledged. At 1622 hrs JT reported that he was downwind for a 'touch and go' and, one minute later, PE reported on finals for runway 27. The AFISO advised PE to land at the pilots' discretion. At 1625 hrs JT reported on finals for runway 27 and was advised by the AFISO to 'standby'. The surface wind at the time was reported to be 260°/08 kts.

At 1627 hrs PE came to the hover over runway 27 and then commenced a left turn to hover-taxi clear of the left side of the runway and thence towards the helicopter refuelling point. The Sikorsky S-61N commander reported that the helicopter was heavy and that he needed to use high engine power (varying between 75% and 95% torque) to hover-taxi. Eye witnesses observed JT descend on final approach to a height of about 30 feet agl before the engine power was heard to increase as a go around was initiated. As the nose of the aircraft was raised and some right bank smoothly applied, the aircraft was observed to flick suddenly to the right to approximately 90° of bank, whereupon the nose dropped and it descended steeply to the ground. Both pilots received fatal injuries at impact.

The ground impact marks and distribution of the wreckage showed that JT had struck the ground on a heading of about 298° M, on its right wingtip whilst banked steeply to the right. Immediately after the initial ground contact, the aircraft had yawed to the right and the right wing had collapsed allowing the nose to strike the ground about 40 feet beyond the first impact mark. Following this the aircraft had inverted, striking the ground with the left wing before coming to rest on the asphalt taxiway, with the fuselage on a heading of about 210° M

Examination of the engine and propeller showed that, at impact, the engine was turning and producing relatively high perhaps full power. The positions of instruments and controls were examined and indicated that the flaps had probably been selected at 25°; full throttle was applied with the mixture set fully RICH and the carburettor heat OFF. The positions of the flying control surfaces at impact could not be established, however, the rudder pedals were jammed in a position corresponding to a demand for full left rudder. The fuel selector was selected to the right side tank. This tank was broken up and contained no fuel but the left tank contained significant quantities of 100 LL AVGAS.

The aileron control cables had suffered failures at four places in the region of the cabin, however one of these was a deliberate cut made by personnel of the emergency services to permit a wing to be removed from the main wreckage. The three other failures exhibited tensile characteristics combined with evidence of cutting; there was much evidence of cables being pulled through airframe skin and structure; this had resulted in strands of each cable being pulled and cut as break up of the aircraft structure had occurred. The cables terminated close to the instrument panel where they connected to a chain which ran around sprockets on each control wheel. The chain was disconnected from both wheels. The controls and instrument panel had suffered major damage and distortion in the impact. No evidence of any disconnection or other malfunction of the aileron system prior to ground impact was found.

The flap torque tube was in a position corresponding to full flap (40°) and possibly slightly over travelled. The torque tube had levers at its outboard ends which attached to links connected to the

flaps. In both cases these links had fractured due to overload at impact. There was no evidence of any asymmetry or other malfunction of the flap system prior to impact and apart from the breaks noted above, no disconnections or pre-existing defects were evident in any of the flying control systems.

The Chief Inspector of Accidents has ordered a Formal Investigation into the circumstances of this accident under the provisions of The Civil Aviation (Investigation of Air Accidents) Regulations 1989.