

No: 4/83

Ref: EW/C810/01

Aircraft: Cessna U206F Stationair G-BEVJ (light twin engine fixed wing aircraft)

Year of Manufacture:

Date and time (GMT): 23 January 1983 at 1330 hrs

Location: Ashford aerodrome, Kent

Type of flight: Private (parachuting)

Persons on board: Crew - 1 Passengers - 5

Injuries: Crew - Nil Passengers - Nil

Nature of damage: Minor damage to propeller, engine mounting and undercarriage

Commander's Licence: Commercial Pilot's Licence

Commander's Age: 26 years

Commander's total flying experience: 1,530 hours (of which 21 were on type)

The aircraft took off on a parachuting sortie with a pilot, a jumpmaster and four parachutists on board. At approximately 400 ft, after flap retraction and normal acceleration, the aircraft began to feel 'mushy', the right wing dropped slightly and the rate of climb decreased. The pilot had a strong impression that the aircraft was handling as if very close to a stall. He lowered the nose, increased power and checked the airspeed indicator, which showed 90 mph. He began a right turn back to the airfield and, although the airspeed was now 100 mph, the aircraft still felt unstable in roll, as if still in an incipient stall. Believing a safe landing to be in doubt, the pilot ordered the jumpmaster to evacuate the parachutists. Three were despatched but the fourth was ordered not to jump because the aircraft was by then below 500 ft.

The pilot completed the turn back to the airfield and began a gentle powered descent at approximately 120 mph. Unwilling to risk a change in the now more stable behaviour of the aircraft, he decided to land with flaps retracted. He touched down approximately half-way along the grass landing area and, realising that there was insufficient distance remaining to complete his landing roll, he attempted to steer the aircraft in a curve to the right. Due to the low friction of the grass surface, he was unable to make much change in the aircraft's direction of motion and, after it had turned through approximately 20° and was yawed to the right, it collided with a pile of wooden pallets stacked 45 metres from the airfield perimeter, which brought the aircraft to rest.

The aircraft had flown eight sorties on the previous day and the same pilot had flown one previous sortie on the same day as the accident. The aircraft had not exhibited any unusual handling characteristics during these earlier flights.

Subsequent investigation showed that the aircraft was operating within the prescribed weight and balance limitations, airframe rigging was symmetrical and within limits, and the airspeed indicator system showed no significant inaccuracy. Cable tension in the elevator circuit was zero with enough slack in the cables to allow an elevator float of 5°. Tension in the aileron circuit was also low; with an upward force of 30 lbs applied simultaneously to both ailerons, the control wheel could be rotated freely for one inch before resistance was felt.

A new propeller was fitted to the aircraft, which was then flown to its maintenance base for repair. No problems were found during this flight with the engine or engine controls, nor did the pilot report any unusual control characteristics. The aircraft was repaired, but control cable tensions were not adjusted at this stage. The aircraft was then air tested and found to be stable throughout its speed range. No abnormality was found in the feel of the controls but it was noted that the aircraft yawed to the right when flap was lowered and to the left when flap was raised. The aircraft was not ballasted for the air test and was thus some 364 kgs (800 lbs) lighter than when the accident occurred. The fuel imbalance was, however, reproduced for the air test.