

Aircraft type and registration:	Pilatus PC6-B2-H2 G-BIZP (light single engined fixed wing aircraft)	
Year of manufacture:	1981	
Date and time (GMT):	18 December 1983 at 1042 hrs	
Location:	Yarwell, Northamptonshire	
Type of flight:	Parachute dropping	
Persons on board:	Crew — 1	Passengers — 8
Injuries:	Crew — 1 (minor)	Passengers — Nil
Nature of damage:	Outboard section of right wing disrupted, ailerons and engine detached, fuselage buckled	
Commander's Licence:	Commercial Pilot's Licence (exercising the privileges of his Private Pilot's Licence)	
Commander's Age:	25 years	
Commander's total flying experience:	2350 hours (of which 700 hours were on type)	

The aircraft took off on the first flight of the day with eight parachutists, and a reported fuel load of 70 US gallons. At an altitude of approximately 11,000 ft it was decided that the cloud cover at that time was obscuring the dropping zone to an unacceptable degree, and so the detail was cancelled.

During the subsequent descent, on rolling out of a left turn at about 4,500 ft, a bang was heard, and the left aileron was seen to have become partially detached. After a violent lateral oscillation of the control column lasting a few seconds, the right aileron also became partially detached. At this stage the parachutists successfully abandoned the aircraft on the orders of the pilot. The aircraft then adopted an angle of bank to the right of approximately 45° despite the application of full left rudder. The descent was continued until the pilot realised that the aircraft was approaching the village of Yarwell; he therefore applied engine power to ensure that the aircraft would clear the houses. The bank angle then increased to 60° and the aircraft struck the ground right wing low, coming to rest upright, and facing the opposite direction. The pilot sustained minor injuries, and there was no fire.

Subsequent examination showed that, on each aileron, the centre of the three attachments to the wing had suffered an in-flight failure, leading to the subsequent detachment of one half of each aileron control surface. Detailed inspection revealed the presence of fatigue in each of the rear angle brackets, located within the wing, to which are attached the aileron supports. Preliminary indications are that the point of primary failure occurred at the left aileron rear angle bracket; the remaining brackets had failed subsequently as a result of overload.

The manufacturer's Service Bulletin No. 138, dated December 1982, replaced the original angle brackets with an improved attachment. Compliance with the Bulletin varied according to hours flown; on aircraft with up to 1000 hours, it had to be complied with during the next three periodic inspections (due at 100 hour intervals). G-BIZP had completed 999 hours at the time of the accident, the operator having obtained permission from the manufacturer to defer compliance with the Bulletin for a further 100 hours. In fact, the Bulletin was scheduled to be implemented immediately after the accident flight.

It is understood that the Swiss authorities have now issued an Airworthiness Directive, making compliance with the Bulletin mandatory. In the case of aircraft which are operating, or have operated, in the parachuting role (or a similar role), or have been subjected to overspeeding, the Bulletin must be incorporated before the next flight.

The Chief Inspector of Accidents has ordered an Inspector's Investigation into this accident.