Cessna 152, G-BPVJ

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Aircraft Type and Registration:	Cessna 152, G-BPVJ
No & Type of Engines:	1 Lycoming O-235-L2C piston engine
Year of Manufacture:	1978
Date & Time (UTC):	15 May 2000 at 1048 hrs
Location:	Hambleton Hill, 15 miles north of Leeds Bradford Airport
Type of Flight:	Training
Persons on Board:	Crew - 2 - Passengers - None
Injuries:	Crew - 2 Serious - Passengers - N/A
Nature of Damage:	Aircraft destroyed
Commander's Licence:	Airline Transport Pilot's Licence
Commander's Age:	32 years
Commander's Flying Experience:	3,800 hours (of which 1,100 were on type) Last 90 days - Not known Last 28 days - Not known
Information Source:	Aircraft Accident Report Form submitted by the flying training organisation and further enquiries

The instructor was conducting a flight forming part of the required training towards the issue of a Basic Commercial Pilot's Licence (BCPL) for the student. The pre-flight briefing was for a stall/spin awareness flight and included information about spin entry and recovery techniques. During the briefing the instructor indicated that he was not sure whether it would be possible to complete any spin training due to the cloudbase. The forecast weather conditions were for light southerly winds, visibility 6 km in haze, scattered cloud at 4,000 feet.

The aircraft took off from Leeds Bradford Airport Runway 14 at 0944 hours and departed from the control zone in a northerly direction. The instructor contacted Linton-on-Ouse and the aircraft operated in the Linton area under a radar information service. The aircraft was fitted with headsets and an intercom system which was being used by both pilots. The flight consisted of a number of training exercises including stall/spin awareness. After completing several stalls the instructor asked the student to put the aircraft into a spin to the left, reviewing the entry technique during the spin entry. The student, who had previous experience of aerobatics and spinning, entered the spin positively at 50 kt with a small amount of power on. The student was unable to recall details of the flight. The instructor stated that on being asked to recover the student initially did not take any

action and so the instructor closed the throttle. When the instructor again asked him to recover there was still no response. The instructor than took control and attempted to get out of the spin but the aircraft did not respond. At this stage the instructor described experiencing shock at the fact that there was no recovery, as in his previous experience the aircraft had always recovered easily. Full corrective control inputs did not appear to be effective so he returned the controls to the neutral position, checked the flap and throttle positions, and reapplied the opposite rudder and control column forward inputs. The aircraft still did not recover so he experimented with other control column positions and power settings. The aircraft broke out of the spin suddenly and he was able to level the wings and get the nose just above the horizon before the aircraft hit the ground.

The aircraft impacted the surface, a wet moorland area, in a level attitude, bounced forward some 23 metres hit the ground again and then broke apart. At 1048 hours Linton on Ouse, having lost contact with the aircraft, contacted Leeds Approach to enquire if they had any contact. Overdue action was initiated by Leeds at 1109 hours and the aircraft wreckage was located by another aircraft at 1139 hours. Two rescue helicopters arrived at the site at 1220 hours. The aircraft was fitted with lap straps and single shoulder straps which were being worn by both pilots. Both occupants had to be cut free from the aircraft and were then transferred to a local hospital by helicopter.

The instructor stated that he had climbed the aircraft to just below the cloudbase before commencing the spin. The track and altitude information for the flight was recorded by Leeds radar. The final contacts showed the aircraft had entered a slight climb reaching a highest point of 3,600 feet amsl before entering a very steep descent. The last recorded contact showed the aircraft at 2,000 feet amsl and still descending. The elevation of the accident site was 970 feet amsl, with terrain rising to 1,500 feet amsl within 5 nm. Instructions in the Flying Training Organisation's Operations Manual were that under no circumstances would a spin be entered below 4,000 feet agl and all recoveries must be completed by 3,000 feet agl.

Spin training is presently a required part of the syllabus for the BCPL course and Flight Instructor course but is not required for JAR CPL/ATPL licences. Experience with the Cessna 152 aircraft has shown that it will normally recover readily from a spin when the correct technique is used. Factors that may delay or prevent the recovery are; a lateral imbalance, an adverse C of G position, power remaining on, an incorrect recovery technique or recovering from a spin after a large number of turns.