

Robinson R22 BETA, G-BRXV

AAIB Bulletin No: 3/2000 Ref: EW/G2000/02/01 Category: 2.3

Aircraft Type and Registration: Robinson R22 BETA, G-BRXV
No & Type of Engines: 1 Lycoming O-320-B2C piston engine
Year of Manufacture: 1989
Date & Time (UTC): 2 February 2000 at 1450 hrs
Location: Headcorn Aerodrome, Kent
Type of Flight: Training
Persons on Board: Crew - 1 - Passengers - 1
Injuries: Crew - None - Passengers - None
Nature of Damage: Severed tail boom
Commander's Licence: Private Pilot's Licence (Helicopters)
Commander's Age: 48 years

Commander's Flying Experience: 2,303 hours (of which 2,286 were on type)
Last 90 days - 52 hours
Last 28 days - 20 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

An instructor pilot was carrying out continuation training for a PPL holder which included engine off landing practice. The weather conditions for the exercise were good with surface wind 290°/15 kts, visibility in excess of 10 km with cloud broken at 4,000 feet.

The flight was the first of the day and, consistent with his normal practice, the instructor briefed the student to perform a powered recovery from the autorotation with a fly away back into the circuit. This was successfully completed with no difficulty by the student without assistance from the instructor. Two further autorotations were flown to full engine off landings. The student was flying the helicopter with the instructor following through on the controls but not having to make any inputs. Both landings were of a high standard.

On the third engine off landing the autorotation was well controlled with the flare and use of the collective control lever to arrest the rate of descent appearing normal. The helicopter made a slightly heavier landing which resulted in a small bounce. This caused the helicopter to rock forward with the front of the skids digging into the soft ground. There was a bang from the rear of the aircraft, which was made by the main rotor blades striking the tail boom and severing it. The instructor took control and carried out the emergency shut down drills whilst informing ATC of his

situation. Both occupants exited the aircraft by the normal doors and, although the airfield fire service attended promptly, they were not required.

The instructor considered that the slightly heavier landing might have been caused by a sudden drop in wind speed leading to the increased rate of descent and possible aft movement of the cyclic to prevent the helicopter nosing over, causing the main rotor blades striking the tail boom.