

No: 10/90

Ref: EW/G90/07/35

Category: 2c

Aircraft Type and Registration: Robinson R22 Beta, G-BOYX

No & Type of Engines: 1 Lycoming O-320-B2C piston engine

Year of Manufacture: 1988

Date and Time (UTC): 18 July 1990 at 2005 hrs

Location: Teesside Airport, County Durham

Type of Flight: Private (pleasure)

Persons on Board: Crew - 1 Passengers - 1

Injuries: Crew - 1 (minor) Passengers - 1 (minor)

Nature of Damage: Damaged beyond economic repair

Commander's Licence: Private Pilot's Licence (A) with IMC and Night ratings
Private Pilot's Licence (H)

Commander's Age: 41 years

Commander's Total Flying Experience: 196 hours which includes 56 hours rotary wing (all on type)

Information Source: Aircraft Accident Report Form submitted by the pilot and subsequent AAIB enquiries.

The helicopter was hover taxied to the designated training area, on the southern side of the airfield, for a series of practice take-offs and landings. The surface wind was reported as 230°/10 kt and the temperature was 15° C. On approaching the area, the helicopter climbed to about 50 feet at a speed of about 20 kt. The height was increased to 80 to 100 feet in order to observe a specific part of the intended operating area. The passenger pointed out that the rotor rpm had increased to about 107%. The throttle setting was reduced and the collective lever was raised slightly. The pilot, having noted that this action had put the rotor rpm "in the green", continued to observe the area below. Shortly afterwards, the helicopter entered a descending right turn. The pilot was unable to say what specific control movements were made, but did recall that, when the collective lever was raised further, it had no effect on the rate of descent. An attempt was made to enter autorotation, but the aircraft continued to descend rapidly with no forward speed. The collective was raised to cushion the impact, and the helicopter came to rest on its righthand side.

The pilot carried out the shutdown checks and followed the passenger through a hole which he had made in the already cracked windscreen. It was later realised that the escape could have been made through the lefthand door which was unobstructed. Both occupants were wearing diagonal upper torso harness, which held on impact but did not restrain the passenger sufficiently to prevent his head striking the windscreen.

It was noted that, just prior to the accident, the helicopter had been operating in the avoid area of the height-velocity diagram for the Robinson R22.