

Robinson R22 Beta, G-BSCE

AAIB Bulletin No: 9/99 Ref: EW/G99/07/05 Category: 2.3

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

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

Year of Manufacture: 1989

Date & Time (UTC): 3 July 1999 at 1200 hrs

Location: Redditch, near Birmingham

Type of Flight: Private

Persons on Board: Crew - 1 - Passengers - 1

Injuries: Crew - None - Passengers - None

Nature of Damage: Landing gear (skid) bent

Commander's Licence: Private Pilot's Licence (Helicopters)

Commander's Age: 47 years

Commander's Flying Experience: 49 hours (all on type)
Last 90 days - 4 hours
Last 28 days - 2 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

The pilot carried out a satisfactory dual flight check with an instructor at Coventry Airport on the morning of the incident. The weather conditions were clear with a westerly wind of 20 kt and cloudbase at 3,000 feet. The pilot then flew with a passenger to Redditch where they planned to take aerial photographs of a field and some buildings. He carried out several circuits of the area at 700 feet and then made a circuit and low approach to enable the passenger to take photographs. The intention was to fly past the field and buildings at low level.

The final approach was made into wind at an indicated airspeed of 30 kt. The helicopter crossed some large trees at about 150 feet before descending to 100 feet to fly level. As the pilot attempted to level out he encountered turbulence which initially caused a yaw to the left. The helicopter continued to yaw to the left despite the pilot's attempts to correct it and he lost control. The helicopter lost height rapidly but the pilot was able to regain some directional control and managed to arrest the vertical speed just before hitting the ground.

The pilot, who described the landing as hard, got out of the helicopter and carried out an inspection. He observed that the right skid was bent but could see no other damage. He decided to fly the

helicopter within the area of the field to ensure that there were no control problems. Finding that the helicopter responded normally to the controls he departed and flew back to Coventry. The helicopter was then transported by road to a maintenance organisation for further inspection and repairs.

The helicopter was operating at close to its maximum weight and encountered turbulent conditions at low level. In these circumstances the helicopter did not have sufficient height or performance available. The pilot assessed the cause of the incident as the turbulence associated with the terrain that he had not anticipated. He also observed that the local wind conditions were gusty.