

ACCIDENT

Aircraft Type and Registration:	Robinson R22 Beta, G-CCVY	
No & Type of Engines:	1 Lycoming O-320-B2C piston engine	
Year of Manufacture:	1991	
Date & Time (UTC):	16 February 2008 at 1545 hrs	
Location:	2 nm north-east of Girvan, near Prestwick	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Severe damage to airframe and main rotor system	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	57 years	
Commander's Flying Experience:	6,728 hours (of which 136 were on type) Last 90 days - 56 hours Last 28 days - 10 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

The pilot was carrying out a landing on the top of a steep-sided hill at 1,200 ft amsl. The approach was normal with the carburettor heat selected to OFF in the latter stages of the approach. The surface wind was from the south-west at about 5-10 kt. As the aircraft descended through approximately 20 ft agl, the pilot raised the collective pitch control lever fully but the aircraft continued to descend and struck the ground heavily and rolled over. The pilot escaped uninjured.

The pilot considered that the aircraft had either encountered a downdraft or suffered a loss of power or possibly a combination of both.

History of the flight

The pilot had planned to depart from Prestwick and carry out a flight in the local area. Included in the plan was the possibility of landing on the top of a hill, which he had landed on, without problem, three days earlier. The wind was from the south-west at about 5-10 kt, the visibility was greater than 10 km, there was no significant cloud, the outside air temperature was +5°C, the dew point was -1°C and the local pressure setting was 1042 hPa.

The departure from Prestwick was normal and the helicopter climbed to an altitude of 1,300 ft. The carburettor heat was selected fully ON, where it remained until the approach to the hill, the top of

which was approximately 1,200 ft amsl. The pilot approached the hill from the south-west, which was the downwind leg of a left-hand circuit. The hill was steep-sided but had a large flat area on the top, which was to be his landing point. There was no indication of the wind direction and the pilot reduced the airspeed to about 50 kt and established a gentle rate of descent of 100 to 150 fpm. He selected the carburettor heat to OFF and reduced airspeed to about 20 kt as he passed the landing site.

At about 50 ft agl, and just beyond his landing site, he made a pedal turn to the left through approximately 150°. At a height of approximately 20 ft he raised the collective control lever at the normal rate in order to reduce the rate of descent. The helicopter continued to descend and the pilot raised the collective lever fully to cushion the landing. The left skid impacted the ground with sufficient force to break the skid cross

tube mounts and the aircraft rolled onto its left side. The main rotors struck the ground and the pilot stopped the engine. The pilot was uninjured and hearing fuel escaping he vacated the aircraft through the right door and moved away from the wreckage. He noted that the wind was more southerly than he had anticipated but that his final approach was generally into the wind.

He contacted Prestwick air traffic control on his mobile telephone to inform them of the accident and that he was not injured. He then made his way down the hill to seek assistance.

The pilot could not identify the specific cause of the accident. From the lack of response to his collective control inputs, he considered the helicopter had either encountered a downdraft or suffered a loss of engine power or possibly a combination of both.