

**ACCIDENT**

<b>Aircraft Type and Registration:</b>	Robinson R22 Beta, G-MOGY	
<b>No &amp; Type of Engines:</b>	1 Lycoming O-320-B2C piston engine	
<b>Year of Manufacture:</b>	1988 (Serial no: 899)	
<b>Date &amp; Time (UTC):</b>	30 October 2014 at 1258 hrs	
<b>Location:</b>	0.5 nm SE of West Chevington, Northumberland	
<b>Type of Flight:</b>	Training	
<b>Persons on Board:</b>	Crew - 2	Passengers - None
<b>Injuries:</b>	Crew - None	Passengers - N/A
<b>Nature of Damage:</b>	Helicopter destroyed	
<b>Commander's Licence:</b>	Commercial Pilot's Licence	
<b>Commander's Age:</b>	44 years	
<b>Commander's Flying Experience:</b>	2,019 hours (of which 1,133 were on type) Last 90 days - 189 hours Last 28 days - 48 hours	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot	

**Synopsis**

Whilst an instructor and student were practising circuits over a muddy stretch of open ground, the right skid dug into the surface and the helicopter rolled over, coming to rest on its left side. The instructor, who was in control at the time, believes several factors led to him misjudging the helicopter's height above ground when transitioning from the hover to forward flight.

**History of the flight**

The instructor and student were engaged on a training assignment identical to one they had practised the previous day. They departed Newcastle Airport to the north and commenced a series of autorotations from altitude with power recovery at a piece of open ground about 26 km from the airport. They then began circuit practice, which was performed into wind and in a right-hand direction.

At the time of the accident, the instructor was demonstrating a circuit to the student. During the transition to forward flight from the hover, having gained Effective Translational Lift (ETL), the instructor applied more forward cyclic control in order to gain speed. Simultaneously, he lowered the collective control to remain at the same height, as he felt that the extra lift was causing them to climb. However, it appears that these control inputs caused the helicopter to descend until the front of the right skid struck the ground and dug into the muddy, level

surface. The instructor also recalled that the helicopter was yawing to the left as it struck the ground, which he believes indicates that the collective had been lowered excessively. The helicopter pivoted forward and rotated to the right about the skid, before coming to rest on its left side. The instructor shut down the engine and both occupants evacuated through the shattered windscreens.

### Pilot's comments

The instructor cited a number of possible causal factors in the accident. Firstly, he states that the first part of his helicopter flying career was carried out in hot climates, which dictated that hover heights were generally lower due to power limitations and he was therefore comfortable with such heights. Secondly, the muddy nature of the field was conducive to inadvertent contact leading to dynamic rollover. Finally, the level, featureless surface may have created difficulties with depth perception at the time of the accident – an opinion he states was expressed by the crew of a police helicopter that attended the scene.