

ACCIDENT

Aircraft Type and Registration:	Hughes 500 Model 369E, G-MRRR	
No & Type of Engines:	1 Allison 250-C20R/2 turboshaft engine	
Year of Manufacture:	1991 (Serial no: 0473E)	
Date & Time (UTC):	24 March 2017 at 1740 hrs	
Location:	Reading, Berkshire	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - 1
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Right-hand skid collapsed, aircraft rolled over resulting in serious damage to the main rotors and tail rotor	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	33 years	
Commander's Flying Experience:	61 hours (of which 11 were on type) Last 90 days - 11 hours Last 28 days - 3 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

The helicopter was slowing to land at a private site, and to avoid overflying bystanders, the pilot modified his track and made his approach from the north-west corner of the site, over fields. As the helicopter entered the site, translational lift was lost and the pilot reacted by raising the collective and simultaneously applying left pedal. The helicopter started to spin in a clockwise direction whilst descending, but the pilot was unable to regain control and the aircraft landed heavily, damaging the skids and rolling over on to its side. The pilot and passenger vacated the aircraft unaided.

History of the flight

The pilot was concluding a short flight from the Cotswolds to a private site near Reading. As the aircraft approached the landing site from the west, at about 500 ft agl, the pilot turned the helicopter onto a northerly heading but noticed people on the river bank alongside so modified his track to fly across fields towards the north-west corner of the site. The wind at the time was assessed as 050° at 20 kt. As the helicopter entered the landing site it "appeared to lose translational lift" and the pilot reacted by "pulling power", that is, by raising the collective lever whilst applying left yaw pedal. The helicopter started to spin clockwise whilst descending and the pilot was unable to regain control. The helicopter spun several times, the pilot closed the throttle and the helicopter landed heavily on its skids. The right skid collapsed and the

helicopter rolled onto its side, causing damage to the main and tail rotor systems. The pilot and passenger were uninjured and vacated the helicopter unaided.

Discussion

In the pilot's own analysis, the most probable cause was that he pulled too much power to counter the loss of translational lift, as the helicopter slowed, with insufficient left yaw pedal input, resulting in the helicopter rotating out of control. He was unable to stop or reduce the rotation but also considers that the 20 kt wind from 050° "did not help the situation".

The helicopter was independently examined after the accident and the damage was consistent with the collapse of the right skid and rolling on to its side. There was no evidence of a pre-accident malfunction.