

# Hughes 269C, G-BSCD

**AAIB Bulletin No: 10/97 Ref: EW/G97/08/05 Category: 2.3**

<b>Aircraft Type and Registration:</b>	Hughes 269C, G-BSCD
<b>No &amp; Type of Engines:</b>	1 Lycoming HIO-360-D1A piston engine
<b>Year of Manufacture:</b>	1974
<b>Date &amp; Time (UTC):</b>	8 August 1997 at 1543 hrs
<b>Location:</b>	Redhill Aerodrome, Surrey
<b>Type of Flight:</b>	Aerial Work (Training)
<b>Persons on Board:</b>	Crew - 2 - Passengers - None
<b>Injuries:</b>	Crew - None - Passengers - N/A
<b>Nature of Damage:</b>	Damage to one main rotor blade, tail boom severed
<b>Commander's Licence:</b>	Airline Transport Pilot's Licence with Instructor Rating
<b>Commander's Age:</b>	41 years
<b>Commander's Flying Experience:</b>	4,530 hours (of which 530 were on type) Last 90 days - 100 hours Last 28 days - 40 hours
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot

The instructor was conducting a renewal Certificate of Test flight on a candidate who was the holder of an Irish Commercial Pilot's Licence (Helicopters). The candidate had a total of 250 hours flying experience, of which 130 hours were on the Hughes 269 type.

The helicopter was set up to conduct an "engine off" landing, into a surface wind of 270°/5 kt, on the south side of Redhill Aerodrome. The exercise was commenced from 1,000 feetagl. The autorotation was entered but the Indicated Airspeed was allowed to decay to about 40 to 45 kt, which was too slow to conduct a variable flare recovery. The instructor pointed out the low speed and the candidate initiated an acceleration to 55 to 60 kt, thus increasing the helicopter's rate of descent.

The flare recovery was initiated too low and progressed too slowly. The instructor took control but there was insufficient height to flare further. The instructor therefore levelled the helicopter in order to accept a fast run-on landing. The aircraft landed straight, fast and firmly on the skids but after a ground run of about 10 metres, the helicopter became airborne again for a distance that the instructor

estimated to be 18 metres. On the subsequent touchdown, again in a straight and level attitude, a 'buzz' was almost immediately felt through the airframe. After a ground run of a further 5 metres, a loud 'crack' was heard as the tail boom severed. The crew evacuated the helicopter once it had come to a halt.

The instructor commented that the fast run-on was not unusual. However, the high collective pitch demand to cushion the initial landing contributed to an extremely rapid decay in rotor RPM which occurred during the bounce. On landing again, the rotor flapped excessively, striking the boom. The instructor indicated that if he had intervened sooner, the accident would have been avoided.