

No: 10/90

Ref: EW/G90/07/27

Category: 2c

Aircraft Type and Registration: Hughes 269C, G-HUWS

No & Type of Engines: 1 Lycoming HIO-360-D1A piston engine

Year of Manufacture: 1973

Date and Time (UTC): 22 July 1990 at 2045 hrs

Location: Henbury Manor, Wimborne, Dorset

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - 1

Injuries: Crew - None Passengers - None

Nature of Damage: Serious damage to most of the airframe

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

Commander's Age: 59 years

Commander's Total Flying Experience: 80 hours (of which 78 were on type)

Information Source: Aircraft Accident Report Form submitted by the pilot

The pilot had been taking a group of family and friends, one at a time, for local rides in this helicopter and was returning from a refuelling stop at Compton Abbas to his landing site with his ninth passenger. As he approached the site in front of his house, the pilot recollected that everything appeared normal. However, having made a slow turn to the left, at a height of about 10 feet, to point the helicopter into wind, it commenced an uncontrolled 360 degree turn to the right. The next recollection he reported was of the helicopter lying on its side. After closing the throttle and cutting off the fuel, he extracted himself from his harness whilst bystanders assisted his passenger. There was no fire.

Initial examination of the aircraft revealed it to be complete, with the exception of the tail rotor guard, a curved steel tube mounted beneath the tail rotor gearbox. This was found some 40 metres from the wreckage but a detailed examination of it, and the tail rotor blades, showed that it most probably had been knocked sideways by ground impact and subsequently struck by both tail rotor blades during the accident sequence. This guard had failed in the region of the two attachment bolt holes at its upper end. A close examination of the fracture surface, however, revealed a small area of fatigue cracking, emanating from one hole, which had been exploited by, but had not caused, the final failure.

An examination of the tail rotor drive and control systems was carried out shortly after the accident by an engineer from the helicopter's maintenance organisation. It was reported that no pre-impact defects were found present in these systems.

It is a feature of this helicopter that any loss of tail rotor effectiveness can result in a right yawing moment with the main rotor under power.