No: 11/86 Ref: 1c

Aircraft type

and registration: Robinson R22 "Beta" G-BMWX

No & Type of engines: 1 Lycoming 0-320-B2C piston engine

Year of Manufacture: 1986

Date and time (UTC): 18 September 1986 at 1015 hrs

**Location:** Cranfield Airport

Type of flight: Training

**Persons on board:** Crew -2 Passengers - None

Injuries: Crew — None Passengers — N/A

Nature of damage: Extensive damage to rotors, main rotor mast and tail boom

**Commander's Licence**: Airline Transport Pilot's Licence (Helicopters)

Commander's Age: 64 years

**Commander's Total** 

Flying Experience: Over 7000 hours (of which 7 were on type)

Information Source: Aircraft Accident Report Form submitted by the pilot and AIB examination of wreckage at maintenance organisation

Following successfully completing a series of take-offs and landings on an area of sloping ground, the student was instructed to take-off again in order to carry out another exercise. As the aircraft lifted off, it started to yaw fairly quickly to the right. The instructor did not immediately intervene as he assumed that the student was turning deliberately to move away. However, as the aircraft started to move downwind, the tail rotor became in danger of contacting the higher ground, and so the instructor took control. As he did so, the aircraft continued to rotate to the right. The instructor's first thought was that there had been a tail rotor malfunction, but he felt inhibited from closing the throttle due to the presence of the sloping ground. After turning through a number of revolutions, the aircraft struck the ground, coming to rest lying on its left side. The student was able to turn off the fuel before he and the instructor left the aircraft.

There were no injuries despite the fact that one of the main rotor blades had penetrated the windscreen.

Subsequent examination revealed that the tail rotor pitch change mechanism was close to the full right pedal position; however, the maintenance organisation reported no disconnections in the tail rotor control system.

The aircraft had flown approximately 30 hours since new.