MINISTRY OF DEFENCE

Military Aircraft Accident Summaries

MAAS 7/83

19 April 1983

AIRCRAFT ACCIDENT INVOLVING ROYAL AIR FORCE GAZELLE HT3 XX396

Date:	30 June 1981
Parent Airfield:	Royal Air Force Shawbury, Salop
Place of Accident:	Royal Air Force Shawbury Salop
Crew:	Student pilot
Casualties:	Nil

CIRCUMSTANCES

1. On 30 June 1981, Gazelle XX396 was being flown on a student pilot's first solo sortie of take-offs and landings on sloping ground. The area designated for this exercise was a specially prepared, dome-shaped piece of ground, designed to permit sloping ground landings while heading into wind, irrespective of the wind direction. Although the wind in the area during the time of flight was fluctuating, it remained well within the Gazelle cross-wind limit.

2. As part of his exercise immediately prior to the accident, the pilot had successfully completed several landings with the right and left skids up the slope in turn; he then manoeuvred the aircraft around the domed area to carry out landings and take-offs into wind with the nose of the aircraft up the slope. Two such landings and take-offs were completed without incident; on descending from the hover for a third landing, the front of the skids came into contact with the ground, but the aircraft began to slide forward up the slope. The movement was arrested by application of aft cyclic stick which then caused the aircraft to pitch tail down, eventually rotating about the rear of the skids until the tail struck the ground. Immediately after, the pilot was aware of a loud banging noise and vibration, and the aircraft appeared to bounce off the tail, pitching nose down. As the level attitude was approached, the pilot applied collective pitch to regain the hover. However, the aircraft continued to pitch nose down as it became airborne and the continuing noise and excessive vibration led the pilot to believe that the main rotor blades had struck the ground on the slope ahead of the aircraft. Thinking that a catastrophic failure was imminent, the pilot attempted to land the aircraft from a height of 2 to 3 feet by lowering the collective lever rapidly. The aircraft then struck the ground, collapsing the starboard skid, and settled onto the slope with engine and rotors still running normally. The pilot was uninjured and vacated the aircraft without difficulty after stopping the engine. There was no fire but the aircraft was damaged beyond economical repair.

CAUSE

3. Examination of the aircraft wreckage revealed no technical malfunction which would have accounted for the accident; it was concluded that, apart from minor damage to the tailskid and possibly the fenestron shrouded tail rotor assembly, the aircraft was fully serviceable at the time of the accident. The cause of the accident was the student pilot's incorrect analysis of the effect of his initial mislanding and his subsequent abrupt lowering of the collective lever and consequent very heavy landing.

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