Aviation Safety Investigation Report 199503772

Robinson Helicopter Co R22

10 November 1995

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Occurrence Number: 199503772 Occurrence Type: Accident

Location: Kilclooney Station

State: QLD Inv Category: 3

Date: Friday 10 November 1995

Time: 1050 hours **Time Zone** EST

Highest Injury Level: Fatal

Injuries:

	Fatal	Serious	Minor	None	Total
Crew	1	0	0	0	1
Ground	0	0	0	0	0
Passenger	0	0	0	0	0
Total	1	0	0	0	1

Aircraft Manufacturer: Robinson Helicopter Co

Aircraft Model: R22 BETA

Aircraft Registration: VH-HLJ Serial Number: 0734

Type of Operation: Miscellaneous Ferry

Damage to Aircraft: Destroyed

Departure Point: Kilclooney Station QLD

Departure Time: 1050 EST

Destination: Greenvale QLD

Crew Details:

	Hours on				
Role	Class of Licence	Type Hou	ırs Total		
Pilot-In-Command	Commercial	750.0	750		

Approved for Release: Wednesday, July 31, 1996

1. FACTUAL INFORMATION

1.1 History of the flight

The pilot had commenced mustering at Kilclooney Station at about 0700 EST. A refuelling stop was made at about 0930 when the mustering operation had been completed. After refuelling, the pilot took off and returned to the homestead which was about 5 minutes flying time away, intending to collect his swag and the helicopter canopy cover and then return to his home base at Greenvale, 76 km west of Kilclooney. The pilot phoned his wife at about 1045 to say he was departing Kilclooney. At about 1050 the power supply to the homestead failed. The homestead was unattended at the time. At 1330 the company chief pilot reported to Brisbane Search and Rescue (SAR) the aircraft had not arrived at Greenvale. At 1348 the Brisbane Area Approach Control Centre (AACC) co-ordinator advised SAR that an emergency locator transmitter (ELT) signal had been heard by an overflying aircraft. The Queensland Emergency Services helicopter was then tasked to conduct a search in the area where the beacon was heard. At 1506 the wreckage of the helicopter was located at Kilclooney Station.

The helicopter had collided with a single 19-kilovolt powerline located near where the helicopter had been parked overnight. He had apparently landed near the homestead, to collect the swag which was known to be on the back of a vehicle, and then repositioned the helicopter to the parking area to pick up the canopy cover. Two parallel wires 15 metres apart were strung from poles near the homestead and passed alongside the parking area in a southeast-northwest direction.

1.2 Impact information

It is probable that as the helicopter was approaching the parking area from the south, the left skid passed under the second wire which had a span of approximately 150 metres. The helicopter travelled a short distance before impacting the ground in a steep nose-down attitude and caught fire. The three-strand 12-gauge steel wire did not break and was trapped under tension by the wreckage for some time. The left skid was thrown clear of the fire when it became detached by heat and the wire separated from the wreckage. The wire was substantially stretched and was within 4 metres above ground level after becoming detached from the wreckage.

1.3 Pilot in command

The pilot was correctly licensed and endorsed, and appeared to be in good health immediately prior the accident.

1.4 Meteorological information

Station personnel reported that the weather was fine with a moderate northerly wind at the time of the accident.

1.5 Wreckage examination

The cabin area forward of the firewall was completely destroyed by fire. The engine suffered substantial fire damage, and all engine accessories were damaged beyond the point where the serviceability of these items could be assessed. The ELT was a fixed installation in the engine bay and was destroyed by fire, it was of the type that complied with TSO C91. No mechanical failures or defects were discovered with the engine which would have prevented it from operating normally. The tail boom was separated from the main wreckage and remained clear of the fire. The tail rotor and tail rotor gearbox appeared undamaged, indicating that a steep nose-down impact had occurred.

2. ANALYSIS

The wind direction would have required an into-wind approach to be made over two wires which were about 15 metres apart. The approach over the second wire would have to be steep to achieve a touchdown near the fuel drum where the canopy cover was located, and would therefore have taken the helicopter close to the second wire. During the accident sequence the helicopter actually struck the drum. Why the helicopter struck the wire could not be determined, but it is probable that the helicopter was capable of normal operation up to the time of the accident. The canopy cover was on the ground beneath an upright 200-litre fuel drum, located about 10 metres from the powerline. The helicopter was probably previously parked in this particular position as the pilot did not want to frighten horses in an adjacent paddock.

3 CONCLUSIONS

- 3.1 Findings
- 1. The pilot was correctly licensed and fit to perform the flight.
- 2. There were no mechanical defects discovered which may have contributed to the accident.
- 3. The helicopter had been previously parked in close proximity to a single-strand powerline, and was being manoeuvred to land at this position to allow the pilot to collect the helicopter canopy cover.
- 4. The wind direction required an approach from south to north over the top of the powerline.
- 5. The helicopter struck the powerline.
- 3.2 Significant factors
- 1. The aircraft was being manoeuvred in close proximity to a single-wire powerline.
- 2. The pilot failed to see and avoid the powerline.