Aviation Safety Investigation Report 199602195

Hughes Helicopters Hughes 500

11 July 1996

Readers are advised that the Australian Transport Safety Bureau investigates for the sole purpose of enhancing transport safety. Consequently, Bureau reports are confined to matters of safety significance and may be misleading if used for any other purposes.

Investigations commenced on or before 30 June 2003, including the publication of reports as a result of those investigations, are authorised by the Executive Director of the Bureau in accordance with Part 2A of the Air Navigation Act 1920.

Investigations commenced after 1 July 2003, including the publication of reports as a result of those investigations, are authorised by the Executive Director of the Bureau in accordance with the Transport Safety Investigation Act 2003 (TSI Act). Reports released under the TSI Act are not admissible as evidence in any civil or criminal proceedings.

NOTE: All air safety occurrences reported to the ATSB are categorised and recorded. For a detailed explanation on Category definitions please refer to the ATSB website at www.atsb.gov.au.

Occurrence Number:	199602195		Occurrence Type:	Accident
Location:	7km S Coolang	gatta, Aerod	Irome	
State:	QLD		Inv Category:	4
Date:	Thursday 11 Ju	uly 1996		
Time:	1658 hours		Time Zone	EST
Highest Injury Level:	None			
Aircraft Manufacture Aircraft Model: Aircraft Registration: Type of Operation: Damage to Aircraft: Departure Point: Departure Time: Destination:	r: Hughes Heli 369E VH-HWL Charter Substantial Coolangatta 1655 EST Coolangatta	icopters Passenger QLD QLD	Serial Number: 0397E	
Type of Operation: Damage to Aircraft: Departure Point: Departure Time: Destination:	Charter Substantial Coolangatta 1655 EST Coolangatta	Passenger QLD QLD		

Crew Details:

	Hours on			
Role	Class of Licence	Туре Но	urs Total	
Pilot-In-Command	Commercial	893.0	1672	

Approved for Release: Wednesday, February 12, 1997

The pilot was operating a helicopter joy flight from Coolangatta to Cook Island and return. On board were the pilot and four passengers. The pilot reported that the helicopter's engine failed while flying about 50 metres off shore, at a height of approximately 500 ft. He said that at the same time he noticed the power loss, the engine-out light started flashing. During the subsequent forced landing, the helicopter landed heavily, coming to rest upright, but slightly nose down in about 30 cm of water. During the landing the main rotor blades flexed downwards and severed the tail boom.

After the helicopter came to rest the pilot assisted the passengers to safely exit the aircraft.

The pilot advised that the engine continued to run at a very low idle for some time before he re-entered the helicopter and closed the fuel shut-off control.

Based on information provided by the pilot the helicopter's weight and balance were assessed to be within limits.

The investigation revealed that the nut which secures the bleed air sensing line between the power turbine governor and the fuel control unit was loose at the fuel control end. The loss of this sensing function limited the available fuel flow. As a result, engine rpm reduced uncontrollably to a low idle. Fret marks on the mating surfaces of the nut and the male nipple at the rear of the fuel control indicated that the engine may have operated for a period of time with the nut loose. Specialist metallurgical examination was unable to determine how long the nut had been loose. After the accident, a substitute sensing line was fitted and the engine operated normally. Examination of the maintenance documentation could find no evidence of any recent work being carried out on the sensing line.