

**Aviation Safety Investigation Report
198602354**

Hiller UH-12E

15 October 1986

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 CEO 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 CEO 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: 198602354

Occurrence Type: Accident

Location: 10 km SW Collyfarms NSW

Date: 15 October 1986

Time: 930

Highest Injury Level: Nil

Injuries:

	Fatal	Serious	Minor	None
Crew	0	0	1	1
Ground	0	0	0	-
Passenger	0	0	0	2
Total	0	0	0	3

Aircraft Details: Hiller UH-12E

Registration: VH-FFV

Serial Number:

Operation Type: Aerial Work (Pig Shooting)

Damage Level: Substantial

Departure Point: Collyfarms NSW

Departure Time: 0930

Destination: Collyfarms NSW

Approved for Release: May 4th 1987

Circumstances:

The aircraft was engaged in pig shooting operations, and was making the second sortie for the day. While cruising at about 150 feet above ground level, the pilot heard a loud bang, and all engine power was lost. At the time the aircraft was over flat country with scattered trees. While manoeuvring the helicopter to a cleared area, the pilot carried out a descending turn, during which the tail rotor struck the branches of a tree. The tail rotor blades disintegrated and the helicopter struck the ground heavily. Initial inspection revealed the presence of several cracks in the engine crankcase. The connecting rod in one of the engine cylinders had broken just above the big end bearing. The fracture was typical of fatigue propagation, followed by overload, but the extent of the damage precluded the location of the origin of the fatigue. The cracks in the crankcase had been caused by the flaying of the connecting rod after the failure. The pilot had not seen the branches struck by the tail rotor, probably because they were protruding from the tree and had no foliage attached.