Aviation Safety Investigation Report 198900248

Robinson R22A

2 October 1989

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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: 198900248 **Occurrence Type:** Accident
Location: 250 km North-East Derby WA
Date: 2 October 1989 **Time:** 1630
Highest Injury Level: Minor
Injuries:

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

Aircraft Details: Robinson R22A
Registration: VH-KIS
Serial Number: 399
Operation Type: Aerial Work
Damage Level: Substantial
Departure Point: Chanley River WA
Departure Time: 1515
Destination: Chanley River WA

Approved for Release: 11th December 1989

Circumstances:

The pilot was manoeuvring the helicopter, during a stock shooting operation, at a low speed, a low altitude and a high power setting when the tail rotor peddles jammed. The aircraft began to turn, uncontrollably, to the right. When the pilot reduced airspeed, in an attempt to avoid a tree, the aircraft touched down heavily. A spent cartridge case was found jammed in the operating levers of the left hand side (pilot's) tail rotor peddles. The helicopter had been checked, prior to DEPARTURE, for loose objects and none were found. The spent cartridge probably fell inside the cabin of the helicopter during that day's shoot. The shooter did not have a cartridge case catcher fitted to his gun. There was no rubber boot, around the base of the tail rotor peddles, which would prevent foreign objects falling through the hole, at the base of the peddles, and interferring with the aircraft's controls. The proximity of the aircraft to the ground and the trees, a typical hazard during stock shooting operations, prevented the pilot from taking recovery action before the aircraft collided with the ground.

Significant Factors:

The following factors were considered relevant to the development of the accident

1. The aircraft was inadequately prepared for the operation in that no steps had been taken to prevent foreign objects entering the area of the control cables, levers and rods.

2. Insufficient steps had been taken to prevent spent cartridges from falling inside the helicopter.

3. The aircraft was involved in operations in a typically hazardous environment.

4. The aircraft's tail rotor controls were jammed by a spent cartridge case which fell inside the cabin and worked its way down through a hole, at the base of the tail rotor peddles, into the area containing the control rods.

5. There was insufficient height and speed available for the pilot to take recovery action before the aircraft collided with the ground.