

**Aviation Safety Investigation Report
199402561**

**Agusta, SPA, Costruzioni Aeronautiche
47-J**

07 September 1994

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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.

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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.

The Bureau did not conduct an on scene investigation of this occurrence. The information presented below was obtained from information supplied to the Bureau.

Occurrence Number: 199402561 **Occurrence Type:** Accident
Location: Kings Canyon
State: NT **Inv Category:** 4
Date: Wednesday 07 September 1994
Time: 1745 hours **Time Zone** CST
Highest Injury Level: None

Aircraft Manufacturer: Agusta, SPA, Costruzioni Aeronautiche
Aircraft Model: 47-J
Aircraft Registration: VH-UTZ **Serial Number:** 1084
Type of Operation: Charter Passenger
Damage to Aircraft: Substantial
Departure Point: Kings Canyon helipad
Departure Time: 1730 CST
Destination: Kings Canyon helipad

Crew Details:

Role	Class of Licence	Hours on	
		Type	Hours Total
Pilot-In-Command	Commercial	405.0	410

Approved for Release: Friday, October 14, 1994

The helicopter was conducting a scenic flight at Kings Canyon when the engine began to run rough and lose power. The pilot lowered the collective pitch lever, opened the throttle and turned towards lower terrain. The engine would not deliver sufficient power to sustain level flight so the pilot commenced an approach to an adjacent helipad. During the landing the tail stinger and tailrotor struck the ground.

An examination of the engine revealed a spark plug malfunction and an intermittently sticking exhaust valve in the number 4 cylinder, and the pushrod ballend in the number 1 cylinder was also found to be loose, preventing the exhaust valve from fully opening.

The power loss from these engine faults, combined with the high density altitude and weight of the helicopter at the time of the occurrence left the pilot with little option than to make a low powered, semi-autorotational landing as soon as possible.