

**Aviation Safety Investigation Report
198903739**

Air Tractor AT301

7 January 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: 198903739 **Occurrence Type:** Accident

Location: 6 km West of Emerald QLD

Date: 7 January 1989 **Time:** 1030

Highest Injury Level: Nil

Injuries:

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

Aircraft Details: Air Tractor AT301

Registration: VH-NOW

Serial Number: 301-0557

Operation Type: Aerial Work

Damage Level: Substantial

Departure Point: 5 km West of Emerald QLD

Departure Time: 1010

Destination: 5 km West of Emerald QLD

Approved for Release: 5th July 1989

Circumstances:

The pilot was spraying a mature cotton crop adjacent to the company strip. After 20 minutes of flight, and shortly after commencing another spray run, the engine failed suddenly. The aircraft was manoeuvred towards an adjacent paddock with short soyabeans but it could not be aligned with the rows before landing. The wheels dug into the wet ground and the aircraft overturned. While skidding backwards the fibreglass back of the cockpit broke, allowing a large quantity of mud into the cockpit and making the pilot's exit difficult. He eventually used the fire extinguisher to smash a window to facilitate egress. Witnesses saw flame and black smoke emitting from the aircraft at the time of the engine failure. The aircraft operator found that the rear bearing of one magneto had become loose. This allowed the timing to advance and the engine backfired. An air inlet hose between the air filter and the carburettor was split and was sucked into the carburettor, thus stopping the engine. This occurrence was not the subject of an on-site investigation.

Significant Factors:

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

1. Failure of magneto bearing within inspection period.
2. Failure of induction air hose due to backfire.
3. Engine failure due to over-rich mixture and lack of air.
4. Forced landing in unsuitable terrain.