

**Aviation Safety Investigation Report  
198801397**

**Beechcraft C23**

**1 October 1988**

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.

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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](http://www.atsb.gov.au).**

This accident was not the subject of an on site investigation.

**Occurrence Number:** 198801397 **Occurrence Type:** Accident  
**Location:** 2 km South of Yan Yean Reservoir VIC  
**Date:** 1 October 1988 **Time:** 1320  
**Highest Injury Level:** Nil  
**Injuries:**

	Fatal	Serious	Minor	None
Crew	0	0	1	1
Ground	0	0	0	-
Passenger	0	0	0	1
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>

**Aircraft Details:** Beechcraft C23  
**Registration:** VH-UMH  
**Serial Number:** M-1824  
**Operation Type:** Private  
**Damage Level:** Substantial  
**Departure Point:** Moorabbin VIC  
**Departure Time:** 1306  
**Destination:** Wangaratta VIC

**Approved for Release:** 24 January 1989

#### **Circumstances:**

The aircraft was cruising at 1500 feet above the ground when the engine began to vibrate and the RPM dropped from 2400 to 1900. Even with full power selected the aircraft could not maintain height. The pilot planned a forced landing on to a stretch of trotting track. On final approach he realized that the aircraft was overshooting the planned touchdown point. He used the available engine power and landed in a 250 metre wide paddock adjacent to the trotting track. Braking was not fully effective on the damp grass surface. In the latter part of the roll despite an attempt to veer the aircraft to the left the aircraft penetrated a stock fence at very low speed. The underside of the mid-section of the left wing was damaged as it contacted a fence post which swung the aircraft to the left. Number one cylinder was found to have no compression. About half of the head of the exhaust valve had broken free and been ejected through the exhaust port. The exhaust valve had achieved 603 hours time in service since installation as a new item. There may have been a flaw in the exhaust valve since manufacture. The valve failure was considered to be an isolated occurrence.

#### **Significant Factors:**

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

1. About half of the head of an exhaust valve broke off in flight resulting in a substantial loss of engine power.
2. Possible faulty manufacture of the particular exhaust valve.
3. Insufficient engine power remained to allow the aircraft to maintain level flight.

4. Braking effectiveness was reduced because of the damp surface of the paddock selected for a forced landing.
5. The aircraft collided with a farm fence.