

**Aviation Safety Investigation Report  
199402606**

**Beech Aircraft Corp  
Baron**

**10 September 1994**

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 Executive Director 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 Executive Director 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](http://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:** 199402606                      **Occurrence Type:** Accident  
**Location:** 50km E Darwin  
**State:** NT    **Inv Category:** 4  
**Date:** Saturday 10 September 1994  
**Time:** 1534 hours                      **Time Zone** EST  
**Highest Injury Level:** None

**Aircraft Manufacturer:** Beech Aircraft Corp  
**Aircraft Model:** 58  
**Aircraft Registration:** VH-FDE                      **Serial Number:** TH-425  
**Type of Operation:** Charter      Cargo  
**Damage to Aircraft:** Substantial  
**Departure Point:** Darwin NT  
**Departure Time:** 1528 EST  
**Destination:** Darwin NT

**Crew Details:**

<b>Role</b>	<b>Class of Licence</b>	<b>Hours on Type</b>	<b>Hours Total</b>
Pilot-In-Command	Commercial	150.0	1800

**Approved for Release:** Thursday, June 13, 1996

The aircraft was established in normal cruise at 7,000 ft when the pilot heard a loud bang from the right engine. The pilot believed that the right engine had failed, but as he commenced the propeller feathering procedure he realised that the propeller was missing. On closer inspection it was clear that the entire right propeller, including the hub and spinner, had detached. The aircraft returned to Darwin where a safe landing was accomplished.

A metallurgical examination of the crankshaft revealed its failure was consistent with the development of an abnormally high force during flight. The engine bearers had been broken and the engine was supported only by control linkages, cables and the engine cowling. This damage was consistent with the separation of one propeller blade, or portion of a blade. The resulting imbalance causing an overload failure of the engine bearers and crankshaft.

The propeller was not recovered.