Aviation Safety Investigation Report 198902575

Beechcraft 95-B55

11 September 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: 198902575 **Occurrence Type:** Accident
Location: Bankstown NSW
Date: 11 September 1989 **Time:** 1956
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: Beechcraft 95-B55
Registration: VH-JDL
Serial Number: TC-1382
Operation Type: Charter
Damage Level: Substantial
Departure Point: Nowra NSW
Departure Time: N/K
Destination: Bankstown NSW

Approved for Release: 7th November 1989

Circumstances:

The aircraft was engaged on a charter operation from Merimbula to Moruya, Nowra and Bankstown. The aircraft operation was normal until the DEPARTURE from Nowra. After takeoff when the gear was retracting, the pilot noticed a momentary dimming of the cockpit lighting. The gear indications were that the normal retraction cycle had been completed with red light on. The flight continued to Bankstown but when the gear was selected down, nothing happened. The pilot then noticed the landing gear motor circuit breaker had tripped. All attempts to reset it were unsuccessful. The aircraft was then flown to the training area where the pilot tried unsuccessfully to lower the gear manually. The aircraft returned to the Bankstown circuit where it was verified by ground observers that the gear was still retracted. When all emergency services were in place the pilot carried out a wheels up landing on runway 29 centre. The aircraft slid for 325 metres before coming to rest on the runway centreline. Substantial damage occurred to the underside of the fuselage and both propellers were bent. Subsequent investigation revealed the landing gear dynamic breaking relay had failed in the UP position which allowed the motor to drive the retract actuator past the full UP position and jam it on the UP stop. An internal inspection of the relay found that the UP relay contact points were badly pitted and burnt from arcing.

Significant Factors:

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

1. Mechanical failure of the landing gear dynamic breaking relay.

2. Mechanical failure of the landing gear extension/retraction mechanism.

Reccomendations:

Although there is no maintenance requirement for inspection of the dynamic breaking relay, some form of preventative maintenance may have precluded the mechanical failures above. It is recommended that the Civil Aviation Authority consider imposing a periodic check on the landing gear dynamic breaking relay to ensure satisfactory condition of the contacts and freedom of movement of the solenoid.