

**Aviation Safety Investigation Report  
199700398**

**Piper Aircraft Corp  
Navajo**

**13 February 1997**

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.

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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).**

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:** 199700398                      **Occurrence Type:** Accident  
**Location:** Normanton, Aerodrome  
**State:** QLD                      **Inv Category:** 4  
**Date:** Thursday 13 February 1997  
**Time:** 1035 hours                      **Time Zone** EST  
**Highest Injury Level:** None

**Aircraft Manufacturer:** Piper Aircraft Corp  
**Aircraft Model:** PA-31  
**Aircraft Registration:** VH-WZZ                      **Serial Number:** 31-775  
**Type of Operation:** Charter      Passenger  
**Damage to Aircraft:** Substantial  
**Departure Point:** Cairns Qld  
**Departure Time:** 0747 EST  
**Destination:** Normanton Qld

**Crew Details:**

<b>Role</b>	<b>Class of Licence</b>	<b>Hours on Type</b>	<b>Hours Total</b>
Pilot-In-Command	ATPL	95.0	1965

**Approved for Release:** Tuesday, July 15, 1997

**Sequence of Events**

During a normal circuit at the destination aerodrome, the pilot selected the landing gear down. Following the selection, there was no indication that the gear was extending. The pilot recycled the gear selection several times but the gear position indications remained unchanged.

The pilot then operated the emergency gear extension system. The main landing gears indicated down but the nose gear light was out and the gear unsafe light was on. He repeated operation of the emergency extension system a number of times with the same result. A flyby inspection near people at the airfield confirmed that the nose gear was trailing aft of the locked-down position. The pilot alerted the local emergency services before making a landing approach.

During the landing roll, the pilot shut both engines down and lowered the nose of the aircraft. The nose gear did not support the nose of the aircraft which then scraped along the runway until the aircraft came to a stop. All three occupants left the aircraft safely.

A maintenance investigation carried out by the company found a defect in the normal landing gear system. A defective o-ring at the right hydraulic oil filter had been displaced by hydraulic pressure allowing oil to escape.

The emergency gear extension system was used to extend the nose gear after the aircraft was lifted off the runway. The system operated normally and no fault could be found. It is possible that in-flight air loads prevented the pilot from extending the nose gear fully.

