

**Aviation Safety Investigation Report  
199400458**

**Piper Aircraft Corp  
Twin Comanche**

**23 February 1994**

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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:** 199400458                      **Occurrence Type:** Accident  
**Location:** Wagga Wagga  
**State:** NSW    **Inv Category:** 4  
**Date:** Wednesday 23 February 1994  
**Time:** 0905 hours                      **Time Zone** ESuT  
**Highest Injury Level:** None

**Aircraft Manufacturer:** Piper Aircraft Corp  
**Aircraft Model:** PA-39  
**Aircraft Registration:** VH-MMN                      **Serial Number:** 39-26  
**Type of Operation:** Charter      Passenger  
**Damage to Aircraft:** Substantial  
**Departure Point:** Hoxton Park NSW  
**Departure Time:**  
**Destination:** Wagga Wagga NSW

**Crew Details:**

<b>Role</b>	<b>Class of Licence</b>	<b>Hours on Type</b>	<b>Hours Total</b>
Pilot-In-Command	ATPL 1st Class	820.0	5200

**Approved for Release:** Wednesday, February 15, 1995

The pilot extended the landing gear but failed to get a down and locked indication from the single green indicator light on the instrument panel. The pilot recycled the gear twice, checked the indicator light was in the day mode but still did not get a down and locked green light.

The pilot raised the gear, proceeded to the west of the airfield and reduced speed, and then carried out a manual extension of the gear. He still did not obtain a green light. The pilot advised that during the manual extension he was unable to push the extension lever to the stop and the handle felt slightly spongy.

The pilot was advised that a visual inspection of the landing gear from the control tower showed that the gear appeared to be fully down, however, during the subsequent landing the gear collapsed.

Later investigation showed that the green light bulb was loose in its socket. After it was properly secured the green light illuminated satisfactorily.

The manual landing gear extension system was found to have been not correctly manipulated. For the gear to be successfully manually lowered, two actions are required; the electric motor must first be disconnected and then the gear must be manually lowered. It was found that the motor release arm used to disconnect the electric motor had not been pushed fully forward and the motor was still partially engaged. Consequently the emergency gear handle was unable to be pushed fully forward to its stop. This meant that the gear was not able to be locked down, and the restriction caused by the partially disconnected electric motor led to the spongy feel reported by the pilot.

#### Significant Factors

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

1. The landing gear down and locked globe was loose in its socket.
  2. The pilot did not get a safe indication when he extended the landing gear normally, even though the gear was most probably locked down.
  3. The pilot retracted the landing gear and then attempted to manually lower it.
  4. The manual extension system was not able to lock the gear down because the electric motor was still connected.
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