

**Aviation Safety Investigation Report
199602908**

**Piper Aircraft Corp
Tomahawk**

15 September 1996

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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.

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: 199602908 **Occurrence Type:** Accident
Location: 8km SW Toowoomba, (ALA)
State: QLD **Inv Category:** 4
Date: Sunday 15 September 1996
Time: 1600 hours **Time Zone** EST
Highest Injury Level: Serious
Injuries:

	Fatal	Serious	Minor	None	Total
Crew	0	1	0	0	1
Ground	0	0	0	0	0
Passenger	0	0	0	0	0
Total	0	1	0	0	1

Aircraft Manufacturer: Piper Aircraft Corp
Aircraft Model: PA-38-112
Aircraft Registration: VH-KTR **Serial Number:** 38-82AO115
Type of Operation: Instructional Solo
Damage to Aircraft: Substantial
Departure Point: Toowoomba QLD
Departure Time: 1555 EST
Destination: Toowoomba QLD

Crew Details:

Role	Class of Licence	Hours on	
		Type	Hours Total
Pilot-In-Command	Student	17.4	17

Approved for Release: Wednesday, February 12, 1997

FACTUAL INFORMATION

Earlier in the day the pilot had conducted 1.5 hours of solo forced landing practice in the training area. This was followed by a check flight with an instructor. He was then briefed to conduct a second period of practice forced landings in the training area. The pilot departed from runway 29 and climbed to about 3,800 ft above sea level toward the south-west of the aerodrome.

He initiated a practice forced landing and conducted the required checks. At about 2,800 ft he attempted to warm the engine but obtained no response. The throttle was retried, still without response. The emergency checks were carried out again and a Mayday call was transmitted. The pilot attempted to restart the engine using the starter.

With no engine response, the pilot continued with the forced landing. Two fields were selected, with the secondary field being beyond an earth bank at the far end of the desired field, as the pilot had been experiencing a tendency to overshoot during the earlier flights. Since no response was obtained from the engine, the engine shut down checks were completed prior to landing.

Witnesses reported that the engine note had not varied during the approach to land. There was no surging or back firing. The aircraft touched down at the end of the primary paddock and rolled some 18 m before colliding with the earth bank which was about 1.8 m high. The fire wall and rudder pedal areas were distorted by the impact.

Subsequent investigation involved analysis of a fuel sample from the aircraft and examination of a section of exhaust pipe from the engine. The fuel was within specifications and the exhaust pipe temperature was below the detectable limit. Since an idling engine could also have exhibited temperatures below that limit, no conclusion concerning engine operation could be reached. An examination of the engine and its systems did not find any abnormalities which could have caused the problem. The Bureau of Meteorology reported that the air was very dry and there was no possibility of carburettor icing. No reason for the engine's failure to respond has been established.

The aircraft was not equipped with an emergency locator transmitter.

SIGNIFICANT FACTORS

1. The engine failed for reasons not determined.
2. The pilot had low total flying experience.
3. The pilot misjudged the approach to land.

