Aviation Safety Investigation Report 199504223

Piper Aircraft Corp Tomahawk

15 December 1995

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Aviation Safety Investigation Report

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Occurrence Number: 199504223 **Occurrence Type:** Accident
Location: Bankstown, Aerodrome
State: NSW **Inv Category:** 4
Date: Friday 15 December 1995
Time: 1133 hours **Time Zone** ESuT
Highest Injury Level: None

Aircraft Manufacturer: Piper Aircraft Corp
Aircraft Model: PA-38-112
Aircraft Registration: VH-IPI **Serial Number:** 38-79A0277
Type of Operation: Instructional Dual
Damage to Aircraft: Substantial
Departure Point: Bankstown NSW
Departure Time:
Destination: Bankstown NSW

Crew Details:

Role	Class of Licence	Hours on Type	Hours Total
Pilot-In-Command	Commercial	100.0	850

Approved for Release: Monday, August 26, 1996

The purpose of the flight was to assess the student prior to his first solo flight. Preflight fuel contents were 95L, and the pre-take off engine run, which included a carburettor heat check, was reported to have been normal.

The instructor pilot reported that two uneventful circuits were completed. On the third circuit, prior to turning onto the base leg, the student applied full carburettor heat and reduced engine power to 1500 RPM. After turning onto the base leg the approach appeared too high and engine power was further reduced to 1100/1200 RPM. Turning onto the final leg, the aircraft appeared to be undershooting and the student was prompted to increase power, but there was no response from the engine. The instructor immediately took control, confirmed that carburettor heat was on, the mixture was rich, and changed the fuel tank selection. However, there was no response from the engine, which continued to rotate at 1100/1200 RPM.

By now, the aircraft was well below the required approach path. The instructor made a brief MAYDAY call and tried to manoeuvre the aircraft to land on a cleared area short of the runway, but the landing gear collided with a 2 m high wire fence. The aircraft cartwheeled sideways before coming to rest. Both occupants were able to escape without injury.

Investigation determined that the engine controls were correctly connected and functioned normally. The carburettor hot air box had been squashed in the accident, and the hot air duct was disconnected. It could not be determined if the duct had detached before, or as a result of, the accident. After removing the hot air box, the engine performed normally during a ground test.

The weather conditions at the time were conducive to severe carburettor icing at descent power. It is likely that carburettor icing occurred during the low power descent and precluded the engine accelerating above idle power on the final approach.