

**Aviation Safety Investigation Report
199201781**

**Grumman American Aviation Corp
GA-7**

23 November 1992

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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: 199201781 **Occurrence Type:** Accident
Location: Gunnedah NSW
State: NSW **Inv Category:** 4
Date: Monday 23 November 1992
Time: 1515 hours **Time Zone** ESuT
Highest Injury Level: Serious
Injuries:

	Fatal	Serious	Minor	None	Total
Crew	0	0	0	1	1
Ground	0	0	0	0	0
Passenger	0	1	1	1	3
Total	0	1	1	2	4

Aircraft Manufacturer: Grumman American Aviation Corp
Aircraft Model: GA-7
Aircraft Registration: VH-WPW **Serial Number:** GA7-0039
Type of Operation: Instructional Solo
Damage to Aircraft: Substantial
Departure Point: Tamworth
Departure Time:
Destination: Gunnedah

Crew Details:

Role	Class of Licence	Hours on	
		Type	Hours Total
Pilot-In-Command	Private	16.6	148

Approved for Release: Thursday, August 25, 1994

The pilot had been authorised to conduct a solo navigational exercise as part of a commercial pilot licence course. The authorisation did not include the three passengers, two of whom were trainees from the same training facility as the pilot. The flight was planned to track from Cessnock to Tamworth for a landing, then Gunnedah to refuel before returning to Cessnock.

The flight progressed as planned to Tamworth where the fuel quantity was visually confirmed adequate for the next leg to Gunnedah. At Tamworth, the pilot discussed with the front seat passenger the possibility of performing a simulated engine failure in cruise using the fuel selector to fail the engine. The passenger stated that, as he considered this to be unsafe, he would simulate an engine failure by retarding the throttle only.

The pilot reported that during cruise at 6,500 ft, after departing Tamworth, the front seat passenger retarded the right engine throttle to simulate an engine failure. The engine failure procedure was performed by stating the actions and touching, but not manipulating, the appropriate controls. Power was then restored to a normal cruise setting.

Later, whilst passing through 5,000 ft on descent into Gunnedah, the right engine began to run roughly and the aircraft yawed to the right. The pilot carried out system checks, including repositioning the throttle to achieve the smoothest operation. He did not shut down the engine, as he considered it to be capable of producing some power. The descent continued to the circuit area, which was entered on the crosswind leg for runway 11. A strong southerly wind was noted. The landing gear was extended at about mid-base leg. A normal circuit was flown until the turn onto final at about 400 feet AGL when the aircraft encountered turbulence and overshot the runway extended centreline. The pilot applied power to go around. However, the aircraft yawed to the right and continued to descend. The landing gear was retracted but the aircraft performance did not improve. Both engines were shut down and an emergency landing was carried out off the aerodrome. The occupants evacuated the aircraft through a shattered side window.

Investigation revealed that the right engine carburettor bowl and its supply line contained no fuel, but there was ample fuel in the right tank. As there was no physical damage to the bowl or line which could have allowed the fuel to leak away, it was concluded that the right engine fuel supply had been selected off some time prior to the accident.

The front seat passenger later stated that he had failed the right engine by selecting the fuel off some time prior to the aircraft entering the circuit. It was determined that the aircraft, as configured, was not capable of maintaining height and that the pilot had misjudged the circuit and approach. It is likely that the aircraft was positioned low and too far from the runway threshold as it overshot the turn onto final. The subsequent attempt to go around was unsuccessful because, with the landing gear extended and the right propeller windmilling, the aircraft had no climb capability. The pilot stated that he had continued with the approach as he believed that the right engine was capable of delivering some power if required.

Significant Factors:

1. An engine failure was simulated by turning off the fuel to the right engine.
2. The right propeller was not feathered.
3. The pilot misjudged the circuit and approach to land, and attempted to conduct a go-around.
4. The aircraft, as configured, was not capable of maintaining height.