

**Aviation Safety Investigation Report
198901529**

Piper PA23-250 Aztec

18 January 1989

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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: 198901529

Occurrence Type: Accident

Location: 4 km North of Bayles VIC

Date: 18 January 1989

Time: 1740

Highest Injury Level: Nil

Injuries:

	Fatal	Serious	Minor	None
Crew	0	0	1	1
Ground	0	0	0	-
Passenger	0	0	0	5
Total	0	0	0	6

Aircraft Details: Piper PA23-250 Aztec

Registration: VH-AKN

Serial Number: 27-3656

Operation Type: Private

Damage Level: Substantial

Departure Point: Merimbula NSW

Departure Time: 1545

Destination: Moorabbin VIC

Approved for Release: 24 May 1989

Circumstances:

The pilot had flown the aircraft to Merimbula three days previously. On the return journey the aircraft was about 50 kilometres from the destination when both engines failed within three minutes of each other. The pilot selected alternative fuel tanks but the engines did not respond. The pilot prepared for a forced landing and commenced operating the hand pump to lower the landing gear. This procedure had to be abandoned close to the ground, and the aircraft touched down in the selected paddock with the gear only partially extended. Investigation revealed that the engines had failed when the fuel in the selected tanks was exhausted. Fuel sufficient for about 11 minutes of flight time was drained from the auxiliary tanks at the accident site. No mechanical fault or defect was discovered which might have led to the accident. The pilot advised that when the engines failed, the appropriate fuel gauges were indicating that substantial fuel remained. Examination at the accident site revealed that the gauges were reading virtually empty. However, one of the gauges was known to have given inaccurate readings in flight and the discrepancy in gauge indications was not resolved. The pilot was aware that fuel had vented in flight from this particular aircraft. The company provided tape with which to seal the fuel filler cover flaps, in an effort to prevent further fuel loss by venting. The pilot had applied this tape as suggested, and although there was no evidence of fuel venting in flight, this possibility remains. The pilot had no means of accurately determining the fuel quantity on board prior to DEPARTURE for the return flight from Merimbula. He had very limited experience on the type, and did not know what the fuel consumption figures would be, using his fuel management techniques. He was also aware that one of the fuel gauges was inaccurate. Although fuel was readily available at the aerodrome, the pilot had elected not to refuel the aircraft.

Significant Factors:

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

1. The pilot had limited experience on the aircraft type.
2. The pilot was unaware of the precise quantity of fuel on board the aircraft prior to DEPARTURE.
3. The pilot had evidently not taken all relevant information into consideration when electing not to refuel the aircraft.