Aviation Safety Investigation Report 199502323

Piper Aircraft Corp
Turbo Arrow IV

22 July 1995

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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.

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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: 199502323 **Occurrence Type:** Incident
Location: 70km NE Melbourne, Aerodrome
State: VIC **Inv Category:** 4
Date: Saturday 22 July 1995
Time: 1647 hours **Time Zone** EST
Highest Injury Level: None

Aircraft Manufacturer: Piper Aircraft Corp
Aircraft Model: PA-28R-201T
Aircraft Registration: VH-LYA **Serial Number:** 28R-7703299
Type of Operation: Non-commercial Pleasure/Travel
Damage to Aircraft: Nil
Departure Point: Moorabbin VIC
Departure Time: 1615 EST
Destination: Corowa NSW

Crew Details:

Role	Class of Licence	Hours on Type	Hours Total
Pilot-In-Command	Private	301.0	518

Approved for Release: Thursday, August 10, 1995

The pilot submitted a plan for a flight from Moorabbin to Corowa via Melbourne and Mangalore. When the aircraft was approaching Melbourne, air traffic control (ATC) issued a clearance to track direct to Corowa. About 15 minutes later the pilot reported that he entered intermittent instrument meteorological conditions (IMC). The aircraft was cruising at 7000 feet and no icing was present. Shortly afterwards, the aircraft entered continuous IMC and a short time after that ice started to form on the windscreen.

The pilot requested descent. Before ATC responded to his request he adjusted the directional gyro (DG) to correspond with the magnetic compass. The autopilot had been engaged for some time before the DG adjustment was made. The pilot made the adjustment by pressing in on the heading bug knob while he pressed and turned the DG adjusting knob. This procedure was intended to prevent the aircraft from turning while the DG was adjusted.

The pilot said that immediately after the two knobs were released, the aircraft turned sharply to the right. He attempted to correct this manoeuvre, principally with rudder, but the aircraft persisted with the turn and began a rapid descent. From that point the pilot probably became disorientated. He made a mayday call and advised that the aircraft was inverted and that he had lost control. ATC assisted by providing advice on aircraft present position, lowest safe altitude, ground elevation and cloud base.

ATC then asked the pilot if the aircraft was autopilot equipped. This prompted the pilot to disengage the autopilot and shortly afterwards he regained control. Until that point he had unwittingly been trying to override the autopilot. The aircraft was close to 4000 feet when control was regained. Recorded radar data and communications showed that the aircraft had executed a series of left turns and descended from 7000 feet to 4200 feet in about two minutes. Three and a half minutes after the mayday call the pilot advised that control had been regained. Altitude varied up and down during that time.

The pilot then elected to proceed to his destination, initially accepting ATC vectors via Mangalore. When the aircraft was later inspected by its home base maintenance organisation, no fault could be found with the autopilot. The aircraft had not been overstressed during the incident.

Factors

The following factors were relevant to the development of the incident:

. Control of the aircraft was lost in IMC for undetermined reasons.

. The autopilot was engaged when control was lost and the pilot neglected to disengage the autopilot, until prompted by ATC, while trying to regain control.