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ATSB TRANSPORT SAFETY REPORT
Aviation Occurrence Investigation – AO-2010-023
Preliminary

# Collision with terrain, VH-KDS 43 km east of Perth Aerodrome, Western Australia 28 March 2010

## Abstract

On 28 March 2010, a Piper Aircraft Corp PA-30 Twin Comanche, registered VH-KDS, departed from Jandakot Aerodrome, Western Australia for a private flight under the visual flight rules. On board were two qualified pilots, both of whom were endorsed on the aircraft type. Following the failure of the aircraft to return to Jandakot later that day, a search was initiated to locate the aircraft and occupants. The following morning, the seriously-damaged aircraft was located and both occupants were found to have received fatal injuries.

Examination of onboard GPS information indicated that, while tracking towards Jandakot Aerodrome, the aircraft commenced a steep descent from about 3,500 ft above mean sea level that continued to ground level.

The investigation is continuing.

## FACTUAL INFORMATION

### History of the flight

*The information contained in this preliminary report is derived from initial investigation of the occurrence. Readers are cautioned that there is the possibility that new evidence may become available that alters the circumstances as depicted in the report.*

At 0826 Western Standard Time[1] on 28 March 2010, a Piper Aircraft Corp PA-30 Twin Comanche (PA-30), registered VH-KDS, departed from Jandakot Aerodrome, Western Australia (Figure 1) for a private flight under the visual flight rules (VFR). On board the aircraft were two qualified pilots, both of whom were endorsed on the aircraft type.

Following the failure of the aircraft to return to Jandakot later that day, a search was initiated to locate the aircraft and occupants. The following morning, the aircraft wreckage was located and both occupants were found to have received fatal injuries.

Information on the aircraft's flight path was recovered from a global positioning system (GPS) unit onboard the aircraft. This information, which included position, groundspeed and altitude, indicated that following departure from Jandakot, the aircraft tracked to the north via a VFR route to the east of Perth Aerodrome (Figure 1). The aircraft overflew Northam township prior to

1 The 24 hour clock is used in this report to describe the local time of day, Western Standard Time (WST), as particular events occurred. Western Standard Time is Coordinated Universal Time (UTC) + 8 hours.

conducting operations between Toodyay and Goomalling townships, before tracking to the south via the same VFR route towards Jandakot. The GPS indicated that at 0948, the aircraft commenced a steep descent from about 3,500 ft above mean sea level that continued to ground level.

On the morning of the accident, a witness who was located about 2 km from the accident site recalled hearing the engine of an aircraft that was approaching from the north 'splutter' once or twice then resume normal operation.' A short time later the engine revolutions were heard to increase significantly followed by a 'thud' or 'boom'. The witness described the final sound as similar to that associated with blasting that routinely occurred at a nearby mine.

## Pilot information

Both pilots held Australian private pilot (aeroplane) licences, issued by the Civil Aviation Safety Authority (CASA) and both were appropriately endorsed to operate the PA-30.

Both pilots also held CASA Class 2 Aviation medical certificates with the requirement that distance correction glasses were to be worn. Additionally, one of the pilots had a requirement to fly with a safety pilot.

A flying log book belonging to one of the pilots indicated that as at 31 August 2009, his total flying experience was 713.2 flying hours, including 26.7 flying hours in PA-30 aircraft, all in the occurrence aircraft.

The second pilot's aeronautical experience could not be accurately determined as his flying log book was not located. His most recent medical conducted on 14 January 2010 indicated a total flying experience of 330 flying hours at that time, 10 hours of which had been obtained in the preceding 6 months.

## Aircraft information

The aircraft, serial number 30-952, was manufactured in the United States in 1965, and was operated in Australia as a class B instrument flight rules aircraft under the charter category. The aircraft was maintained in accordance with Schedule 5 of Civil Aviation Regulation 1988 and the engine and propeller manufacturer's maintenance requirements, which incorporated daily, 50 and 100 hourly scheduled maintenance inspections.

The aircraft last underwent maintenance on 13 February 2010, consisting of the replacement of the aircraft's main tyres. The last 100 hourly maintenance inspection was conducted at 5,622.8 airframe hours on 12 June 2009.

Examination of refuelling records indicated that the aircraft was refuelled with 132 L of fuel on the morning of the occurrence flight. The refueller stated that the quantity of fuel was added to the aircraft's main and auxiliary tanks, such that all four tanks were visibly full[2]. No fuel was added to either of the wingtip fuel tanks.

## Wreckage and impact information

The accident site was located in sloping, timbered terrain adjacent to a large cleared area. Contact marks on a number of surrounding trees indicated that the aircraft descended steeply in a westerly direction before coming to rest at the base of a tree and facing back along the approach direction (Figure 2).

On-site examination of the wreckage identified a number of components, including the left stabiliser, left propeller and outboard sections of both wings that had detached during the accident sequence. All major parts of the aircraft were accounted for at the accident site.

About 11 L of fuel was recovered from the intact left auxiliary fuel tank, the remaining three main and auxiliary rubber fuel cells were disrupted during the collision sequence.

A number of aircraft components were removed from the accident site for further technical examination, including the aircraft's engines and propellers, a portable GPS unit, cockpit instrumentation and a number of autopilot components.

# FURTHER INVESTIGATION

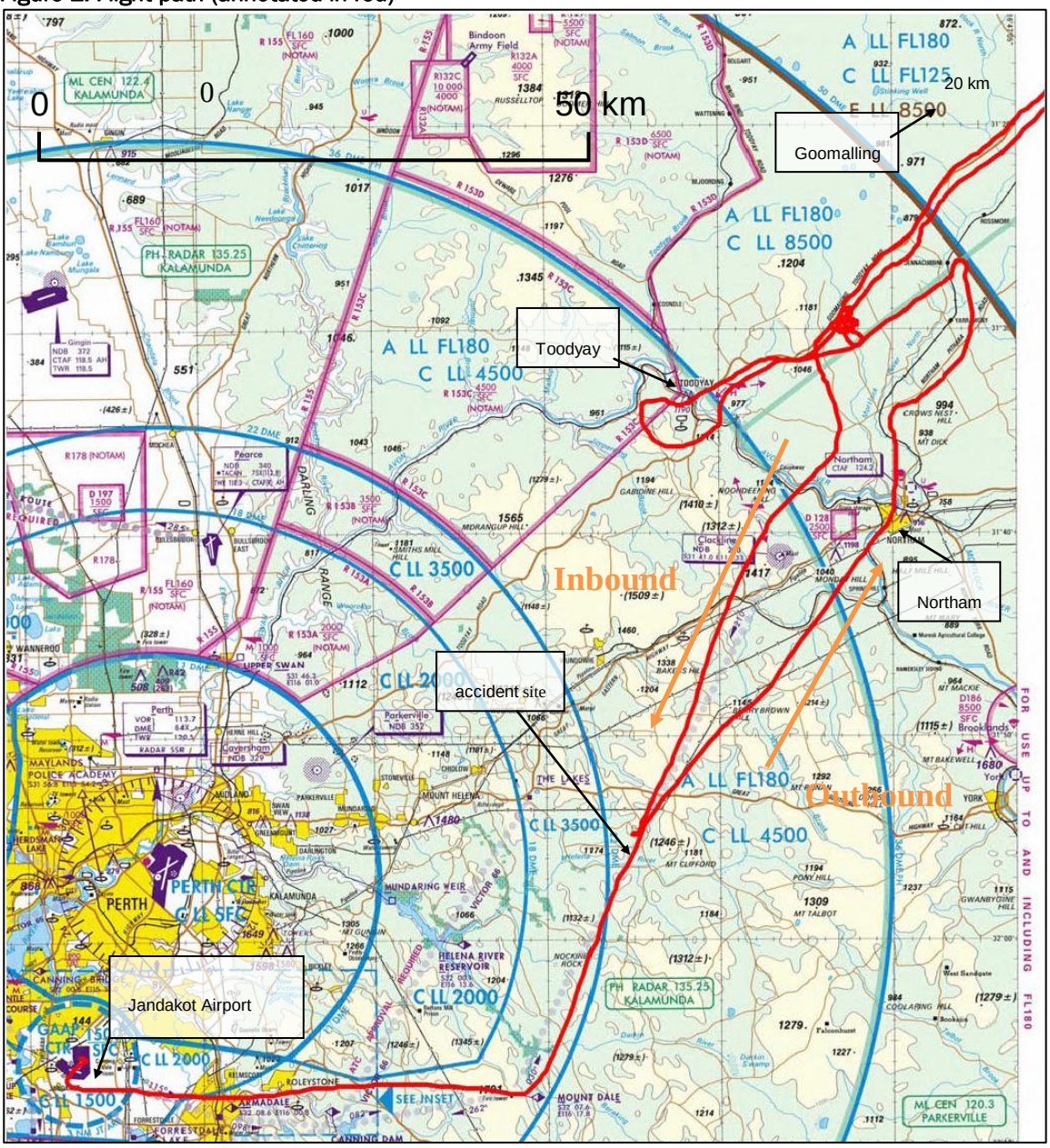
The investigation is continuing and will include:

- technical examination of the aircraft's engines, propellers, GPS, autopilot and cockpit instrumentation

2 Full main and auxiliary tanks provided 318 L of usable fuel.

- analysis of recorded radar and radio information
- an examination of operational issues
- a review of the aircraft's maintenance.

**Figure 1: Flight path (annotated in red)[3]**




3 Courtesy Airservices Australia.

Figure 2: Accident site