

Landing on a closed runway involving a Cessna 404, VH-HVR

near Pigeon Hole (ALA), Northern Territory, 24 July 2013

ATSB Transport Safety Report Aviation Occurrence Investigation AO-2013-127

Final - 10 December

Released in accordance with section 25 of the Transport Safety Investigation Act 2003

Publishing information

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Addendum

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What happened

On 24 July 2013, the pilot of a Cessna 404 aircraft, registered VH-HVR, was preparing for a charter flight from Darwin to the Pigeon Hole aeroplane landing area (ALA), Northern Territory. The purpose of the flight was to pick up passengers and return to Darwin.

In preparation for the flight, the pilot used the operator's electronic flight planning system to generate the flight plan, which also provided coordinates for the ALA and stated that the runway direction was 18/36. The pilot reported that the coordinates for the ALA had been previously entered into the global positioning system (GPS), which was to be used throughout the flight for navigation assistance.

At about 1312 Central Standard Time,¹ the aircraft departed Darwin, about 45 minutes behind schedule. As the flight progressed, the pilot reported feeling tired.

Given the wind conditions, the pilot elected to conduct a straight-in-approach to runway 18.

When about 15 NM from the ALA, the pilot sighted the runway. When at 5 NM, on final approach, the pilot assessed the condition of the airstrip and noticed that the runway surface appeared overgrown with vegetation. The pilot configured the aircraft for landing.

At about 1500 CST, when below 300 ft above ground level, the pilot noted that there were no runway strip markers or windsock. The pilot then realised that the airstrip was closed, but due to the aircraft's altitude, elected to continue the landing. During the landing, the aircraft struck vegetation, but the pilot did not believe the aircraft had collided with anything.

After landing, the pilot assessed the situation and elected to take off. During the take-off, the pilot confirmed that the engines were operating normally and after becoming airborne, observed the correct ALA about 2 km south-west of the Pigeon Hole Township (Figure 1).

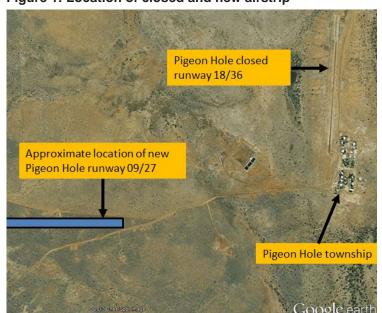


Figure 1: Location of closed and new airstrip

Source: Google earth

Central Standard Time (CST) was Coordinated Universal Time (UTC) + 9.5 hours.

The aircraft joined the crosswind leg of the circuit for runway 09. The pilot conducted the prelanding checks and visually confirmed that there was no grass obstructing the landing gear. The aircraft landed without further incident.

The pilot conducted an inspection of the aircraft and noted that minor damage had been sustained to the leading edge of the right wing (Figure 2) and propeller.

Figure 2: Damage to leading edge



Source: Operator

Airstrip information

The original Pigeon Hole airstrip was an uncertified, unregistered aeroplane landing area (ALA), located north of the Pigeon Hole Township. The airstrip had one runway aligned 18/36. The airstrip was privately owned and operated. About 1-2 years prior to the incident, the airstrip was closed. A new airstrip was developed about 2 km south-west of the Township, with one runway aligned 09/27.

The operator reported that, due to the proximity of the new airstrip to the closed airstrip and the fact that the latitude and longitude were provided in degrees and minutes only, the coordinates for both airstrips were the same. Furthermore, the operator's 'ALA book' indicated that the runway direction was 09/27, but the electronic flight planning system indicated the runway was 18/36. The Aircraft Owners and Pilots Association of Australia (AOPA) National Airfield Directory 2012 also indicated the runway was 18/36.

Pilot comments

The pilot provided the following comments regarding the incident:

- There were no markings observed on the runway to indicate that the airstrip was closed.⁴
- If the pilot was aware that the 404 aircraft had previously been flown into the airstrip and/or the
 condition of the runway could be visually confirmed during the approach, an overfly of the
 airstrip was not generally conducted.

The ALA book contained information on the airstrips used by the operator.

Information contained in the AOPA National Airfield Directory is provided for general guidance only and the accuracy of the information has not been verified.

The Aeronautical Information Publication (AIP) AD 1.1 paragraph 4, subparagraph 3.3.2 states that: 'When an aerodrome that does not have 24 hour ATC [air traffic control] coverage is completely unserviceable for all operation, an unserviceability cross marker is displayed in the signal circle'.

- The pilot had commenced work at 0700 and had accrued about 4.5 hours flight time prior to departing Darwin. On arrival at the airstrip, the pilot reported feeling tired after a further 2 hours of flight time, which may have affected the decision to continue with the landing, instead of conducting a go-around. This may also have affected the pilot's reaction time in making decisions and assessing the situation. The pilot determined that, given the height of the aircraft above the ground and its configuration, it was not safe to go around.
- The pilot had operated into the new Pigeon Hole airstrip on two occasions, about 4months
 prior to the incident. However, over the previous 6 months, the pilot had flown to over 40
 airstrips and relied on the operator's electronic flight planning system and ALA book, rather
 than memory, for airstrip information.
- The information contained in the operator's flight planning system and the coordinates entered
 into the GPS were for the closed airstrip. After the incident, the pilot referenced the ALA book
 and noted that the runway direction had previously been updated and a note regarding the
 closed airstrip was included.
- The pilot reported that the operator's ALA book was referenced for the first 9 months of employment and when operating into an unknown airstrip, but for the incident flight, the book was not used.
- Most of the airstrips the company operates into are remote, and obtaining reliable information regarding the condition of the airstrip can be difficult.
- Planning to overfly and inspect a runway can add time to the flight, but may prevent similar incidents occurring.

Safety action

Whether or not the ATSB identifies safety issues in the course of an investigation, relevant organisations may proactively initiate safety action in order to reduce their safety risk. The ATSB has been advised of the following proactive safety action in response to this occurrence.

Operator

As a result of this occurrence, the aircraft operator has advised the ATSB that they are taking the following safety actions:

- Closed airstrip: They have asked the owners of the closed airstrip to place unserviceability
 cross markers at either end of the runway.
- Pilot responsibilities: Company pilots will be reminded of their responsibilities regarding the
 use of ALA's and the need to check and confirm all details contained in the ALA book prior to
 the commencement of a flight.
- *Electronic flight planning system*: The operator's electronic flight planning system has been updated to ensure that the information on Pigeon Hole (ALA) is current.
- ALA book: Information for Pigeon Hole in the ALA book had been updated in June 2011 with
 the new runway direction and a note stating that the old (closed) airstrip located north of
 Township was not to be used. Since the incident, this information has been made more visible
 in the book, with the appropriate text highlighted.
- Incident: For learning purposes, the incident will be discussed at the next pilot meeting.
- Pilot proficiency checks: Pilot proficiency checks will include a requirement to conduct an allengines operating go-around from 50 ft.

Safety message

This incident highlights the importance of reviewing all available information appropriate to the intended operation, including the condition and suitability of the selected landing area/s, and ensuring that operational documents are current. It also demonstrates the benefits of overflying an airstrip to assist with determining the suitability of the landing area and the need to be go-around prepared and go-around minded.

General details

Occurrence details

Date and time:	24 July 2013 – 1500 CST	
Occurrence category:	Serious incident	
Primary occurrence type:	Navigation event	
Location:	near Pigeon Hole (ALA), Northern Territory	
	Latitude: 16° 49.00' S	Longitude: 131° 13.00' E

Aircraft details

Manufacturer and model:	Cessna Aircraft Company 404		
Registration:	VH-HVR		
Serial number:	404-0673		
Type of operation:	Charter		
Persons on board:	Crew – 1	Passengers – Nil	
Injuries:	Crew – Nil	Passengers – Nil	
Damage:	Minor		

About the ATSB

The Australian Transport Safety Bureau (ATSB) is an independent Commonwealth Government statutory agency. The Bureau is governed by a Commission and is entirely separate from transport regulators, policy makers and service providers. The ATSB's function is to improve safety and public confidence in the aviation, marine and rail modes of transport through excellence in: independent investigation of transport accidents and other safety occurrences; safety data recording, analysis and research; and fostering safety awareness, knowledge and action.

The ATSB is responsible for investigating accidents and other transport safety matters involving civil aviation, marine and rail operations in Australia that fall within Commonwealth jurisdiction, as well as participating in overseas investigations involving Australian registered aircraft and ships. A primary concern is the safety of commercial transport, with particular regard to fare-paying passenger operations.

The ATSB performs its functions in accordance with the provisions of the *Transport Safety Investigation Act 2003* and Regulations and, where applicable, relevant international agreements.

The object of a safety investigation is to identify and reduce safety-related risk. ATSB investigations determine and communicate the safety factors related to the transport safety matter being investigated.

It is not a function of the ATSB to apportion blame or determine liability. At the same time, an investigation report must include factual material of sufficient weight to support the analysis and findings. At all times the ATSB endeavours to balance the use of material that could imply adverse comment with the need to properly explain what happened, and why, in a fair and unbiased manner.

About this report

Decisions regarding whether to conduct an investigation, and the scope of an investigation, are based on many factors, including the level of safety benefit likely to be obtained from an investigation. For this occurrence, a limited-scope, fact-gathering investigation was conducted in order to produce a short summary report, and allow for greater industry awareness of potential safety issues and possible safety actions.