



**PRELIMINARY REPORT**

**AIC 25 - 1001**



**Tropicair Limited**

**P2-AXL**

**DHC-6-400 Twin Otter**

**Runway Excursion During Landing**

**Kerema Airport,**

**Gulf Province**

**PAPUA NEW GUINEA**

**6 February 2025**

## ABOUT THE AIC

The Accident Investigation Commission (AIC) is an independent statutory agency within Papua New Guinea (PNG). The AIC is governed by a Commission and is entirely separate from the judiciary, transport regulators, policy makers and service providers. The AIC's function is to improve safety and public confidence in the aviation mode of transport through excellence in independent investigation of aviation accidents and other safety occurrences within the aviation system; safety data recording and analysis; and fostering safety awareness, knowledge and action.

The AIC is responsible for investigating accidents and other transport safety matters involving civil aviation, in PNG, as well as participating in overseas investigations involving PNG registered aircraft.

A primary concern is the safety of commercial transport, with regard to fare-paying passenger operations.

The AIC performs its functions in accordance with the provisions of the *Papua New Guinea Civil Aviation Act 2000*, the *Commissions of Inquiry Act 1951* and *Annex 13 to the Convention on International Civil Aviation*.

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

On 6 February 2025 at 11:09 local time (01:09 UTC), the AIC was notified by Tropicair Limited (Ltd) about an occurrence which had occurred on the same day at 10:28 local time. The occurrence involved a De Havilland Aircraft of Canada, DHC-6-400 Twin Otter aircraft, registered P2-AXL, owned and operated by Tropicair Ltd. The AIC immediately commenced an investigation, and a team of investigators was dispatched to the site to carry out the on-site investigation activities on the same day.

This Written Preliminary Aircraft Accident Investigation Report was produced by the AIC, and contains facts known to the AIC before the official release date. It is released by the Commission in accordance with *Recommendation 5.4.6 of ICAO Annex 13*. The report is also publicly available on the AIC website <https://www.aic.gov.pg>.

The report is based on the initial investigation carried out by the AIC in accordance with PNG Civil Aviation Act 2000, Chapter 31 of the Commissions of Inquiry Act 1951, Annex 13 to the Convention on International Civil Aviation, and the PNG AIC Investigation Policy and Procedures Manual. It contains factual information. Analysis of that information, findings and contributing (causal) factors, other factors, safety actions, and safety recommendations are reserved for the Final Report

The sole objective of the investigation and the Preliminary Report is the AIC's obligation to the Convention on International Civil Aviation and in accordance with ICAO Annex 13, and thereby promotes aviation safety. Readers are advised that in accordance with Section 219 of the Civil Aviation Act 2000 and ICAO Annex 13, it is not the purpose of the Commission's aircraft accident or serious incident investigations to apportion blame or liability. Fact-based statements in the report should not be interpreted as apportioning blame.

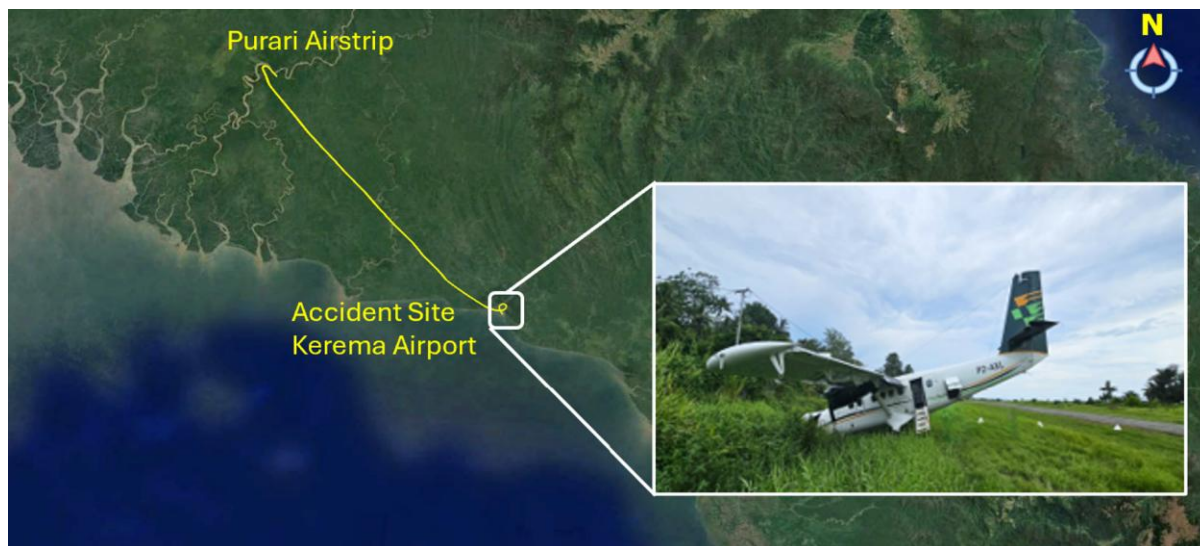
Consequently, AIC reports are confined to matters of safety significance and may be misleading if used for any other purpose.



**Maryanne J. Wal**  
*Chief Commissioner*  
6 March 2025

## Occurrence details

On 6 February 2025, at 10:28 local (00:28 UTC<sup>1</sup>), a De Havilland Aircraft of Canada, DHC-6-400 Twin Otter aircraft, registered P2-AXL, owned and operated by Tropicair Limited (Ltd), was conducting an IFR<sup>2</sup> Charter flight from Purari Airstrip to Kerema Airport, Gulf Province, Papua New Guinea, when during the landing roll at Kerema, it experienced a runway excursion and rolled into a drainage ditch which runs along the left side of the runway and impacted the embankment.



**Figure 1: Overview of P2-AXL flight path and accident site**

There were ten (10) persons on board: two (2) pilots and eight (8) passengers. The Pilot in Command (PIC) was the pilot flying and occupied the left seat. The Co-Pilot was the pilot monitoring and occupied the right seat.

According to Air Traffic Services (ATS) recorded data, the aircraft departed Purari Airstrip at 10:01, climbed to an altitude of 5,000 ft Above Mean Sea Level (AMSL), and began tracking southeast to Kerema Airport with an estimated arrival time of 10:25.

During an interview with the AIC, the crew stated that they encountered adverse weather along the route and therefore continued the flight at an altitude above the published Lowest Safe Altitude (LSALT) for Kerema. The recorded data indicated that at 10:15, approximately 38 nautical miles (NM) northwest of Kerema Airport, the aircraft commenced a descent from 5,000 ft AMSL to 4,600 ft AMSL and maintained that altitude for about five minutes.

At 10:21, approximately 9 NM northwest of Kerema Airport, the crew initiated their descent for a visual approach to Kerema Airport. At 10:22, approximately 7 NM northwest of Kerema Airport and descending through 4000 ft AMSL, the crew canceled SARWATCH<sup>3</sup> and proceeded with the visual approach to the circuit area, where they arrived at 10:25.

The crew stated that upon arrival in the Kerema circuit area, they observed no rain over the airfield. However, there was weather activity developing towards the southeast of the airfield.

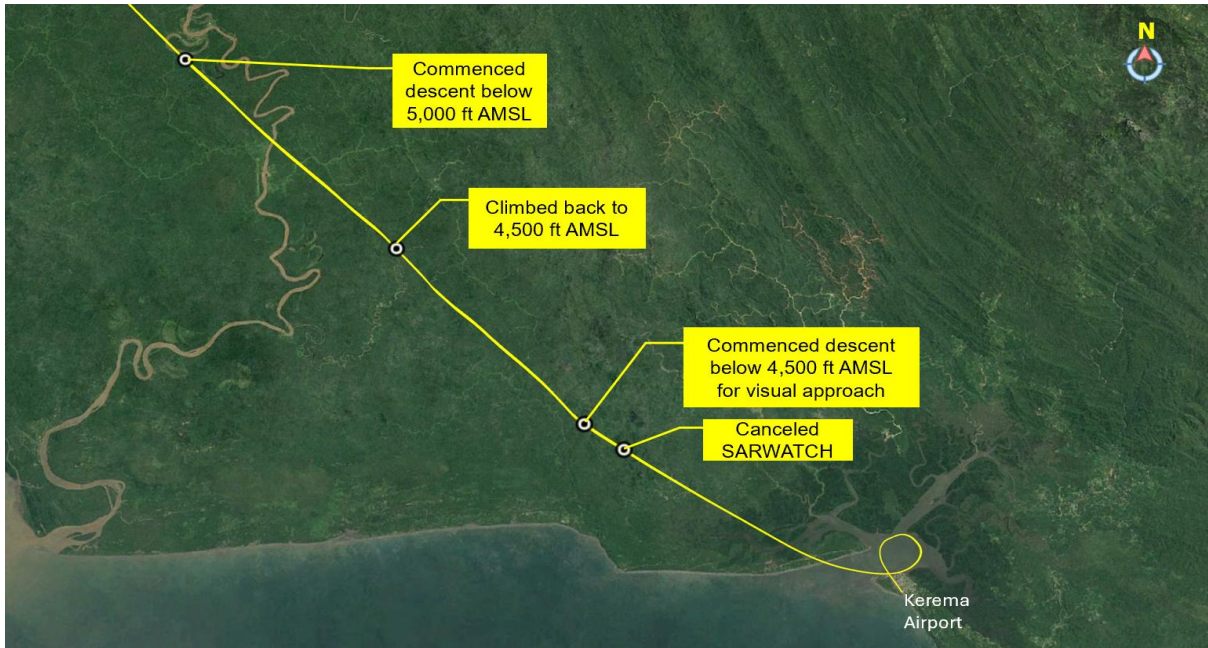
The recorded data indicated that at 10:26, the aircraft was positioned over the airfield while passing through 1,200 ft Above Ground Level<sup>4</sup> (AGL). The crew visually assessed the runway as being suitable for landing and continued with the approach.

<sup>1</sup> The 24-hour clock, in Coordinated Universal Time (UTC), is used in this report to describe the local time as specific events occurred. Local time in the area of the accident, Papua New Guinea Time (Pacific/Port Moresby Time) is UTC +10 hours

<sup>2</sup> Instrument Flight Rules: Rules and regulations established to govern flight under conditions in which flight by outside visual reference is not safe. IFR flight depends upon flying by reference to instruments in the flight deck, and navigation is accomplished by reference to electronic signals. It is also a term used by pilots and controllers to indicate the type of flight plan an aircraft is flying, such as an IFR or VFR flight plan.

<sup>3</sup> SARWATCH A generic term covering SAR alerting based either on full position reporting procedures, scheduled reporting times (SKEDS) or SARTIME.

<sup>4</sup> Above Ground Level (AGL)-All altitude data obtained from the Appareo Unit recorded data are reference to the Kerema Airport elevation of 8 ft

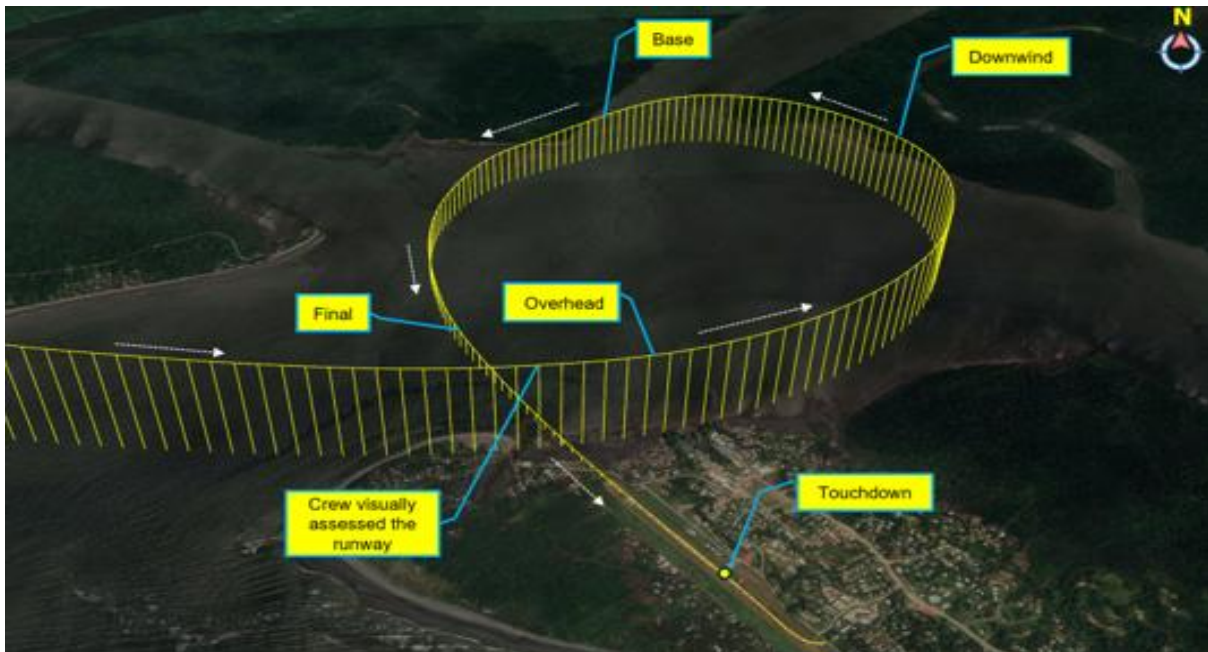


**Figure 2: P2-AXL flight path after descending below 5,000 ft**

The crew then tracked east over the airfield, joining a left downwind before turning left onto the base leg for Runway (RWY) 14 while passing through 700 ft AGL. At 10:27, the aircraft was established on final approach, passing through 150 ft AGL.

According to the crew, while turning onto final, they observed a tailwind from the right. The PIC added that as the aircraft descended closer to the runway surface, the effect of the tailwind from the right decreased and maintained about 10 Knots (Kts), which is below the maximum allowable tailwind component for the aircraft and therefore, the crew proceeded with the landing.

The Recorded data showed that the aircraft touched down at 10:28.



**Figure 3: Kerema Airport Circuit Area**

The recorded data also indicated that there were no abnormalities with directional controllability on touchdown as well as the initial landing roll. The aircraft continued to decelerate while tracking along the runway centerline after touchdown. However, according to the PIC, when he attempted to apply the brakes to further reduce the aircraft's speed, it began to gradually drift to the right of the centerline.

Tyre markings identified by the onsite investigation showed that the nose wheel as well as the main landing wheels departed the runway, and the aircraft tracked on the grass surface along the runway edge. According to the PIC, asymmetric power was applied together with rudder input, to get the aircraft back onto the centerline. The aircraft subsequently turned back to the left towards the centerline.

The PIC stated that once back on the runway centreline the aircraft continued to veer further left of the centreline towards the left edge of RWY 14. Recorded data showed that the PIC applied full reverse thrust, however, the aircraft continued onto the grass surface past the runway edge and into an adjacent drainage ditch.

The aircraft impacted the embankment and came to rest. The crew subsequently shut down the aircraft and proceeded with the evacuation of passengers. The crew and the passengers egressed the aircraft through the left rear exit door. There were no reported injuries to the crew and passengers.

### **Damage**

The aircraft sustained substantial structural damage to the nose section of the aircraft and nose landing gear assembly on impact (see Figure 4).



Figure 4: Overview of damage sustained by the aircraft

## **AIC Comment**

The investigation is continuing and intends to understand the reason for the runway excursion. The investigation will also include but not limited to the operations, systems, performance, maintenance, and serviceability, weather, aerodrome, organisational aspects, design and manufacture.

The investigation analysis and findings will be included in the Final Report.

## **Safety Actions**

At the time of the issue of this Preliminary report, no Safety Actions have been reported.

## **Recommendations**

At the time of the issue of this preliminary report, no safety recommendations have been issued by the AIC.

## General Details

Date and time:	6 February 2025, 10:28 (00:28 UTC)	
Occurrence category:	Accident	
Primary occurrence type:	Runway excursion during landing roll	
Location:	Kerema Airport, Gulf Province	
	Latitude: 7° 57' 49.7"S	Longitude: 145°46' 18.7"E
Airstrip type	Two-way Landing & Taking off.	
Runway Identifier	14/32	
Elevation	8 ft	
Runway Length	944 m	
Runway Width	18 m	

## Type of Operation, Injury, and damage details

Type of operation	IFR Charter Flight	
Persons on Board	Crew: 2 Pilots (PIC and Co-pilot)	Passengers: 8
Injuries	Crew: Nil	Passengers: Nil
Damage	Substantial structural damage to the nose section of the aircraft and nosewheel assembly	

## Crew details

Pilot-in-Command		Co-Pilot	
Nationality	Fijian	Nationality	Fijian
Gender	Male	Gender	Male
Age	43	Age	43
Licence type	CPL Aeroplane	Licence type	CPL Aeroplane
Total hours	6,286.6	Total hours	6,303.02
Total hours in Command	2,960.7	Total hours in Command	3,591.17
Total hours on type	6,064.8	Total hours on type	5,968.55

## Aircraft Details

Airframe	
Aircraft manufacturer and model:	De Havilland Aircraft of Canada / DHC-6-400
Registration:	P2-AXL
Serial number:	895
Year of Manufacture	2014
Engine	
Engine manufacturer and model	Pratt & Whitney, PT6A-34
Left Engine Serial Number	PCE-RB0770
Right Engine Serial Number	PCE-RB0771
Propeller	
Propeller Make and Model	Hartzell / HC-B3TN-3D/T10282NB
Left Propeller Serial Number	BUA-32697
Right Propeller Serial Number	BUA-32880