ACCIDENT INVESTIGATION COMMISSION

Preliminary Report

AIC 24-1001

North Coast Aviation

P2-NCA

PAC 750 XL

Runway excursion

Bungawat Airstrip,

Morobe Province

PAPUA NEW GUINEA

8 January 2024

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 particular regard to fare-paying passenger operations.

The AIC performs its functions in accordance with the provisions of the PNG Civil Aviation Act 2000 (as Amended), and 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 9 January 2024 at 08:30 local time (22:30 UTC), the AIC was notified by the Operator via email of an accident at Bungawat Airstrip, Morobe Province, that occurred on 8 January 2024 at about 09:26, involving its PAC 750 XL aircraft, registered P2-NCA, owned and operated by North Coast Aviation. The AIC immediately commenced an investigation and deployed a team of investigators to perform on-site activities on the 13 January 2024.

This Preliminary Aircraft Serious Incident 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 Para 7.1 of *ICAO Annex 13*. The report is also publicly available on the AIC website: www.aic.gov.pg.

The report is based on the initial investigation carried out by the AIC in accordance with *Papua New Guinea Civil Aviation Act 2000 (as amended)*, *Chapter 31* of the *Commissions of Inquiry Act*, *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 promote aviation safety. (Reference: *ICAO Annex 13, Chapter 7*). Readers are advised that in accordance with *Section 219* of the *Civil Aviation Act 2000 (as amended)* and *Annex 13*, it is not the purpose of the Commission's aircraft accident investigation 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
7 February 2024

Occurrence details

On 8 January 2024, at about 09:26 local (23:26 UTC[1]), a PAC 750XL aircraft registered P2-NCA, owned and operated by North Coast Aviation (NCA), was conducting a VFR[2] passenger flight from Nadzab Tomodachi International Airport to Bungawat Airstrip, Morobe Province, Papua New Guinea, when during landing, the aircraft experienced a loss of directional control on touchdown and subsequent runway excursion.

Figure 1: Depiction of P2- NCA accident site

There were 13 persons on board; 2 pilots and 11 passengers inclusive of a child. None of the aircraft's occupants were injured.

The pilot flying was occupying the left seat and was In-Command Under Supervision (ICUS). The right seat was occupied by a Check and Training pilot who was the pilot monitoring.

According to the V2-Track[3] recorded data, the aircraft departed Nadzab at 09:04, climbed to an altitude of not more than 8,800 ft AMSL[4] and tracked North via Saidor Gap for Bungawat. During an interview with the AIC, the pilots stated that there was no significant weather along the route to Bungawat.

At 09:17, about 12.7 nautical miles (NM) to Bungawat Airstrip, the aircraft commenced the descent from 8,800 ft AMSL to an altitude of about 5,800 ft AMSL and continued with the flight arriving in the circuit area at 09:22.

Air Traffic Services (ATS) recording indicated that at about 09:24, SARWATCH[5] was cancelled.

[1] 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 serious incident, Papua New Guinea Time (Pacific/Port Moresby Time) is UTC +10 hours.
[2] Visual flight rules
[3] A satellite tracking device for aircraft. This enables the aircraft's position to be monitored from an internet connected device. It includes an 'SOS' button, which can bemanually activated by the crew in an emergency.
[4] Above Mean Sea Level
[5] Search and Rescue Watch; Monitoring of a flight to activate emergency services if not requested by the pilot to be cancelled by a specific time.

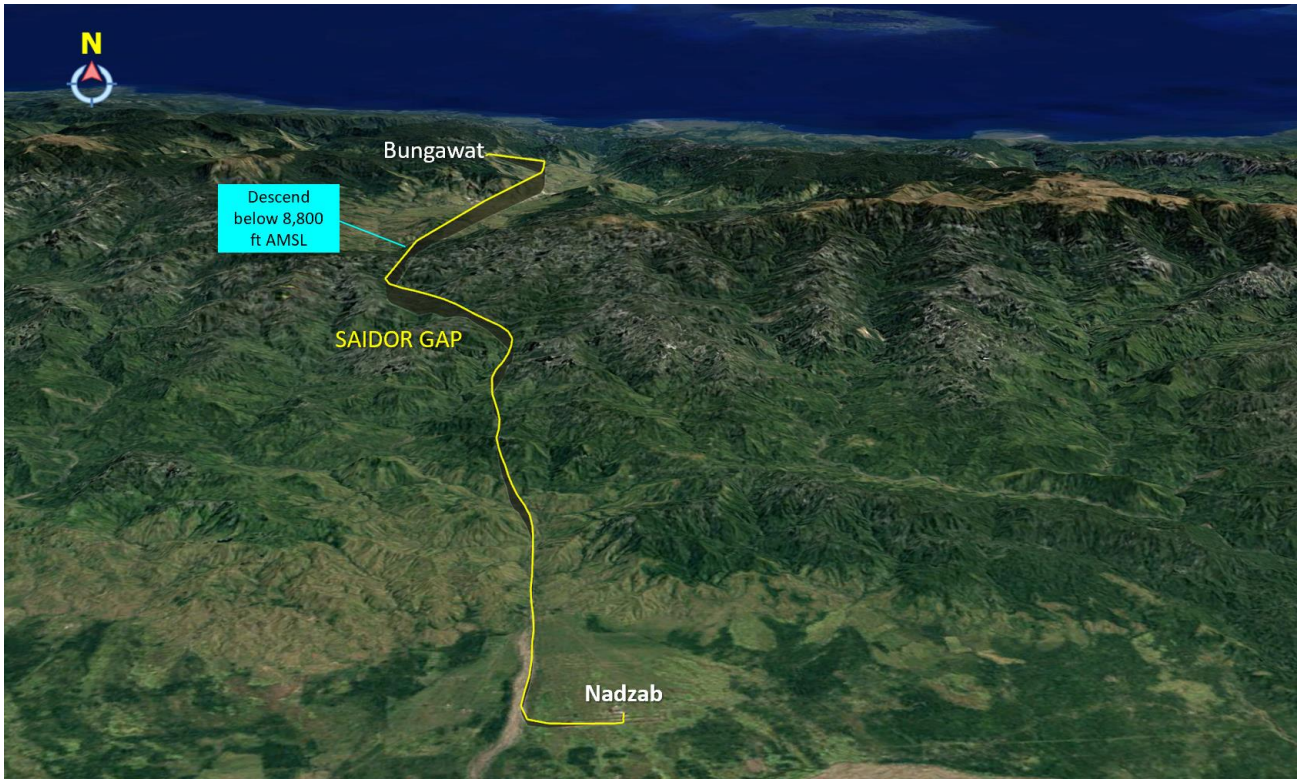

Figure 2: P2-NCA flight path from Nadzab to Bungawat Airstrip.

The flight crew stated that they tracked overhead the strip, towards the Northeast for an aerial inspection of the strip. They stated that when they were positioned overhead, they visually assessed the airstrip as being suitable for landing, however, there was cloud along the extended centerline of the final approach path.

While overhead the strip, the flight crew stated that they observed that it was clear of cloud to the right of the final approach path, therefore, they elected to proceed with the flight for landing. The ICUS pilot handed over controls to the PIC who then proceeded to join the circuit on right downwind. The PIC stated that as they turned on to base, he positioned the aircraft for an oblique final approach, to avoid the cloud build-up along the extended centerline on the final approach path and maintained an airspeed of 80kts. The PIC then configured the aircraft by fully extending flaps and maintained an airspeed ranging between 65 to 75 kts on final approach, decreasing to about 60 to 65 kts on shorts finals.

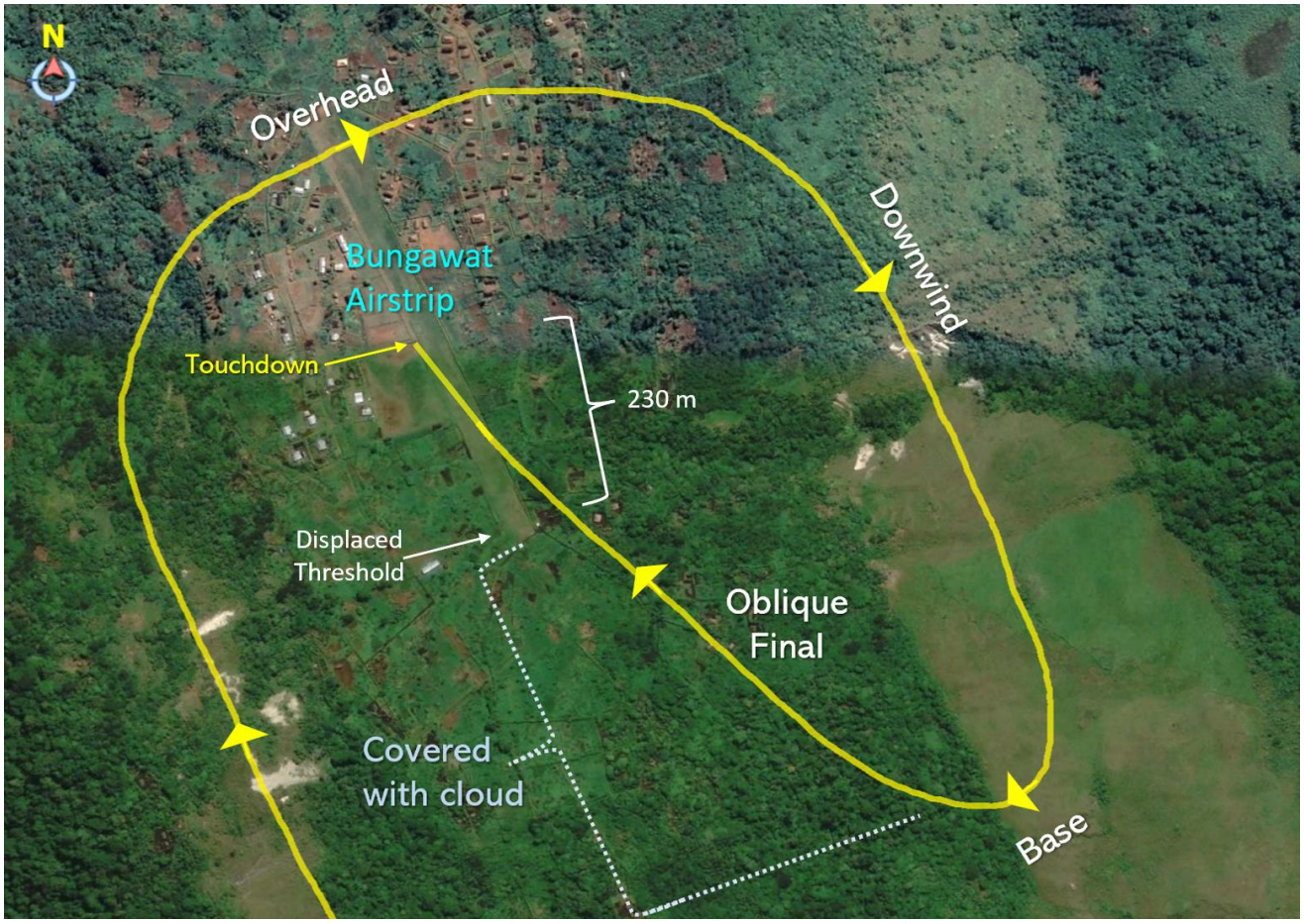

Figure 3: P2-NCA estimated overview of the circuit (Source: V2 Track recorded data and pilot interview)

The flight crew stated that they experienced a hard landing. The aircraft touched down at about 230 m beyond the displaced threshold of runway 36, towards the left of centerline. The pilot subsequently applied full right rudder to bring the aircraft back onto the centerline, however the pilot overcorrected, resulting in the aircraft veering to the right side of the strip.

To prevent the aircraft from veering further right, the pilot applied left rudder to bring the aircraft back towards the centerline. However, the aircraft's right main wheel and the right wing made contact with the drain and hedges respectively, that ran along the side of the runway, causing the aircraft to resist the left rudder input by the pilot.

Once the aircraft's right main wheel and the right wing were clear of the drain and the hedges, the aircraft subsequently made more than 180 degrees turn and came to a stop. In that position, the Check and Training pilot shut down the aircraft while the ICUS pilot evacuated the passengers through the main door.

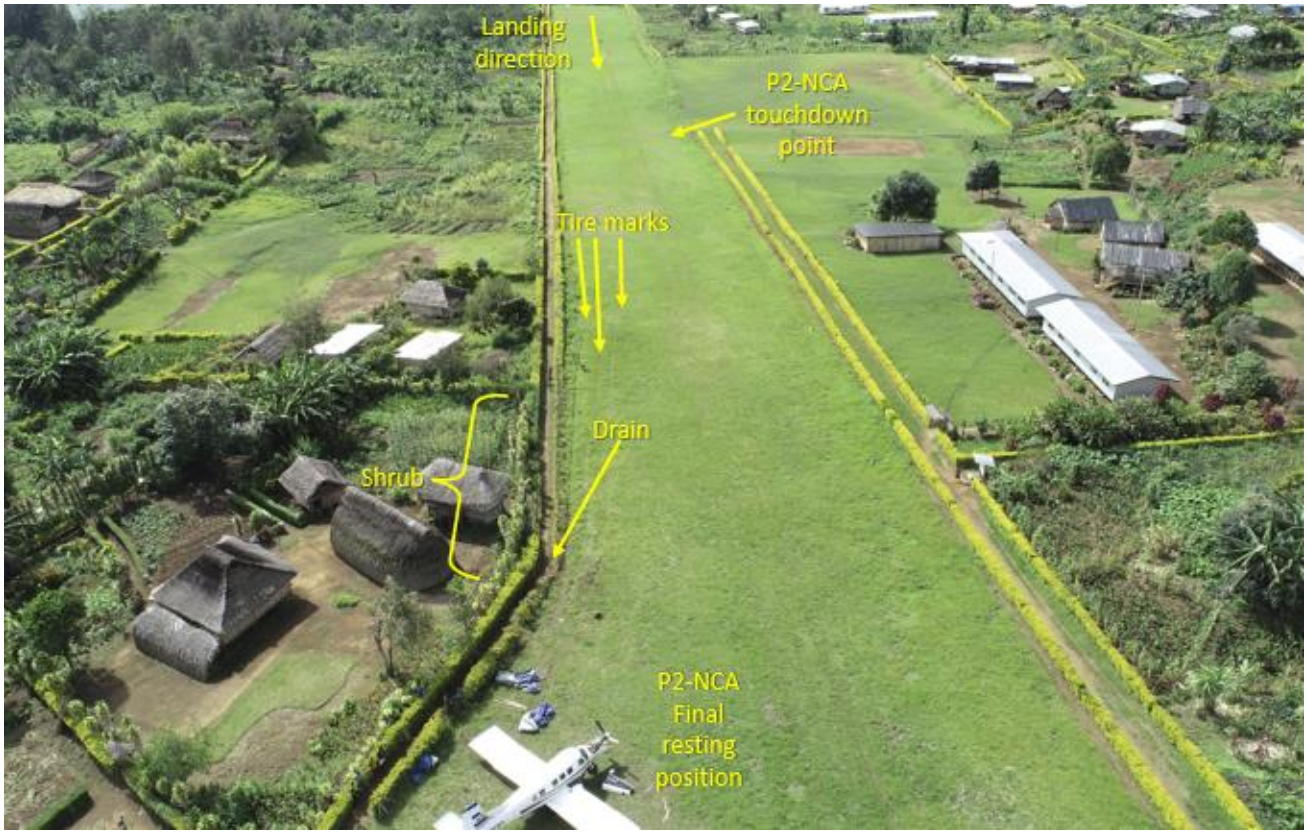

Figure 4: Overview of P2-NCA from touchdown to the final resting position

Aircraft Damage

The right-wing tip and the leading edge sustained substantial damage. The flap hinge was detached from the aircraft wing structure and the tip of the propeller blades were also damaged.

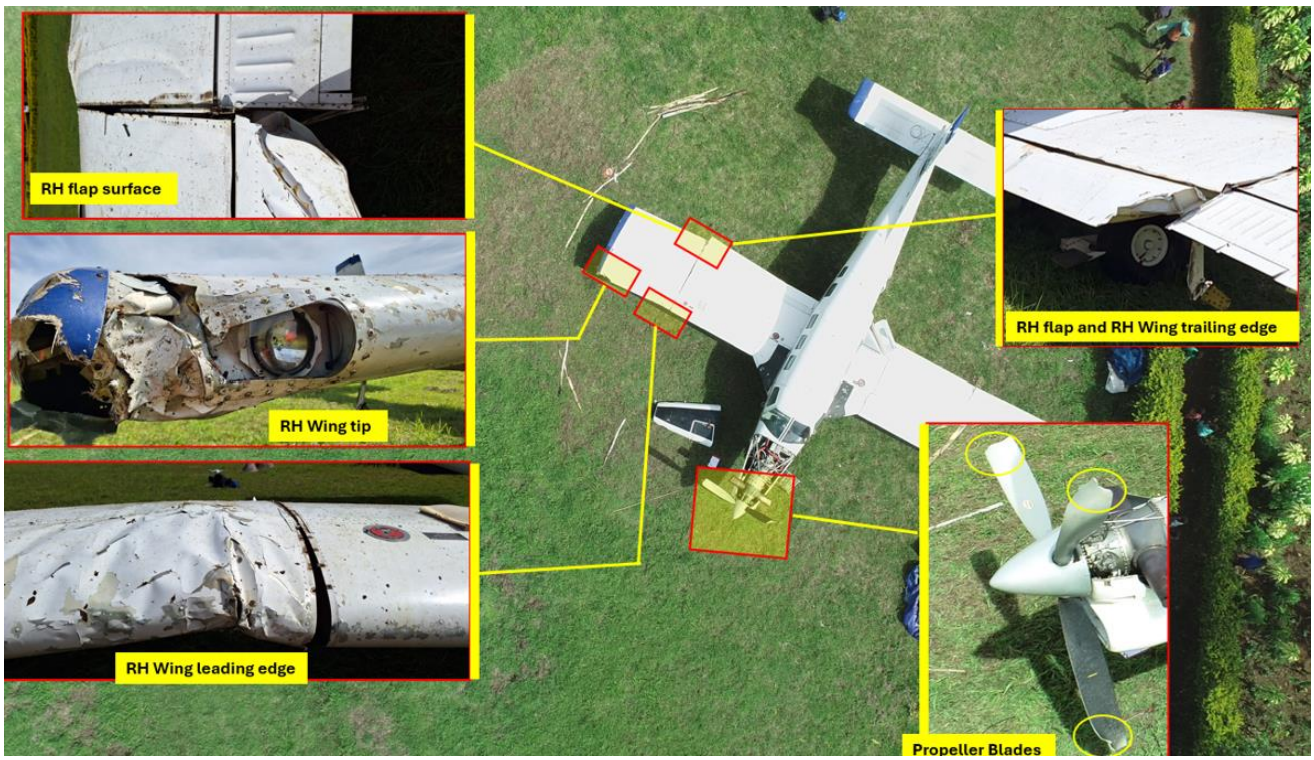

Figure 5: Overview of the damage sustained on the aircraft

AIC Comment

The investigation is continuing and will include Environmental, Operational, Organisational and Technical aspects and other areas as applicable.

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* had been taken.

Recommendations

At the time of the issue of this Preliminary report, no *safety recommendations* had been issued by the AIC.

General Details

Date and time	8 January 2024, 09:26 (23:26 UTC)	
Occurrence category	Accident	
Primary occurrence type	Runway Excursion	
Location	Bungawat Airstrip, Morobe Province	
	Latitude: 6°00'22"S	Longitude: 146°43'11"E
Elevation	5, 400 ft (at threshold)	
Runway Direction	18/36	
Length	1,65 ft (506m)	
Width	98 ft (30 m)	

Type of Operation, Injury and damage details

Type of Operation	VFR, Passengers flight	
Persons on board	Pilot: 2	Passengers: 11
Injuries	Pilot: Nil	Passengers: NIL
Damage	Propeller Blades, Right -wing Tip and RH flaps Hinge	

Pilots Detail

Check and Training Pilot – Right Seat

Nationality:	Papua New Guinea
Licence type:	PNG CPL
Total hours:	3564.3
Total hours in Command:	2917.4
Total hours on type:	3264.3

In Command Under Supervision Pilot – Left Seat

Nationality:	Papua New Guinea
Licence type:	PNG CPL
Total hours:	243.9
Total hours in Command:	101.9
Total hours on type:	31.9

Aircraft Details

Aircraft manufacturer:	Pacific Aerospace Corporation
Model:	PAC 750XL
Registration:	P2-NCA
Serial number:	134

Engine Details

Engine Type:	Turboprop Engine
Manufacturer:	Pratt & Whitney Canada
Model:	PT6A-34
Serial number:	PCE-RB0240
Total Time since new:	9,561.6
Total Time since Overhaul:	1,878.7
Cycles since new:	13,875
Cycles since Overhaul	2875

Propeller details

Manufacturer	Hartzell Propeller Inc
Model	HC-B3TN-3D
Serial Number	BUA29843
Total time Since Overhaul	2,720.5
Cycles Since Overhaul	7,221