

PRELIMINARY REPORT

AIC 23-1001



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 February 2023 at 13:30 local time (03:30 UTC), the AIC learned through Facebook of an accident involving a PAC 750 aircraft registered P2-BJD, operated and owned by North Coast Aviation at Giramben Airstrip, Jiwaka Province. The AIC immediately commenced an investigation and a team was deployed to the accident site on 10 February 2023.

This Preliminary Aircraft Accident Investigation Report was produced by the AIC, and contains facts known to the AIC before the official release date. It is developed by the Commission in accordance with Para 7.1 of *ICAO Annex 13*. The report is also published on the AIC website: www.aic.gov.pg.

The report is based on the initial investigation activities 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.



Capt. Aria Bouraga, MBE

Acting Chief Commissioner

11 March 2023

Controlled Flight into Terrain during take-off

Occurrence Details

On 9 February 2023, at 12:50 local time (02:50 UTC¹), a PAC 750XL aircraft, registered P2-BJD, owned and operated by North Coast Aviation (NCA), was conducting a VFR² Charter flight from Giramben Airstrip, Jiwaka Province to Simbai Airstrip, Madang Province, when during takeoff, the aircraft impacted the terrain south of Giramben Airstrip.

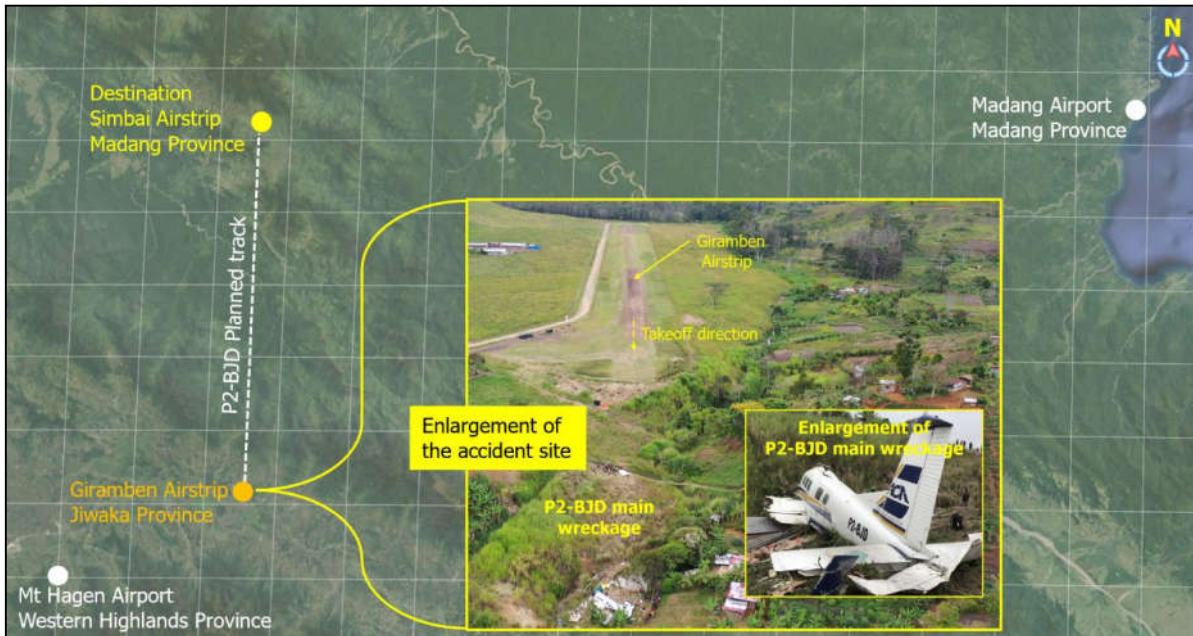


Figure 1: Overview of P2-BJD planned departure/destination points and the accident site

There were 4 persons on board the aircraft: 1 pilot, 2 adult passengers and an infant. The pilot and the infant sustained severe injuries while the two adult passengers sustained minor injuries.

According to the Flight Plan, the pilot had planned to depart Giramben Airstrip at 12:40 and track north for Simbai at 9,000 ft AMSL.

During the interview, the pilot stated that after the aircraft was loaded by NCA personnel, he taxied to the end of runway 34 and turned to line up for take-off. Once the aircraft was configured for take-off and the power was set to full throttle, the aircraft began the takeoff roll.

The pilot also stated that during the take-off roll, he expected the aircraft to become airborne about 500 m from the end of runway 34. However, the aircraft did not become airborne at this point and the pilot indicated that the speed was below 60 knots. The pilot decided to continue with the take-off roll with full power to regain speed and subsequently passed his nominated committal point about 538 m from the end of runway 34. The pilot recalled getting airborne with an airspeed between 55 to 60 knots.

During the on-site activities, the AIC observed from the wheel track marks on the strip that the aircraft got airborne about 7 m past the end of runway 16. Once the aircraft was airborne, the aircraft main landing gears got caught on a 1.13 m high wire fencing located about 21 m from the end of runway 16. The aircraft subsequently impacted the terrain by its right main landing gear and wing about 95 m from the end of runway 16.

The right main landing gear and the outboard wing section detached from the aircraft as a result of the initial impact while the aircraft continued with the momentum and came to rest, in a local village garden 160 m from the end of runway 16.

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) is UTC + 10 hours.

² Visual Flight Rules: Those rules as prescribed by national authority for visual flight, with corresponding relaxed requirements for flight instruments (Source: The Cambridge Aerospace Dictionary)

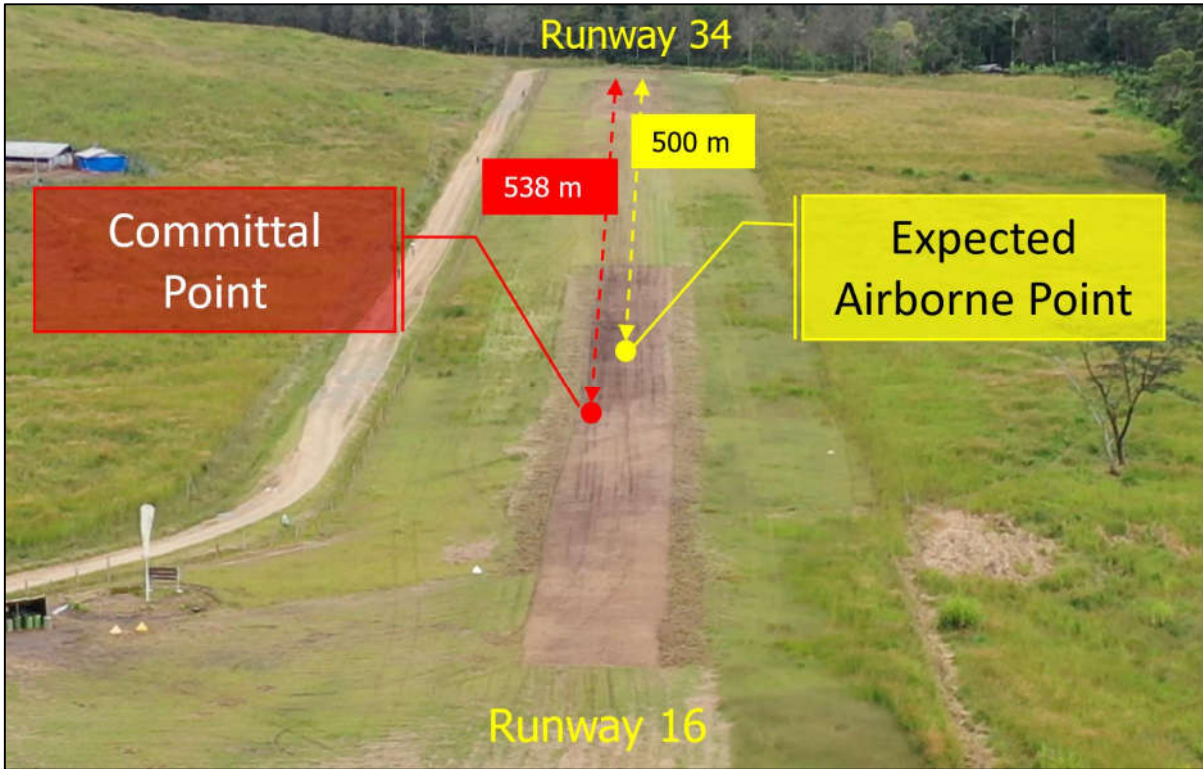


Figure 2: P2-BJD committal point and expected airborne point

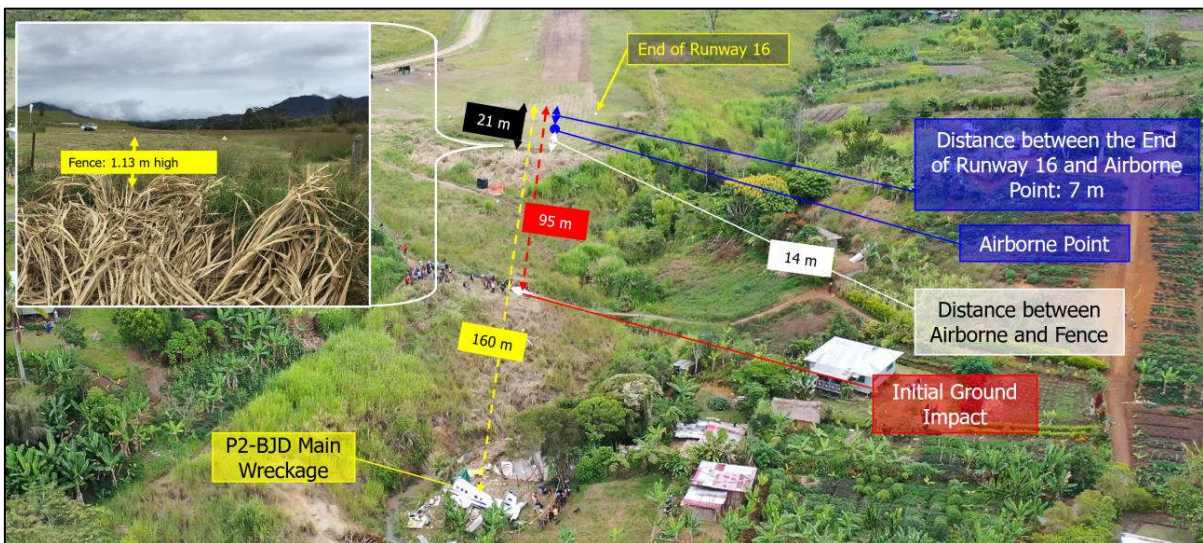


Figure 3: Overview of P2-BJD from the end of runway 16 to the resting position of P2-BJD

According to local eyewitness interviews conducted, after the aircraft had come to its resting position, the locals assisted in evacuating the pilot and passengers on board the aircraft. The pilot was found to be unconscious at the time.

The pilot and infant sustained severe injuries and were transported to Kudjip Hospital for treatment. The two adult passengers sustained minor injuries. The three passengers were initially treated at the Christian Leaders' Training College (CLTC) Medical Health Centre before being transported to Kudjip Hospital for further medical attention.

Wreckage Distribution and Damages

The wreckage distribution from initial impact to the resting position of P2-BJD.

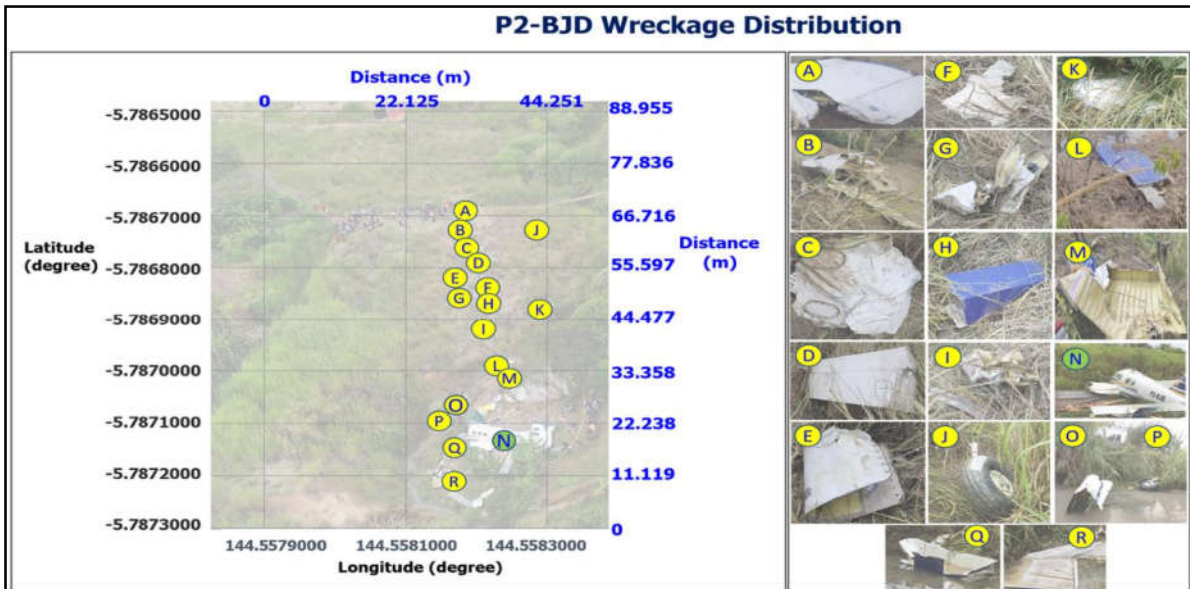


Figure 4: P2-BJD wreckage distribution

The cockpit section, the firewall and its attachments including the engine and propeller assemblies were separated at the forward fuselage. The aircraft also sustained significant damages to its wing assemblies, rear fuselage, and empennage.

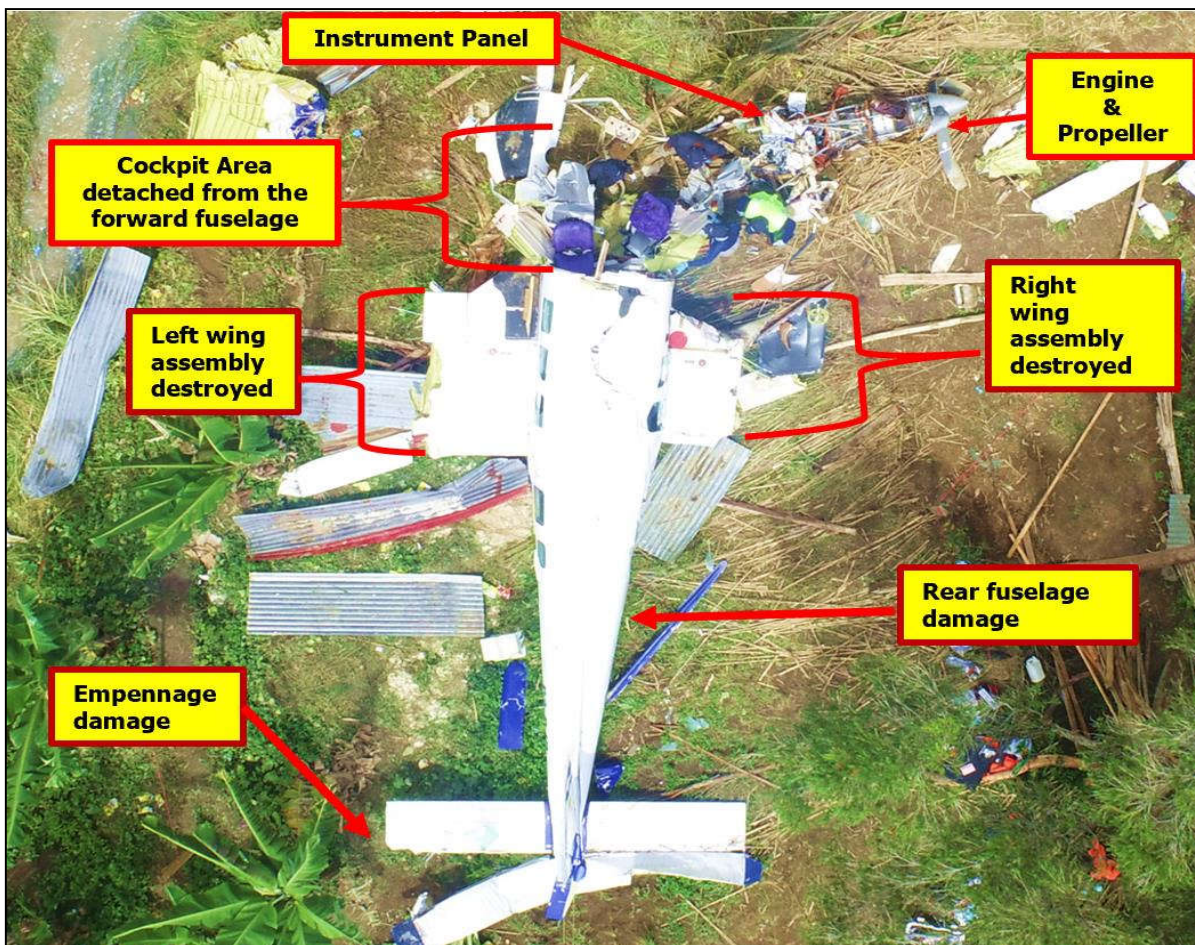


Figure 5: Overview of the damages sustained by P2-BJD

AIC comment

The investigation is continuing, and will include but not limited to flight operations, aircraft systems, performance, airworthiness and serviceability, airstrip conditions, weather and organisational aspects, to the appropriate extent.

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 Recommendation had been made by the PNG AIC.

General Details

Date and time	9 February 2023, 12:50 (02:50 UTC)		
Occurrence category	Accident		
Primary occurrence type	Controlled Flight into Terrain during take-off – CFIT		
Location	South of Giramben Airstrip		
	Latitude: S 5°47'13.95"	Longitude: E 144°33'29.43"	
Airstrip	Giramben Airstrip, Jiwaka Province		
Elevation (<i>at threshold</i>)	5,090 ft		
Runway Direction	16/34		
Length	2,428 ft (740 m)		
Width	177 ft (54 m)		
Slope	2 %		

Type of Operation, Injury, and damage details

Type of Operation	VFR, Charter flight			
Persons on board	4	1 pilot	2 adult passengers	1 infant
Injuries		Severe	Minor	Severe
Damage	The aircraft was destroyed			

Pilot Details

Gender	Male
Age	37
Nationality	Australian
Licence type	CPL
Total hours	3,382.1
Total hours in Command	2,377.7
Total hours on type	1,928.1

Aircraft Details

Airframe	
Aircraft manufacturer	Pacific Aerospace Corporation
Aircraft Model	750XL
Registration	P2-BJD
Serial number	124
Year of manufacture	2007
TTSN	13,796.8
Landing	30,274
Engine	
Engine manufacturer	Pratt and Whitney Canada
Engine Type	PT6A-34
Serial number	PCE-PG0248
TTSN	13,968
TSO	1,841.1
CSN	17,220
Propeller	
Manufacturer	Hartzell Propeller Inc
Model	Hartzell
Serial Number	BUA25470
Hours since Overhaul	681.3