



PRELIMINARY REPORT

AIC 22-2001

New Tribes Mission (PNG) Limited

P2-NTE

Kodiak 100

In-flight Structural Damage

Approximately 6 NM East of Hoskins Airport, West New Britain

Papua New Guinea

27 April 2022



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 27 April 2022 at 16:29 local time (06:29 UTC), the AIC was notified by New Tribes Mission (PNG) Ltd via email, of an occurrence involving a Kodiak 100 aircraft registered P2-NTE, owned and operated by New Tribes Mission (PNG) Ltd at Hoskins, West New Britain. The AIC immediately commenced an investigation.

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

26 May 2022

Aircraft Damage in-flight

Occurrence Details

On 27 April 2022, at about 14:43 local (04:43 UTC¹) a Kodiak 100 aircraft, registered P2-NTE, owned and operated by New Tribes Mission (PNG) Limited (NTML), conducting a non-scheduled VFR² training flight from Lele Airstrip to Hoskins Airport, West New Britain Province, Papua New Guinea, sustained in-flight structural damage about 6 nautical miles (NM) East of Hoskins Airport.



Figure 1: Overhead view of P2-NTE occurrence flight

There were two persons onboard: pilot in command (PIC) and co-pilot. No injuries were reported.

According to the Garmin G1000³ recorded data, the aircraft departed Lele Airstrip for Hoskins Airport at 14:21, climbed to about 8,400 ft AMSL⁴ and began tracking West for Hoskins Airport.

About 31 NM East of Hoskins Airport, the aircraft descended to about 8100 ft AMSL and maintained that altitude for almost 3 minutes. At 14:37, about 24 NM East from Hoskins Airport, the aircraft initiated its descent to Hoskins Airport. The aircraft descended at a vertical speed of about 800 feet per minute (fpm) and the airspeed was about 170 knots (kts).

At 14:43, about 6 NM East of Hoskins Airport, on descent through 2,900 ft AMSL (2,700 ft AGL⁵), the aircraft's left upper wing root fairing detached from the aircraft and struck the leading edge of the left horizontal Stabilizer.

The pilots stated during interview with the AIC that they did not hear or feel anything, and that the aircraft flew normally. The flight continued and landed at Hoskins Airport at 14:48.

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)

³ G1000 is an integrated avionics system, which consolidated all communication, navigation, surveillance, automatic flight control system, primary flight instrumentation, engine indication, and annunciation systems on two liquid crystal display units (DU) and an audio panel. The G1000 avionics system was capable of storing on a data memory card.

⁴ Above Mean Sea Level

⁵ Above Mean Sea Level. (AGL). All altitude data obtained from the G1000 recorded data are referenced to Hoskins Airport elevation of 213 ft

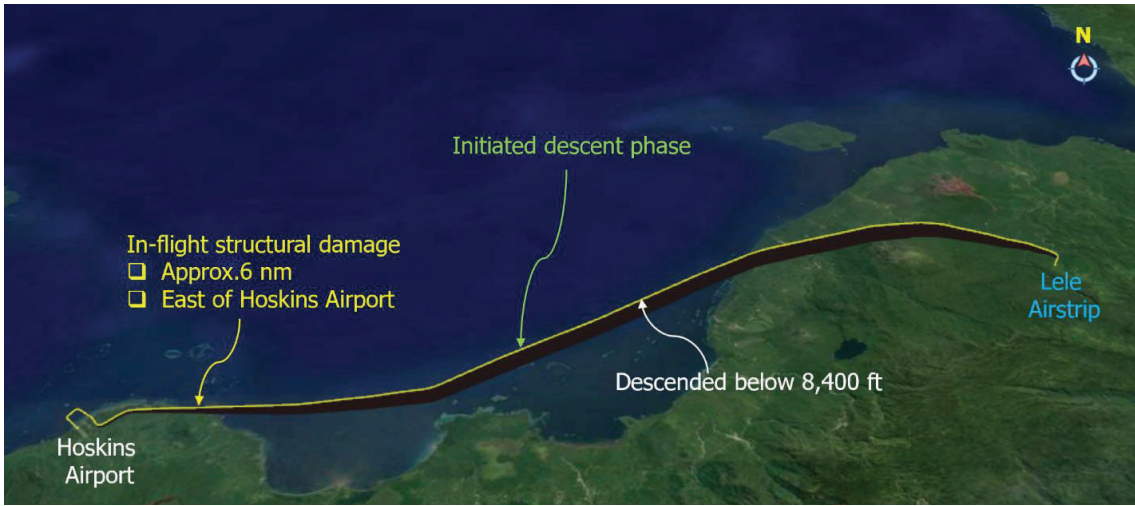


Figure 2: Flight track with the significant events

The pilots also stated in the interview that after they landed in Hoskins, they did not notice any damage to the aircraft. They noticed the damage the next morning during routine “before first flight” pre-flight inspection of the aircraft.

Damage

The left upper wing root fairing detached in-flight and struck the left horizontal stabilizer, causing damage to its leading edge.

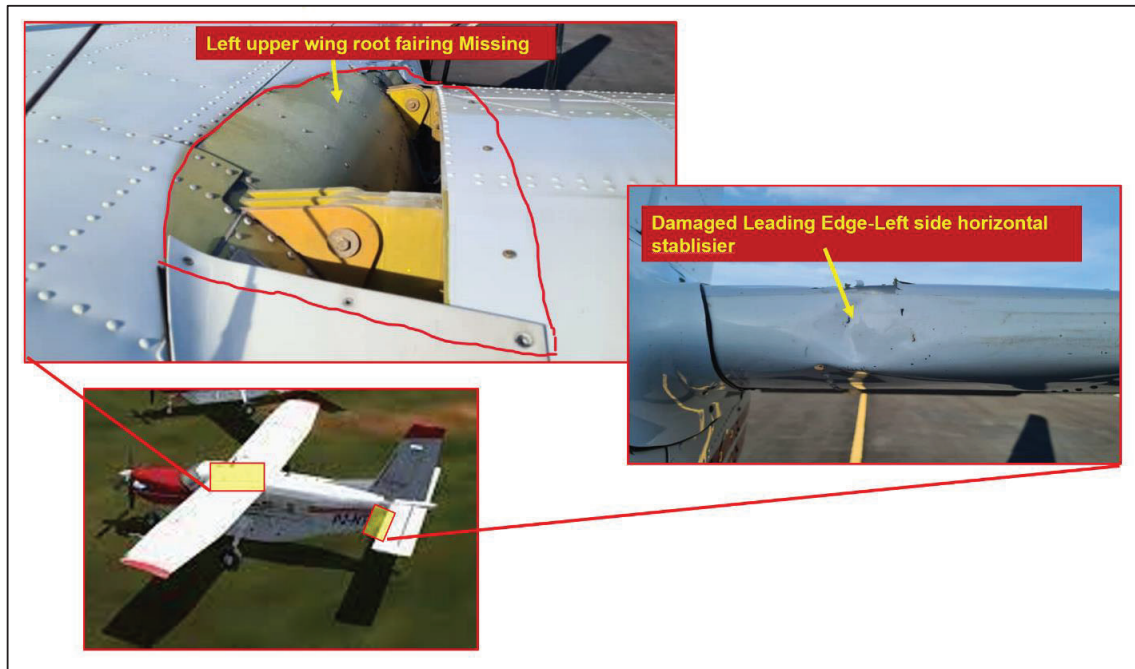


Figure 2: Overview of damage sustained

AIC comment

The investigation is continuing, and will include but not limited to Flight Operations, aircraft systems, performance, airworthiness, maintenance and serviceability, 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	27 April 2022, 14:43 (04:43 UTC)	
Occurrence category	Serious Incident	
Primary occurrence type	System/component failure or malfunction [non-powerplant]	
Location	6 NM East of Hoskins Airport	
	Latitude: 5°26'33.43"S	Longitude: 150°30'45.48"E
Altitude	2,900 ft AMSL (2,700 ft AGL)	
Runway Direction	Not Applicable	
Length	Not Applicable	
Width	Not Applicable	
Slope	Not Applicable	

Type of Operation, Injury, and damage details

Type of Operation	Non-scheduled, VFR training flight	
Persons on board	Crew: 2	Passengers: Nil
Injuries	Crew: Nil	Passengers: Nil
Damage	Left upper wing root Faring and the Leading edge of the left horizontal stabilizer	

Crew details

Pilot in Command

Gender	Male
Age	40
Nationality	United States of America (USA)
Licence type	PNG CPL (A)
Total hours	2999.2
Total hours in Command	2691
Total hours on type	2037.8

Co-pilot

Gender	Male
Age	33
Nationality	United States of America (USA)
Licence type	PNG CPL (A)
Total hours	1649.4
Total hours in Command	1357.4
Total hours on type	232.6

Aircraft Details**Aircraft**

Aircraft manufacturer	Quest Aircraft Company, LLC
Aircraft Model	Kodiak 100
Registration	P2-NTE
Serial number	100-0111
Year of manufacture	2014
Total hours since new	2621.2
Total cycles since new	3481

Engine

Engine manufacturer	Pratt & Whitney Canada
Engine Model	PT6A-34
Serial number	PCE-RB0756
Total cycles since new	2621.2
Total time since new	3481

Propeller

Manufacturer	Hartzell Propeller Inc
Model	HC-E4N-3P
Serial Number	HH5199
Total time since new	187.5
Hours since Overhaul	36.9