



PRELIMINARY REPORT

AIC 17-2002

Papua New Guinea Defence Force - Air Transport Wing

P2-502

Casa CN235-100M

Goroka Airport, Eastern Highlands Province

PAPUA NEW GUINEA

02 December 2017

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 in accordance with *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.

It is not a function of the AIC 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 AIC endeavours to balance the use of material that could imply adverse comment with the need to properly explain what happened, and why it happened, in a fair and unbiased manner.

About this report

Decisions regarding whether to conduct an investigation, and the scope of an investigation, were based on many factors, including the level of safety benefit likely to be obtained from the investigation. The AIC was notified of this occurrence on 5 December 2017, at 15:02 UTC. An off-site, fact-gathering investigation was commenced. This occurrence involved a military aircraft operating in civilian airspace, civilian airports, and carrying civilian passengers, and therefore, falls under the responsibility of the AIC in accordance with Section 247 of the *PNG Civil Aviation Act 2000 (as amended)*. There was no damage or injury involved. However, in accordance with the classification guidance in *Annex 13*, and the safety risks associated with this occurrence, it has been classified as a serious incident. This *Preliminary Report* has been produced in accordance with the *PNG Civil Aviation Act 2000 (as amended)*, *ICAO Annex 13* to the Chicago Convention on International Civil Aviation, and the *PNG Accident Investigation Commission's Policy and Procedures*.

Landing on a Closed Runway

Occurrence details

On 2 February 2017, at 04:12 UTC¹ (14:12 local), a Casa CN235-100M, registered P2- 502 (call-sign: Eagle 502), owned and operated by the Papua New Guinea Defence Force, landed on a closed runway, 35 Left, at Goroka Airport. The aircraft then turned and backtracked along the same runway before exiting via a closed taxiway onto the active runway (35 Right), and then onto the apron. According to the crew, they became aware of the construction works on the runway, during final approach, but due to communication² issues with the Goroka Tower Controller, they continued on final to land on runway 35 L. The crew then back-tracked to exit via a taxiway closed taxiway.

The crew stated, during interviews with the AIC, that there was no pre-flight briefing conducted, and that they were not aware of the active Notice to Airmen (NOTAM), which was available, at no cost, on the National Aeronautical Information Processing System (NAIPS) internet service, and had been issued over a year before the occurrence. The NOTAM declares runway 35L, Goroka Airport, closed due to major runway pavement rehabilitation work in progress.



Figure 1: CASA CN235M P2-502

Safety Concerns

Evidence available to the AIC has revealed serious safety deficiencies, and although not contributory to this occurrence, poses an imminent risk of an accident or a serious incident.

The aircraft sustained an engine failure on 13 July 2016 during a flight from Telefomin to Vanimo, Sundaun Province, necessitating the removal of the right engine Propeller Gearbox (PGB) at the Vanimo Aerodrome. A replacement PGB, Serial Number UDAG0616, was fitted to the right engine to enable the aircraft to be ferried to Port Moresby for further repairs.

The investigation has found that the replacement PGB had been placed in storage 7 years before the incident. Storage preservation requirements confirmed in a written statement from the Original Equipment Manufacturer (OEM) state that a PGB in storage for more than 36 months, must be sent to a PGB Original Equipment Manufacturer's facility for inspection.

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 accident, Papua New Guinea Time (Pacific/Port Moresby Time) is UTC + 10 hours.

² All Communication aspects are still in the analysis phase of the investigation

This was not carried out, and the PGB fitted in 2016 remains on the aircraft as of the date of this safety recommendation. The aircraft is engaged in flying operations throughout PNG, carrying military personnel and civilians into civilian airports. The PGB fitted to the right engine of P2-502 is classified as unserviceable, bringing the airworthiness of the aircraft into question.

AIC comment

The investigation has identified a significant safety concern relating to the airworthiness of the aircraft. The AIC has raised this safety concern as it poses a significant risk to aviation safety within Papua New Guinea.

The investigation is continuing and will include safety measures planned/implemented for the closed runway during the rehabilitation period, ATC recordings, and PNG Defence Force ATW aircraft operational and maintenance aspects.

Safety action taken

On 10 December 2017, the AIC received a safety action statement, with accompanying evidence, from the PNGDF ATW which demonstrated that the following actions had been taken:

1. A NAIPS account had been created on 6 December 2017
2. A minute was circulated to all ATW aircrew reminding them of their responsibility to obtain all required pre-flight briefing information prior to any flight and the conduct of proper pre-flight briefings for the flying crew.

Safety recommendations

While not contributory to the serious incident, the serious maintenance safety deficiency nevertheless could cause an accident or a serious incident if not immediately rectified. The AIC therefore made the following recommendation.

Recommendation number AIC 17-R06/17-2002 to PNG Defence Force

The PNG Accident Investigation Commission recommends that Commander PNG Defence Force (PNGDF) should require the replacement of the unserviceable Propeller Gearbox (PGB) Serial Number UDAG0616, currently fitted to the right engine of Casa CN235-100M aircraft, registered P2-502, before further flight.

General Details

| | | |
|-------------------------|--|---------------------------|
| Date and time | 2 February 2017 — 04:12 UTC | |
| Occurrence category | Serious Incident | |
| Primary occurrence type | Landing on a Closed (under maintenance) runway | |
| Location | Goroka Airport, Goroka, Eastern Highlands Province | |
| Altitude | 5,400 ft | |
| Coordinates | Latitude: 6° 5'7.06"S | Longitude: 145°23'33.44"E |

Crew Details

| | |
|--------------------------|------------------------------------|
| Pilot in Command | |
| Nationality | Papua New Guinea |
| Licence type | Military qualification Cat B (Q) |
| Total hours | 3,293.5 hours |
| Total hours on type | 2,593.5 hours |
| Total hours last 30 days | 49.5 hours |
| Total hours last 7 days | 26.5 hours |
| Co-pilot | |
| Nationality | Papua New Guinea |
| Licence type | Military qualification Cat C (Q/R) |
| Total hours | 449.2 hours |
| Total hours on type | 189.9 hours |
| Total hours last 30 days | 28.3 hours |
| Total hours last 7 days | 13.0 |

Aircraft Details

| | | |
|---------------------------------|------------------------------|----------------|
| Aircraft manufacturer and model | Casa CN235-100M | |
| Registration | P2-502 | |
| Serial number | C-049 | |
| TTIS | 4,193.3 hours | |
| #1 Engine | | |
| Manufacturer and model | General Electrics CT7-9C | |
| Serial number | GE-E-309217 | |
| #2 Engine | | |
| Manufacturer and model | General Electrics CT7-9C | |
| Serial number | GE-E-309200 | |
| Type of operation | Military passenger operation | |
| Persons on board | Crew: 2 | Passengers: 29 |
| Injuries | Crew: 0 | Passengers: 0 |
| Damage | Nil | |

Approved

Hubert Hanjausa Namani, LLB*Chief Commissioner***20 December 2017**