ACCIDENT INVESTIGATION COMMISSION

FINAL REPORT

AIC 25 - 1003

29 JUNE 2026

OPERATOR	:	Tropicair Limited
REGISTRATION	:	P2-AMH
MANUFACTURER	:	Cessna Aircraft Company
MODEL	:	208B Grand Caravan
CLASS/CATEGORY	:	Abnormal Runway Contact – Hard Landing
LOCATION	:	Balimo Airstrip, Western Province
OCCURRENCE DATE	:	13 July 2025

INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

FIGURES

TABLES

DEFINITIONS AND INTERPRETATION

Accident	An occurrence associated with the operation of an aircraft resulting in fatal or serious injury to a person/s, or substantial damage to the aircraft.
Accredited representative	A person designated by a State, on the basis of his or her qualifications, for the purpose of participating in an investigation conducted by another State. The accredited representative would normally be from the State's accident investigation authority.
Contributing Factor	An action, omission, or condition that increased the likelihood or severity of the accident.
Safety Recommendation	A proposal of an accident investigation authority based on information derived from an investigation, made with the intention of preventing accidents or incidents and which in no case has the purpose of creating a presumption of blame or liability for an accident or incident.
State of Design	The State having jurisdiction over the organization responsible for the aircraft type design.
State of Manufacture	The State having jurisdiction over the organization responsible for the final assembly of the aircraft, engine or propeller.
State of Occurrence	The State in the territory of which an accident or incident occurs.

ACRONYMS

agl	Above Ground Level
AIC	Accident Investigation Commission (PNG)
amsl	Above Mean Sea Level
AOC	Air Operator Certificate
ATC	Air Traffic Control
ATS	Air Traffic Service
CASA PNG	Civil Aviation Safety Authority of Papua New Guinea
CAR	Civil Aviation Rules
CPL	Commercial Pilot License
COM	Company Operation Manual
CSN	Cycles Since New
CVR	Cockpit Voice Recorder
Deg	degrees
FDR	Flight Data Recorder
Ft	feet
GNSS	Global Navigation Satellite System
Hrs	hours
HJ	Sunrise to Sunset
ICAO	International Civil Aviation Organization
IFR	Instrument Flight Rules
IIC	Investigator in Charge
IMC	Instrument Meteorological Conditions
kg	Kilogram(s)
km	Kilometer(s)
Kts	knots (nautical mile(s)/hours)
LMT	Local Mean Time
Ltd	Limited
min	minutes
MOC	Maintenance Organisation Certificate
MTOW	Maximum Take-off Weight
NDB	Non-Directional Beacon
NTSB	National Transportation Safety Board
nm	Nautical Mile(s)
PCN	Pavement Classification Number
PILOT	Pilot in Command
RNAV	Area Navigation
Sec	Second(s)
S/N	Serial Number
TSB	Transport Safety Board
TSN	Time Since New
TTIS	Total Time in Service
UTC	Coordinated Universal Time

INTENTIONALLY LEFT BLANK

INTRODUCTION

Investigation AIC 25-1003

On 13 July 2025, a Cessna 208B Grand Caravan aircraft, registered P2-AMH, operated by Tropicair Limited, was conducting a single pilot IFR[1] Charter flight from Jacksons International Airport, Port Moresby, National Capital District to Balimo Airstrip, Western Province, Papua New Guinea. During the landing at Balimo Airstrip the aircraft sustained substantial damage to the right main landing gear, nose landing gear and propeller assembly following a heavy airstrip contact during a bounced landing. There were nine persons on board; one pilot and eight passengers.

The AIC classified the occurrence as an accident as there was substantial damage to the aircraft which was confirmed by the evidence received from the operator on the same day. Pursuant to *ICAO Annex 13, Chapter 4, paragraph 4.1*, the AIC promptly informed relevant foreign authorities of the State of:

- Airframe Manufacture/Design: United States of America (NTSB)
- Engine Manufacture/Design: Canada (TSB)

This investigation was conducted, and other States participation was permitted in line with the AIC's *Investigation Policy and Procedures Manual*, which is fully aligned with *ICAO Annex 13, Chapter 5, paragraph 5.18.*

This *Final Report* has been produced by the AIC pursuant to *ICAO Annex 13*, *Chapter 6, paragraphs 6.4, 6.5 and 6.6.*

The report is based on the investigation carried out by the AIC under *the Civil Aviation Act 2000*, and *Annex 13 to the Convention on International Civil Aviation*. It contains factual information, analysis of that information, findings and contributing (causal) factors, other factors, safety actions, and safety recommendations. All times in this report are in local time (UTC+10 hours) unless otherwise stated.

AIC investigations explore the areas surrounding an occurrence, and the facts relevant to understanding how and why the accident occurred are included in the report. The report may also contain other non-contributing factors which have been identified as safety deficiencies for the purpose of improving safety.

In accordance with *ICAO Annex 13*, it is not the purpose of aircraft accident investigation to apportion blame or liability. The sole objective of the investigation and the Final Report is the prevention of accidents and incidents.

1 Instrument Flight Rules.

INTENTIONALLY LEFT BLANK

Synopsis

On 13 July 2025, a Cessna 208B Grand Caravan aircraft, registered P2-AMH, operated by Tropicair Limited, was conducting a single pilot IFR[2] Charter flight from Jacksons International Airport, Port Moresby, National Capital District to Balimo Airstrip, Western Province, Papua New Guinea. During the landing at Balimo Airstrip the aircraft sustained substantial damage to the right main landing gear, nose landing gear and propeller assembly following a heavy airstrip contact during a bounced landing. There were nine persons on board: one pilot and eight passengers. The investigators were not informed of any injuries.

The aircraft departed Jacksons International Airport at 12:31 local time for Balimo Airstrip. After departure, the aircraft climbed to 10,000 ft amsl and tracked northwest towards Balimo. At approximately 40 nm from Balimo Airstrip, the pilot commenced descent, encountering rain 3 nm from the airstrip.

The pilot entered the Balimo circuit from overhead at 500 ft and assessed the weather, the wind on the ground and strip conditions. From the windsock, the pilot observed a south-easterly wind gusting between 10 and 15 kts, with a right crosswind component for strip 10. Rain showers were present in the circuit area and the strip surface was wet.

Following the overhead assessment, the pilot joined the extended left downwind for strip 10 and configured the aircraft with flaps extension to 10°, then 20° shortly after. The pilot reported maintaining an airspeed between 100 and 110 kts on downwind and base leg and that the approach was stable.

The pilot reported maintaining an approach speed of 100 kts due to the gusting crosswind and wet strip conditions. He stated that on short finals he applied crabbing into wind to manage the crosswind. He said that he continued this manoeuvre until final alignment with the strip subsequently transitioning to a right wing-low technique near the threshold. He described that he conducted this manoeuvre by applying left rudder to align the aircraft's nose with the strip and right aileron into the wind to counter drift.

On the initial touchdown, the right main wheel made a hard contact with the strip surface. The aircraft then bounced off the strip surface before making contact with the surface for the second time with both main landing gears. The pilot stated that the aircraft's second contact with the strip surface was also a hard contact. During the second contact, the aircraft sustained a momentary tail strike, followed by an aggressive nose wheel contact with the strip, which collapsed the nose landing gear. The pilot stated that he subsequently applied and maintained back pressure. He also observed the aircraft begin to veer right off the strip.

The investigators found that the approach to land at Balimo Airstrip deviated from *Standard Operating Procedures* and non-adherence to stabilised approach criteria. The effect was that the aircraft was flown in a manner that resulted in an unsatisfactory touchdown. A go-around was not initiated when the approach became unstable. The pilot made a fast and steep approach to get the aircraft on the ground. The unstable approach resulted in a heavy landing, two significant bounces and major damage to the aircraft.

In accordance with *ICAO Annex 13 Standards and Recommended Practices*, the purpose of the investigation was not to apportion blame or liability, but to identify safety issues and promote the prevention of future accidents and incidents. The investigation report contains the factual information, analysis, findings, and contributing factors arising from the occurrence.

2 Instrument Flight Rules.

INTENTIONALLY LEFT BLANK

1 FACTUAL INFORMATION

1.1 History of Flight

Aircraft Registration	P2-AMH
Owner	Tropicair Limited
Operator	Tropicair Limited
Type of Operation	IFR Charter
Persons on Board	9
Accident Site	Balimo Airstrip[3], Western Province Latitude: 8° 3'10.52"S, Longitude: 42°56'24.21"E
Elevation	100 ft / 30m amsl
Time of occurrence	14:18 local (04:18 UTC[4])

Table 1. Accident summary.

On 13 July 2025, a Cessna 208B Grand Caravan aircraft, registered P2-AMH, operated by Tropicair Limited, was conducting a single pilot IFR[5] Charter flight from Jacksons International Airport, Port Moresby, National Capital District to Balimo Airstrip, Western Province, Papua New Guinea. During the landing at Balimo Airstrip the aircraft sustained substantial damage to the right main landing gear, nose landing gear and propeller assembly following a bounced landing resulting in a heavy impact on the airstrip. There were nine persons on board: one pilot and eight passengers.

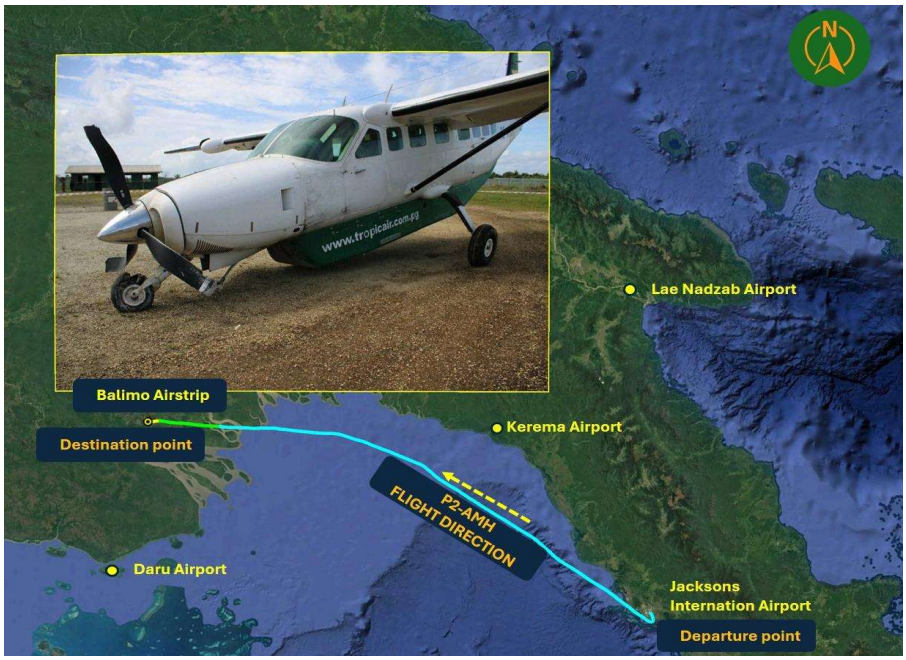


Figure 1. P2-AMH accident site, Balimo Airstrip, Western Province, Papua New Guinea.

[3] An airstrip or strip is a landing ground that is unpaved normally grass, clay or gravel surface. A landing ground with a paved surface is termed a runway.

[4] 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 occurrence, Papua New Guinea Time (Pacific/Port Moresby Time) is UTC +10 hours.

5 Instrument flight Rules. A set of Rules that allow a pilot to fly in instrument meteorological conditions referencing cockpit instruments.

The aircraft departed Jacksons International Airport at 12:31 local time for Balimo Airstrip. After departure, the aircraft climbed to 10,000 ft amsl and tracked northwest towards Balimo. At approximately 40 nm from Balimo Airstrip, the pilot commenced descent, encountering rain 3 nm from the airstrip.

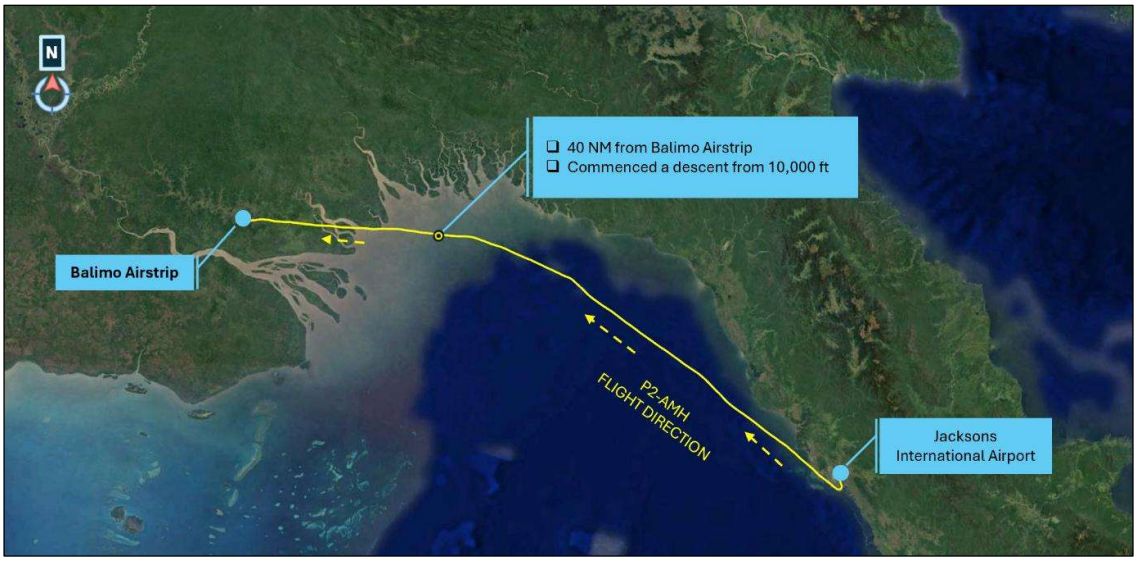


Figure 2. Depiction of flight path from Jacksons Domestic Airport Terminal to Balimo Airstrip.

The pilot entered the Balimo circuit from overhead at 500 ft and assessed the weather, the wind on the ground and strip conditions. From the windsock, the pilot observed a south-easterly wind gusting between 10 and 15 kts, with a right crosswind component for strip 10. Rain showers were present in the circuit area and the strip surface was reported to be wet.

Following the overhead assessment, the pilot joined the extended left downwind for strip 10 and configured the aircraft with flaps extension to 10°, then 20° shortly after. The pilot reported maintaining an airspeed between 100 and 110 kts on downwind and base leg and that the approach was stable.

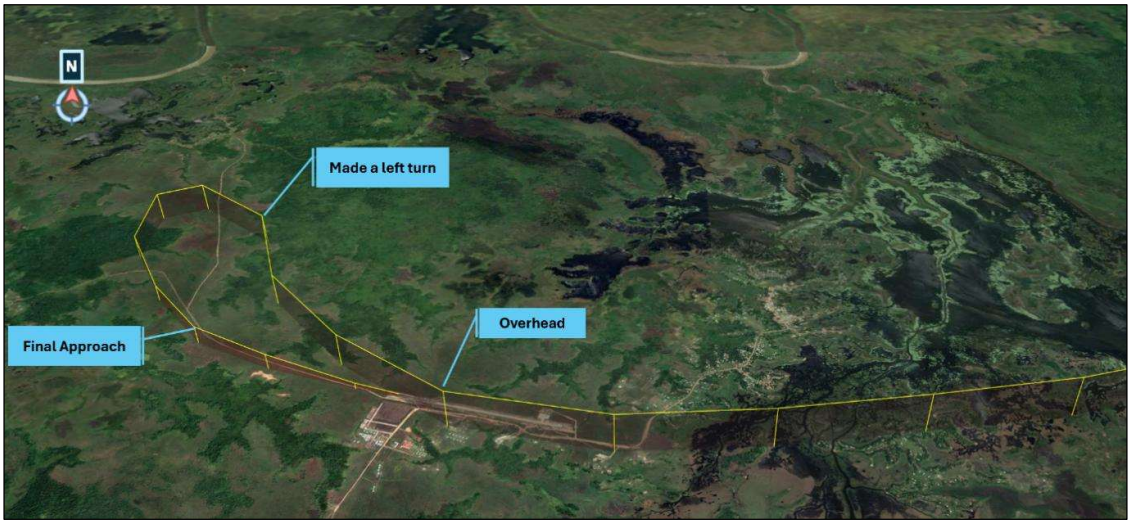


Figure 3. P2-AMH at the Balimo Airstrip's circuit.

The pilot informed investigators that the normal approach speed range was between 85–95 knots. However, he stated that due to the windy conditions, he elected to add an extra 5 knots, maintaining 100 knots on the final leg to the threshold.

On finals for strip 10, the pilot described that the crosswind had a component of 7 to 8 knots, from the right, but later observed that the windsock indicated 10 to 15 knots. He reported maintaining an approach speed of 100 kts due to the gusting crosswind and wet strip conditions.

The pilot stated that, on short finals, he applied crabbing into wind to manage the crosswind. He said that he continued this manoeuvre until final alignment with the strap subsequently transitioning to a right wing-low technique near the threshold. He described that he conducted this manoeuvre by applying left rudder to align the aircraft's nose with the strip and right aileron into the wind to counter drift.

On the initial touchdown, the right main wheel made a hard contact with the strip surface. The aircraft then bounced off the strip surface before contacting the surface for the second time with both main landing gears. The pilot stated that the aircraft's second contact with the strip surface was also a hard contact. During the second contact, the aircraft sustained a momentary tail strike, followed by an aggressive nose wheel contact with the strip, which collapsed the nose landing gear.

The pilot stated that he subsequently applied and maintained back pressure. He also observed the aircraft begin to veer right off the strip.

The pilot stated that to counter the right veer, he applied full left rudder to manoeuvre the aircraft back towards the strip centreline. The aircraft veered off the strip surface and on to the grass surface before the pilot maneuvered the aircraft back onto the centreline. The aircraft maintained centreline tracking before eventually coming to a stop with the nose of the aircraft contacting the ground.

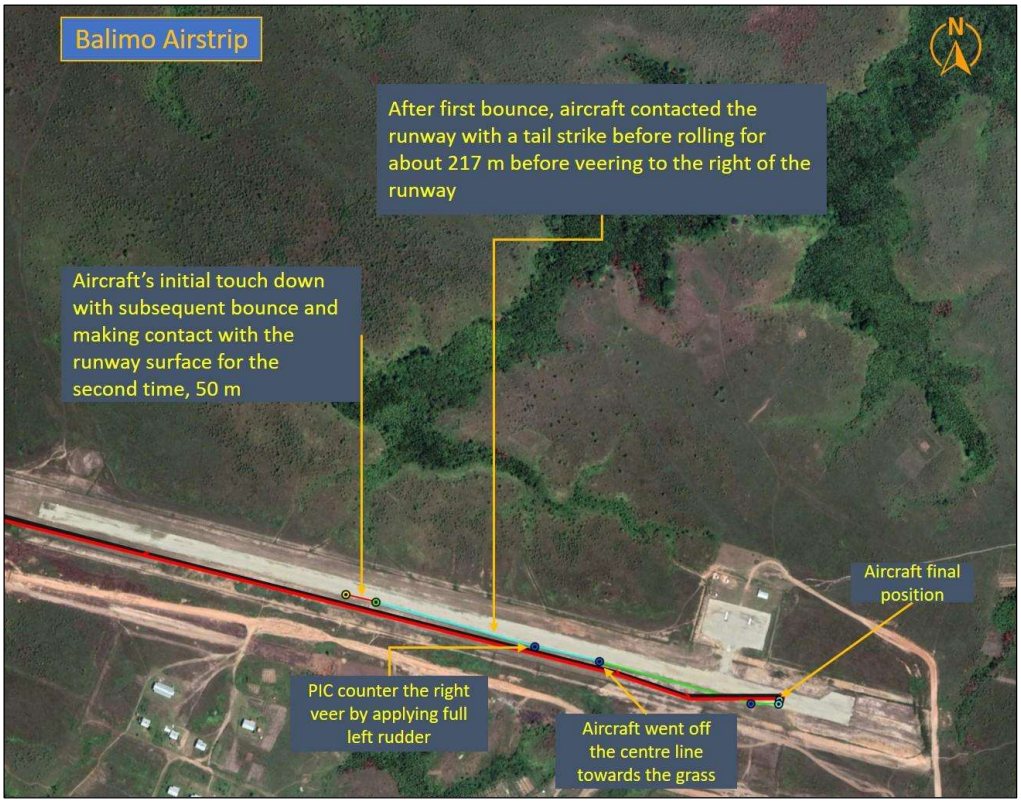


Figure 4. Assessment of Balimo Airstrip during the landing phase of the aircraft.

After the aircraft came to a complete stop, the pilot shut off the engine. Due to the nose down position of the aircraft, the pilot instructed the passengers to egress through the cockpit door located on the forward left side of the aircraft. All passengers egressed without injury.

The pilot subsequently exited the aircraft and, with assistance from local ground personnel, secured the aircraft.

1.2 Injuries to Persons

INJURIES	*Crew*	*Passengers*	*Total in aircraft*	*Others*
Fatal	0	0	0	0
Serious	0	0	0	0
Minor	0	0	0	Not applicable
None	0	8	1	
TOTAL	0	8	9	-

Table 2. Injuries to persons.

The investigators were not informed of any injuries.

1.3 Damage to Aircraft

The aircraft sustained substantial damage to its propeller, nose and right landing gear assemblies. *Refer to Section 1.12* for a detailed description of the damage to the aircraft.

1.4 Other damage

There was no other damage to property and/or the environment.

1.5 Personnel Information

1.5.1 Pilot in Command

Age	***:***	25
Gender	*:*	Male
Nationality	*:*	Papua New Guinean
Position	*:*	Pilot in Command
Type of licenses	*:*	CPL (A)
Route	*:*	9 July 2025
Type ratings	*:*	C172, PA-34, DCH-6, C208
Ratings	*:*	Instrument – Multi-engine: Two-pilot
Total flying time	*:*	2,045.0 hours
Total on this type	*:*	290.0 hours
Total hours last 30 days	*:*	62.1 hours
Total hours last 7 days	*:*	24.1 hours
Last Competency Check (Cessna Grand Caravan 208B)	*:*	4 February 2025
Medical class	*:*	Class 1
Issued	*:*	7 October 2024
Valid to	*:*	10 October 2025
Medical limitation	*:*	Distant Vision Correction required to be worn The pilot was wearing corrective lenses.

Table 3. Personnel information – Pilot

According to the pilot's training records, the pilot met both the proficiency and currency requirements in accordance with *Civil Aviation Rules (CAR) Part 61.807 – Currency Requirements for the Holder of an Instrument Rating, and CAR Part 135.607 – Flight Crew Competency Checks.*

The pilot's training records further indicated that the pilot achieved command on the aircraft type in February 2025.

The pilot's records also showed that the pilot had operated several flights on the accident aircraft prior to 9 May 2025 when the aircraft was grounded for unscheduled maintenance. The aircraft was subsequently returned to service on 30 June 2025.

The records also indicated that the pilot had previously conducted five flights into Balimo Airstrip, with the most recent flight he conducted was two days prior to the accident.

A review of the pilot's duty and flight time records showed compliance with applicable regulatory limitations.

The pilot was competent and proficient with the aircraft type, route and Balimo Airstrip.

1.6 Aircraft Information

The Cessna 208B Caravan is an all-metal, high-wing monoplane. The aircraft is equipped with a fixed tricycle landing gear, featuring a steerable nosewheel. The flight control system consists of a conventional three-control setup[6], including ailerons with trim tab on the right aileron, elevators with dual trim tabs, and a rudder trim tab.

The aircraft was powered by one Pratt & Whitney Canada PT6A-114A turboprop engine, driving a three-bladed, constant-speed, full-feathering, reversible propeller.

The aircraft was certified to accommodate up to 9 passengers.

1.6.1 Aircraft

Aircraft manufacturer	***:***	Cessna Aircraft Company
Model	*:*	208B
Serial number	*:*	208B0785
Year of manufacture	*:*	1999
Nationality of State of Manufacture	*:*	United States of America
Nationality of State of Registration	*:*	Papua New Guinea
Registration	*:*	P2-AMH
Name of the owner	*:*	Tropic Air Limited
Name of the operator	*:*	Tropic Air Limited
Certificate of Airworthiness number	*:*	176
Certificate of Airworthiness issued	*:*	8 May 2005
Valid to	*:*	Non-Terminating
Certificate of Registration number	*:*	AIR-176
Certificate of Registration issued	*:*	6 May 2005
Valid to	*:*	Non-Terminating
Total airframe hours	*:*	17,457.5
Total airframe landings	*:*	19,933.0

Table 4. Aircraft Information.

[6] A trimmable servo tab on the right aileron provides aileron trin. Elevator trim is controlled through two elevator trim tabs. A vertical control wheel on the top left side of the control pedestal is used to control pitch trim, and a horizontal wheel is used to control rudder trim.

1.6.2 Engine

Manufacturer	***:***	Pratt & Whitney Canada
Model	*:*	PT6A – 114 A
Type	*:*	Free-turbine turbo-propeller
Serial No.	*:*	PCE-PC0716
Total Time Since New	*:*	16,476.4
Total Hours Since Overhaul	*:*	4,720.4

Table 5. Engine Information.

1.6.3 Propellers

Manufacturer	***:***	McCauley
Model	*:*	3GFR34C703
Type	*:*	Constant Speed
Serial No.	*:*	200925
Total Hours Since New	*:*	1,262.8
Total Hours Since Overhaul	*:*	Nil

Table 6. Propeller Information.

1.6.4 Airworthiness and maintenance

At the time of the accident, P2-AMH held a current *Certificate of Airworthiness* (CoA) and *Certificate of Registration* (CoR).

The aircraft's maintenance records indicated that there was no overdue maintenance, nor were there any defects or *Minimum Equipment List (MEL)* items pending at the time of the accident flight.

The aircraft was certified as being airworthy when it was dispatched for the flight.

1.6.5 Aircraft Weight and Balance

The investigators determined that the aircraft weight and balance was within the approved centre of gravity (balance) limitations for the intended flight and therefore, weight and balance was not a factor in this accident.

1.7 Meteorological Information

Balimo Airstrip, Western Province, is within Area 3 (Western Papua) of the Papua New Guinea National Weather Service (NWS) Domestic Area Forecast System (See *Appendix 5.1 Domestic Area Forecast System*). Forecast meteorological information relevant to the occurrence was available from the *PNG Area Forecast (ARFOR)* and the *Forecast for Enroute Conditions* issued by the PNG National Weather Service.

1.7.1 Area Forecast (PNG ARFOR)

The *Area Forecast (ARFOR)* for Papua New Guinea was issued by the PNG National Weather Service at 09:50 LMT on 13 July 2025 and was valid from 09:00 to 21:00 LMT on the same day. The forecast covered the Port Moresby Flight Information Region (POM FIR), Areas 1 to 9. For Area 3, which included Balimo, the forecast indicated scattered showers and scattered thunderstorms.

Weather element	:	Forecast
General weather	*:*	Scattered rain showers across the Gulf of Papua and Western Province, with some isolated thunderstorms
Thunderstorm activity	*:*	Thunderstorms present in some areas
Low cloud	*:*	Scattered stratus from 500 ft to 3,000 ft
Mid-level cloud	*:*	Scattered cumulus from 1,800 ft to 10,000 ft
Layered cloud	*:*	Broken stratocumulus from 3,000 ft to 8,000 ft
Visibility in thunderstorms	*:*	Reduced to about 2,000 m
Visibility in rain/showers	*:*	Reduced to about 5,000 m
Area 3 forecast	*:*	Scattered showers and scattered thunderstorms expected
Low-level winds	*:*	140°/35 kt at 2,000 ft; 120°/35 kt at 5,000 ft; 120°/30 kt at 7,000 ft
Mid-level winds	*:*	090°/15 kt at 10,000 ft; 140°/20 kt at 14,000 ft

Table 7. Area forecast on the day of the accident provided by NWS.

1.7.2 Forecast for Enroute Conditions

The forecast covered Areas 1 to 9 and recorded surface pressure in the range 1007 hPa[7] to 1012 hPa. For the period relevant to the flight to Balimo, the forecast included showers and thunderstorm activity affecting Area 3.

Weather element	:	Forecast
Issued by	*:*	Port Moresby Meteorological Office / PNG National Weather Service
Issued time/date	*:*	09:00 local, 13 July 2025
Validity	*:*	12:00 local, 13 July 2025 to 00:00 local, 14 July 2025
Area coverage	*:*	Areas 1 to 9
QNH / surface pressure	*:*	1007 hPa to 1012 hPa
Winds	*:*	Low-level winds from 5 to 35 kt, generally from the southeast; mid to high-level winds 10 to 20 kt from east to southeast
Cloud	*:*	Isolated CB 1,800 ft to 45,000 ft; scattered ST 500 ft to 3,000 ft; broken precipitation with scattered CU 1,800 ft to 10,000 ft; broken showers with scattered SC 3,000 ft to 8,000 ft; broken ACAS 14,000 ft to 18,000 ft
Visibility	*:*	2,000 m in TSRA; 5,000 m in SHRA/RA/DZ
Weather affecting Area 3	*:*	Scattered showers in Areas 3, 4, 5, 8 and 9; scattered thunderstorms with rain in Areas 3, 4, 7 and 9

Table 8. Enroute forecast on the day of the accident provided by NWS.

[7] A hectopascal (hPa) is a unit of measurement of pressure. Standard sea-level pressure is approximately 1,013 hPa.

1.8 Aids to Navigation

Ground-based navigation aids, on-board navigation aids, and aerodrome visual ground aids and their serviceability were not a factor in this accident.

1.9 Communication

All communications between air traffic services (ATS) and the pilot were reported to be normal. No abnormalities were identified, and no communication was considered to have been a factor contributing to the accident.

1.10 Aerodrome Information

1.10.1 General Information

Balimo Airstrip is located in Western Province, Papua New Guinea, north of the mouth of the Fly River. The terrain in the vicinity of the airstrip consists predominantly of swamp land, rivers and low-lying forest. No significant terrain was identified in the immediate vicinity of the airstrip.

According to the *Tropicair C208 Route Guide,* Balimo aerodrome is restricted to daylight operations only and is located in Class F (uncontrolled) airspace, in which Flight Information Service (FIS) provides traffic advisory service.

Balimo Airstrip is identified in the operator's route guide as AYBM / OPU. See *Appendix 5.2 Balimo Airstrip Data*. The airstrip elevation is 100 ft amsl. It has a single strip, 10/28, with strip orientations 100° and 280°. The published strip length is 1,390 m. The operator's route guide describes the strip surface as grassed brown clay with a 0.2 per cent downslope to the west.

1.10.2 NOTAM C0161 and C0183

At the time of the accident, Balimo Airstrip was subject to current *NOTAM* restrictions.

PNG MINOR PORTS BULLETIN

AIYURA C0194
2507100120/2510100600 EST. CTN FRQ RWY XNG BY UNAUTHORIZED PERSONS.

BALIMO C0161
2505090135/2508010700 EST. RWY 10 DTHR 700M DUE PAVEMENT UPGRADE WIP. AVBL LEN 700M.
DECLARED DIST:

RWY	TORA	ASDA	TODA				LDA
10	700	700	NU	NU	NU	700	700
28	700	700	NU	NU	NU	700	700

RMK:
1. ACCESS TO APN AVBL VIA TWY ON N SIDE OF RWY
2. WORK AREA DEMARCATED BY U/S CONE MARKERS
3. ACFT TO OVERFLY TO ALLOW MEN AND EQPT TO VACATE.

BALIMO C0183
2506020120/2509010700 EST. AD SURVEY AND BDRY FENCING WIP. ACFT TO CIRCLE TO ALLOW MEN AND EQPT TO VACATE.

Balimo NOTAM C0183, valid from 2 June 2025 at 01:20 to 1 September 2025 at 07:00 (estimated), advised that aerodrome survey and boundary fencing works were in progress and that aircraft were to circle to allow men and equipment to vacate.

1.11 Flight Recorders

The aircraft was not equipped with a flight data recorder (FDR) or a cockpit voice recorder (CVR); nor were they required by the *PNG Civil Aviation Rules.*

A cockpit image recorder was not installed on the aircraft, nor was it not required by *PNG Civil Aviation Rules.*

1.11.1Other Electronic Data Recording Device

The aircraft was fitted with a third-party flight monitoring system, the *V2Track*. The *V2Track* functions primarily for operations monitoring and proactive safety purposes for the Operator. The unit has a cloud-based data storage and relevant parameters from the accident flight were analysed to complement the investigation.

The unit recorded the following information:

Parameters	**Description**
Time (UTC +10)	The exact time the data was recorded
Aircraft Event	Aircraft phase of Operation. E.g. *Start Up, Taxiing etc.)*
GPS Alt (ft)	Aircraft altitude above sea level
TRK (°T)	Track over ground in degrees true
ROC (ft/min)	Rate of climb
Ground Speed (kt)	Speed over ground
Position	The name of the place
Latitude & Longitude	The exact location number showing where the aircraft is on Earth
Total Distance	Distance flown from origin
Method	Data source → Satellite tracking (Sat)

Table 9. Parameters recorder by V2 Track to complement the investigations.

1.11.2 Recorded flight data[8]

The investigators examined the Flight tracking information *(V2 Track)*[9] provided by the Operator and determined that the rate of decent was not stable throughout the approach. Recorded data indicated that during the final approach, significant fluctuations in the aircraft's descent profile occurred. During the aircraft's descent from 761 ft to 253 ft, there was a notable descent interruption (momentary climb) at 14:17:06, where the Rate of Descent spiked to +216 ft/min before resuming a steep descent of -1,259 ft/min just before the landing phase. The track changed steadily from 156° to 104°, indicating a continuous turn or correction onto the final approach path. Airspeed remained between 98 kt at 761 ft and 108 kt at 253 ft.

The aircraft initially touched down at 14:17:51, 136 metres beyond the displaced threshold with a ground speed of 109 kt. The touchdown point was verified by the GPS altitude of 92 ft (Balimo elevation 100 ft AMSL) The aircraft decelerated within 14 seconds and by 14:18:05, the speed dropped sharply from 109 kt to 62 kt.

Between 14:18:05 and 14:18:09, the speed further bled off to 42 kt. The ROC during this time was slightly positive (+39 to +65 ft/min), which indicated a bounce or the physical pitch-up (confirmed by pilot interview that he kept the nose up after the first bounce) of the aircraft during the rollout.

The total elapsed time from the start of the Landing event to a complete stop was 31 seconds.

With the above recorded data showing the rapid increase in descent rate to -1,259 ft/min at 14:17:36 followed by a landing speed of 109 kt, it suggests a high-energy descent shortly before the touchdown event.

[8] *V2 Track*: The aircraft was fitted with *V2 Track* equipment which is a hybrid dual-mode cellular/satellite GPS tracking system.

[9] See *Appendix 5.3* Recorded data for full details.

1.12 Wreckage and Impact Information

1.12.1General Description of the Wreckage

Following the abnormal runway contact at Balimo Airstrip, the aircraft airframe remained intact. There was no pre- or post-impact fire. The aircraft was subsequently positioned onto the apron area at Balimo Airstrip by the pilot and helpers to clear the runway for continued aerodrome operations.

On 14 July 2025, AIC investigators conducted an on-site examination of the aircraft at Balimo to assess the extent of the damage. Preliminary inspections indicated that the damage was primarily structural and mechanical in nature, consistent with a heavy landing, bounce sequence, and subsequent runway contact. Following the AIC's inspection, the operator's engineering personnel were granted limited access to examine and secure the aircraft.

The aircraft came to rest substantially intact. Damage was observed to the nose landing gear assembly, right main landing gear, propeller assembly, lower nose section and aft lower fuselage area. The cabin and cockpit areas remained intact.

1.12.2Aircraft Damage

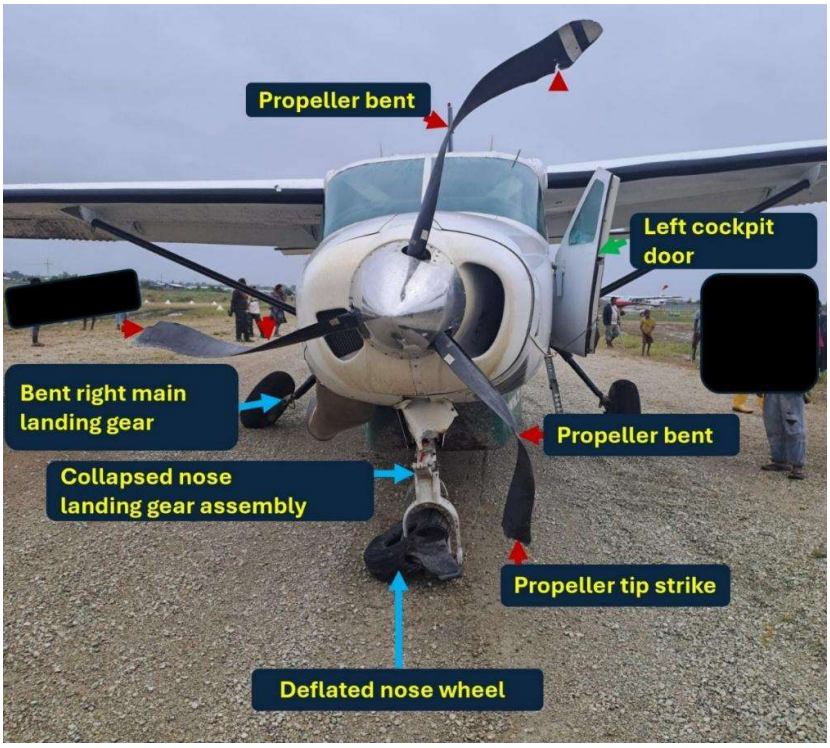


Figure 5. View of major damage areas.

The aircraft sustained substantial damage. Further examination of the damage included:

- propeller and spinner damage from runway contact;
- engine damage associated with the propeller strike;
- collapse and damage of the nose landing gear oleo;
- nose wheel and axle damage and burst tyre;
- steering actuator damage associated with detachment of the nose landing gear support spring from the oleo;
- deformation of the nose section cowlings;
- bent right main landing gear spring leg, axle and wheel;
- structural damage to the tail lower fuselage area; and
- minor damage to the cargo pod.

The aircraft damage was consistent with heavy runway contact during the landing sequence, followed by collapse of the nose and left landing gear assemblies and propeller contact with the runway surface.

Figure 6. Observation of the damage to the aircraft.

1.12.3 Post Accident Assessment

Following the initial AIC on-site assessment, the operator's engineering personnel secured the aircraft to prevent further deterioration and environmental exposure. The nose section was supported using a hydraulic jack. Control locks were installed to prevent movement due to wind-gust, and the nose area was covered with a tarpaulin to protect the flight deck and engine bay from rainfall.

A preliminary engineering assessment conducted by the operator identified substantial damage and determined that a more detailed inspection was required. The operator's engineering team conducted damage assessment at Balimo and subsequently Non-Destructive Testing (NDT) inspections in Port Moresby.

1.13 Medical and Pathological Information

No medical or pathological investigations were conducted as a result of this accident nor were they required.

1.14 Fire

There was no evidence of pre- or post-impact fire.

1.15 Survival Aspects

After the aircraft came to rest, the pilot feathered the propeller, shut off the main fuel supply to the engine, and turned off the aircraft electrical systems. During interview with AIC investigators, the pilot stated that these actions were taken to secure the engine and reduce the risk of fire.

The pilot instructed the passengers to egress through the left cockpit door. According to the pilot, the evacuation was conducted from the left side of the aircraft as the aircraft was resting in a nose-down attitude and leaning to the right due to the collapsed nose and right main landing gear. All passengers egressed the aircraft safely. The pilot then instructed the passengers to move clear of the aircraft and remain at a distance of approximately 20 to 30 metres. Once all passengers were outside and in a safe area, the pilot exited the aircraft and conducted an external inspection of the aircraft and immediate hazards.

The pilot stated that he notified the operator by telephone after the evacuation. He advised that he did not use the aircraft radio because he did not want to re-energise the aircraft electrical system.

1.16 Tests and Research

No tests and research were conducted as a result of this occurrence.

1.17 Organisational and Management Information

1.17.1 The Operator: Tropicair Limited

At the time of the accident, the operator Tropicair had an *Air Operator Certificate (AOC) # 119/015* issued on 24 November 2023 and effective from 30 November 2023 to the end of 30 November 2028.

The *AOC* was issued pursuant to *Section 47 (3)* and *49 of the Civil Aviation Act 2000* and *Civil Aviation Rule Part 119* and authorises Tropicair Limited to perform commercial air operations in accordance with the approved operations specifications and company exposition.

The operator had a *Maintenance Organisation Certificate (MOC) # 145/015* issued on 01 June 2024 and effective from 01 June 2024 until 31 May 2027.

1.18 Additional Information

1.18.1Flight Operations

The Operator's *Operations Manual Part A – Volume 2, Section 2 – Conduct of Flight* outlines the conditions of a stabilised approach. The Operations Manual describes that *"A stabilised approach is characterised by a constant angle (CDFA) and constant rate of decent approach profile ending near the touchdown point."* It further states *"Aircraft should be configured in a "stabilised" configuration…by 500 ft above airport elevation in VMC…"*

According to the Operator's Operations Manual, a stabilised approach requires that the aircraft meet clearly defined speed, configuration, flightpath, decent rate, and power setting criteria by **500 ft AGL in VMC** and that these conditions **remain stable until touchdown**.

The following criteria set out in the table below briefly describes the conditions for a stabilised approach as set out in the Operator's *Operations Manual – Part A – Volume 2, Section 2.* It further indicates whether conditions for a stabilised approached were satisfied based on the actual condition of the accident flight:

SOP Stabilised Criterion	**Actual Condition**	**Result**
Speed ≤ VREF + 15 kt	Speed 100 kt (>15–25 kt above)	**Not satisfied**
Correct landing configuration by 500 ft	Unknown if flaps 30° selected	**Not satisfied**
Small control corrections only	Side slip + wing-low + heavy cross-controls, excessive rate of decent	**Not satisfied**
On correct lateral path	Drift and one-wheel touchdown	**Not satisfied**
Power appropriate	Power to idle at threshold	**Not satisfied**
Go-around if unstable	Continued after initial bounce	**Not satisfied**

Table 10. Conditions for a stabilised approach.

According to the operators SOP, a normal approach should be flown at approximately 110 KIAS on the downwind leg with 10° of flap and 1000 ft/lbs of torque, slowing to around 90 KIAS on base with 20° of flap and 500 ft/lbs of torque, and finally selecting 30° of flap on final with an airspeed of 75–85 KIAS while maintaining power to sustain the approach profile.

1.19 Useful or Effective Investigation Techniques

The investigation was conducted in accordance with *the Civil Aviation Act 2000*, and with the *Standards and Recommended Practices Annex 13 to the Convention on International Civil Aviation*, and the PNG Accident Investigation Commission approved *Investigation Policy and Procedures*.

INTENTIONALLY LEFT BLANK

2 ANALYSIS

2.1 Flight Operations

The analysis section of this report discusses relevant facts that contributed to the accident.

It provides a logical link between the factual information and the conclusions seek to explain the circumstances that contributed to the accident. Its focus is on the following areas but is not limited to those areas and not under specific headings.

1. Pilot actions and aircraft handling
2. Human factors
3. Operating environment.

The investigators analysed the Flight tracking information (V2 Track)[10] provided by the operator and determined that the rate of decent was not stable throughout the approach. Recorded data indicated that during the final approach, significant fluctuations in the aircraft's descent profile occurred. During the aircraft's descent from 761 ft to 253 ft, there was a notable descent interruption (momentary climb) at 14:17:06, where the Rate of Descent spiked to +216 ft/min before resuming a steep descent of -1,259 ft/min just before the landing phase. The track changed steadily from 156° to 104°, indicating a continuous turn or correction onto the final approach path. Airspeed remained between 98 kt at 761 ft and 108 kt at 253 ft.

The investigators found that this was indication of the aircraft being flown on a steep unstable approach during the final approach to strip 10. The investigators further indicated that at 253 ft the pilot committed to a "Dive and Drive", shoving the nose down, resulting in excessive speed on touchdown that led to the aircraft bouncing aggressively.

The investigators determined that at 500 ft AGL, there should have been clear indications to the pilot of an unstable approach. However, the pilot did not elect to conduct a go-around but continued the approach "muscling" the aircraft onto the runway. The topography of Balimo and its surrounds do not preclude aircraft conducting a missed approach or go around even from a low height.

2.1.1 Deviation from Standard Operating Procedures

The incident involved a Cessna 208B landing under conditions that deviated from standard operating procedures (SOP). According to the operators SOP, a normal approach should be flown at approximately 110 KIAS on the downwind leg with 10° of flap and 1000 ft/lbs of torque, slowing to around 90 KIAS on base with 20° of flap and 500 ft/lbs of torque, and finally selecting 30° of flap on final with an airspeed of 75–85 KIAS while maintaining power to sustain the approach profile. The pilot, however, maintained airspeeds between 100 and 110KIAS throughout the approach, intending to sustain at least 100 KIAS to the threshold due to his assessment of the wind conditions.

He stated that the typical approach speed is 85–95 KIAS and he added 5 knots in anticipation of a right crosswind, initially estimated at 7–8 knots, but later observed to be approximately 10–15 knots.

[10] See Section 1.11.2 Recorded data for full details

Given that the final approach speed target is 75–85 KIAS, adding 5 knots would have resulted in 90 KIAS; however, due to his perception of the typical approach range of 85-95 KIAS, he maintained 100 KIAS.

This deviation from SOP's indicates non-adherence to stabilised approach criteria and suggests that the pilot's crosswind technique may have been inadequately applied. To manage the crosswind, the pilot employed a crab technique on short final, transitioning to a right wing-low method near the threshold, applying left rudder to align the nose and right aileron into the wind to counter drift.

2.2 Human Factors

2.2.1 Decision-Making and Plan Continuation Bias

The investigators identified that the pilot continued the landing despite multiple cues indicating that the approach had become unstable. These cues included:

- Excessive approach speed relative to the recommended final approach speed.
- Variations in the rate of descent during the final approach segment.
- Increased control inputs required to manage crosswind conditions.
- The aircraft bouncing following the initial touchdown.

Under normal operating procedures, any of these conditions may warrant a go-around. However, the pilot elected to continue the landing.

This behaviour is consistent with plan continuation bias, a cognitive tendency in which an individual persists with an original course of action despite emerging information indicating that the plan should be modified or abandoned. In aviation operations, this bias commonly occurs during the final stages of an approach when pilots may be psychologically committed to completing the landing.

Once the pilot had committed to landing on strip 10, the continuation of the approach despite clear indications of instability suggests that the pilot may have been influenced by this cognitive bias. The commitment to landing likely reduced the pilot's willingness to transition to a go-around, even when procedural cues required it.

2.2.2 Perception of Stability

During interviews, the pilot reported that the approach into Balimo was stable. He also stated that a go-around remained an available option in accordance with standard operating procedures, should the approach become unstable.

However, objective flight tracking data and analysis indicated that the approach did not meet the operator's stabilised approach criteria.

This difference between the pilot's perception and the actual aircraft performance suggests a possible situational awareness degradation. Situational awareness can be influenced by environmental factors such as wind conditions, visual perception of the runway environment, and workload during the approach.

The investigators considered that such operational familiarity may have influenced the pilot's tolerance for continuing the approach despite it not meeting stabilised approach criteria.

The investigators determined that human factors played a significant role in the occurrence. Specifically:

- The pilot continued an unstable approach rather than initiating a go-around in accordance with the operator's stabilised approach policy.
- Plan continuation bias likely influenced the pilot's decision to proceed with the landing despite cues indicating that the approach conditions were deteriorating.
- Increased workload associated with managing crosswind conditions may have reduced the pilot's capacity to monitor approach stability parameters.
- Following the initial bounce, the pilot continued the landing rather than executing a go around, which ultimately contributed to the nose and right landing gear collapse and propeller strike.

These human performance factors combined to reduce the pilot's ability to effectively manage the unstable approach and recover safely from the significantly bounced landing.

INTENTIONALLY LEFT BLANK

3 CONCLUSIONS

3.1 Findings

3.1.1 Aircraft

a) The aircraft was certified, equipped and maintained in accordance with existing regulations and approved procedures.

b) The aircraft had a valid Certificate of Airworthiness, Certificate of Registration and had been maintained in compliance with the regulations.

c) The aircraft was certified as being airworthy when dispatched for the flight.

d) The mass and the centre of gravity of the aircraft were within the prescribed limits.

e) There was no evidence of any defect or malfunction in the aircraft that could have contributed to the accident.

f) The aircraft was structurally intact prior to the accident.

g) The aircraft sustained substantial damage to the right main landing gear, propeller, and the nose landing gear.

3.1.2 Pilot

a) The pilot was licensed and qualified for the flight in accordance with existing *PNG Civil Aviation Rules*.

b) The pilot was in compliance with the flight and duty time limitations in accordance with the existing *PNG Civil Aviation Rules*.

c) The pilot was properly licensed, certified as medically fit and was adequately rested to operate the flight.

d) The pilot had operated multiple flights into and out of Balimo Airstrip prior to the accident, demonstrating knowledge of the destination aerodrome and surrounding environment.

3.1.3 Flight Operations

a) The flight was conducted under Instrument Flight Rules (IFR) and remained uneventful up until the landing phase at Balimo Airstrip.

b) The pilot was aware of prevailing wind conditions, which presented a right crosswind component on final approach.

c) The final approach was conducted high and fast and was unstable.

d) The aircraft touched down heavily with a high groundspeed and bounced.

e) The approach was unstable.

3.1.4 Air Traffic Services and Airport Facilities

a) Communications between the crew and Air Traffic Services were standard during the flight.

3.1.5 Flight Recorders

a) The aircraft was not equipped with a flight data recorder (FDR), a cockpit voice recorder (CVR) or a cockpit image recorder, nor were these required under existing *Civil Aviation Rules*.

b) The aircraft was fitted with *V2Track* equipment which is a hybrid dual-mode cellular/satellite GPS tracking system.

3.1.6 Medical

a) There was no evidence that the pilot suffered any sudden illness or incapacity which might have affected his ability to control the aircraft.

3.1.7 Survivability

a) The accident was survivable.

b) All passengers egressed safely.

c) There were no reported injuries.

3.1.8 Safety Oversight

a) The Civil Aviation Safety Authority's safety oversight of the operator's procedures and operations was adequate.

3.2 Causes [Contributing factors]

The approach to land at Balimo Airstrip deviated from *Standard Operating Procedures* and non-adherence to stabilised approach criteria resulting in the aircraft being flown in a manner conducive to an unsatisfactory touchdown.

A go-around was not initiated when the approach became unstable. The pilot made a fast and steep approach to get the aircraft on the ground. The unstable approach resulted in a heavy landing, two significant bounces and major damage to the aircraft.

4 SAFETY ACTIONS

4.1 Safety Action

On 18 May 2026, Tropicair Limited provided evidence of safety action taken to address flight operations safety deficiencies identified during the investigation.

4.1.1 Safety actions into flight operation audit

Tropicair undertook an independent audit following the accident. An independent auditor was engaged to conduct an audit of the Tropicair Flight Operations Department. - The auditor [name provided to the investigators], is a highly respected pilot with years of PNG flying experience. His report was provided to the AIC for confirmation of the safety action taken.

The audit reviewed the operator's flight operations arrangements, including relevant operational procedures, pilot training, and conduct of appropriate handling of aircraft associated with approach and landing operations.

Arising out of the audit findings, Tropicair has promulgated a C208 standard briefing card which includes destination, runway, weather, NOTAMs, approach type, navigation source, minima, landing configuration, braking, missed approach routing, stabilised approach policy, threats, mitigations, and crew coordination. It also stated that *the approach should be stabilised by 1,000 ft in IMC or 500 ft in VMC, otherwise a go-around should be conducted*.

4.1.1.1 AIC Assessment

The reinforcement of the stabilized approach criteria included in the pilot's C208 briefing card provided mitigation and further safety action in addressing the safety deficiency that was identified during the course of the investigation.

4.1.2 Safety actions into ADM/ CRM

Tropicair Limited advised the investigators that Aeronautical Decision-Making (ADM), Crew Resource Management (CRM), and Human Factors (HF) /Non-Technical Skills (NTS) training was being reinforced to their pilots through the PNG Air Training Academy. The operator provided certificates of five pilots showing completion of Human Factors/Non-Technical Skills training by selected flight crew, in accordance with CAR Part 121.557(b)(10). The training covered Threat and Error Management, fatigue-related factors, communication, leadership, teamwork principles, crew decision-making, airmanship, and safety culture.

4.1.2.1 AIC Assessment

The investigation noted that the training subjects were relevant in addressing the safety deficiency that was identified during the course of the investigation.

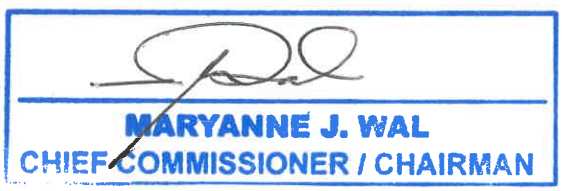
This Final Report is released by;

Accident Investigation Commission

Ministry of Civil Aviation

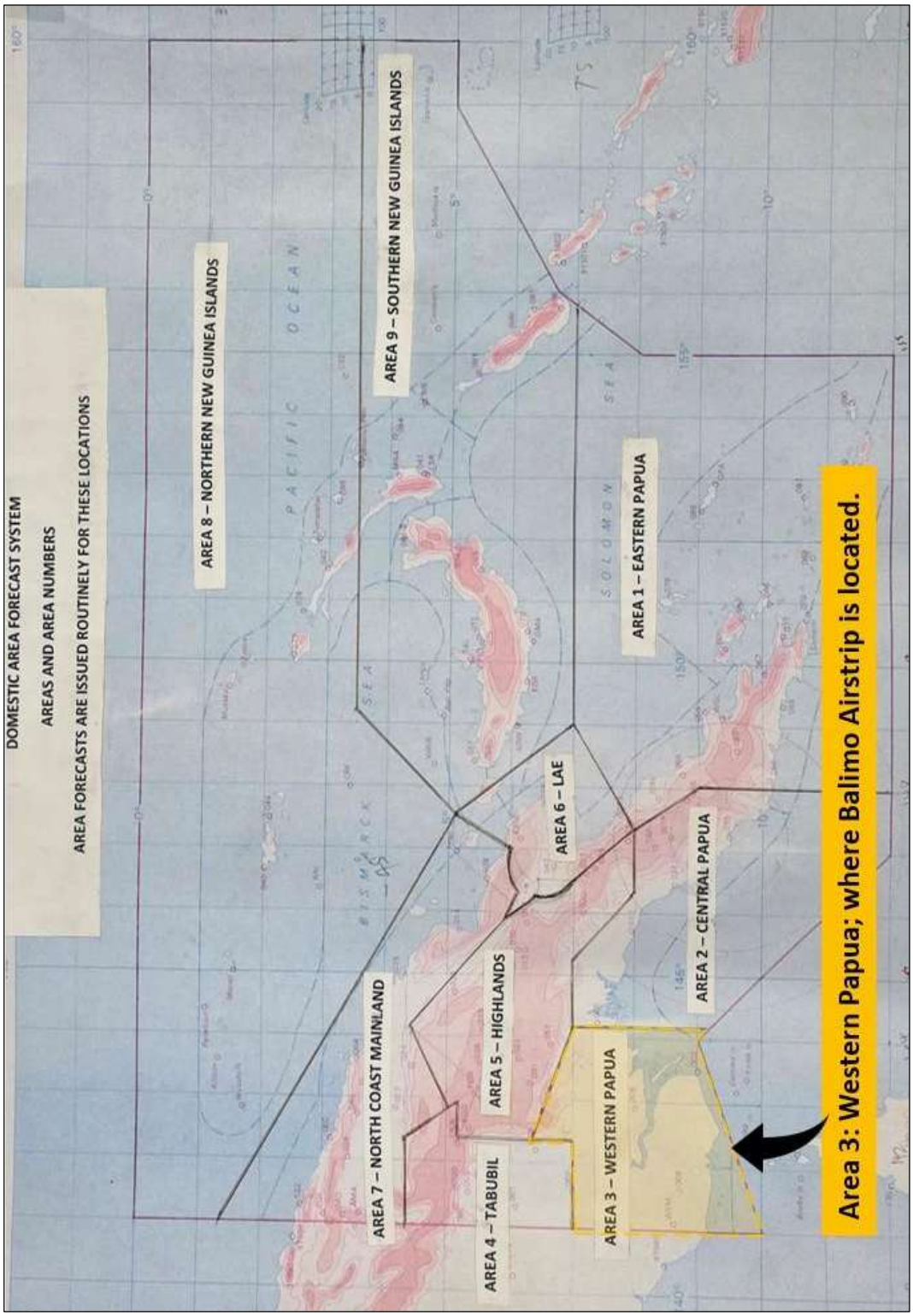
Papua New Guinea

29 June 2026



5 APPENDICES

Appendix 5.1 Domestic Area Forecast System



Appendix 5.2 Balimo Airstrip Data

Balimo Airstrip Data	
Aerodrome	*Balimo Airstrip*
Province	*Western Province, Papua New Guinea*
ICAO / IATA designators	*AYBM / OPU*
Elevation	*100 ft amsl*
Runway designation	*10/28*
Runway orientation	*100° / 280°*
Published runway length	*1,390 m*
Runway width	*45 m*
Runway slope	*0.2% down to the west*
Surface	*Grassed brown clay**
Airspace classification	*Class F (uncontrolled)*
Operating limitation	*Daylight operations only*
Area VHF frequency	*124.9*
Moresby FIS frequencies	*124.9, 8861, 5565*
Fuel availability	*Nil*
Engineering facilities	*Nil*
Ground handling	*No ground handling arrangements in place for Tropilotair operations*
Parking area	*Northern side of the runway*
Most suitable alternate aerodromes	*Daru, Kamusi, Kawito*
Published instrument approach procedure	*None published for Balimo*
Relevant caution	*Airstrip can become extremely slippery after rain*
Relevant caution	*Unauthorised pedestrian and animal movement on and about the flight strip*
NOTAM C0161 status on 13 July 2025	*Runway 10 displaced threshold 700 m due pavement upgrade works in progress*
Available runway length under NOTAM C0161	*700 m*
NOTAM C0161 remarks	*Access to apron via taxiway on north side; work area demarcated by unserviceable cone markers; aircraft to overfly to allow men and equipment to vacate*
NOTAM C0183 status on 13 July 2025	*Aerodrome survey and boundary fencing works in progress; aircraft to circle to allow men and equipment to vacate*

Table 11. Balimo Airstrip data table.

Appendix 5.3 Recorded flight data from *V2 Track*

Time (UTC+10)	Event	GPS Alt (ft)	TRK (°T)	ROC (ft/min)	Speed (kt)
13 Jul 2025, 14:16:36	Finals	761	156	-787	98
13 Jul 2025, 14:16:51	Finals	564	147	-669	107
13 Jul 2025, 14:17:06	Finals	604	127	216	106
13 Jul 2025, 14:17:21	Finals	538	111	-433	102
13 Jul 2025, 14:17:36	Finals	253	104	-1259	108
13 Jul 2025, 14:17:51	Landing	92	105	-531	109
13 Jul 2025, 14:18:05	Landing	89	102	39	62
13 Jul 2025, 14:18:06	Landing	89	102	39	62
13 Jul 2025, 14:18:09	Landing	89	112	65	42
13 Jul 2025, 14:18:22	Stopped Moving	82		-	0

Table 12. Flight Tracking Information (Source: V2 Track).