

# INTERIM STATEMENT AIC 20 - 2004

**Tropicair Limited** 

P2-MEH

Cessna Citation 525B

**Baggage Compartment Smoke Indication** 

40 nm NE of Jacksons International Airport, Port Moresby

Papua New Guinea

29 October 2020

# **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 objective 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 relevant 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.

**Hubert Namani, LLB** 

Chief Commissioner 10 December 2021

# **ABOUT THE REPORT**

On 29 October 2020, at 13:27 local time (03:27 UTC), NiuSky Pacific Limited provided the AIC with details of an occurrence involving a Cessna Citation 525B aircraft, registered P2-MEH, owned and operated by Tropicair Limited that made a PAN call due to fire indication earlier that day, at about 30 nm Northeast of Port Moresby. The AIC immediately established contact with Tropicair Limited and CASA PNG and gathered additional information about the emergency event. Subsequently, the AIC commenced an investigation.

This Serious Incident Final Report has been produced by the AIC pursuant to ICAO Annex 13, and has been approved for public release.

The report is based on the investigation carried out by the AIC under the Papua New Guinea Civil Aviation Act 2000 (As Amended), 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.

Although AIC investigations explore the areas surrounding an occurrence, only those facts that are 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.

Readers are advised that in accordance with *Annex 13* to the *Convention on International Civil Aviation*, it is not the purpose of an AIC 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 (Reference: *ICAO Annex 13*, *Chapter 3*, *paragraph 3.1*). Consequently, AIC reports are confined to matters of safety significance and may be misleading if used for any other purpose.

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# 1 FACTUAL INFORMATION

# 1.1 Occurrence details

On 29 October 2020, at 10:59 local (00:59 UTC<sup>1</sup>), a Cessna Citation 525B aircraft, registered P2-MEH, owned and operated by Tropicair Limited was on a Medivac<sup>2</sup> flight from Kunaye Airport, Lihir, New Ireland Province to Jacksons International Airport, Port Moresby, National Capital District, when, about 40 nm Northeast of Port Moresby, the baggage smoke warning activated.



Figure 1: P2-MEH depiction of flight path from Kunaye to Jacksons.

The co-pilot was the pilot flying and the PIC was the pilot monitoring.

The aircraft departed Kunaye Airport at 09:43 and climbed to an altitude of 40,000 ft with a planned track direct to Port Moresby (see Figure 1) carrying one patient lying on a stretcher and three passengers.

According to Cockpit Voice Recorder (CVR) data, during the arrival descent for runway 32R, at 10:59:15, while passing 20,000 ft, the Master Warning activated. During the interview with AIC, the crew stated that they observed the *Master Warning* (MW)<sup>3</sup> on the cockpit annunciator panel along with the baggage smoke light indication. The crew immediately referred to the 'Baggage smoke' emergency procedure in the Cessna Citation 525B CJ3 Pilot's Abbreviated Checklist handbook for Emergency/Abnormal Procedures. The checklist had only one action item; 'land as soon as possible'.

<sup>1</sup> 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 is UTC + 10 hours.

<sup>2</sup> Planned medical evacuation SOURCE: TROPICAIR PART A VOLUME 2 OPERATIONS MANUAL

<sup>3</sup> These are red flashing lights used as ATTENTION GETTERS. Together with aural signals, they enable the crew to detect failures which require immediate crew action.

The PIC stated during interview with the AIC that he was aware of some maintenance work which had been conducted the day before on the *windshield bleed air control valve*. The PIC also stated that he quickly switched off the valve, which he believed might have been the cause of the warning, with the intent to stop any bleed air going into the baggage area.

At 11:00, while passing through 18,500 ft, the crew informed Jacksons Radar that they had just received a baggage smoke alert and requested that they be given priority in the landing sequence. Jacksons Radar instructed the crew to track overhead for sequencing. The crew then advised Jacksons Radar that they were declaring<sup>4</sup> a *PAN* due to *baggage smoke* indication. Jacksons Radar acknowledged and advised the crew that they were number one in the sequence for landing, and that the crew were to expect a right base (for runway 32R). The crew acknowledged and continued.

At 11:02, P2-MEH was cleared to descend to 8,000 ft, not below DME<sup>5</sup> steps. About a minute later, Jacksons Radar instructed the crew to further descend to 2,500 ft, not below DME steps. The crew asked Jackson Radar to have Emergency Medical Services (EMS) on the ground. Jackson Radar then asked the crew if they were expecting a normal approach. The crew replied that they were unsure at that stage as they still had the baggage smoke light illuminating.

According to CVR data, at 11:05:24, the crew called Tropicair on their company designated radio frequency and requested for a tug to be on standby.

At 11:05:30, Jacksons Radar called and asked the crew to advise them when they were tracking for right base. The PIC confirmed that they were tracking direct to the field for a right base. Jackson Radar subsequently cleared the crew for a visual approach.

At 11:06:14, as they were passing through 5,000 ft, tracking towards the aerodrome, the crew requested for wind information from Jacksons Radar, and were advised that the wind was 300 degrees at 7 knots. The crew subsequently requested for a change of runway to 14L. Jacksons Radar then instructed the crew to track directly to join left base for runway 14L. The co-pilot then advised the passengers that they had received a *baggage smoke* warning light.

At 11:07:03, Jacksons Radar advised Jacksons Tower of the runway change to 14L.

At 11:07:52 Jacksons Radar instructed the crew to contact Jacksons Tower. The crew subsequently contacted Jackson Tower and advised that they had passed left base for runway 14L. Jacksons Tower instructed the crew to continue approach for runway 14L. The crew advised Jacksons Tower that they would vacate via taxiway Foxtrot.

Air Traffic Control (ATC) recordings indicated that, at about the same time, Jacksons Tower contacted Airport Rescue Fire Fighting (ARFF) Services, and alerted them and subsequently requested for them to be on standby at taxiway Golf for the emergency aircraft which was estimated to arrive at 11:20.

At 11:08:37, the co-pilot made another public announcement (PA) to the passengers advising them of the smoke alert emergency and their intentions to vacate via taxiway Foxtrot after landing and that he would initiate the evacuation plan for the passengers. He also instructed that if there was no fire or smoke, the patient would remain onboard.

At 11:09:09, the crew advised Jacksons Tower that they were on a short final for runway 14L. Jacksons Tower cleared the aircraft to land on runway 14L.

The aircraft landed at 11:09:22 on runway 14L and vacated the runway via taxiway Foxtrot.

<sup>4</sup> The crew did not do a standard PAN call (PAN, PAN PAN), instead they advised Radar that they were declaring a PAN.

<sup>5</sup> Distance Measuring Equipment.

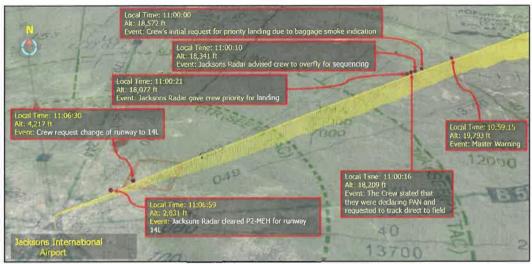


Figure 2: Depiction of the flight path from descent to landing phases

The crew then contacted Jacksons Tower and asked if they could observe any visible smoke from the aircraft. Jacksons Tower responded that there was no smoke observed and instructed the crew to hold on taxiway Foxtrot. The crew stopped the aircraft on taxiway Foxtrot and advised Jacksons Tower that they would shut down the aircraft. They subsequently shut down the aircraft. During interview with the AIC, the crew stated that the baggage smoke light remained illuminated until the crew shut down the aircraft.

The crew conducted an emergency evacuation of the passengers while the patient remained in the aircraft.

During interview, the crew stated that the ARFF team checked the aircraft for smoke and confirmed that there was no indication of smoke. Subsequently, the crew and passengers re-entered the aircraft and were towed to the Tropicair Hangar, where the crew and passengers disembarked. The patient was later transferred to an ambulance and transported to the hospital.

There were no reported injuries to the crew and passengers or damage to the aircraft.

# 1.2 Meteorological Information

The Port Moresby Terminal Aerodrome Forecast (TAF) issued by National Weather Services (NWS) on 29 October at 09:40, effective at the time of the flight and emergency of P2-MEH at Port Moresby is in Appendix A, 3.1.1 to the report.

According to CVR data, the crew received an Automatic Terminal Information Service (ATIS) Information Xray that was broadcast at 10:12 local time for 29 October 2020. The ATIS was provided to the AIC by NiuSky Pacific Limited and the information is as follows:

Active Runway : 32R

Wind : 320° at 5-10 knots

QNH : 1012 hPa Temperature : 28°C

Cloud : Few at 2,000 ft and broken at 3,000 ft

Visibility : Ok

# 1.3 Survival Aspects

## 1.3.1 Crew and passenger evacuation

The crew reported during interview that as soon as the PIC shut down the aircraft on taxiway Foxtrot, the co-pilot opened the main entry door and conducted a visual check for fire or smoke. Upon confirming that there was no fire or smoke, the crew instructed the passengers to evacuate the aircraft and move upwind<sup>6</sup>. The crew also reported that they opted not to evacuate the patient, who, according to the co-pilot was sedated.

The crew also stated that they would have evacuated the patient had there been any indication of smoke or fire. However, when they observed no smoke or fire, they left the patient onboard, strapped to the stretcher. They stood upwind of the aircraft and from a distance watched as ARFF carried out checks for fire and smoke (refer to section 1.3.2).

## 1.3.2 Aviation Rescue and Fire Fighting

According to the ARFF log of events record provided to the AIC, the ARFF was alerted by Jacksons Tower about the emergency aircraft. Subsequently, the ARFF declared a full-scale emergency<sup>7</sup> upon assessment of the details of the emergency.

The ARFF deployed to their standby position at the front of taxiway Golf following the advice from Jacksons Tower.

The National Airports Corporation (NAC) Incident Report indicated that the ARFF crew were expecting P2-MEH to land on runway 32R at an estimated time of 11:19. Therefore, they were looking towards the runway 32R approach end for the aircraft. However, the aircraft had landed at 11:09 on runway 14L. Their report also stated that they (the ARFF crew) were surprised when they realised that the aircraft had already landed, taxied to taxiway Foxtrot and parked about 10 m away from the runway. They immediately crossed the runway to taxiway Foxtrot following clearance by Jacksons Tower to cross to the aircraft (see Figure 3).

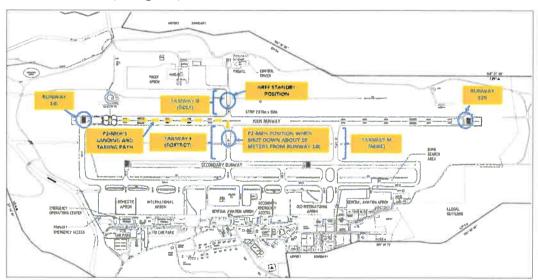


Figure 3: P2-MEH position after landing

<sup>6</sup> Towards the direction from which the wind is coming SOURCE: THE CAMBRIDGE AEROSPACE DICTIONARY.

<sup>7</sup> A condition declared when it is known that an aircraft approaching the Airport is, or is suspected to be, in such trouble that there is danger of an accident requiring the response from off-airport agencies SOURCE: MAC PORT MORESBY INTERNATION AMPORT EMERGENCY PLAN.

According to the NAC Incident Report, they were not advised of the number of persons onboard (POB) and were unaware of the number of POB while they were conducting their checks on the aircraft. They expressed that it was usually the case where the operators or their Handling Agents do not provide the ARFF with an accurate number of POB. According to the Operator, the crew had provided the POB to ATC on departure out of Kunaye Airport.

The report showed that the ARFF Duty Fire Officer (DFO) received a briefing from the crew, prior to opening both baggage compartments to conduct their checks. The baggage compartments, including the exterior fuselage area were checked and cleared off as no evidence of smoke, heat or fire was observed.

The NAC report shows that the DFO advised Jacksons Ground that ARFF crew were standing down and stood down at 11:29 local.

## 1.4 Pilots

## 1.4.1 PIC

The personal records of the PIC showed that he was an authorised Training Captain and Flight Examiner on the Cessna Citation 525B, and the Deputy Chief Pilot. The PIC's records also showed the following qualifications:

- PNG Airline Transport Pilot License (ATPL) issued on 14 November 2018
- Current medical class one (1) with no recorded medical limitation
- Endorsed on BE-20; BE-90; C525B aeroplane less than 5700 kg MTOW; C206; C208.

The training and competency records of the PIC showed that his Emergency Procedures and Dangerous Goods certificates were valid at the time of the occurrence. The records also showed that the PIC's Route Competency Check was revalidated on 12 October 2020 and was valid for the next 12 months.

Refer to Appendix 3.1.1 for further information about the PIC.

## 1.4.2 Co-pilot

The personal records of the co-pilot showed that he was a line pilot on the Cessna Citation 525B. The co-pilot's records also showed the following qualifications:

- PNG ATPL issued on 21 July 2020
- Current medical class one (1) with no recorded medical limitations
- Endorsed on the BE-20; BE-76; C525B aeroplane less 5700 kg MTOW; C208

The training and competency records of the co-pilot showed that his Emergency Procedures and Dangerous Goods certificates were current at the time of the occurrence. The records also showed that his Route Competency Check was revalidated on 05 July 2020 and valid for the next 12 months.

Refer to Appendix 3.1.1 for further information about the co-pilot.

## 1.5 Aircraft

For general information of the Aircraft, refer to Appendix C 3.1.1.

#### 1.5.1 Smoke detector

The smoke detection devices installed in P2-MEH's baggage compartment were photo-electric smoke detectors. The *Manufacturer's Aircraft Maintenance Manual (AMM)* states that, a smoke detector is mounted inside, at the top of each baggage compartment (Forward and Rear). They are covered with a steel box to maintain the fireproof function on the aircraft cargo compartments.

According to the AMM, in the event of smoke being present in either of the baggage compartment, smoke particle would affect the light beam entering the smoke detector and the smoke detector would turn on the BAGGAGE SMOKE light on the annunciator panel and MASTER CAUTION light would illuminate.

#### 1.5.2 Smoke detector maintenance history

The information provided by the Operator, showed that the smoke detectors, which were on-condition components<sup>8</sup>, were never replaced since they were installed on the aircraft in 2005. Maintenance records showed that there were annual inspections carried out on the smoke detections system in accordance with Cessna Citation AMM. The record of the last inspection conducted in April 2020, showed that the smoke detectors were serviceable.

#### 1.6 Communication

The *PAN* advice to Jacksons Radar by the crew was made on the primary frequency, VHF 125.8. All two-way voice communications within the approach phase until landing were made on the primary frequencies VHF 118.1 and 121.7 MHz. The quality of the communication was clear.

# 1.7 Organisational information

## 1.7.1 The Operator

The Operator's Head Office and Maintenance facility is at Port Moresby, National Capital District, Papua New Guinea.

Tropicair Limited conducts charter operations and is based in Port Moresby, National Capital District, Papua New Guinea. It commenced its operations in 1998 and operates domestically and internationally.

The company operates a fleet of turbine powered aircraft.

#### 1.7.2 Baggage on board

The load sheet of the occurrence flight provided to the AIC by the Operator showed that there was baggage onboard. The load sheet showed no record indicating that there was any Dangerous Goods onboard.

During interview with the AIC, the PIC stated that as usual, all bags were checked at the Kunaye Airport security check point and cleared before being loaded onto the aircraft. The crew reported that there were two passenger bags and a medical stretcher that were loaded in the aft baggage compartment. However, they were unaware of the contents of those bags.

<sup>8</sup> Components replaced only when they have a defect

When the AIC investigators accessed the aft baggage compartment on the day of the occurrence, they observed a smell like that of 'Deep Heat' and that the compartment had been cleaned out prior to their arrival at the aircraft. Subsequently, the investigators were unable to confirm the source of the smell.

The Operator, following a request by the AIC to quarantine the bags from the baggage compartment, stated that all bags had already been taken away by the passengers after the flight. The AIC further asked if the bags had been checked by the Operator prior to the passengers taking them away. However, the Operator stated that they did not check the contents of the bags.

According to the Operator's Incident Report (refer to Section 1.8.1), the smoke detector may have been activated by a source totally unrelated to maintenance, since the aft baggage compartment had a strong smell of medical substances due to medical equipment being stored in that area and that the compartment is not pressurized. The patient's bag was also stored in the aft baggage compartment at the time.

The AIC was unable to determine the contents of the baggage due to the unavailability of evidence.

# 1.8 Additional information

# 1.8.1 Operator's post-occurrence maintenance

Following the occurrence, the Operator's engineers had already begun to carry out maintenance on the aircraft, when the AIC was made aware of it. The AIC acquired the Operator's Incident Report on 02 November 2020 (refer to Appendix B, 3.2.1,). The report was dated 30 October 2020.

A pain relief cream.		

# 2 AIC COMMENTS

The AIC could not determine what medical substance, if any, was inside the baggage compartment that could have activated the smoke detector. Furthermore, the AIC could not establish whether any other items carried by the passengers in their bags stored in the Aft Baggage Compartment could have caused the smoke detector activation. As the baggage compartment is unpressurized, it is likely that any other substances or simply lithium-ion batteries in any of the bags could have produced a strong vapor or smoke to trigger the Smoke Detector. However, no information was available other than a smell reported by the Operator and the AIC investigators. The smell could not be described any more specifically than just generally a medical substance. When the AIC arrived at the Tropicair base, the baggage compartment had already been cleaned and no longer had any evidence of the source of smell. Due to the lack of evidence, the AIC was unable to conclude that the cause of the activation of the smoke detector was a result of any contents of the bags in the baggage compartment..

The Operator stated that the Smoke Detector may have been activated by the bleed air leakage from the deformed gasket, which may have allowed bleed air to enter the baggage compartment and cause the Smoke Detector to activate. The AIC determined that although possible, this would be the least likely scenario, considering the other possible causes of smoke detector activation, such as the baggage content scenario discussed above.

With all evidence considered, and the fact that evidence was tampered with prior to the arrival of the investigators at the aircraft, the AIC was unable to determine the cause of the Smoke Detector activation.

# 3 APPENDICES

# 3.1 Appendix A

# 3.1.1 Table containing Port Moresby Terminal Aerodrome Forecast (TAF)

TAF val	id from 10:00 Local on 29 October to 10:00 Local on 30 October 2020	
Wind	340° at 7 kt	
Visibility 9999 (greater than 10 km) with showers and rain		
Cloud	scattered at 1,600 ft and 5000 ft, and broken at 12,000 ft	
Temperature	28°C, 28°C, 27°C and 26°C at six hourly intervals	
QNH	1012, 1011, 1008 and 1009 hPa respectively, at six hourly intervals	
	INTER from 10:00 to 19:00 Local on 29 October	
Visibility	5 km with showers and rain	
Cloud	Broken at 800 ft	
	METAR for 29 October at 11:00 Local	
Wind	variable at 2 kt	
Visibility	9999 (greater than 10 km)	
Cloud	broken at 2,000 ft and 14,000 ft	
Temperature	28°C	
Dew point	23°C	
QNH	1011 hPa	

# 3.2 Appendix B

# 3.2.1 Tropicair Incident Report dated 30 October 2020



# TROPICAIR - MAINTENANCE P145/015 Incident Report - P2-MEH (In Flight Smoke Detector Activation)



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- 2. Additional Background
- 3. Investigation/Observations
- 4. Rectification Action
- 5. Conclusion

#### TROPICAIR - MAINTENANCE P145/015 Incident Report - P2-MEH (In Flight Smoke Detector Activation)



#### 1: Introduction:

- On 29 October 2020 the CEO informed me that the crew of P2-MEH has declared an in-flight emergency and landed the aircraft at Jacksons Int. Airport and following exiting the runway have shut down the aircraft.
- Engineering personnel with the Aircraft Tug and Tow Bar has been escorted by NAC POM to the aircraft to tow the aircraft to the Tropicair Ramp area.

## 2: Additional Background:

- On 25 September 2020 an entry was made on Supplemental Worksheet 4397/1 that the Windshield Bleed Air was stuck ON.
  - During the investigation process, the following Avionic related components were checked during a few days of maintenance:

    - Input voltage to Pressure Regulated Check Valve was only 9V. Voltage at Emergency Pressure Relay was only 9V.
    - PC Board N2109 input & output voltage was 28V.
      PC Board N2113 output voltage only 9V.
  - Based on the findings above a new PC Board N2113 was installed on 8 October 2020 but this did not rectify the 9V output.
  - At this point, the aircraft was released to service by applying MEL 30-40-01 with the Windshield Bleed Air system inoperative, following the removal, blanking and re-installation of the Pressure Regulated Check Valve on 8 October 2020. Reference to Tech Log MEH10/5.
  - Certification of new Windshield Bleed Air actuation switch installation and Pressure Regulated Check Valve re-installation was carried out on 28 October 2020. This involved the blank being removed from the Pressure Regulated Check Valve line.
- The Engineer conducted a Bleed Air system leak check in the Baggage Compartment following the completion of the installation of a Windshield Bleed Air Switch and then various system component inspections to ascertain if the defect that was raised on the Windshield Bleed Air System had been rectified. No leaks were identified during the inspection on 28 October 2020 and the panel was installed.

#### 3: Investigation/Observations:

- The Engineering personnel discussed the incident with the crew to have a clear understanding of their reporting.
- The Engineers removed the panel in the Baggage compartment to get access to Bleed Air Pipes in the Baggage area that is located in the vicinity of the Baggage Compartment Smoke Detector.

#### TROPICAIR - MAINTENANCE P145/015 Incident Report - P2-MEH (In Flight Smoke Detector Activation)



 The Engineer decided to remove the Pressure Regulated Check Valve that was re-installed during the fault-finding process to identify the cause of the Windshield Bleed Air defect and found that one of the Crush Gaskets sealing the Bleed Air Ducting to the Pressure Regulated Check Valve was slightly impregnated.

The decision to remove the Pressure Regulated Check Valve was due to it being the only component in the system that has been disturbed

previously.

 The slight impregnation on the Crush Gasket may have caused the Smoke Detector activation, although this may have been activated by a totally unrelated source since the Rear Baggage Compartment has a strong smell of medical substances (due to medical equipment being stored in that area) and the compartment is not pressurised. The patient's cargo was also stored in the Rear Baggage Compartment at the time.

#### 4: Rectification Action:

 The Engineer has replaced the Crush Gasket with a new item obtained from Stores and re-installed the Pressure Regulated Check Valve.

 On 39 October 2020 another Bleed Air leak check has been performed and no leaks were identified from the Pressure Regulated Check Valve.

#### 5. Conclusion:

It is assumed that the Crush Gasket got slightly deformed during the reinstallation of the Pressure Regulated Check Valve at the time when the blank was removed from the Bleed Air Line which could have caused a small amount of Bleed Air to leak past the mating surface of the Pressure Regulated Check Valve and the Bleed Air Duct.

By the slight impregnation observed on the Crush Gasket it is evidence that the Pressure Regulated Check Valve and the Bleed Air duct was not perfectly aligned when the Clamp was initially tightened before it moved into position.



# 3.3 Appendix C

# 3.1.1 Table containing additional information of the report

	G	eneral Details			
Date and time		29 October 2020, 10:59 (	29 October 2020, 10:59 (00:59 UTC)		
Occurrence category			Serious Incident		
Primary occurrence type		Baggage Compartment Sr	Baggage Compartment Smoke Indication		
Location		About 40 nm Northeast of Capital District	About 40 nm Northeast of Port Moresby, National		
Typ	e of Operation, Passe	nger information and damage	details		
Type of Operation		IFR, Medivac			
Persons on board:		Crew: 2 (PIC and copilot)	Passengers:4		
Injuries:		Crew: Nil	Passengers: Nil		
Damage			There was no damage sustained by the aircraft as a result of this serious incident.		
Other damage		Not applicable			
Fire		There was no evidence of	pre-or post-impact fire.		
		Crew details			
PI			-pilot		
Gender	Male	Gender	Male		
Age	35	Age	31		
Nationality	South African	Nationality	Papua New Guinean		
Licence type	ATPL	Licence type	ATPL		
Total hours	8,524.5	Total hours	4,919.3		
Total hours in Command	7,984.0	Total hours in Command	3,465.2		
Total hours on type	501.7	Total hours on type	259.2		
	Ai	ircraft Details			
Aircraft Manufacturer		Textron Aviation INC			
Aircraft Model		C525B - CJ3			
Serial Number		525B-0027	525B-0027		
Year of manufacture		2005			
Total airframe hours since	new	3,661.9	3,661.9		
Total cycles since new		2,949.0			
Certificate of Registration		Issued: 5 June 2014	Expires: Non-Terminating		
Certificate of Airworthines		Issued: 6 June 2014	Expires: Non-Terminating		
		Engine data			
Engine manufacturer			Williams International		
Engine Model		FJ44-3A			
Year of manufacture		2005			
Engine type			Turbofan		
Serial number		Engine 1 (Left): 141061	Engine 2: 141062		
Total hours since new		Engine 1 (Left): 3,592.7	Engine 2: 3,543.3		
Total time since overhaul		Engine 1 (Left): 2,909.0	Engine 2: 2,863.0		
	Aerod	rome information			
Name of Aerodrome			Jacksons International Airport		
Locator indicator		AYPY-Port Moresby			
Airport operator		National Airports Corporation (NAC)			
Latitude:			09 26.509 S		
Longitude		147 13.144 E			
Elevation		129 ft (39 m)	129 ft (39 m)		