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**Safety recommendation: AIC 24-R15/24-2002**

**Addressed to: Air Niugini Limited**

**Date issued: 29 November 2024**

**Investigation link: AIC 24-2002**

**Action status: Issued**

## Introduction

On 8 August 2024, at 12:04 local time (00:04 UTC), the AIC was notified by CASA PNG of a serious incident that occurred on 23 July 2024, involving a B737-800 aircraft, registered P2-PXB operated by Air Niugini Limited during a Regular Public Transport (RPT) flight from Jacksons International Airport, Port Moresby, to Nadzab Tomodachi International Airport, Morobe Province, Papua New Guinea. The AIC immediately commenced an investigation on 8 August 2024.

## Occurrence

On 23 July 2024, at about 09:15 local time (23:15 UTC<sup>1</sup>), a B737-800 aircraft, registered P2-PXB (PXB), owned by Loftleidir Icelandic and operated by Air Niugini Limited (ANL) was conducting a RPT flight from Jackson International Airport (Jacksons Airport), Port Moresby to Nadzab Tomodachi International Airport (Nadzab Airport), Morobe Province, had a spillage of hazardous material, mercury in its cargo compartment, during passenger boarding and loading of cargo.

There were sixty-seven persons on board the aircraft: 2 pilots, 4 cabin crew and 61 passengers. There were no injuries reported passengers, crew and ground personnel.

The aircraft aft cargo compartment (Cargo Hold No. 3) floor from the doorway of the aircraft was contaminated with mercury.

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<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) is UTC + 10 hours.

## Safety deficiency description

*DGM, Version 13.2, section 8 (19), 'Security Screening'* states that while the purpose of security screening is to detect and prevent items having a security risk to the operations of aircraft from being transported as cargo or in baggage and mail, security screening safeguards aviation safety. The ICAO TI (Technical Instruction) require security training staff to be trained to recognize and detect dangerous goods. However, it should be recognised that due to limitations in security screening technology, not all dangerous goods can be detected through such screening.

Hence, the detection of dangerous goods though security screening may only be conducted on a best effort basis. Notwithstanding this, many items of dangerous goods can still be detected by recognition of its shape and other physical properties. For example, gases contained in cylinders or aerosol cans, fire extinguishers, wet batteries, and even lithium batteries may be detected through security screening using x-ray machine. Whenever practicable, consider the screening equipment used to screen cargo, baggage and mail and assess its effectiveness in detecting and preventing hidden or undeclared dangerous goods from being transported on its aircraft. Consequential procedures after undeclared goods have been detected, including reporting to relevant authorities, gathering of safety data and taking appropriate action against entities offering undeclared dangerous goods for transport can further manage safety in the transport of items in aircraft cargo compartments.

The *Air Operator Security Program, Version 20, section 3.9.11.3* states that Air Niugini utilises a Smiths X-Ray Machine, which is installed at the Cargo Warehouse in Port Moresby for the screening of cargo, courier, express mails and mail is approved by the appropriate authority.

The X-Ray system meets the performance standards to ensure maximum effectiveness in detecting explosive or incendiaries and meets imaging capabilities for screening cargo consignments when x-rayed. The following must be considered:

1. Images of every part of the item being screened must be studied for at least 5 seconds
2. The X-Ray operator should check that the shading of the image on screen is consistent throughout. Lighter edges may indicate sheet explosive that does not completely line the top, bottom or sides of the consignment.
3. Operators must pay as much attention to the framework and any appendages as to the contents and any metallic or channelled parts of a consignment which would conceal a component of an explosive device should be examined for apparent bulges or protrusions.

The *Air Operator Security Program, version 20, section 3.9.11.3* states that when screened by X-Ray, each piece must be screened at least twice in succession with the image viewed by the same operator at the same location, from two different angles.

The investigation found from evidence reviewed that the Screener was loading the x-ray machine, screening cargo and unloading onto pallets. Evidence provided to the AIC also showed that the screener had exited the screening room immediately after the cargo of interest passed through the x-ray machine. She had exited the screening room to assist the supervisor unload cargo onto pallets. The images of the subject cargo was not studied or paid attention to when it went through the x-ray machine.

**Recommendation number AIC 24-R15/24-2002 to Air Niugini Limited**

The PNG Accident Investigation Commission recommends that Air Niugini Limited should ensure that there is adequate number of x-ray Cargo Screening Officers to allow effective screening of cargo in accordance with the requirements of its *Air Operator Security Program*.

**Action requested**

The AIC requests that Air Niugini Limited note recommendation *AIC 24-R15/24-2002* and provide a response to the AIC within 90 days of the issue date, nor later than 27 February 2025 and explain (including evidence) how Air Niugini Limited has addressed the safety deficiency identified in the safety recommendation.



**Maryanne J Wal**  
*Chief Commissioner*

### **Air Niugini Limited response to Safety Recommendation AIC 24-R15/24-2002**

On 10 January 2025, Air Niugini Limited (ANL) provided a response to *Safety Recommendation AIC 24-R15/24-2002*, via email stating that they were currently addressing the actions and shall revert before the due date.

The AIC did not receive a response from ANL relating to an update on their corrective actions to address the deficiencies identified in the safety recommendation, by the due date (27 February 2025).

On 14 March 2025, AIC sent a courtesy follow-up email to ANL. The operator responded on the same day, stating that they currently had four x-ray Cargo Screening Officers rostered for each shift. ANL also provided a copy of the Security Department: Cargo Frontliners Operation Roster, for that period (8-21 March 2025), which indicated that there were four (4) screeners rostered for each shift.

### **AIC assessment of Air Niugini Limited response**

The AIC reviewed Air Niugini Limited's response to address *Safety Recommendation AIC 24-R15/24-2002* and notes that the corrective actions taken address the safety deficiencies identified in *Safety Recommendation AIC 24-R15/24-2002*.

The AIC has assigned this response a *fully satisfactory* rating.

The AIC recorded the status of the Safety Recommendation: **CLOSED**



**Maryanne J Wal**  
*Chief Commissioner*  
28 May 2025