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Safety recommendation: AIC 15-R21/13-1007

Addressed to: PNG National Airports Corporation (NAC)

Date issued: 7 August 2015

Investigation link: AIC 13-1007

Action status: Issued / Updated 22 March 2018 (*refer to page 3 for update*)

Safety deficiency description

On 19 October 2013, an Avions de Transport Régional ATR42-320 freighter, registered P2-PXY (PXY) and operated by Air Niugini, taxied to depart from runway 25 at Madang Airport. The take-off roll was normal until the pilot in command tried to rotate at V_{R1} (which the flight crew had calculated to be 102 knots). He subsequently reported that the controls felt very heavy in pitch and he could not pull the control column back in the normal manner. Flight data recorder (FDR) information indicated that approximately 2 seconds later the PIC aborted the takeoff and selected full reverse thrust. He reported later that he had applied full braking. It was not possible to stop the aircraft before the end of the runway and it continued over the embankment at the end of the runway and the right wing struck the perimeter fence.

The investigation found that the aircraft load was in excess of the maximum permissible weight, and cargo zone 'A' at the front cargo area was significantly heavier than the structural limit for the aircraft, which placed the aircraft in a nose heavy configuration. Air Niugini's lack of robust loading supervision and procedures for the ATR 42/72 aircraft, and the inaccurate weights provided by the consignor/client company likely contributed to the overload.

While the airport emergency procedures activated during this accident were effective, the investigation noted that the National Airport's Corporation (NAC), Madang *Airport Emergency Plan* (AEP) manual's procedures did not meet the requirements of ICAO Annex 14, Volume 1.

An area of immediate safety concern is the availability of marine rescue in the event of an aircraft having a runway excursion off the northern end of the runway and coming to rest in the water of the Madang harbour.

Because Fokker F100 passenger aircraft regularly operate into Madang, the possibility of a runway excursion into the harbor involving the need to rescue almost 100 persons from the water cannot be ignored.

The Madang AEP does not meet the ICAO Annex 14, Volume 1, Standards and Recommended Practices.

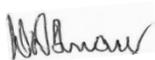
Recommendation number AIC 15-R21/13-1007 to the PNG National Airports Corporation (NAC)

The Accident Investigation Commission recommends that the PNG National Airports Corporation ensure that its:

1. *Airport Emergency Plans* are reviewed to ensure they meet the Standards and Recommended Practices of *ICAO Annex 14, Volume 1*.
2. Airports having water or swampy terrain along the departure and/or arrival paths are equipped, in accordance with the ICAO Annex 14, Paragraph 9.2.2 Standard, with specialist rescue services and fire-fighting equipment appropriate to the hazards and risks.

Action requested

The AIC requests that PNG National Airports Corporation (NAC) note recommendation AIC 15-R21/13-1007 above, and provide a response to the AIC within 60 days of the issue date, and explain (including with evidence) how NAC has addressed the safety deficiencies identified in the AIC investigation report AIC 13-1007.



David Inau

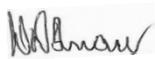
Chief Executive Officer

PNG National Airports Corporation (NAC) response

Despite reminders being sent to the NAC, the AIC did not receive a response from NAC addressing the identified safety deficiency.

PNG Accident Investigation Commission (AIC) assessment of PNG National Airports Corporation (NAC) response

As a result of the AIC not receiving a response from NAC addressing the identified safety deficiency with respect to AIC 15-R21/13-1007 addressed to NAC, the AIC assigned this nil response an **unsatisfactory** rating, and records the **Status of the AIC Recommendation: Active**



David Inau, ML

Chief Executive Officer

13 October 2015

PNG National Airports Corporation (NAC) responses

As a result of the AIC sending numerous reminders to the NAC, responses to date have only addressed point 1 of the Safety Recommendation. The NAC has sent a number of documents providing evidence of *Airport Emergency Plans* having been reviewed and also exercises undertaken to ensure they meet the *Standards and Recommended Practices* of *ICAO Annex 14, Volume 1*.

On 20 March 2018, the AIC again requested evidence of the NAC meeting the requirements of Annex 14 Paragraph 9.2.2 Standard, listed in point 2 of the Safety Recommendation. The Safety Recommendation requested evidence that airports having water or swampy terrain along the departure and/or arrival paths are equipped, in accordance with the ICAO Annex 14, Paragraph 9.2.2 Standard, with specialist rescue services and fire-fighting equipment appropriate to the hazards and risks. This is particularly relevant to Madang Airport.

On 20 March 2018 the NAC provided the following response:

As part of the table top exercise for crash at sea for Madang, we are also in contact and communication with PNG Ports Services for this particular scenario and of what current and available marine resources they have available to assist NAC in Madang should there be a aircraft emergency of crash in the sea.

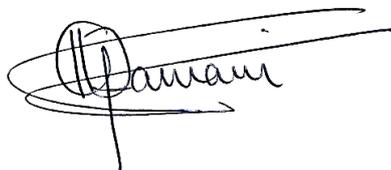
NAC will provide a full report including any proposals to AIC once our table top exercise is conducted in Madang on 05th April 2018.

PNG Accident Investigation Commission (AIC) assessment of PNG National Airports Corporation (NAC) response

The AIC has reviewed the NAC documents providing evidence to the AIC of *Airport Emergency Plans* having been reviewed and also exercises undertaken to ensure they meet the *Standards and Recommended Practices* of *ICAO Annex 14, Volume 1*. The AIC is satisfied that the evidence meets the intent of Point 1 of the *AIC Safety Recommendation*, and the associated requirements of *ICAO Annex 14, Vol 1*.

However, there is no evidence that the NAC meets the requirements of *Annex 14 Para 9.2.2* as listed in Point 2 of the Safety Recommendation. Accordingly, the AIC considers the 20 March 2018 response citing the proposed discussions with PNG Ports Services as *only satisfactory intent*, and considers that the risk to the PNG aviation industry and the travelling public remains significant. The AIC will continue to monitor the status of the NAC meeting the State of PNG's obligations with respect to *ICAO Annex 14 Para 9.2.2*.

The AIC has assigned the NAC response to the AIC addressing the identified safety deficiency with respect to *Safety Recommendation AIC 15-R21/13-1007* addressed to NAC, a *satisfactory intent* rating, and records the **Status of the AIC Recommendation: Monitor**

A handwritten signature in black ink, appearing to read 'Hubert Namani', with a large, sweeping flourish underneath.

HUBERT NAMANI

Chief Commissioner

22 March 2018

PNG National Airports Corporation (NAC) responses

On 16 May 2018, the NAC provided the AIC with a copy of their report dated 6 April 2018, titled, *OCCURRENCE INVESTIGATION REPORT: AIC SAFETY RECOMMENDATION — MADANG CRASH ON WATER 2013*. The report details the 5 April 2018 Table Top exercise conducted by NAC and the arrangements with PNG Ports and Madang Resort for marine resources to assist NAC meeting its ICAO obligations with respect to ICAO Annex 14, Volume 1, Para 9.2.2.

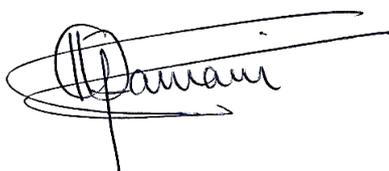
The report stated in conclusion:

NAC acknowledges and accepts the AIC Safety Recommendation AIC 15-R21/13-1007 dated 19 October 2013 and believe that this recommendation is effectively covered by the marine response from PNG Ports and Madang Resort, as part of the corrective and preventative actions established by NAC to this AIC Safety Recommendation.

PNG Accident Investigation Commission (AIC) assessment of PNG National Airports Corporation (NAC) response

The AIC has reviewed the NAC documents providing evidence to the AIC of *Airport Emergency Plans* having been reviewed and also exercises undertaken to ensure they meet the *Standards and Recommended Practices of ICAO Annex 14, Volume 1*. The AIC is satisfied that the evidence satisfactorily meets the intent of the *AIC Safety Recommendation AIC 15-R21/13-1007*, and the associated requirements of *ICAO Annex 14, Vol 1, in particular Para 9.2.2*.

The AIC has assigned the NAC response to the AIC addressing the identified safety deficiency with respect to *Safety Recommendation AIC 15-R21/13-1007* addressed to NAC, a **fully satisfactory** rating, and records the **Status of the AIC Recommendation: Closed Response Accepted**



HUBERT NAMANI, LLB

Chief Commissioner

17 May 2018