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Safety recommendation: AIC 19-R05/18-1004

Addressed to: Air Niugini Limited

Date issued: 4 February 2019

Investigation link: TC&I 18-1001 (AIC 18-1004)

Action status: Issued

Introduction

On 28 September 2018, the Federated States of Micronesia, Department of Transportation, Communications and Infrastructure (DTC&I) was notified of the aircraft accident referenced in this safety recommendation. DTC&I commenced an investigation and deployed investigators to Chuuk and invited the Papua New Guinea Accident Investigation Commission (AIC) to join the investigation in the capacity of the State of Registry and also a State providing experts and facilities for the investigation. The AIC team is comprised of an Accredited Representative and Technical Advisers. The US National Transportation Safety Board (NTSB) as the State of Manufacture of the aircraft and in response to FSM National Government's request for assistance also sent a team comprised of an Accredited Representative and Technical Advisers from the Federal Aviation Administration (FAA) and Boeing. Technical Advisers from the US National Weather Service are assisting the US Accredited Representative.

The Transportation Safety Board of Canada (TSBC) as the State of Manufacture of specific components appointed an Accredited Representative and Technical Advisers to download the data from the AFIRS.

The PNG AIC has identified a significant safety deficiency, which if not rectified could result in injury or loss of life following an accident. The FSM DTC&I investigator in charge supports the PNG AIC issuing this safety recommendation.

Occurrence

On Friday 28 September 2018, a Boeing 737-8BK aircraft, registered P2-PXE, was being operated by Air Niugini Limited, on a scheduled passenger flight from Pohnpei to Chuuk, Federated States of Micronesia.

At 23:17:19 UTC1 (09:17:19 local time) the aircraft impacted the water of Chuuk Lagoon about 1,443 ft (440 m) short of the runway 04 threshold, during its approach to runway 04 at Chuuk International Airport. As the aircraft settled in the water, it turned clockwise through 210° and drifted 460 ft (140 m) south east of the runway 04 extended centreline, with the nose of the aircraft pointing about 265°.

¹ The 24-hour clock, in Coordinated Universal Time (UTC), is used in this report to describe the local time as specific events occurred. Local time in the area of the accident, Pacific/Chuuk Time is UTC + 10 hours.

There were 12 crew members and 35 passengers on board. Six passengers were seriously injured, and one passenger was fatally injured.

The 12 crew members and 34 passengers exited the aircraft and were promptly rescued and brought to shore by U.S. Navy divers (who were the first on scene), Chuuk State Government boats, Red Cross, Transco, and more than twenty privately-owned boats. Local divers located the fatally injured passenger in the aircraft 3 days after the accident.

Background

A review of *US Federal Aviation Regulations (FAR)* and *PNG CASA Rule Parts* regarding exit row seating requirements determined that there are no regulations or rules on over wing exit row requirements.

The relevant Air Niugini manuals were reviewed to ascertain if procedures for over wing exit requirements were documented. There was no documented procedure in the Air Niugini manuals regarding over wing exit procedural requirements.

In the case of the PXE ditching accident at Chuuk, a safety briefing card for passengers seated in an over wing exit row was available, but because there were no passengers seated in the exit rows, no extra over wing specific verbal briefing by the cabin crew was given to any passenger.

The accident aircraft, PXE had 6 cabin crew seats. The flight from Pohnpei to Chuuk had a total of eight (8) cabin crew: CC1/Purser, CC2/ Senior Economy, CC3, CC4 (Trainee), CC5, CC6 (Trainer), CC7 (Check Staff), and CC8 (Observing Check Staff).

Cabin Crew 1, 2, 3, 4, 5 & 6 were seated as shown in the diagram below. CC7 and CC8 were seated in business class seats 1A and 4D respectively.

The investigation reviewed *Volume 6, Chapter 1, Section 1.4* of the *Air Niugini Safety and Emergency Procedures Manual (SEPM)* and the *Air Niugini Airport Services Manual (ASM) Section 10.11.1 - Extra operating crew*. Both manuals confirmed that the basic cabin crew complement on the Air Niugini Boeing 737-800 aircraft was four, and standard complement was six.

The investigation found that the seating requirements for extra crew (more than six) had not been documented in any of the Air Niugini expositions/manuals.

Safety deficiency description

No passengers or crew were seated in the over wing exit rows, and so no passenger was given the briefing "*Important information for passengers seated in an over wing exit row*".

Immediately after the ditching, cabin crew CC5 moved forward from her cabin crew station at the rear of the cabin to the over wing exit. Due to the passenger congestion caused by passengers standing in the aisles, her attempt to reach the over wing exits was slowed. This flight did not have a full passenger load. There were numerous empty seats. In the event of a full capacity flight, the cabin crew would have had significant difficulty reaching the over wing exit.

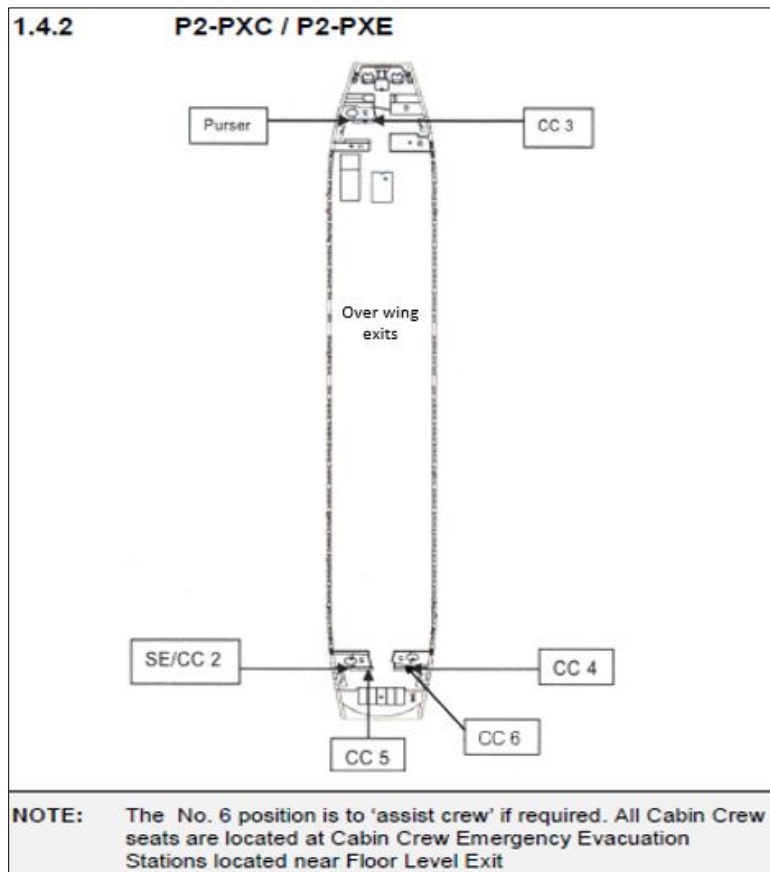


Figure 1: Cabin crew seating configuration Air Niugini Boeing 737-800 aircraft

Recommendation number AIC 18-R05/18-1004 to Air Niugini Limited

The PNG Accident Investigation Commission recommends that Air Niugini Limited, in order to mitigate the risk of a cabin crew member being unable to reach the over wing exit due to passenger congestion, should:

- Review its policy and procedures in the *Safety and Emergency Procedures Manual (SEPM)* and the *Airport Services manual (ASM)* in relation to all aircraft in the Air Niugini fleet to ensure a cabin crew member is seated in the over wing exit row on all flights.

Action requested

The AIC requests that Air Niugini Limited note recommendation *AIC 19-R05/18-1004*, and provide a response to the AIC as soon as possible, but no later than 4 May 2019 (within 90 days of the issue date), and explain including with evidence how Air Niugini Limited has addressed the safety deficiency identified in the safety recommendation.

HUBERT NAMANI, LLB
Chief Commissioner

4 February 2019

Air Niugini Safety Action

On 26 March 2019, Air Niugini Limited informed the PNG Accident Investigation Commission of its safety actions to address the safety deficiencies identified in *Safety Recommendation AIC 19-R05/18-1004*.

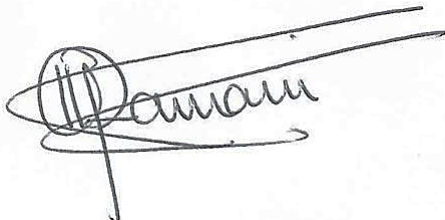
The AIC's safety deficiency has not been fully addressed to ensure a cabin crew member can expeditiously reach the over-wing exit from the rear cabin crew station in the event of a water ditching due to passenger congestion in the aisle.

However, the AIC notes that in response to AIC *Safety Recommendation AIC 19-R04/18-1004*, Air Niugini provided documentary evidence of the safety action taken with the CASA PNG accepted² amendment of the *Cabin Crew Administration Manual, Section 5.14.1* to require able bodied persons to occupy the over-wing exit seat on all flights. This instruction includes off-duty or passengering technical and cabin crew. The amendment specifies that when there are more than four (4) operating cabin crew on a flight, one shall occupy an over-wing exit seat.

PNG Accident Investigation Commission (AIC) assessment of Air Niugini Limited response

The AIC has reviewed the Air Niugini Limited documents providing evidence to the AIC of the safety action taken with respect to cabin crew locations on the aircraft and the positioning of able-bodied persons in exit rows. The AIC is satisfied that the evidence, while not fully addressing the AIC the safety concerns identified in the AIC Safety Recommendation AIC 19-R05/18-1004, meets the minimum safety standards.

The AIC has assigned the Air Niugini Limited response a *satisfactory intent rating*, and records the **Status of the AIC Recommendation: CLOSED RESPONSE ACCEPTED**

A handwritten signature in black ink, appearing to read 'Hubert Namani', with a large, sweeping flourish extending from the end of the signature.

HUBERT NAMANI, LLB
Chief Commissioner

26 March 2019.

² CASA PNG does not *approve* the Air Niugini manuals, rather it *accepts* the Air Niugini manuals.