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Safety recommendation: AIC 19-R09/18-1004

Addressed to: Air Niugini Limited

Date issued: 18 February 2019

Investigation link: 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 pilots not being appropriately trained and checked in practical simulator exercises. This could contribute to an accident or serious incident.

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°.

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

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.

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.

Safety deficiency description

The PIC and copilot had attended *Crew Resource Management (CRM) classroom training* in accordance with the Air Niugini CRM training program.

The *Air Niugini Training Policy and Procedures Manual's (TPPM)* stated aim of *Crew Resource Management* training is:

- Threat recognition and management;
- Error reduction; and
- Error recognition and management.

The *Air Niugini TPPM* states that the training is aimed at building crew performance required to reduce the number of errors, and building crew performance to effectively manage threats and errors.

Air Niugini provides guidance for pilots with respect to ***Challenge and Response*** requirements in *Section 2.5.1.4 of the Standard Operating Procedures Manual*.

Section 8.21, of the *TPPM* lists the classroom training, and states that *CRM* skills are practiced during simulator recurrent sessions and line operations.

The simulator instructor/check and training pilot who conducted the last simulator check with the copilot informed the investigation about the simulator training and checking syllabus and the results of the simulator check he conducted with the copilot. Air Niugini was unable to provide a copy of the report on that simulator check session.

Air Niugini pilots, including training and checking instructor pilots informed the AIC that simulator *threat and error recognition and management*, including checking during recurrent simulator training was not conducted by Air Niugini, resulting in it not being tested.

Air Niugini was unable to provide evidence of simulator *threat and error recognition and management* testing for the copilot of P2-PXE during his recurrency check prior to the accident. The Training and Checking instructor stated that the simulator training and proficiency check did not cover this essential training, nor was it required to be covered by Air Niugini.

There was no evidence that the copilot² had been provided with GPWS³ or EGPWS simulator training with respect to vital actions and required responses to be taken in the event of a GPWS alert or warning.

There was also no evidence that the simulator recurrency training and checking vital actions and required responses to be taken by the non-flying (monitoring) pilot, in the event of a sustained unstabilised approach situation developing when below 1,000 feet amsl, and when in instrument meteorological conditions.

During the final approach, a total of eight (8) glideslope and nine (9) sink-rate aural alerts were issued. Although conditions around these aural alerts were obvious, no corrective action was taken by the pilot-in-command (flying pilot), nor was corrective action imposed by the copilot (supporting / monitoring pilot).

More broadly, across the aircraft fleet, the Air Niugini simulator training did not include training in the vital actions and responses to be taken in the event of a GPWS or EGPWS warnings, and in the event of a sustained unstabilised approach situation developing when below 1,000 feet amsl, and when in instrument meteorological conditions.

² For the flight from Pohnpei to Chuuk, the copilot was the support/monitoring pilot, operating from the right cockpit seat.

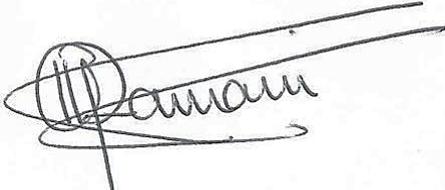
³ GPWS and EGPWS: Ground Proximity Warning System and Enhanced Ground Proximity Warning System.

Recommendation number AIC 19-R09/18-1004 to Air Niugini Limited

The PNG Accident Investigation Commission recommends that Air Niugini Limited, should ensure that all flight crew are tested for competency in the vital actions and responses to be taken in the event of a GPWS or EGPWS warnings, and/or an unstabilised approach situation developing when below 1,000 feet amsl, and in instrument meteorological conditions.

Action requested

The Accident Investigation Commission requests that Air Niugini Limited note recommendation *AIC 19-R09/18-1004*, and provide a response to the PNG AIC within 60 days, but no later than 18 April 2019, and explain including with evidence how Air Niugini Limited has addressed the safety deficiency identified in *Safety Recommendation AIC 19-R09/18-1004*.



HUBERT NAMANI, LLB
Chief Commissioner

18 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-R09/18-1004*.

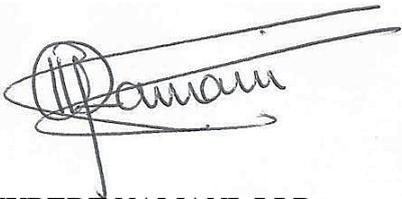
Air Niugini also provided documentary evidence of the safety action taken with the CASA PNG accepted⁴ amendment of the *Training and Checking Manual (TCM), Vol 1, Section 8.5* requiring all flight crew to be tested for competency in the vital actions and responses to be taken in the event of a GPWS or EGPWS warnings, and/or an unstabilised approach situation developing when below 1,000 feet amsl, and in instrument meteorological conditions.

The AIC obtained further evidence, including statements from flight crews, that the training and checking in the simulator now includes the requirements of the *TCM Vol 1, Section 8.5*.

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 simulator competency and testing of flight crews to address the identified safety deficiencies. The AIC is satisfied that the evidence addressed the safety deficiencies identified in the AIC *Safety Recommendation AIC 19-R09/18-1004*.

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



HUBERT NAMANI, LLB
Chief Commissioner

26 March 2019.

⁴ CASA PNG does not *approve* the Air Niugini manuals, rather it *accepts* the Air Niugini manuals.