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Safety recommendation: AIC 17-R03/16-2001

Addressed to: Air Niugini Limited

Date issued: 13 April 2017

Investigation link: AIC 16-2001

Action status: Issued

Safety deficiency description

On 16 December 2016, at 00:57 (UTC) a Fokker FK28-Mk 0100 (F100) aircraft, registered P2-AND (AND), operated by Air Niugini (ANG) Ltd, and a Quest Kodiak 100 aircraft, registered P2-SIR (SIR), operated by Summer Institute of Linguistics (SIL) Aviation, were involved in a TCAS Resolution Advisory (RA) breakdown of separation serious incident about 3.5 nm (6.4 km) northwest of Nadzab Airport, Morobe Province.

SIR had tracked from the Yalumet area towards Nadzab via the Saidor Gap, located 20 nm (36.8 km) north of Nadzab Airport, to remain in visual meteorological conditions (VMC). The pilot obtained an airways clearance from Moresby Flight Service for the new destination, Nadzab, and was cleared to track 166° to Nadzab.

The pilot transferred to Nadzab Approach as instructed at time 00:52:49 UTC, and the Approach Controller subsequently cleared SIR to “*track 157° to the field*”, and cleared the aircraft to descent to 3,000 ft visual. After establishing contact with the Aerodrome Controller (ADC) at 10 nm (18.5 km) from Nadzab, SIR was cleared to join the circuit mid-downwind for runway 27, and was advised that a departing Fokker 100 was tracking on the 300° radial.

At 00:49:11, AND was issued Standard Departure Clearance (SDC) 36 by the Aerodrome Controller. At 00:51:34, AND reported ready for takeoff from runway 27 and the Aerodrome Controller provided the following clearance. “*Alpha November Delta make a left or right turn, QNH now 1008, cleared for take-off.*” The crew of AND chose a right turn after take-off and tracked to intercept the 003° radial in accordance with the SDC 36.

Shortly after AND’s first contact with Approach Control, the controller asked the crew to confirm their tracking, and used the incorrect 5-letter waypoint name. The name used was similar to the 5-letter waypoint as that on the 300° radial. The name written on the flight strip also differed from the actual 5-letter waypoint on the 003° radial.

At 00:56:06, the pilot of SIR transmitted “*Nadzab Tower, due TCAS alert, Sierra India Romeo, this is only caution on climb again to 7000. Ah got 2 miles traffic*”. At 00:57:17 the crew of AND transmitted on the Approach Control frequency “*Alpha November Delta we on a TCAS climb*”.

AND first received a Traffic Advisory (TA), which appeared on the navigation display as a yellow triangle, and aural advisory stating “*Traffic, Traffic*”. The crew reported that this was followed by a RA, displayed as a red square, and aural instruction, which stated “*Maintain vertical speed*”. The crew complied with the TCAS RA instruction.

PNG Air Services Limited and Air Niugini did not report the incident, and SIL Aviation provided an initial notification 4 days after the incident. The initial notification actions were not in accordance with PNG legislated requirements.

The lack of timely notification deprived the investigation of significant data from AND’s Flight Recorders, that would have assisted in the analysis of factors that contributed to this serious incident.

Teledyne Data Frame Layout Documents were provided by Air Niugini, and were used in the analysis of the flight recorder data. However, the documentation obtained from the Air Niugini did not have the conversion equations as required by ICAO, and necessary for the readout of the data. Further documentation was obtained from Fokker Services, Netherlands.

Recommendation number AIC 17-R03/16-2001 to Air Niugini Limited

The PNG Accident Investigation Commission recommends that Air Niugini Limited should ensure that it meets the requirements of *ICAO Annex 6, Operations of Aircraft, Part I, Appendix 8, Flight Recorders, Paragraph 2.3.3* Standard which states:

Documentation concerning parameter allocation, conversion equations, periodic calibration and other serviceability/maintenance information shall be maintained by the operator. The documentation needs to be sufficient to ensure that accident investigation authorities have the necessary information to read out the data in engineering units.

Action requested

The AIC requests that Air Niugini Limited note recommendation AIC 17-R03/16-2001, and provide a response to the AIC within 90 days of the issue date, and explain (including with evidence) how Air Niugini Limited has addressed the safety deficiency identified in the AIC investigation report AIC 16-2001.



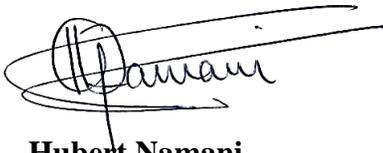
DAVID INAU, ML
Chief Executive Officer

Air Niugini Limited response

On 12 July 2017, Air Niugini provided the AIC a copy of their Data Frame Layout Document that detailed the relevant parameter allocations, conversion equations, periodic calibration and other serviceability/maintenance information.

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

The AIC reviewed the Air Niugini Limited Data Frame Layout Document, and determined that it satisfactorily addressed the requirements of *ICAO Annex 6, Operations of Aircraft, Part I, Appendix 8, Flight Recorders, Paragraph 2.3.3* Standard. With respect to AIC 17-R03/16-2001 addressed to Air Niugini Limited; **Status of the AIC Recommendation: Closed Response Accepted**

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

Hubert Namani
Chief Commissioner

21 August 2017