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**Safety recommendation: AIC 17-R01/16-2001**

**Addressed to: PNG Air Services 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.

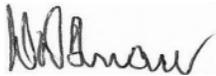
The lack of timely notification deprived the investigation of significant data from AND’s Flight Recorders, that would have assisted in the analysis of factors that contributed to this serious incident.

### **Recommendation number AIC 17-R01/16-2001 to PNG Air Services Limited**

The PNG Accident Investigation Commission recommends that PNG Air Services Limited should review the list of unique 5-letter waypoints to ensure that “sound-like” words are not used for routes in proximity. Refer *ICAO Annex 11, and ICAO Codes and Route Designator (ICARD), 5 Letter Name Code (LNC) Guidelines, Section 4, Posting a Request and Checking Proximity of 5LNC*.

### **Action requested**

The AIC requests that the PNG Air Services Limited (PNG ASL) note recommendation AIC 17-R01/16-2001, and provide a response to the AIC within 90 days of the issue date, and explain (including with evidence) how PNG ASL has addressed the safety deficiency identified in the AIC investigation report AIC 16-2001.



**DAVID INAU, ML**  
*Chief Executive Officer*

### **PNG Air Services Limited Response**

On 18 May 2017, PNG Air Services Limited informed the Accident Investigation Commission of its safety action to address the AIC’s safety concern, as follows:

When positioning and registering waypoint names (5-Letter Name Codes) through the ICAO Codes and Route Designators (ICARD) system, part of the process is to check phonetic similarities to limit the chances of any waypoint confusion. This checking is conducted during the registration waypoints in PNG’s airspace. PNG Air Services checks for phonetic similarities within a radius of 3000 nautical miles. When the subject waypoints were registered, no such phonetic similarities were observed at the time and therefore, the waypoint registration process continued.

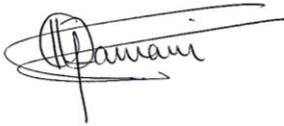
Notwithstanding that a controller could confuse any waypoint name/position, my staff will re-assess all waypoints, especially in the vicinity of Nadzab, to check for any circumstances where waypoint names could be considered phonetically similar. Where any waypoint names are found to be potentially similar, one of them will be immediately deregistered and replaced.

On 30 July 2017, PNG Air Services Limited informed the Accident Investigation Commission that it had checked the waypoint names, and they were not phonetically similar enough to be of concern.

**PNG Accident Investigation Commission (AIC) assessment of PNG Air Services Limited responses and safety action**

On 31 July 2017, the AIC assessed the PNG Air Services Limited safety action as *fully satisfactory* to address the identified safety deficiency. With respect to AIC 17-R01/16-2001 addressed to PNG Air Services 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*

31 July 2017