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Safety recommendation: AIC 20-R16/20-1004

Addressed to: Rural Airstrip Agency (RAA)

Date issued: 12 August 2020

Investigation link: AIC 20-1004

Action status: Issued

Accident Background

On 19 March 2020, at 03:10 UTC (13:10 local time), a Cessna 208 Caravan aircraft, registered P2-MAF, owned and operated by Mission Aviation Fellowship (MAF) PNG Limited, conducted a VFR non-scheduled passenger flight operation from Kompiam to Yenkisa, Enga Province. During its landing roll at Yenkisa strip 32, the aircraft suffered a runway excursion. During investigation interview, the pilot explained that towards the end of the final approach, while on flaps 30 and at an airspeed of 71 kt, he determined that he had come too close to a protruding tree that stood in his flight path. The tree was about 100 m from the threshold.

Safety deficiency description

RAA had last carried out a survey of Yenkisa Airstrip in May 2019. The survey was done in accordance with CASA PNG AC139-6 which involved the assessment of the four different Airstrip OLS. Section 3.2 Take-off Climb/ Approach Surface, paragraph 3.2.1 states that each runway should have a take-off, climb and approach surface which should:

- a) Rise from the end of the runway strip; and*
- b) Be obstacle free above a gradient of 1:20 (5%); and*
- c) Extend horizontally 600m from the inner edge; and*
- d) Have sides that are splayed outwards at the rate of 1:20 (5%); and*
- e) Not turn before 300m from the inner edge, if a turn is necessary.*

The survey carried out by RAA involved measuring the Approach surface OLS using a combination of a laser rangefinder to measure a horizontal 160m clearway before the threshold, and an inclinometer used at an angle of 2.86° from the threshold of the runway to measure the 1:20 (5%) gradient slope. Obstacles seen to be penetrating the measured OLS were trees just before the 32 strip threshold.

Locals within the community were subsequently advised by RAA to clear the trees that posed as an obstruction along the approach OLS. RAA informed AIC that the Yenkisa local airstrip maintenance officer reported that the trees were cut, but was unable to provide supporting evidence to the investigation.

According to RAA records, a subsequent airstrip inspection was carried out at Yenkisa Airstrip on 21 February 2020. The inspection rendered the airstrip as “OK”. However, RAA stated that the inspection was conducted by a mechanic who was not equipped with the specific survey tools.

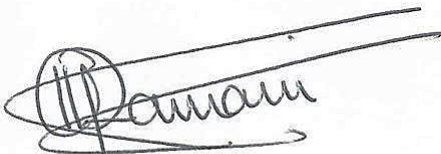
The AIC determined that although RAA proposed to the local agent to cut the trees that were identified as a hazard along the approach OLS during the last survey of Yenkisa Airstrip, RAA did not have any system in place to ensure proper risk management. Therefore, RAA was not aware that at the time of the accident no effective action had been taken to cut the trees protruding the OLS.

Recommendation number AIC 20-R16/20-1004 to RAA

The PNG Accident Investigation Commission (AIC) recommends that the Rural Airstrips Agency (RAA) should establish a set of procedures to properly identify hazards and manage risks associated to their operational activities considering to the highest possible extent, the principles of the Safety Management System provided by the International Civil Aviation Organization and those included in CAR Part 100.

Action requested

The AIC requests that RAA note recommendation AIC 20-R16/20-1004, and provide a response to the AIC within 90 days, but no later than 11/10/2020, and explain including with evidence how RAA has addressed the safety deficiency identified in Safety Recommendation AIC 20-R16/20-1004.



Hubert Namani, LLB
Chief Commissioner

12 August 2020

Closing Statement

On 4 December 2020, RAA responded to PNG AIC with a safety action plan regarding the deficiency identified in the Safety Recommendation AIC 20-R16/20-1004.

RAA listed the following four action items that the RAA Management plan on taking in future to address serious aviation related safety incidents that involve the rural airstrips that are managed by the RAA:

1. *Capture aviation related safety incidents separately from general workplace and operational health and safety incidents in RAA SHEQ Management System.*
2. *Develop a Safety Management System (already in place) but modify it to include system that will capture aviation related safety incidents.*
3. *Ensure the RAA Safety, Health, Environment & Quality personnel are trained in Aviation Safety Management System to proactively management aviation related safety incidents and monitor progress systematically.*
4. *RAA will ensure it complies with legislative requirements, industry best practices, aviation safety guidelines, CASA Part 100 and corporate standards through its operations.*

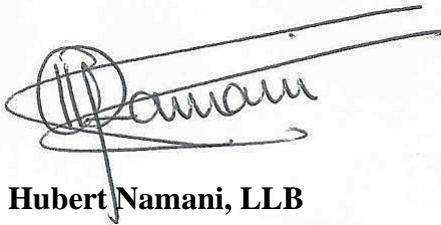
RAA later responded on 15 December 2020 providing evidence of its approach in building its safety, health, environment and quality (SHEQ) Management System around CAR Part 100. This includes the identification of hazards and management of related risks associated with RAA's operational activities within RAA operations. RAA also stated that:

RAA will in future capture aviation related incidents differently from operations related workplace incidents and have it monitored through safety management systems, its recommended actions to ensure closure as part of its improvement processes in the way RAA does its business and operations.

PNG Accident Investigation Commission (AIC) assessment of the response from Rural Airstrip Agency (RAA)

According to AIC assessment, the approach that RAA is taking in building its SHEQ Management System in compliance with CAR Part 100, will assist RAA in identifying hazards and managing the associated risks relating to RAA operations. The system will also create a standard structure that RAA can use, in time, to properly identify aviation related hazards and their related risks in accordance with the aviation industry's best practice.

The AIC assigned this response as *satisfactory* rating and recorded the **Status of the AIC Recommendation: CLOSED RESPONSE ACCEPTED.**

A handwritten signature in black ink, appearing to read 'Hubert Namani', is written over a circular stamp. The signature is fluid and cursive.

Hubert Namani, LLB
Chief Commissioner
09 March 2021