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Safety recommendation: AIC 20-04/19-2001

Addressed to: National Airports Corporation (NAC)

Date issued: 18 May 2020

Investigation link: AIC 19-2001

Action status: Issued

Safety deficiency description

On 22 May 2019, at 07:11 UTC (17:11 local), a major power outage occurred at Jacksons International Airport, Port Moresby, National Capital District, which lasted for 13 hours and 29 minutes. During the power outage, four aircraft that conducted scheduled passenger operations (3 domestic and 1 international) under Instrument Flight Rules¹ (IFR) to Jacksons were affected. Two of the aircraft diverted to alternate airports. For the two-remaining aircraft, one was able to continue and land at Jacksons, while the international flight had to delay at the departure airport in order to arrive at Jacksons during daylight.

In the context of the occurrence, Jacksons International Airport was unable to maintain the provision of the services, operational baseline declared in the PNG AIP and required by national regulations and international standards for commercial aircraft operation, including landing and navigation aids, runway and taxiway landings amongst others, due to the failure of both the primary and secondary sources of electrical power.

At the time of the occurrence the secondary power source was unable to enter into operation as a consequence of faulty and failed essential operational components. The investigation documented that environmental conditions, prolonged use of obsolete components, improper and inadequate maintenance and servicing, lack of technical documentation and proper training for technical personnel contributed to the occurrence.

Additionally, it was determined that the power system configuration and components dated from early 1990's and were expected to be replaced after approximately 15 years, which to the date of this report was not yet achieved.

¹ IFR, Rules applied in cloud or whenever external cues are below VFR minima which prohibit non-IFR pilots/aircraft. Source: *The Cambridge Aerospace Dictionary*.

During the time period between the installation of the system and the occurrence, the airport operator evolved from the OCA to DCA, then to CAA and finally to NAC. During these significant organisational changes, essential steps to ensure upkeep of the power supply system were not considered and became evident during the investigation because of the lack of documentation regarding processes and procedures for maintaining and operating the power supply system, which was a clear indication of a "practical drift" of the operational performance from its baseline.

Recommendation number AIC 20-04/19-2001 to NAC

The PNG Accident Investigation Commission (AIC) recommends that the National Airport Corporation should develop, implement and improve safety assurance activities such as audits, observations and Safety Performance Indicators (SPIs) directly oriented to identify areas and activities that could be "practically drifting", and the timely mitigation of their associated safety risks.

Action requested

The AIC requests that NAC note recommendation AIC 20-04/19-2001, and provide a response to the AIC within 90 days of the issue date, and explain (including with evidence) how NAC has addressed the safety deficiency identified in the safety recommendation.

Closing Statement

On 17 August 2020, NAC provided response to the AIC 20-04/19-2001 stating that:

"NAC has developed specific, time-bound actions around safety assurance.

1.As detailed in Section 2.6 of NAC's newly developed SMS-QMS Implementation Plan, introduction of formalized processes for the development and enhancement of appropriate SPI's has now prioritized and moved forward, to be fully implemented by October 31, 2020. When finalized, those process will be provided to AIC.

2.As detailed in Section 4.1.12 of SMS-QMS Implementation Plan, the formalization of processes to include observations and audits so as to address risk such as "practical drift" has been prioritized and will be implemented by October 31, 2020. When finalized, those process will be provided to AIC."

According to AIC assessment, the plan will address the aim of Safety recommendation AIC 20-04/19-2001 when fully implemented. Evidence on effective implementation, if provided by NAC, will allow AIC to reassess the Status of the Recommendation if necessary. The AIC assigned this response as a *satisfactory intent* and recorded the **Status of the AIC recommendation: CLOSED RESPONSE ACCEPTED.**

HUBERT NAMANI, LLB

Chief Commissioner
8 September 2020