



ACCIDENT INVESTIGATION COMMISSION

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Safety recommendation: AIC 24-R01/23-1005

Addressed to: Tropicair Limited

Date issued: 17 May 2024

Investigation link: AIC 23-1005

Action status: Closed

Introduction

On 1 September 2023 at 12:58 local time (02:58 UTC), the AIC was notified by an employee of the AIC through a phone call of an accident involving a Beechcraft B200C Super King Air aircraft, registered P2-JAU, owned and operated by Tropicair Limited at Jacksons International Airport, Port Moresby. The AIC immediately commenced an investigation.

Occurrence

On 1 September 2023, at 12:51 local (02:51 UTC), a Beechcraft B200C Super King Air aircraft, registered P2-JAU, owned and operated by Tropicair Limited (Ltd), was operating a non-scheduled passenger charter flight from Tari Airport, Hela Province to Jacksons International Airport, National Capital District, Papua New Guinea, when it sustained a Nose Landing Gear (NLG) Assembly collapse during the landing roll on Runway 14R, at Jacksons International Airport.

There were 7 persons on board the aircraft; Pilot in Command (PIC), Co-pilot and 5 passengers. There were no injuries reported.

Safety Deficiency Description

Initial inspections and tests of the NLG system found that the NLG Actuator had failed internally, preventing the NLG from fully extending. As a result, the failed Actuator was sent to the manufacturer for further inspection. The inspection found that the Nut Assembly threads were found with excessively worn threads that prevented it from engaging with the screw housing.

According to the Beechcraft B200 Super King Air Aircraft Maintenance Manual, Chapter 32-30-07,301, the Nose Landing Gear Actuator should not be lubricated until the Nose Landing Gear Actuator Inspection procedure in Chapter 32-30-11,601 has been completed. The investigation reviewed the maintenance documents and identified that there was no evidence of an inspection being carried out and recorded prior to the lubrication on 28 August 2020 and 15 June 2022 respectively.

The maintenance records also showed that *Work Order/Work Plan No JAU WP2022-014* job information states: '*NOSE LANDING GEAR-Perform the NOSE LANDING GEAR ACTUATOR LUBRICATION procedure (Ref. Chapter 32-30-00,201).*' The investigation identified that the reference 32-30-00 was a general description and operation of the Mechanical Landing Gear System and not the specific reference for the Lubrication procedures of the NLG Actuator.

The Nose Landing Gear Actuator Lubrication was carried out and recorded as '*Lubrication carried out as required on nose landing gear actuator in accordance with AMM 32-30-00 and satisfactory*' on 15 June 2022, (Work Order Number JAU-WP2022-014) by the operator.

The investigation also identified that the reference 32-30-27 on job number, 2020-0337 for the NLG Actuator lubrication carried out on 28 August 2020 was also an incorrect reference. This reference was for the Landing gear motor gearbox - removal/installation procedure and not for the NLG Actuator lubrication procedure.

Recommendation number AIC 24-R01/23-1005 to Tropicair Limited

The PNG Accident Investigation Commission (AIC) recommends that Tropicair Limited should ensure that steps are implemented to ensure that the Beechcraft B200C Super King Air Aircraft Maintenance Manual procedures, such as the Nose Landing Gear Actuator inspection and lubrication procedure, including other special inspection procedures are correctly referenced, carried out and recorded at specified due intervals.

Action requested.

The AIC requests that Tropicair Limited note recommendation AIC 24-R01/23-1005 and provide a response to the AIC within 90 days, but no later than 14 August 2024, and explain including with evidence how Tropicair Limited has addressed the safety deficiency identified in the safety recommendation.



Maryanne J. Wal
Chief Commissioner

17 May 2024

Tropicair Limited Safety Action

On 9 July 2024, Tropicair Limited informed the PNG Accident Investigation Commission of the preventive actions taken to address the safety deficiencies identified in *Safety Recommendation AIC 24- R01/23-1005*. Tropicair Limited also provided documentary evidence of the preventive action taken.

PNG Accident Investigation Commission (AIC) assessment of Tropicair Limited response

The comments provided by Tropicair Ltd on the Draft Final Report were assessed by the AIC and relevant sections of the Final Report amended accordingly. Therefore, the *Safety Deficiency Description* in this standalone safety recommendation was also amended to reflect the safety deficiencies in the Final Report.

The AIC reviewed the Tropicair Limited documents providing evidence to the AIC of the preventive action taken. The AIC is satisfied that the evidence satisfactorily addresses the safety deficiencies identified in the AIC *Safety Recommendation AIC 24-R01/23-1005*.

The AIC has assigned the Tropicair Limited response a *fully satisfactory rating* and records the **Status of the AIC Recommendation: Closed Response Accepted.**



Maryanne J. Wal
Chief Commissioner

21 August 2024