

CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
Aircraft Accident Investigation and Inquiry Board
Aircraft Incident Report

BASIC INFORMATION

Aircraft Registration	:	RP-C984
Aircraft Type/Model	:	Beechcraft BE-H18s
Owner/Operator	:	C.M. Aero Services, Inc.
Address of Operator	:	Milgom Concessionaire Area, MDA, Pasay City
Date/Time of Incident	:	October 11, 2012/0432UTC
Type of Operation	:	General Aviation
Phase of Operation	:	Takeoff
Type of Occurrence	:	Tire fell off
Place of Incident	:	Manila Domestic Airport

EXECUTIVE SUMMARY

On 11 October 2012, RP-C984 departed from RWY13 of the Manila Domestic Airport for its second flight of the day, bound for Busuanga, Palawan with two (2) pilots on board. After airborne at about 0432UTC, the right main tire fell off without being noticed by the two pilots on board. A patrolling NAIA safety vehicle discovered the fallen tire on the grassy right side portion of RWY 13 and informed the Manila Tower Controller of the discovery. C.M Aero Services, Inc. was alerted since their aircraft was one of the recent departures from RWY13.

Initially, upon receipt of information about the recovered tire, the Manila Tower Controller relayed the information to the Manila Departure Controller. The pilots received the information of a fallen tire about 60 miles out of Manila VOR but decided to continue with their flight to Busuanga, where they intended to have the gears checked prior to landing. However, the Busuanga Tower Controller advised the pilots that their company has confirmed that the fallen tire came from RP-C984 and that they were being instructed to return to Manila, upon reaching Manila, the pilots requested for a gear check with the Manila Tower Controller thereafter landed safely at RWY 13. Damage was limited to the right main brake assembly and upon installation of a replacement tire, the aircraft was towed to their hangar.

PROBABLE CAUSE

The Aircraft Accident Investigation and Inquiry Board determined that the probable cause of this accident was:

- **Primary Cause Factor**

Failure of the RH MLG axle cone bearing. (Material Factor). The disintegration of the right main landing gear axle cone bearing caused the right wheel to be freed from its mounting and eventually fall off as the landing gears were retracted.

- **Contributory Cause Factors**

- a. Poor quality control at maintenance inspection at the AMO Level. Human Factor, Maintenance. The 100 hrs, 1000 hrs, annual inspection at the AMO level during the 12, 000 hour aircraft time which include the removal/ repacking of the cone bearings as outlined in the Beech Aircraft Maintenance Manual was not adequately performed including possible replacement of condition items.
- b. Inadequate pre-flight and post-flight inspection conducted by the maintenance personnel and the pilots of C.M. Aero Services, Inc. Human Factor. Maintenance. The collective failure to notice any unusual movement of the right wheel could be traced to the non-adherence to checklist procedures

SAFETY RECOMMENDATIONS

As a result of this investigation, the Aircraft Accident Investigation and Inquiry Board made the following safety recommendation:

- CAAP should conduct one-time inspection:
 - a. On maintenance Standards of involved service provider and AMO, to find out compliance or non-compliance to maintenance safety standards and implement corrective actions to re-affirm quality of maintenance.
 - b. On Operations Standards of involved service provider, to find out state of compliance or non-compliance to operations standards for commercial flight operations (fish run) and implement corrective actions to reaffirm quality of operations
- CAAP-FSIS should ensure that pilot's responsibility & skills for pre-flight and post-flight inspection are adequately highlighted during training (ATOCID) initial and renewal check rides (LCD) and every scheduled flight (FOD).
- Air Traffic Controllers should be observant in checking gears down and lock condition of approaching General Aviation aircraft before giving clearance to land.