

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

BASIC INFORMATION

Aircraft Registration	:	RP-C2346
Aircraft Type/Model	:	Twin Commander 560A
Owner/Operator	:	Cheyair
Date/Time of Accident	:	October 29, 2014/1345H
Type of Operation	:	General Aviation
Phase of Operation	:	Takeoff
Type of Occurrence	:	Belly landing due to loss of hydraulic pressure
Place of Accident	:	Surigao Airport, Surigao City

EXECUTIVE SUMMARY

On October 29, 2014, about 1115H, a Twin Commander 560-A type of aircraft with Registry No. RP-C2346 owned and operated by Cheyair departed from Surigao Airport to Mactan Cebu with a lone pilot in the controls together with two (2) crew on board. After safe Airborne, at about 300 feet, the aircraft experienced sudden loss of hydraulic pressure causing for its landing gears to extend on its own to down position. The pilot continued to fly the upwind to establish a safe altitude to check if the landing gears were locked and it was found out that the left landing gear was not in locked position. The pilot then maintained 2,000 feet to perform normal hand pump operation to lock the landing gears and then also tried to dive the aircraft then pulled up for possible gravity lock of the gears but the left landing gear did not lock. The pilot informed Surigao Tower of the situation and requested to execute field dragging procedure over the airport before landing the aircraft. The pilot performed three (3) go-around the runway before finally decided to land the aircraft at normal condition using Runway 18. At low finals of the runway, the pilot shut down the left engine to avoid further damage to the engine. The aircraft landed initially at the center of the runway with its right landing gear, followed by the nose landing gear. As the left landing gear touched the ground, the pilot put the fuel selector and all electrical switches to off-position. The aircraft continued its landing roll with the pilot maintaining a cross control condition and as the airspeed was reduced, it swerved to the left between distance markers No. 2 and 3 before it stopped 19 meters away from the runway. The pilot and crew went out of the aircraft without injury but the aircraft sustained substantial damage. The Airport Fire Crash and Rescue together with the City Fire Department responded immediately to the scene. The aircraft was towed to the terminal to clear the runway and no aircraft traffic was hampered regarding the accident.

PROBABLE CAUSE

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

- **Primary Cause Factor**

The hydraulic actuator got busted (Material failure) resulting for the hydraulic fluid to flow out of the actuator that caused for the landing gears to be extended on its own. The part is a conditioned item and it has no periodic replacement which opens the possibility of failing without warning.

- **Contributory Factor**

Absence of manufacturer periodic parts replacement for Hydraulic Actuator.

SAFETY RECOMMENDATIONS

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

- The operator's quality assurance inspectors should be vigilant in the conduct of inspection to ensure strict adherence to the maintenance procedures IAW Twin Commander Aircraft LLC maintenance manual.
- Conduct inspections to the aircraft operator to ensure that airworthiness standards are followed and maintained at all times.
- Operator to coordinate with Technical Representative to provide list of published service bulletin related to Hydraulic Actuator Failure.