

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

BASIC INFORMATION

Aircraft Registration No. : RP-C2843

Aircraft Type/Model : Cessna 152 II

Owner/Operator : Flight and Simulator Training, Inc.

Address of Owner : RPMCI Hnagar, General Aviation Area, Domestic
Airport, Pasay City, Philippines

Date/Time of Accident : January 12, 2012/ approximately 0035UTC

Type of Operation : Cross – Country Flight Training

Type of Occurrence : Loss of power

Place of Accident : Iba, Zambales

EXECUTIVE SUMMARY

On or about 2237UTC, January 12, 2012, RP-C2843, a Cessna 152 II type of aircraft, took off from Lingayen Airport on a cross country training flight with a Flight Instructor and his Student Pilot on board. The aircraft proceeded first to Subic Airport, where the Student Pilot made one touch and go landing and then it headed to Iba Airport. After another touch and go there, the aircraft climbed towards Lingayen. At about 0040UTC, when RP-C2843 was about to level-off at 3,500 feet, the Flight Instructor noticed a reduction in engine power and saw that the oil pressure was decreasing. He decided to return to Iba Airport. After a few minutes, the engine started to vibrate then quit. The Flight Instructor took over the controls and attempted to restart the engine but failed. The aircraft glided towards the airport at Iba as the Flight Instructor performed the emergency procedures with instructions to the Student Pilot to prepare for ditching just in case they are unable to reach the runway. The aircraft slowed down due to strong headwind and at about 500 feet altitude, the Flight Instructor decided to head towards the shoreline at their left side. A sudden down draft pushed the aircraft down to about 200 feet and the aircraft ditched about 100 feet from the shoreline. The Student Pilot was the first to get out of the plane and swam towards the shore. Two motorized bancas came to the rescue while the Flight Instructor got out and asked for assistance to pull the plane towards the shore.

PROBABLE CAUSE

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

The Primary Cause Factor

- Engine Failure (Material Factor) - Due to oil starvation, the No. 1 and No. 2 piston connecting rod pins failed resulting to engine failure.

Contributory Factors

- The metal stress factor resulting from the propeller strike incident at Lingayen Airport on November 8, 2011. Accordingly, there can be varying degrees of damage to an engine and propeller from a propeller strike that is undetected but becomes pronounced and evident as time goes along with the time and wear.
- Inadequate overhaul standards applied to the involved engine by Olympic Aviation – A complete check of the connecting rod parallelism and magnetic particle inspection could have revealed the hidden damages on the connecting rod. Olympic Aviation had advised that the engine parameters must be observed/monitored at all times for any unusual readings/changes when the aircraft was released back to service on November 25, 2011.
- Pilot's late recognition of engine oil indications. The late recognition of engine discrepancy limited the chance to reach a suitable landing field.

SAFETY RECOMMENDATIONS

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

- Require all AMOs with limited capability on Lycoming Power Plants to abide and implement the mandatory service bulletin No.533B dated October 4, 2012, Subj: Recommended Action for Sudden Engine Stoppage, Propeller Strike.
- Provide airworthiness policy requiring complete overhaul of engines that encountered propeller strike and parts affected by metal stress/fatigue be replaced.
- Conduct one-time inspection of Olympic Aviation and other AMOs with engine overhaul capability to ensure that initially evaluated standards for overhaul capability are maintained.
- Require ATOs to include in their Standardization program for Flight Instructors the continuous monitoring of aircraft instruments particularly engine instruments during flight for timely conduct of precautionary and emergency procedures.