

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

BASIC INFORMATION

Aircraft Registration No. : RP-C1811

Make and Model : Robinson Helicopter Company R44 II

Operator : Lionair Incorporated

Address of Operator : PADC Hangar V, General Aviation Area
Domestic Road, Pasay City

Date/Time of Accident : June 6, 2018 / 0958H/0158 UTC.

Type of Operation : General Aviation

Phase of Operation : Take-off

Type of Occurrence : Main rotor failure during take-off

Place of Accident : DOLE Plantation Sitio Glandang, Barangay
Kablon, Tupi, South Cotabato, Philippines

EXECUTIVE SUMMARY

On June 6, 2018 at about 0700H, local time RP-C1811, a Robinson Helicopter Company R44 II type of aircraft departed Davao International Airport after the usual pre-flight checks. The aircraft is registered and operated by Lionair Inc. as a General Aviation flight. The flight plan was Davao-Kalsangi-Kablon-Surallah-Davao.

From Davao, the pilot took off bound for Kalsangi, South Cotabato to pick-up three (3) passengers. From Kalsangi, the three passengers will be ferried to DOLE Plantation at Barangay Kablon, Tupi, South Cotabato. While at Kalsangi, the Pilot observed that the weather was deteriorating. The Pilot with the passengers on board were set to fly but it started to rain, so the pilot decided to shut down the engine. The weather improved after twenty (20) minutes and the route to Kablon is manageable so the flight departed Kalsangi for DOLE Plantation at Barangay Kablon (second stop). Upon reaching Barangay Kablon, the pilot performed high reconnaissance of the landing area before landing which was located at an altitude of 3,100 feet above sea level. The aircraft landed safely and the

passengers disembarked the aircraft after engine shutdown. After an hour, the passengers boarded the aircraft for Surallah, South Cotabato. Before take-off, the Pilot stated that there was a change in the wind direction from head wind to tail wind direction. From the helipad, the Pilot took-off while performing a continuous 180 degree change of direction to the right to face the wind and hurdle the obstacles in front of them. As the aircraft was on a high hover and moving towards the wind, the Pilot heard a low RPM indication. The pilot reduced the collective to compensate control of the engine RPM but to no avail. The Pilot performed an emergency landing however landed hard upon contact with the ground. The aircraft settled in an upright position with a heading of 330 degrees and coordinates of 6° 20' 46'' N, 125° 02' 23'' E. The pilot then performed engine shut down, after which he went outside of the helicopter to assist in the passenger's evacuation. DOLE personnel who witnessed the event rushed to the scene to help.

No fire was ensued after the accident. The Pilot and passengers were brought to Howard Hubbard Memorial Hospital in Polomok town for medical observation.

PROBABLE CAUSE

The Pilot's decision to take-off from a mountainous landing site without ensuring adequate power margin is available.

- **Contributory Cause Factor**

The Pilot's lack of requirements for a risk assessment during a high altitude take-off.

SAFETY RECOMMENDATIONS

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

- **CAAP-FSIS to ensure that:**

- a. In the annual proficiency flight check for helicopter pilots to include high density altitude versus helicopter performance approach and departure techniques, and confined areas operation.
- b. The operator establish operational safety practices in their training program particularly knowledge and skills on flying in mountainous environment.
- c. Pilots should always refer to the take-off charts in the rotorcraft flight manual, that indicate the distance it will take to clear a 50-foot obstacle based on various conditions of weight, pressure altitude, and temperature.