



MEMORANDUM FOR RECORD

Michael Hicks

Air Safety Investigator

(GAAID) General Aviation Accident Investigation Division October 22nd, 2018

NTSB Accident Number: GAA18LA131

Aircraft Registration & Make/Model: N337H, Robinson Helicopter Co., R22 Beta II

Accident Location: Charleston, SC

Accident Date: 14FEB2018@1330(EDT)

Subject: Memorandum for Record

In support of the National Transportation Safety Board (NTSB), Air Safety Accident Investigation involving accident helicopter N337H, the Investigator-in-charge (IIC), spoke with the Federal Aviation Administration (FAA), Aviation Safety Inspector assigned to the accident. The IIC also spoke with the FAA Certificated Flight Instructor onboard the helicopter during the accident. The following is a synopsis of the conversations:

FAA Inspector

The pilot and student were practicing hovering and transition to forward flight in a dense vegetation area about 5 miles SSE of KCHS. The student was on the controls during the pattern when they transitioned to forward flight from a hover. They climbed above the tree line and encountered a white quad-copter approaching their helicopter. The flight instructor came on the controls and banked hard to the right. He lost control of the helicopter and collided with trees. The CFI mentioned something to the effect of encountering settling with power and/or LTE.

The CFI has about 2,450 hours of total flight time and about 1,400 hours in the R22 Beta. They were operating in Class "G" Airspace. No sUAS operator was located. There wasn't any security footage in the area. Witnesses (construction workers) were 1/4 mile away for the accident site and recall a helicopter operating in the area, but do not recall seeing a sUAS.

The tail rotor, horizontal and vertical stabilizer separated from the tailboom and tail rotor drive shaft during the accident sequence.

Flight Instructor

The CFI was seated in the left seat and the student was seated in the right seat. He had provided about 12 hours of flight training to the student over the previous six months. The student did not have a student pilot certificate or a medical certificate. The CFI uses the location for low impact flight training, and they were training in ETL recognition at the time of the accident. The CFI was teaching the student that hover power is takeoff power. They established an 8ft IGE hover. They transitioned from a hover through ETL, and into forward flight making a right crosswind

turn. During the accident pattern, he noticed a drone that was about 10 feet in front of the helicopter at eye level. The student was on the controls at the time, but the CFI grabbed the flight controls and made an evasive maneuver to the right. The helicopter had just flown through ETL, and the wind was about 10 knots, out of the WNW. The direction of takeoff was WNW.

The flight instructor made a hard, aft, right cyclic input evasive maneuver. There was some forward movement in terms of airspeed after the evasive maneuver, but not much. The helicopter altitude was about 40ft AGL. The helicopter descended fast (more than 300fpm) and full engine power was applied. He kept the nose straight, but the nose tried to dive a bit. The helicopter began to settle with power. As the aircraft continued to descend, the tail rotor impacted vegetation that was 10-15 feet tall and cushioned the landing, but the tailboom separated from the helicopter and it began to spin to the right. The CFI rolled off the throttle and they were along for the ride at that point. The helicopter came to rest on its right side. He turned off the master switch, assisted his student and exited the helicopter. They walked away from the helicopter and called the owner of the company and the control tower.

This area that the accident occurred is an area that he uses for hovering, ETL and transition to forward flight training. It has been months since they last used this area. There were no homes within a mile of the accident site. They had been flying for about 30 minutes prior to impact.

The CFI had accumulated about 2,450 hours of total flight time and about 1,500 hours in R22.

He described the sUAS, as a white, small, 1.5x1.5 feet, quad-copter.