

My name is Gary Gray (Certificate # [REDACTED]), a student in pursuit of getting a Rotorcraft Commercial Add-On Rating to my certificate at Palm Beach Helicopters - Palm Beach County Park Airport in Lantana, Florida.

On July 27, 2018 at approximately 7 PM an incident occurred. This brief report will detail my best recollection of events as they happened and what I believe was the cause of this incident.

The lesson began with a flight briefing concerning rotorcraft aerodynamics and a general discussion of autorotation's in the Robinson R44 Helicopter. An explanation of what the flight that day would cover was to be hover taxiing, normal takeoffs, normal approaches on the field by the instructor. After, would be an off field demonstration of entering autorotation's as well as recovering from them at a suitable altitude which would conclude the flight lesson.

On the field before the flight, a full walk down of the helicopter by the checklist was performed in detail by myself as appropriate. Simultaneously, up to 13 gallons of fuel was added to provide adequate time for the flight with reserve. This fuel was checked for water by myself. The machine was found to be airworthy in all detail by myself and seconded by the instructor.

Oddly, a brief discussion of Dynamic Rollover tendencies and what causes them and how to prevent them was covered by the instructor just before startup. After, a normal startup procedure was performed with checklist by myself and seconded by the instructor. The flight then commenced under full control of the instructor onto the field.

During the hover taxi and while in flight, the instructor allowed control of the pedals to me. While still in the taxi to the runway he then allowed control of the collective to be taken by me. We proceeded into the normal upwind takeoff from the taxiway as proper from the airport. Once on the extended upwind, the instructor then allowed full control of the helicopter to myself and we continued into a normal right-traffic execution all of the way into the final approach to land back to the same taxiway we left from.

At the final approach to hover taxi transition and with myself still in full control, overuse of the collective up to slow the descent was performed which then resulted into a hard yaw to the left. This action happened directly over the centerline of the taxiway at approximately 5 to 8 feet from the pavement. To correct this action my immediate and incorrect hard reaction was to right cyclic, which resulted into a hard pendulum swing right and most likely the final descent of the right rear skid to the pavement. The rear skid then striking the pavement in the hover at that attitude is my perception of exactly what must have then happened. This, then causing a hard and uncontrolled Dynamic Rollover to the immediate right. The time period from the final descent slowing phase until this point is perceived to be no more than 3 to 4 seconds and possibly another 10 seconds after strike until the machine came to a full motionless stop on the ground on its right side. At this point the engine continued to run and the most immediate reaction by myself and the instructor was to pull the mixture control which is done mostly by the action of the instructor and seconded by myself to completion. When the engine died both myself and the instructor, he first, exited the right front windshield of the aircraft which had blown out and cleared the aircraft.

Based on the above recollection of events, I am as sure as I can be that the skid strike and unusual attitude of the aircraft caused the accelerated Dynamic Rollover and I would consider this as an incident caused primarily by inexperience and secondly by fixed wing centerline holding tendency of myself.

Name: [REDACTED]

Certificate #: [REDACTED]

Date: 7-31-18