

On 6/24/19 at approximately 9:20 pm EST, Mr. Kumar and I took off for an NVG training flight. This flight was the second flight for Mr. Kumar however, it was his first flight on this particular night. We began the flight with some un-aided hover work, then we goggled up and began the NVG portion of the flight. After conducting a few normal approaches, we began emergency procedures including stuck pedals and hydraulics off landings. At this point we began conducting autorotations. During our first full down autorotation we flared higher than normal, which is common under NVG's but the autorotation was otherwise normal. We debriefed the autorotation and the things that needed improvement, then I took the controls to demonstrate a few things. We briefed a power recovery so I could demonstrate the difference in descent rates at different airspeeds. We conducted that maneuver without incident and went around the pattern to set up for a straight in autorotation. We turned final and entered the autorotation at approximately 800 feet AGL. The descent was relatively normal, I checked the RPM was at 100%, N1 was stable, airspeed was 60 and the aircraft was slightly out of trim which I announced and corrected. At 100 feet AGL I announced I was going to enter a flare. I entered the flare at 75 feet and airspeed at 55 knots. I announced that I was slightly off centerline and correcting and the flare was otherwise normal. At approximately 15 feet I made an initial pitch pull and started leveling the aircraft. During the cushioning phase of the autorotation, everything seemed normal until the first contact with the taxiway. As the aircraft touched down, it touch slightly heels first and as it rocked slightly forward it seemed to grab and started to oscillate uncontrollably. I continued manipulating the controls as the aircraft was sliding to keep the aircraft straight and level. As the aircraft slowed, I began reducing collective to prevent pylon whirl. I slowly increased the rpm any unusual vibrations and oscillations. I repositioned the aircraft off the taxiway and we performed a normal shutdown and terminated the flight for a visual inspection. During the inspection the effects of pylon whirl were readily apparent. I immediately reported the incident to the Chief Pilot.

On Monday, June 24th at approximately 2120 hours, I was flying with Jimmy Adams to complete my NVG initial training. We were flying in helicopter N911GV, an OH-58 C. We were completing the training at Gainesville Regional Airport KGNV.

The Flight began with me at the controls. I completed unaided hover work on taxiway alpha in front of the Police Ramp. We then completed a hovering auto and then transitioned to using night vision goggles. We completed several laps around the pattern and then conducted a hydraulics off landing, stuck left and right pedal landing followed by a straight-in autorotation. During the auto rotation there were several other aircraft in the pattern and multiple people talking on the radios making it difficult to hear Jimmy providing advice on my autorotation. I ended up flaring more aggressively and higher. After completing the maneuver successfully, I told Jimmy that I could not hear him and made the proper adjustments to be able to hear Jimmy and the aircraft traffic. Jimmy stated he wanted to show me a few things about the autorotation, specifically the different airspeeds and the resultant glide slope. We completed a positive transfer of controls and Jimmy demonstrated the difference between an autorotation at 60 knots vs. 50 knots followed by a power recovery. Jimmy then advised he would demonstrate an autorotation at 60 knots all the way to the ground. We were in the right traffic pattern for taxiway alpha. I observed Jimmy entering the autorotation at 60 knots and 800 feet above ground. We were slightly left of the taxi way and Jimmy advised he was going to move it to the right. Jimmy stated we were slightly out of trim and corrected. Jimmy stated that we were 100 feet above and that he was going to start his flare. After Jimmy made the comment of passing 100 feet, I looked to the radar altimeter and observed us passing through 75 feet. I then looked out my door and observed the black tarmac coming up and the aircraft flaring. The nose then dropped as Jimmy leveled the aircraft to touch down. When we touched the ground, I immediately felt like we were driving down a pot-hole filled dirt road and after several quick bumps, up and down while skidding across the taxiway, I felt a massive whip forward and to the left followed by several more throws in a counter clockwise motion. The throws became more intense and violent and I ducked my head down toward the center of the aircraft and braced myself for the aircraft to come apart or tip over. During this time, I heard Jimmy mention he thought we had pylon whirl and was getting the collective down and trying to steer us through it. The vibrations and throws then subsided and we were left of the center of the taxiway and pointed toward the control tower. I lifted my head up and Jimmy advised he was going to spin the aircraft slowly back up and check for any unusual vibrations. After not feeling any, he advised he would reposition the aircraft off the taxiway and in front of the police hangar where we would visually inspect the aircraft. Once we performed a normal shut down, we exited the aircraft and observed the damage to the tail boom, isolation mount and the upper cowling around the rotor mast of helicopter.