

FACTUAL

The helicopter pilot reported that he was relocating the helicopter from the fueling station to an overnight parking area. He initially attempted to move the helicopter on wheels, but that was unsuccessful. He started the helicopter, performed the startup checklist, and applied a "normal amount of collective" when the helicopter rolled to the right and impacted the ground.

The helicopter sustained substantial damage to the fuselage and the tailboom.

A review of recorded data from the automated weather observation station located on the airport reported that, about 16 minutes before the accident, the wind was from 160° at 15 knots.

In a follow up conversation with the National Transportation Safety Board investigator in charge, the pilot reported that the helicopter began rolling to the right immediately after lifting off and he added power to increase his altitude, as well as applied left cyclic to counteract the right rolling movement. He estimated that the accident sequence took only seconds.

Federal Aviation Administration's Helicopter Flying Handbook, FAA-H-8083-21A, contains a section titled "Normal Takeoffs and Landings" which states:

Dynamic rollover is possible even during normal takeoffs and landings on relatively level ground, if one wheel or skid is on the ground and thrust (lift) is approximately equal to the weight of the helicopter. If the takeoff or landing is not performed properly, a roll rate could develop around the wheel or skid that is on the ground. When taking off or landing, perform the maneuver smoothly and carefully adjust the cyclic so that no pitch or roll movement rates build up, especially the roll rate. If the bank angle starts to increase to an angle of approximately 5–8°, and full corrective cyclic does not reduce the angle, the collective should be reduced to diminish the unstable rolling condition. Excessive bank angles can also be caused by landing gear caught in a tie down strap, or a tie down strap still attached to one side of the helicopter. Lateral loading imbalance (usually outside published limits) is another contributing factor.