



Interagency Aviation Lessons Learned



No. IA LL 11-05

Date: September 1, 2011

Page 1 of 2

Subject: Wire Strike Protection Kits

Area of Concern: Helicopter Operations

Distribution: All Helicopter Activities

Discussion: Recently, a vendor helicopter struck and severed two power lines while landing at a temporary refueling site. The selected landing site was a gravel and asphalt parking area used by the state highway department located at the intersection of two highways.



At approximately 5:50 pm MDT, the pilot approached from the northeast at an altitude of 200 feet above ground level (AGL) and circled the parking area clockwise in order to identify hazards in the area.

The pilot stated that he was concerned about the three or four semi-tractor trailers moving within the parking area. Other obstacles included a wheeled bull dozer (located next to a 45 foot power pole) and a large pile of sand located at the west end of the parking area.

There were two 8 strand, 1/4" diameter power lines attached to the top of the power pole. The lines were approximately 4 feet apart and sloped down to the power poles located on the northwest edge of the parking area. The light grey color of the wires and the grey clouds over the distant mountains made it practically impossible to see the wires.

The pilot entered the final approach path and descended to an altitude of approximately 30 feet AGL placing the aircraft at a similar height of the power lines. **Due to the pilot's intense focus on the landing area, moving vehicles and environmental factors, he was unaware of the wires or the power poles.**



The helicopter impacted the power lines at an airspeed of less than 5 knots and cut them with the top wire strike protection kit installed on the aircraft. The pilot stated that he felt a slight tug as he cut the first wire and after cutting the second power line, looked to the left and saw the power pole. Realizing what had just happened, he backed the helicopter up then landed. Fortunately, there was no injury to the pilot or damage to the helicopter. Had it not been for the wire strike protection kit, the power lines could have become entangled in the main rotor system with catastrophic results. According to Helicopter Association International (HAI), wire strikes are the number one cause of helicopter accidents and account for 40% of all fatal accidents. While there is no requirement for ground crews to be in place prior to a helicopter's arrival, it might have prevented the wire strike from occurring in the first place.

The wire strike protection kit is the last defense against wire strikes. A comprehensive mission brief to include known hazards annotated on a hazards map, a thorough risk assessment of refueling areas, and maintaining situational awareness is your first line of defense. But when all else fails, it's good to have a backup.



← Having this



← kept this

From happening.

/s/ Keith C. Raley

Keith C. Raley
Chief, Aviation Safety
& Program Evaluations

/s/ Ron Hanks

Ron Hanks
Branch Chief, Aviation Safety
Management Systems, USFS