

WPR09TA356

On July 21, 2009, at 1010 Pacific daylight time, a helitack firefighter was killed during an un arrested descent during a rappelling operation from a Bell 212 helicopter, N212HP, near Willow Creek, California. The airline transport pilot, spotter and three remaining rappellers were not injured. The helicopter was operating under contract to the United States Department of Agriculture, Forest Service by Heli-1 Corporation, as a visual flight rules (VFR) public use flight, in support of firefighting efforts, when the accident occurred. Visual meteorological conditions prevailed for the local flight. The flight originated from a helibase at Willow Creek at 1004; no flight plan was filed for the local flight. The helicopter was not damaged.

A representative from the US Forest Service reported that the purpose of the flight was to conduct proficiency rappel training (required every 14 days for helitack crew members that are not actively conducting operational rappel assignments) from the helicopter. The rappelling equipment utilized in this operation consists of a harness, Tri-link, J-hook, O-ring/Kong clip and Sky Genie. The Sky Genie is a descent control device that is connected to a 1/2-inch diameter, 250-foot long, braided nylon rappel rope. Normally, the harness is attached to the Tri-Link, and the Tri-link is mechanically linked to the J-hook, which is mechanically clipped to the Sky Genie and rope. The Kong clip/O-ring (non load bearing) is used to center the J-hook at the apex of the Tri-link in an effort to avoid side loading during rappel operations.

Prior to commencing the operation, a rappel equipment check was conducted. The equipment check revealed a broken "Kong" clip on the Tri-link/J-hook interface on the harness of accident rappeller (R-2). The Kong clip was replaced with a rubber O-ring (an authorized substitution for a Kong clip) and R-2 returned to the helicopter.

Approximately 6 minutes later, with the helicopter established in 225-250 foot hover, R-2 connected his J-hook to the Sky Genie. Witnesses on the ground reported seeing R-2 transition to the port side skid and then falling down the rope at an excessive speed.

Post accident examination of the rope and harness assembly by investigators from the US Forest Service revealed that the R-2's J-hook remained attached to the Sky Genie; however, the J-hook was not mechanically attached to the Tri-link and harness. A broken O-ring was found approximately 30 feet from where the harness assembly was located, and is believed to be the O-ring that was attached to R-2's Tri-link.

Examination of the J-hook, Sky Genie, Tri-link and harness by investigators from the US Forest Service revealed no evidence of malfunction or defect. Investigators reported that examination of the rappel equipment indicated that R-2's Tri-link and J-hook were not mechanically linked prior to exiting the helicopter. Examinations by investigators indicated that the Tri-link and J-hook were only held in place by the rubber O-ring.

Investigators from the US Forest Service reported that the rappel equipment was checked by the rappeller and spotter prior to the accident.

The helicopter was not damaged and no mechanical malfunction or failure was reported.