

# Informational Summary Report of Serious or Near Serious CAL FIRE Injuries, Illnesses and Accidents



## GREEN SHEET

### Helicopter Wire Strike

August 15, 2019

Bayliss Incident

19-CA-SCU-005840

19-CA-SCU-005867

California Northern Region

### SUMMARY

On August 15, 2019, at approximately 1:45 PM, a CAL FIRE helicopter and crew responded to the Bayliss Incident in Santa Clara County, California. While performing water drops on the western portion of the fire, the helicopter contacted a fiber optic line. The pilot maintained control of the helicopter and safely landed nearby. The Forestry Fire Pilot and Fire Captain were not injured and were the only personnel aboard. The helicopter sustained no damage.

## CONDITIONS

**Location:** The incident occurred approximately 500 yards southwest of Santa Teresa Boulevard on Division X of the western portion of the fire.

**Weather**

Temperature: 100° Fahrenheit

Relative Humidity: 19%

Winds: North winds blowing at 4 mph

Visibility: Clear

**Fuel Type:** Predominately 1 hour fuels (G-1) grass.

**Topography:** Moderate terrain adjacent to the toe of the slope.

**Fire Behavior:** Active

**Make/Model of Equipment:** CAL FIRE Bell UH-1H Super Huey Helicopter

## SEQUENCE OF EVENTS

On August 15, 2019, at 12:27 PM, resources from the Santa Clara Unit (SCU) including a CAL FIRE helicopter (H-1) responded to a vegetation fire southeast of the City of San Jose. There were power lines down as a result of a solo vehicle accident into a power pole. The life safety announcement was broadcast and acknowledged by resources during response check back.

At 12:46 PM, Air Attack (AA) arrived at scene and assumed the role of Bayliss AA. Bayliss AA reported approximately 30 acres burning in light flashy fuels with a moderate rate of spread. Bayliss AA reported the fire was burning on both sides of Santa Teresa Boulevard with high tension transmission lines in the area of the incident. Bayliss AA cleared H-1 to lift after deploying the crew and directed H-1 to support the helitack crew with water drops on the eastern portion of the fire identified as Division M. Bayliss AA assigned air tankers to the western portion of the fire identified as Division X. H-1 completed approximately six water drops before the fire intensity increased on Division M. Due to the increase in fire behavior, Bayliss AA relocated H-1 to Division X on the western portion of the fire and instructed H-1 to stay north of the powerlines.

H-1 relocated to Division X and made one water drop starting at Santa Teresa Boulevard heading southwest on Division X. H-1 filled at the dip site and returned to Division X to make a subsequent drop along the fire's edge. As H-1 completed the water drop, the pilot banked right, resulting in the main rotor contacting and severing a ½ inch fiber optic line on the left side of aircraft. The fiber optic line was located

approximately eight to ten feet below the transmission lines strung between two towers. The pilot landed H-1 without further incident.

## **INJURIES/DAMAGES**

- No injuries were sustained as a result of the event. The pilot was able to safely land the helicopter in an open area near the incident.
- A single main rotor blade contacted and severed the 1/2" fiber optic line.

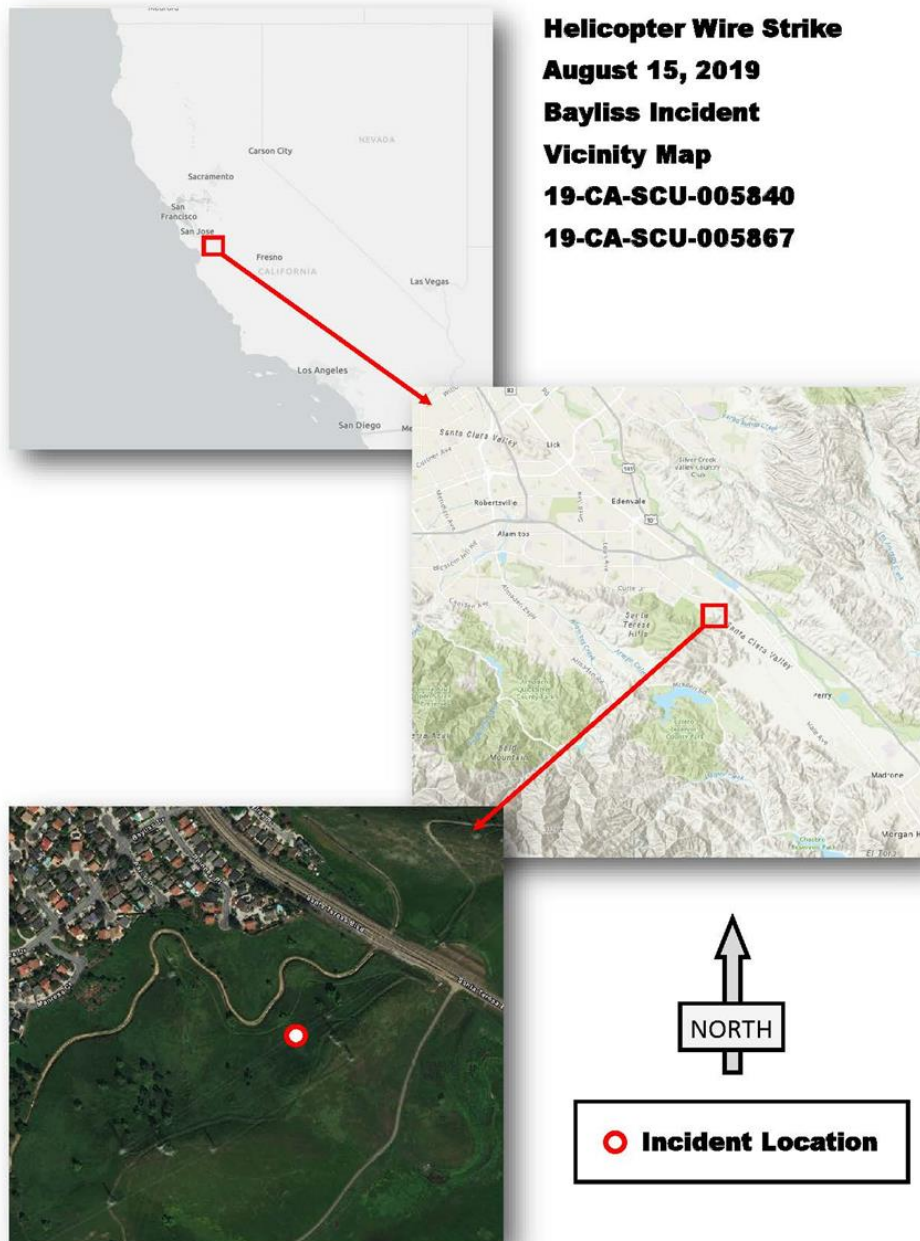
## **SAFETY ISSUES FOR REVIEW**

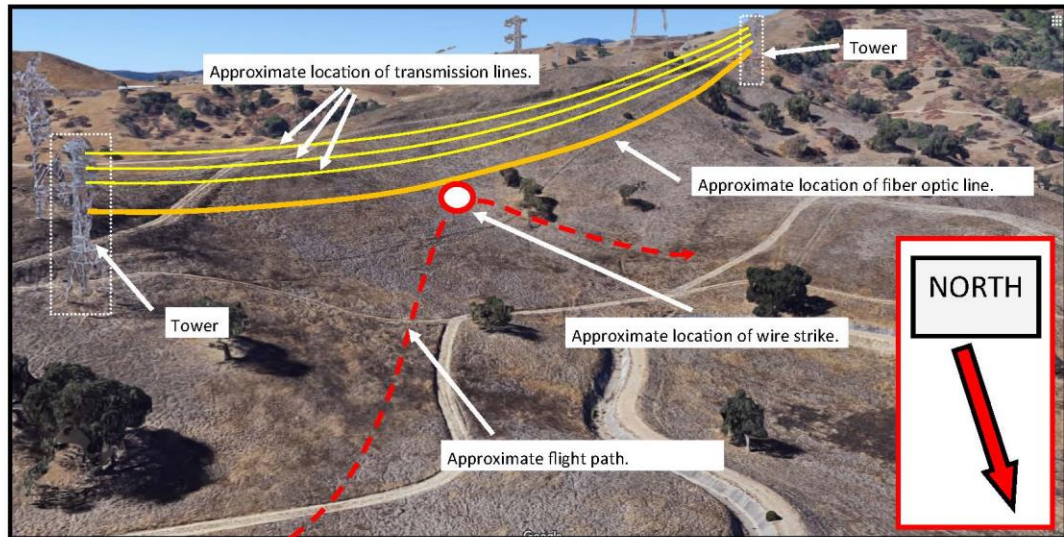
- Practice Crew Resource Management (CRM)
  - Three critical elements of CRM:
    1. Recognize the hazard
    2. Communicate the hazard
    3. React to the hazard
- Maintain situational awareness of known and potential hazards as visibility changes due to:
  - Hazards blending into the landscape;
  - Multiple line hazards providing a different prospective of line location;
  - Attention focused on other actions changing your situational awareness levels (Target fixation);
  - Changing terrain and flight paths creating new hazards;
  - Terrain and items in background of view changing as you move making it easier or harder to see hazards.

## **INCIDENTAL ISSUES/LESSONS LEARNED**

- Consider performing high and low level reconnaissance of areas where known low level flight will occur.
- Continuously scan for hazards possibly missed during recon.
- Utility infrastructure is rapidly changing and expanding to meet technological advancements and needs.
- Consider the use of additional flight crew members when conditions warrant.

## PHOTOS/SITE DIAGRAMS/MAPS







**Helicopter Wire Strike**

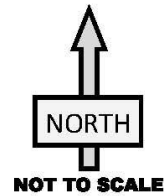
**August 15, 2019**



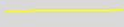



**Bayliss Incident**

**Overview Map**

**19-CA-SCU-005840**

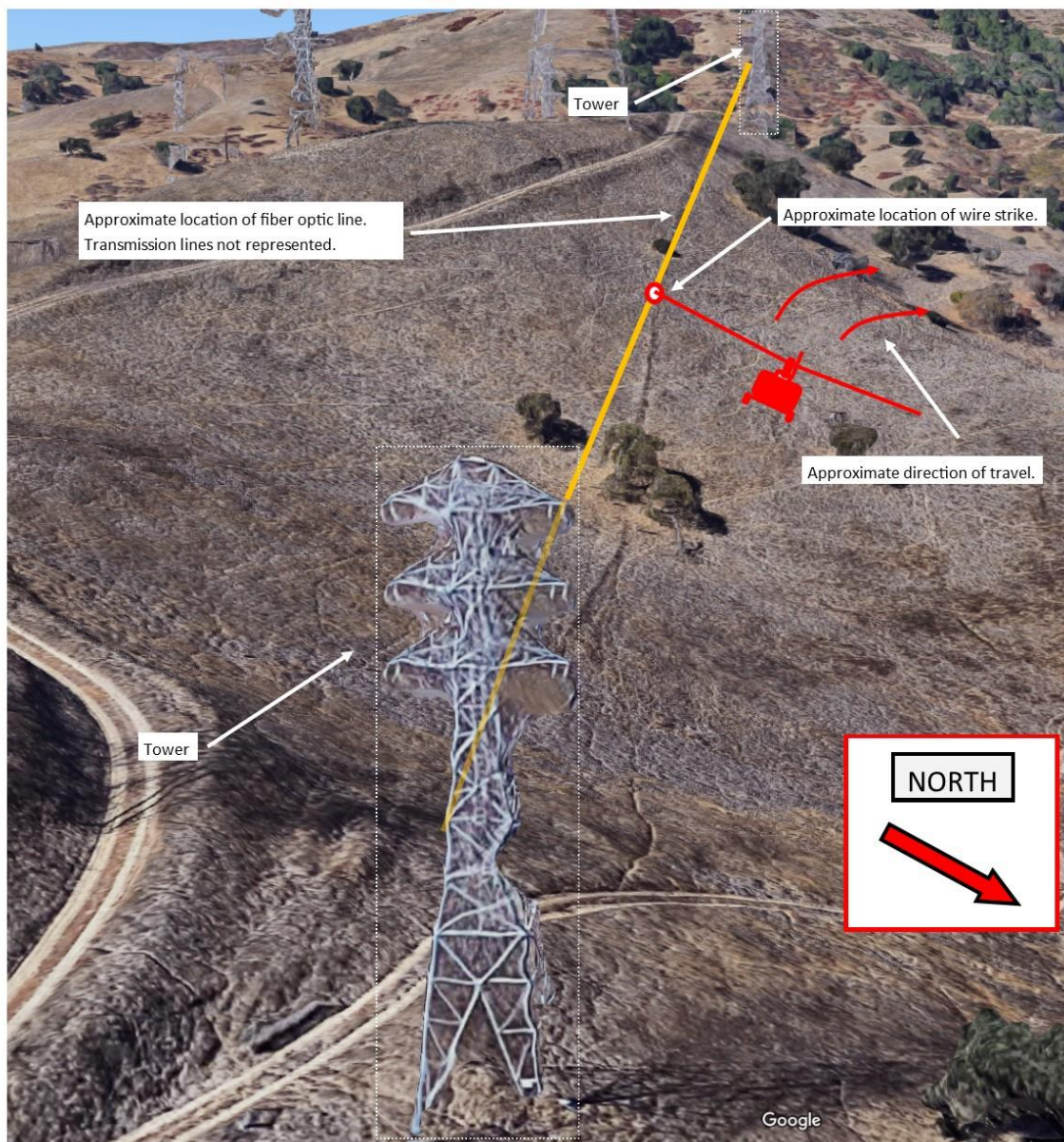
**19-CA-SCU-005867**



	Location of Tower
	Fire Perimeter
	Transmission Lines
	Fiber Optic Line
	Estimated Flight Path
	Wire Strike







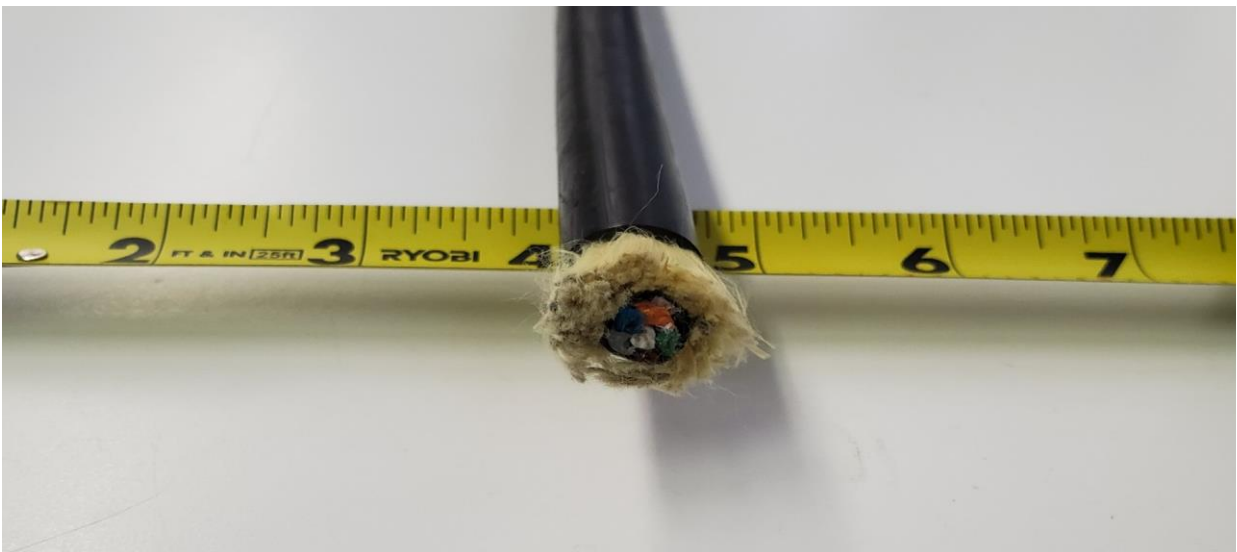


Area where main rotor blade struck the 1/2" fiber optic communication line.





1/2" fiber optic line



1/2" fiber optic line



Deconstructed view of the 1/2" fiber optic line.