

# Rapid Lesson Sharing

**Event Type:** Burn Damage to Engine

**Date:** July 31, 2017

**Location:** Pole Creek Fire, Nevada

*The west road was a relatively flat, somewhat maintained two track. The fuels were very thick sagebrush patches, especially where the prep was not complete . . .*



**Fire behavior  
beside Engine  
E601 during the  
burn out  
operation.**

## NARRATIVE

Type 6 Engine E601 with a three-person crew was dispatched as part of Task Force Golf to initial attack the Pole Creek Fire. While traveling to the incident, the Task Force became separated and arrived at different locations on the fire. One of E601's crew members was acting as a driver for the Task Force Leader and arrived on the north side of the fire. E601 and a local Type 3 Engine arrived at the east side of the fire.

E601 and the local Type 3 Engine tied-in with Task Force Charlie on the east fireline and began holding for a burn out operation that took place immediately. The fuels were mainly grass and sagebrush that burned very quickly and hot. The burn out took place along a road heading south that had powerlines on the green side. The fire spotted over in one place and was picked up. The burn out was completed at approximately 1830.

E601 then traveled over to the fire's west side and tied back in with Task Force Golf and a 20-person Hand Crew. E601 was informed that their third crew member stayed on the north line with a Heavy Equipment Boss to burn out behind a dozer line that was being established. E601 therefore continued operating with a two-person crew.

The 20-person Hand Crew began prepping for a burn out along the west road. This prepping continued until an Interagency Hotshot Crew took over the operation and began burning out. While the line prep operation had not been completed, a decision was made to begin burning while conditions were favorable. The holding formation was E601 in the front, working with the Hotshot burn out crew, then the 20-person Hand Crew, followed by a Type 3 local county engine.

### **Fire Damages Engine**

E601 was instructed to stay right with the igniters and headed south to tie-in with an adjacent burn operation. The Engine Boss walked the path ahead of E601. The west road was a relatively flat, somewhat maintained two track. The fuels were very thick sagebrush patches, especially where the prep was not complete.

The fuels burned very hot. However, E601's driver did not believe they were intense enough to damage the vehicle as the Engine Boss and Hand Crew did not have any difficulty standing adjacent to the burn out.

During the burn out, the winds initially were blowing over the road. Visibility was poor for approximately one-half hour. By nightfall, the winds were blowing in and the fire activity died down. The burn out was tied-in and completed at approximately 2200 with no holding concerns or spotting. E601 went off shift at 2330.

The morning after the operational period, during the daily PM check, E601's crew members noticed scorched decals and a melted driver's side mirror on the engine. It was determined that this damage likely occurred during the burn out operation when the visibility had been poor for that one-half hour time period.



**Radiant heat damage to driver's side mirror on E601.**

## **LESSONS**

### **Stay Together as Cohesive Group**

When Task Force Golf was dispatched to the fire, a local engine said they knew a faster way in than the directions given by Dispatch. The Task Force began following the local engine on this new route. However, road conditions deteriorated until some of the vehicles—including the Task Force Leader's, could not proceed any farther.

At this point, the Task Force separated. Some vehicles turned around. E601 and the local Type 3 Engine continued.

This action short-staffed E601 as one of the crew was acting as driver for the Task Force Leader. The Task Force was therefore separated until much later that day with some resources working on the fire's east side, some on the west side, and E601's single crew member on the north side.

E601's situational awareness was reduced by the missing crew member.

### **Threatened and Endangered Species Habitat Affects Strategy and Tactics**

The Pole Creek Fire was burning in sage grouse habitat. Management goals are to keep fires in these areas as small as possible. Typical tactics in sage brush and grass are to move quickly and burn out. However, low fuel moistures coupled with heavy fuel loads along control lines can cause sufficient fire intensity that than can damage equipment.

These conditions were highlighted in a Fuels and Fire Behavior Advisory issued August 11 by the Great Basin Coordination Center that warned of: *“Extraordinary fine fuel loading and continuity, along with low fuel moisture contributing to extreme fire behavior and high resistance to control across Northern and Western Nevada, Northwest Utah and Idaho.”*

[https://www.nifc.gov/nicc/predictive/fuels\\_fire-danger/GB\\_Fuels\\_and\\_Fire\\_Behavior\\_Advisory.pdf](https://www.nifc.gov/nicc/predictive/fuels_fire-danger/GB_Fuels_and_Fire_Behavior_Advisory.pdf)

### Take a Tactical Pause

Take a tactical pause to make sure all resources understand and are comfortable with operations. Know the limits of your equipment and your personnel during operations.

During this incident’s burn out on the north side of the fire, E601’s crew member spoke up when she had concerns about the operation—and plans were changed.

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**This RLS was submitted by:**

**Crew Member**

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