
The Defense of the Mormon Rocks Fire Station

“When I looked at the driveway (egress) out toward Highway 138 it was a No Go. It was blocked by a huge fire whirl that was coming north across the stubble field toward the station.”

Engine Captain

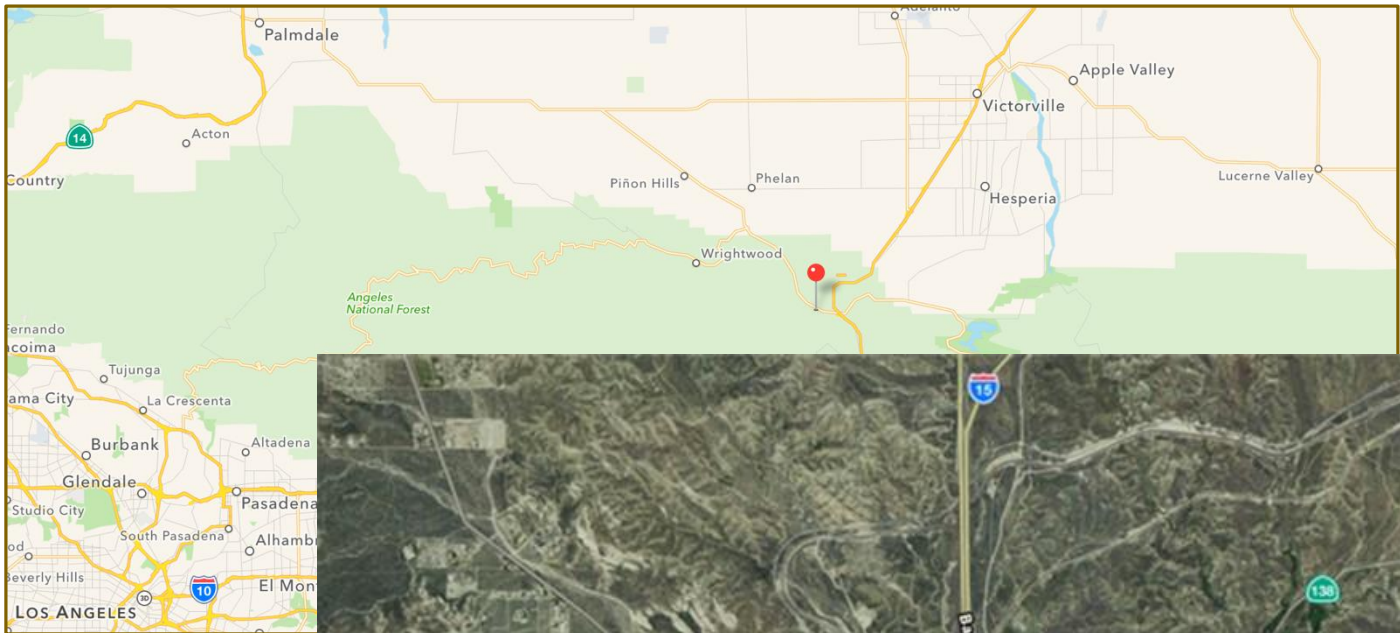


Blue Cut Fire San Bernardino National Forest

August 16, 2016

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Narrative

On Tuesday, August 16 at 10:44 in the morning, the Blue Cut Fire started east of Highway 138 near the riverbed. It was a Red Flag day.

The fire spotted across the road adjacent to the railroad tracks and followed the riverbed one mile east to Cajon Canyon, then north across the ridges toward Lone Pine Canyon and a road.

The temperature was 99 degrees and the relative humidity was 3%. The winds were blowing up Cajon Canyon from the south at 17 miles per hour. As it moved from the north to the east, the fire spotted across Highway 138.

The Mormon Rocks Station was located directly in the fire's path.

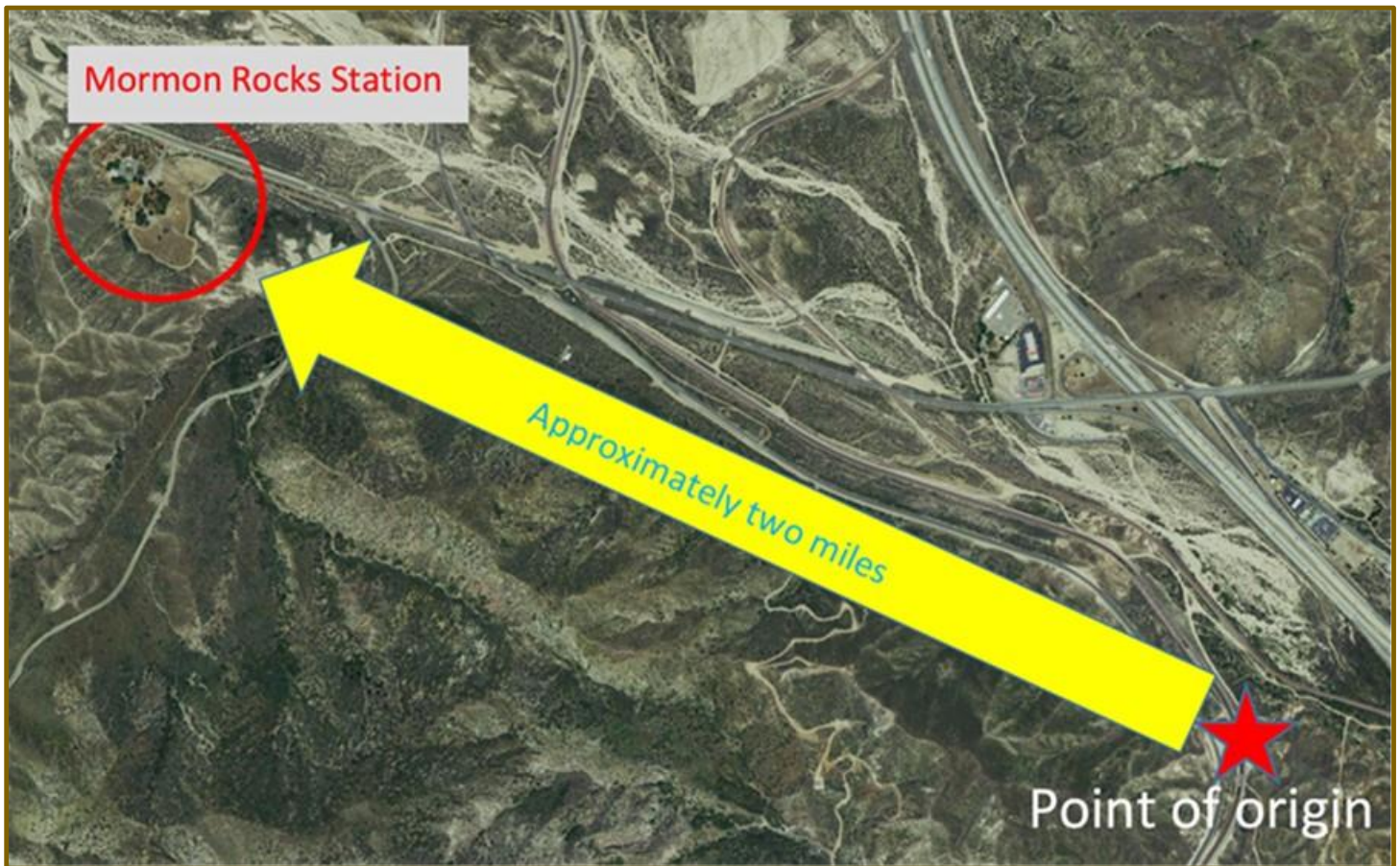
Initial Attack: Chaotic

Initial Attack was chaotic with multiple entities responding and eight tactical radio frequencies being used in addition to the



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aerial frequencies. Resources moved north on Highway 138, trying to keep the fire east of the highway and conducting point protection. The first “point” was the Mormon Rocks Fire Station.

Mormon Rocks is often used as an Incident Command Post. It’s a good place to stage resources and is well known to the media and public as a safe place to stop and watch fire. There were upwards of 20 vehicles at the Station when local Forest engines and an Interagency Hotshot Crew arrived around noon.

They had 30 Minutes Before the Fire Reached Them

The three local Forest Engines and the Hotshot Crew started structure defense in front of the north-moving fire. Personnel were briefed by their supervisors on the planned firing operations around the entire compound.



“There was not a whole lot of fuel around Mormon Rocks—a stubble field, pine litter, not many trees. The crew had done a good job landscaping and cleaning the area.”

Module Personnel

“We conducted a briefing, developed tactics, had LCES in place. Supervisors had crew accountability.”

Captains and Module Personnel

“We had a plan. Stay mobile, stay together, and move north up 138 for VAR protection.”

Module Personnel

“I did a walk-around and made sure everyone that was at Mormon Rocks was on the same radio frequency.”

Superintendent

Personnel were assigned to clean the pine needles off the station roof. The Engines were to lay a wet line, hold the firing line, and pick up any spots—basic structure defense. They figured they had about 30 minutes before the fire reached them.

One Engine went to the starting point of the firing operation, the second Engine started a hose lay on the west side, and the third Engine went into the circle driveway near the station building, preparing to put out any spots coming from the main fire.

Within 20 minutes, the fire was on them.



Looking east from the stubble field as the fire approaches.

Fire Moves Across Egress Out

Helitack crewmembers and several members of the public were herded into the IHC crew carriers and Engine Captains accounted for all their personnel. The hose lay burned through and all resources pulled back into the “Station Circle.” Engine 1 worked a spot fire near the storage unit and proceeded to the next spot behind the hose drying area. They backed in and started picking up the spot.

During this time, a fire whirl moved across the driveway—their only egress out—soon followed by the fire’s flaming front. This caused all remaining vehicles to move into the pavement circle. Two of these (civilian) vehicles parked in front of Engine 1 that was working the spot behind the hose drying area. The spot grew and caused several trees to torch.



Gina Ferazzi / Los Angeles Times 2016



"The back panel on the Engine was too hot to touch. The spot was flaring up and we had to move. I looked in the mirror and saw the back of the Engine engulfed in fire.

I called on the tactical frequencies, command, and blew the horn and siren trying to contact the owners of the two [civilian] vehicles blocking my Engine to move so we could get away from the fire.

I needed ten feet. I told the driver, if they didn't move I'd use the Engine to move them. I did contact Air Attack, asked for aerial support but was refused. I probably did not explain the situation as well as I could have.

One vehicle finally started moving and we got our ten feet. The damage to the back of the Engine was significant but we still could fight fire and reengaged later in the afternoon."

Engine Captain

"When the column started to twist, I notified personnel."

IHC Captain

"I timed the spots. It took 60 seconds to have 4-6 foot flame lengths."

"We weren't in a bad place, but it was an uncomfortable situation."

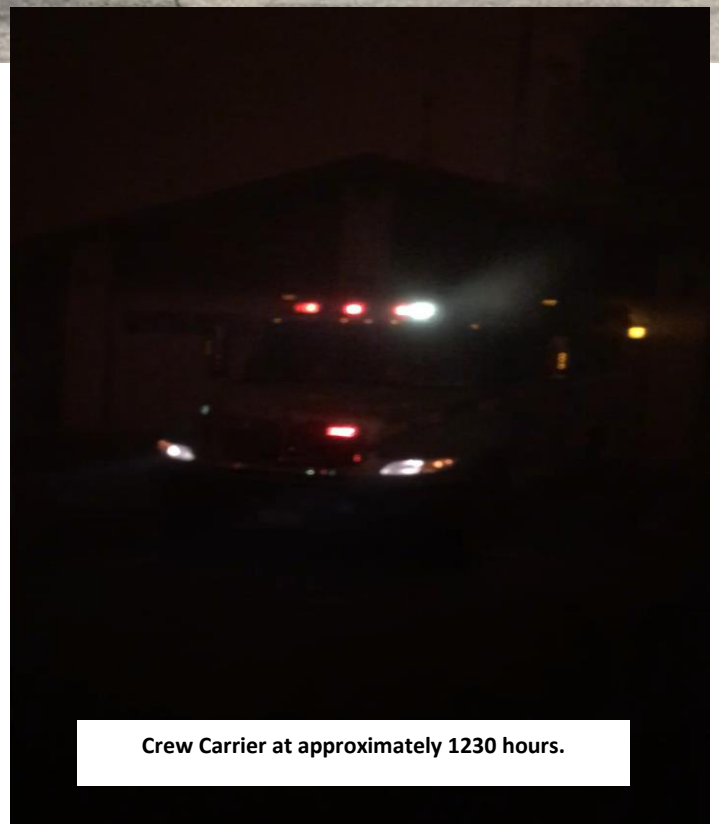
Engine Captain

There was a vehicle parked near the beginning of the circle driveway. It was consumed by fire and was approximately 65 feet away from Engine 1.

When this vehicle ignited, Engine 3 tried to put out the fire from ten feet away. But the wind was so strong it pushed the water stream away from the vehicle.



Looking at Engine 1 parking area and torched trees.



Crew Carrier at approximately 1230 hours.

“He didn’t want to go. But he needed to get checked out for smoke inhalation.”

**Chief
Commenting on the firefighter who was sent
to hospital—and then released.**

After the passing of the fire front and fire whirls, personnel conducted a debriefing.

After the fire passed, they sent one person to the hospital as a precaution for smoke inhalation (he was released later that day); picked up equipment, picked up the spots; and continued the initial attack of the Blue Cut Fire.



Learning Opportunities

Personnel and Supervision: Supervision, briefings, and leader's intent was clear and specific.

- **When time is crucial, what should the briefing look like?**
- **Practice giving the briefing on this operation with your crew.**

The plan was typical: Anchor, flank, move ahead and point protection of values at risk (VAR). Clean what we can, wet line or scrape, burn out, decide to leave or not, use aerial resources if we can and pick up spots. We have been successful using this approach. Mormon Rocks Station was the first VAR north of the oncoming fire on the west side of Highway 138. The direction was to take the pine litter off the roof, lay a wet line, burn out to strengthen the protection, and hold and pick up spots.

- **Are you prepared to create and carry out this type of plan?**
- **Should we be as comfortable with this type of action as we are?**

LCES was in place, the vegetation was mowed and the pine litter was swept. The structures were defensible. There was adequate room to move in the circle driveway and Highway 138 (egress) was a short distance away.

- **Do you think about the escape route unexpectedly getting cut off? How predictable are fire whirls or where the public chooses to park?**
- **How many contingency plans are practical?**

Mormon Rocks is a helispot and staging area for Forest resources. The media knows that this is a good spot and the public historically parks here for hiking and rock climbing. The fire whirl and fast-moving fire front actually pushed more people into the circle drive, crowding the work space.

- **Would you predict it to be this crowded?**
- **Does the plan in your head only involve things you have control over?**
- **How can we train or prepare to face similar decisions in the future?**

"I told the driver, if they didn't move, I'd use the Engine to move them."

- **This is a much harder decision to make than we think. When do you know it's the right time to take this type of action?**

There was minimal damage to one Engine. One person was taken to the hospital as a precaution for smoke inhalation. The structure was protected.

- **What do we learn when things don't go exactly as planned but everything ends up OK?**
- **How do we share what we have learned?**
- **How do we practice what we've learned?**
- **What would the lessons be if the outcome was different?**

Point protection in front of a fast moving fire is a common occurrence.

- **How do you make decisions on when to burn and whether or not to stay in place—or leave and come back to put out spots?**
- **If the plan is to leave and come back, do you have options if for some reason you are surprised and can no longer leave?**
- **Drill on the plan not working.**