

CURVE INCIDENT

ANGELES NATIONAL FOREST

ENGINE ENTRAPMENT INVESTIGATION NARRATIVE

October 8, 2002

This Investigation is intended to be in the form of a Narrative Report and not in an Investigation Report format (per Charley Gripp, Regional Fire Safety Officer).

On September 1, 2002 at 1235 hours the Curve Fire started. The fire was approximately 5 acres at initial attack. At approximately 1330 hours Division B, and Division A drove a utility vehicle down the Bichota Road to the Recreation Tract to assess the situation for possible structure protection. Fuels in the area were basically riparian vegetation, chaparral and live oak and fairly open. They believed there was a possibility for structure protection.

At this time, the fire was approximately 300 acres and burning in a northerly direction above Highway 39 and away from the recreation tract. The fire was also burning on the south side of the highway; approximately two acres in size. Division B had placed an order for a structure protection strike team, but it was determined only T3 engines could travel the narrow roadway. Four engine crews were working near the point of origin on the south side of Highway 39, trying to tie the line in between the highway and toe of the slope above the river. Helicopters were dropping water in support of the operation. The Division break between Division A and B was the toe of the slope below the point of origin. The fire burned down a steep gorge in inaccessible terrain to Division B. Progress on both Divisions stalled at around 1400 hours.

Road access into the recreation tract was a narrow, one-way, dead end road. The sheriff had evacuated all occupants. Division B decided to use his most experienced Captains in the structure protection effort. His instructions to the Captains were to "look at the cabins, if you can do anything to protect them do so, otherwise write them off if you are not comfortable with the situation, there is only one way in and out".

Once Captain 32 arrived at the hairpin turn in the road (last engine in) he noticed fire in the river bottom below them. He followed the engines to the first cabins and they discussed the situation. They noticed a lot of dead fuel on the ground from tree hazard clearing, some cabins without clearance and continuous grass fuels. They positioned themselves near the cabins, but did not feel good about the situation. At 1420 hours they decided to get out of the area. The fire was already below them and to get out, they needed to travel back to the hairpin turn (approx. 700 feet) in the direction of the fire.

The wind shifted from south to west pushing the fire down the steep gorge into the river riparian vegetation. Helicopter rotor wash may have initiated the spotfire in the river. The fire spotted across the river onto the north slope and quickly spread in an easterly and north direction following the north slope terrain. The up canyon wind pushed the fire up river toward the engines. At 1424 hours, the next thing the captains noticed was a wall of flame coming at them. They moved upriver on the dead-end road to locate a safety zone. The road was their escape route and it was blocked by fire.

The three engines moved up to a cabin with a circular driveway and all three parked in the same location. At approximately 1425 hours, the fire burned over the engines with BDF E-32 taking the majority of the heat because it was parked near a large tree that burned. Engine crew 32 used two shelters to put inside the windows to minimize the heat. They used SCBA's for fresh air, as the cab was smoky. At the time of burn over, the fire size was estimated to be 300-400 acres. Shortly after the burn over, at approximately 1440, the propane tanks started venting and the captains decided they needed to move from the area. Engine 32 and ANF E-16 moved up the road in the vicinity of the cement bridge. Engine 16 crossed the bridge and E-32 was cut off from the bridge by falling trees. ANF E-15 moved down canyon. At approximately 1500, E-15 and E-32 were back at the briefing spot on Hwy. 39. At 1545, ANF E-16 was back at the briefing spot.

About the time of the entrapment the IC was traveling to check out a second fire start a few miles up the road. He became cut-off from his IA activities due to the 3-mile wide front moving up Highway 39. The Operations Section Chief assisted the IC in the IC duties and McCormick was in communications at all times. The IC became aware of the entrapment the following day.

OBSERVATIONS AND CONCERNS:

The fire was in the initial attack stage. When Captain 32 noticed fire down in the river bottom, he did not immediately communicate this to Captains 15 and 16. The line was not anchored on the southwest flank when the engines departed the highway and headed down the road for structure protection. Captain 16 said he thought the line was tied in. The fire looped below them and moved upriver toward the engines. Their escape route was the narrow one-way dead end road access to the cabins. Their safety zone was back up on Highway 39. The 3 engines were cut off from their escape route. Fortunately, they found a relatively safe area to park the engines when the fire over ran them.

Fire personnel need to more thoroughly evaluate the feasibility of providing structure protection in questionable areas. Pressure still exists to want to save life & property.

All three captains were familiar with Entrapment Avoidance Guidelines. They had the opportunity to refuse the assignment, but were comfortable with the task. Communications were in place, they knew the frequencies and they knew the name of the IC. All crews were rested and work/rest crew fatigue was not an issue.

There was no lookout posted above the “structure protection operation” to advise the Captains of a change in wind or fire behavior. According to Captain 24 on Hwy 39, he personally took the initiative to be the lookout for the 3 engines. He did not inform the 3 Engine Structure Group the fire had blown out and was headed their direction. He said the wind changed and in a matter of seconds the entire area was on fire.

BDF Engine 32 personnel were not briefed on fire weather conditions for the day, or familiar with local wind/weather patterns. They did recognize thunderheads in the higher elevations. The daily Burning Index/ERC’s were not known.

This is a severe drought year with chaparral fuel moisture readings at all time lows. Some chaparral plants are dying. Riparian areas are dry and are burning with extreme fire behavior. This is a key message that needs to be shared with all fire personnel.

PRIMARY CAUSAL FACTORS (why incident occurred):

A three-engine structure protection group traversed the road downhill toward an uncontrolled section of line located near a hairpin turn in the road. Once the engines made the turn, they traveled up river toward the cabins. There was no dedicated lookout above the road to inform the structure protection group of changing conditions (fire moved from above them to below them). The fire reached the hairpin turn and the Group’s escape route was cut off. Riparian area vegetation was much dryer than expected and the entire canyon bottom went up in “seconds”.

Basically, the incident occurred as a result of the fire cutting off the Structure Groups escape route.

COMMENDATIONS:

There were several new first year temporaries on the engine crews. The Forest had the foresight to order a Critical Incident Debrief of the entrapment situation.

All three Captains maintained control of their personnel during the entrapment event.

All fire personnel involved in the interviews were very cooperative and helpful in their statements.

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