

# CDF GREEN SHEET

California Department of Forestry and Fire Protection



**SOUTHERN REGION  
CA-RSS000077**

**San Bernardino Unit  
Pleasant Valley 2  
CA-BDU003587**

**April 30, 2002**

## **Burn Over – CDF Engine 3561**

**L**ookouts   **C**ommunications   **E**scape Routes   **S**afety Zones

A Board of Review has not approved this Summary Report. It is intended as a safety and training tool, an aid to preventing future occurrences, and to inform interested parties. Because it is published on a short timeframe, the information contained herein is subject to revision as further investigation is conducted and additional information is developed.

## **SUMMARY**

On April 30, 2002 a vegetation fire occurred at the Pleasant Valley Campground, in Bishop, California. Owens Valley Camp reported the new fire at approximately 1:15 P.M.

Engine 3561 responded from Owens Valley Camp, arrived on scene at approximately 1320 hrs and initiated suppression action by attempting to get to the head of the fire. While driving through the green to access the head of the fire, Engine 3561 suffered a rapid air loss to the brake system and became immobile.

The fire advanced beyond Engine 3561 on the west and south side of the engine. A sudden change in wind direction and speed caused the fire to advance directly towards the engine at a rapid rate. Despite efforts by the crew from Engine 3561 and units of the Bishop Fire Department, the fire consumed Engine 3561 at approximately 1404 hrs.

While attempting to protect Engine 3561, the Fire Captain and two Firefighter 1's suffered smoke inhalation and were transported to a local hospital. They were treated and put off duty for three days by the treating Physician.

## **CONDITIONS**

**Location:** Incident occurred southwest of the intersection of Pleasant Valley Road and Chalk Road, Bishop area.

**Fuel Type:** Big Basin Sage, Salt Grass, Red Willow, and Rabbit Brush

**Terrain:** Rocky, brush covered, uneven

**Fire Behavior:** Moderate to Erratic

**Weather:** From Owens Valley Camp RAWS - 57 degrees F, 8 – 11% Humidity, 19 MPH Winds, with gust 34 to 54 MPH, variable directions

## SEQUENCE OF EVENTS

On April 30, 2002, at approximately 1312 hours, an off duty CDF Battalion Chief reports a fire near the intersection of Pleasant Valley Road and Chalk Road. A fire had occurred in this area on the previous day and units were assigned to mop-up and patrol duties.

Engine 3561, a 1993 International CDF Model 14 Engine, is dispatched to the new fire at 1315 hours and arrives at 1322 hours. Upon his arrival the Fire Captain on Engine 3561 observes a one acre fire burning along the river with 15 to 20 mph winds. The Fire Captain has the firefighters exit the vehicle and charge the front bumper line of Engine 3561. He then travels through green towards the fire, preparing to mobile attack the fire's edge.

Believing there was no active fire to the north of his location, he then turns Engine 3561 to the south mobile attacking the edge of the fire. After traveling over the rocky terrain and heavy brush, the Fire Captain observes he is having difficulty moving forward. The Fire Captain places Engine 3561 into four wheel drive high range, first gear, and reduces pump pressure. This allows the engine to proceed forward and continue applying water to the fire's edge.

The Fire Captain and a Firefighter hear an air leak coming from the front area of Engine 3561. The Fire Captain hears the low air warning alarm and visually checks the air gauge. The Fire Captain determines Engine 3561 is immobile due to the loss of air pressure to the braking system, and immediately calls for a mechanic to respond to the scene. *[The investigating team determined the cause of the air loss, was the Wet Tank Condensation Drain Petcock had been inadvertently opened when brush became lodged between the battery box and the Air Brake Storage Tank striking the petcock and pushing it to the open position. The open valve combined with the low RPM of the engine and constantly applying the air brakes while mobile pumping caused the Spring Brakes to activate resulting in the immobilization of the Engine. Due to surrounding brush and the fire conditions, this cause could not be found or remedied immediately.]*

The Fire Captain orders the Firefighters to initiate a hose lay from the bumper line, and instructs them to continue south from Engine 3561's location, in an attempt to extinguish the fire by a flanking action. At the same time the Fire Captain observes a spot to the northwest of Engine 3561. He then deploys a pre-connected line in an attempt to extinguish the spot fire.

Bishop Fire Department Unit R7 arrives at the scene, proceeds to the northwest of Engine 3561, and attempts to extinguish the fire approaching Engine 3561. Engine 3561 and Bishop Fire Department Unit R7 runs out of water as Bishop Fire Department Engine 9 (3800 gallon water tender) arrives on scene with the Bishop Fire Department Assistant Chief. The Fire Captain makes face-

to-face contact with the Bishop Fire Department Assistant Chief and requests Bishop Fire Department Engine 9 support Engine 3561. Bishop Fire Department Engine 9 supplies Bishop Fire Department Unit R7 with water, while applying water to the fire's edge to the north of Engine 3561, with a bumper turret.

The Fire Captain observes and reports a 180-degree wind shift from the northerly direction to a southerly direction, the fire south of Engine 3561 changes direction and advances towards the Engine 3561 from the south. The Fire Captain instructs Firefighters to get hand tools and construct hand line around Engine 3561 to protect the engine.

Bishop Fire Department Engine 9 attempts to protect Engine 3561, approaching to within 25 feet of Engine 3561 and utilizes the bumper turret in an attempt to apply water. Bishop Fire Department Engine 9 lobs water over Engine 3561 to cool the engine and fire. However, high winds do not allow water to reach Engine 3561. Fire activity increases on the south, west, and north of Engine 3561. The Fire Captain orders the Firefighters to walk to the roadway as a safety zone. At the same time Bishop Fire Department Engine 9 and Engine 7 are forced to back to a safe area.

At approximately 1400 hours fire hits Engine 3561 and ignites ordinary combustibles, destroying Engine 3561. The Fire Captain and both Firefighters suffer smoke inhalation in the attempt to save Engine 3561.

The Fire Captain and Firefighters were transported to a local hospital for treatment and placed off duty by the treating physician for three days due to smoke inhalation.

## **INJURIES**

The Fire Captain and both Firefighters suffer smoke inhalation in the attempt to save Engine 3561. The Fire Captain and Firefighters were transported to a local hospital for treatment and placed off duty by the treating physician for three days due to smoke inhalation.

## **DAMAGE**

Engine 3561 and all contents were destroyed by the fire.

## **SAFETY ISSUES FOR REVIEW**

Check all air brake components for wear, leaks, and damage. Pay close attention to the possibility of loose valves on the petcocks utilized on airbrake storage tanks. If valves can easily be turned, replacement is in order.

Make sure that when Mobile Pumping, especially in rough terrain, that the transmission is in 1<sup>st</sup> gear and the 4WD (if equipped) is in the low range. This will provide maximum power to the wheels.

Review LCES

Review the 10 Standard Firefighting Orders and the 18 Situations that shout watch out.

SUBMITTED BY: Tom Tisdale, Chief  
Riverside Unit

