

# INFORMATIONAL SUMMARY REPORT



## FIRE FIGHTER FATALITY

### HAWKINS BAR VOLUNTEER FIRE DEPARTMENT

#### SHASTA-TRINITY RANGER UNIT COAST/CASCADE REGION

**JONES INCIDENT      OCTOBER 16, 1999**  
**9SHU008604**

This Summary Report has not been approved by a Board of Review. It is intended as an aid in accident prevention, to let interested parties know what happened, and to be used as a safety training tool. To that end it is published and distributed within a short time frame. Information contained within may be subject to revision as a further investigation is conducted, and other reports and documents are received.

Lookouts...

Communications...

Escape Routes...

Safety Zones

## SUMMARY

On Saturday, October 16, 1999, at approximately 0349 hours, the Shasta-Trinity Ranger Unit Emergency Command Center received a report of a vegetation fire in the Jones Valley Resort area. Due to high winds, rapid rate of spread and extreme spotting conditions, the Shasta-Trinity ECC placed multiple orders for assistance from various fire protection agencies, including resources from Trinity County fire protection agencies through the Trinity County Sheriffs Department.

An engine with operator from Junction City Volunteer Fire Department, combined with three firefighters from the Hawkins Bar Volunteer Fire Department, formed a single increment Type I resource and responded to the Jones Incident approximately 1-1/2 hours after a previously requested strike team had left the county. This single increment resource traveled to the incident in an engine and personal vehicle configuration. This configuration caused the engine company officer, on numerous occasions, concern about the safety of the personal vehicle.

At approximately 1330 hours, the decision was made to retrieve the personal vehicle and find a better location for it prior to going on to new assignments. Sometime between 1330 and 1345 hours, the engine stopped in a west bound direction on Highway 299E and mile post marker 34.59. While discussion took place concerning the logistics of moving the vehicle, a firefighter dismounted the engine, walked over to the personal vehicle to retrieve some refreshments and without the engine operator's knowledge was in the process of climbing back aboard the engine as the engine operator began to drive away. In attempting to jump from the engine, the firefighter lost her balance, fell in front of the driver's side duals and was killed instantly.

## FIRE LINE CONDITIONS

### TOPOGRAPHY:

The terrain surrounding the accident site is relatively flat. CalTrans had closed the state highway to normal traffic. Visibility was unimpaired due to topographical features for approximately 1/4mile each direction. The personal vehicle was approximately 30 feet across the roadway in clear view. The shoulder of the road, where the engine parked, was paved.

### FUELS:

#### Arrangement:

- 60% grass that was 90%+ cured, with a 2 foot maximum height.
- Interspersed with Oak Woodland and California Gray Pine.
- No brush in the accident area.
- Could be considered moderate density, urban interface.
- NFDRS Fuel Model C – Grass

- BEHAVE Fuel Model #2 - Grass

Continuity:

- There were numerous breaks in fuel continuity in the form of paved and gravel roadways, and irrigated pastures, transversed by a state highway.

Fuel Loading:

- 2 to 4 tons per acre.

Fuel Moisture:

- Calculated fuel moisture for one hour fuels was 1% at 1400 hours, based on weather observations taken at Redding Airport.

**WEATHER:**

A red flag warning was in effect for gusty north to east winds along with very low relative humidity and poor overnight humidity recovery. The morning discussion called for winds gusting to 60 mph and humidities as low as 2%. Predicted weather for Saturday, October 16, 1999 was for sunny skies; maximum temperatures 70-mid 80s; humidity 5-16%; winds NNE to East 10-20 mph, with gusts 27-35 mph mainly before 1300 PDT, in the typically windiest areas. Weather observations taken at Redding Airport at 1400 hours were as follows:

Temperature - 74 degrees

Relative Humidity - 11%

Average Wind Speed - 17 mph from the north.

**FIRE BEHAVIOR DESCRIPTION**

Fire behavior conditions from the start time of the fire, and throughout the entire day, could be considered extreme. Winds were variable at 17-35 mph, resulting in rapid rates of spread and extreme spotting conditions in excess of ½ mile ahead of the flame front. On numerous occasions, the fire was burning with multiple heads. At the time of the accident, the engine was located in an area adjacent to an irrigated pasture, and therefore, was considered to be in a safe location from flame impingement. The winds had momentarily decreased to approximately 17 mph, and the main flame front had passed east and west of that location.

**VEHICLE DESCRIPTION**

The apparatus involved in the accident was a 1966 Mack C125 triple combination pumper. It is powered by a Mack Thermodyne 6-cylinder diesel with 275 horsepower and a Mack 5-speed manual transmission. It has a wheel base of 160" with air brakes on

both axles. The rear brakes were equipped with piggyback brake chambers for parking brake and service application. The fire pump is a Waterous CPK4, 1250 GPM, PTO driven pump, using 5<sup>th</sup> gear of the 5 speed manual transmission for power. There are no mobile pump operation capabilities on this apparatus.

The engine has a crew capacity of five. Three fire fighters in the cab and two rear-facing jump seats directly behind the cab. The overall condition of the apparatus was good.

### SEQUENCE OF EVENTS

On Saturday, October 16, 1999, at approximately 0349 hours, the Shasta-Trinity Ranger Unit Emergency Command Center received a report of a vegetation fire in the Jones Valley Resort area. By 0417 hours that morning, the fire was 150+ acres with a rapid rate of spread, heading in a southerly direction, with several spot fires out in front of the head. By 0420 hours, the ECC began placing both local and regional mutual aid requests for Type I Strike Teams for structure protection on the Jones Incident.

At approximately 0630 hours, the Trinity County Sheriff's Office Dispatch, placed a radio call to the Trinity County Fire Districts requesting enough personnel and engines to staff an ICS Type I local government strike team to respond to the fire. The initial 5-engine strike team, included one engine from Junction City Volunteer Fire Department. The elements of the strike team were to form enroute and/or proceed directly to the fire. After confirming that all increments of the strike team were on the road, the strike team responded to the incident. After hearing the 0630 page, members of the Hawkins Bar Volunteer Fire Department began to assemble. A telephone call from Hawkins Bar VFD to Trinity County Sheriff's Office Dispatch, and relayed to the Strike Team Leader of XTR 3160C, informed him that Hawkins Bar VFD could provide three additional firefighters to the strike team. Upon hearing this radio traffic, Junction City VFD advised over the radio, that the three firefighters should report to Junction City Fire Station #1, and Junction City would provide an additional engine.

The three Hawkins Bar firefighters arrived at Junction City Fire Station #1, where they were provided with personal protective equipment. These firefighters, along with an officer/operator from Junction City VFD, staffed Junction City Engine #2 and were advised by Trinity County Sheriff's Office Dispatch, to respond to Shasta County Station #43 located at the Redding Airport. The traveling configuration consisted of two people in the engine and two people in a personal vehicle. While enroute to Station #43, the engine was redirected, via Shasta-Trinity Ranger Unit Emergency Command Center, to Bella Vista Staging. The two-vehicle configuration became separated due to fire related road closures. The 2-person engine company reported to Bella Vista Staging and was immediately assigned to structure protection in the Bella Vista area. It was not until approximately 90 minutes later, the two firefighters in the personal vehicle located Junction City Engine #2 which was already engaged in structure protection at Highway 299E and Blue Sky Road. At that point, all personnel moved and operated for the next several hours as a four-person engine company, having parked the personal vehicle along Highway 299.

At approximately 1330 hours, the decision was made to retrieve the personal vehicle and find a better location for it prior to going on to new assignments. Sometime between 1330 and 1340 hours, the engine stopped, across from the personal vehicle, facing west-bound. This placed the engine along the north shoulder of Highway 299E, approximately 200 feet east of the Salt Creek Bridge and post mile marker 34.59, across from the personal vehicle. While three of the crew members discussed how and where they would move the pickup, a firefighter dismounted the engine and walked across Highway 299 in a southerly direction toward the personal vehicle. After the determination was made to relocate the personal vehicle, a second firefighter also walked across Highway 299 in a southerly direction towards the personal vehicle. Without the knowledge of the engine operator, at approximately 1345 hours, the first firefighter returned, and was in the act of boarding the engine as it began to move forward. The firefighter was carrying a bag of refreshments in one hand and a large shoulder bag and open soda can in the other. The firefighter was unable to utilize the nearby grab bar. With the engine moving forward, the firefighter began to lose balance. The firefighter jumped from the engine and landed in such a manner that her loss of balance caused her to fall backward and land with her head underneath the driver's side step board, immediately in front of the rear duals. The firefighter was run over and died instantly due to blunt trauma to the head.

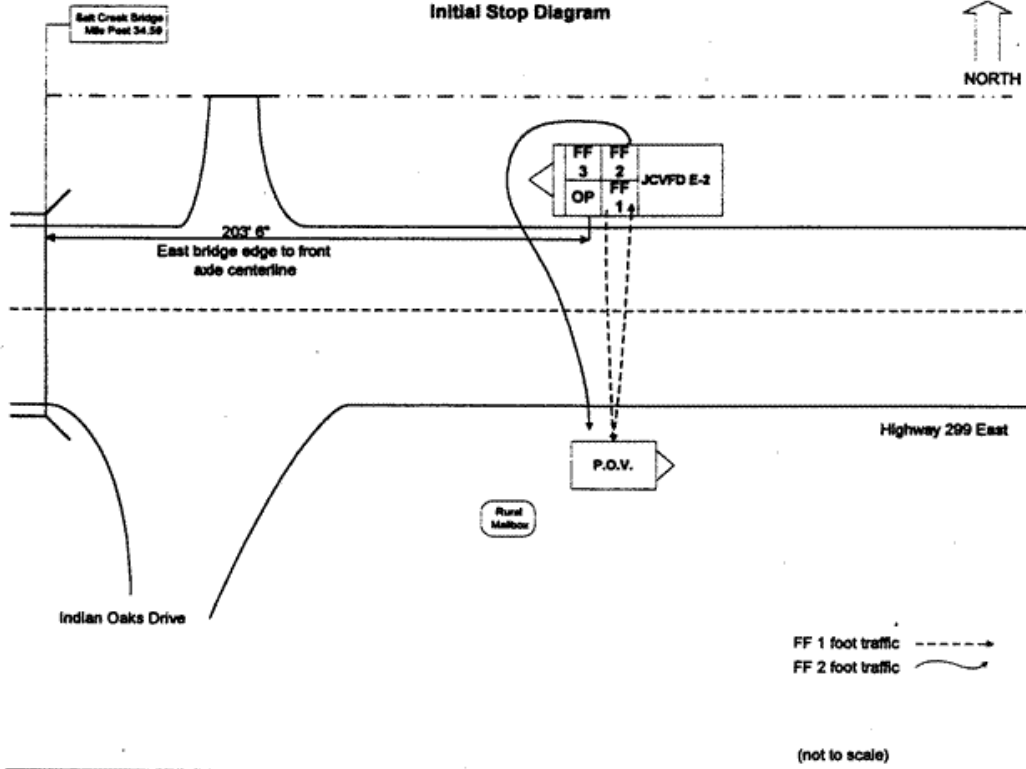
#### **GENERAL FINDINGS**

- Effective communication between crew members was not continuous throughout the entire operation.
- The company/crew command structure was not fully established, enforced or maintained throughout the entire operation.
- Engine company members got on and off the apparatus without the engine operator's full knowledge of their whereabouts.
- Individual roles and responsibilities were not clearly defined and engine company members had not worked together in prior emergency operations.

#### **ATTACHMENTS**

GIS Map  
Site Sketch with Foot Traffic

**Jones Incident Accident Site  
Initial Stop Diagram**



**Jones Incident Accident Site  
Final Stop Diagram**

