

GREEN SHEET

California Department of Forestry and Fire Protection (CAL FIRE)

Informational Summary Report of Serious CAL FIRE Injuries, Illnesses, Accidents and Near-Miss Incidents



Vehicle Accident MEU Engine 1169 and Engine 1151 Minor and Moderate Engine Damage

August 3, 2011

Pass Incident

CA-MEU-005340

California Northern Region

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 time frame, the information contained herein is subject to revision as further investigation is conducted and additional information is developed.

SUMMARY

On August 3, 2011 at approximately 12:03 P.M., a wildland fire was reported in grassland intermixed with oak woodland and timber on mountainous terrain in northeastern Mendocino County. Engine 1169 and Engine 1151 were parked on the left flank near the head of the fire. During a planning meeting at approximately 2:30 P.M., a flare-up occurred in a patch of timber just below the road where several emergency vehicles were staged. Due to the positioning of Engine 1169 and Engine 1151, it became immediately necessary for the two engines to back up thus providing room for other emergency equipment to move in order to avoid the flare-up. The two engines collided while backing away from the fire threat.

Engine 1169 received minor damage to the driver side door and a dent on the upper rear compartment. Engine 1151 received moderate damage to the engine's right rear corner. Engine 1169 was evaluated and repaired. Engine 1151 was evaluated to determine needed repairs. There were no reported injuries.

CONDITIONS

Blands Cove Road (USDA – Forest Service Road 24N21) is a standard seasonal 20-foot wide dirt and rock-surfaced road. In the area of the accident, the road is approximately at mid-slope and trends east-west. The topography below the road is broken and, immediately beneath the flare-up and accident location, the slopes range from 40% to 50%. Interpretation of burn patterns and fire direction macro-indicators post-incident are consistent with the high heat concentration and flare-up which occurred in the patch of timber. Below the flare-up site, there is a distinct seasonal watercourse channel/swale which acted as a chimney. This feature is identified on the USGS topographic map (see attached topographic map insets on schematics). The channel very likely influenced the fire behavior that lead to the flare-up by concentrating heat and funneling winds towards the brush and timber.

The vegetation composition at the flare-up site included an approximate ¼- to ½-acre patch of Douglas fir and ponderosa pine second-growth timber just below the Blands Cove Road. There was a brush component, primarily manzanita with incidental buck brush, on the slopes below the timber. To the west of the flare-up, the vegetation was true oak woodland mixed with annual grasses, star thistle and a minor brush component. Firefighting personnel observed the brush pre-heating the timber before the flare-up occurred. Estimated flame lengths of 10 to 15 feet were reported prior to the fire making a run into the conifers causing the flare-up.

The weather was taken at the Eel River RAWS Station near the fire's general origin area as follows:

- Relative Humidity: 20% - 25%
- Temperature: 99° Fahrenheit
- Wind Direction: South
- Wind Speed: 2 mph (firefighting personnel reported localized gusts and constant wind shifts influenced by the terrain)

The Fire Weather information during the Initial Attack phase:

- Ignition Component: 40
- Burning Index: 53
- Energy Release Component: 59

SEQUENCE OF EVENTS

On Tuesday afternoon, August 3, 2011, a fire was reported in the area of Hams Pass in the Blands Cove area near the Middle Fork of the Eel River. In the Initial Attack phase, long range spotting was reported by firefighting personnel. Approximately two and a half hours into Initial Attack, the CAL FIRE engine company officers joined together to discuss an action plan on the Blands Cove Road along the left flank near the head of the fire. The company officer on Engine 1151 had assumed the role of Division Supervisor for Division A. Engines 1169 and 1151 were parked facing east. The company officers were attempting to determine fire access and develop a strategic plan with Battalion 1112. The battalion chief was assigned as the Operations Section Chief. During this brief period, several other CAL FIRE units met up with these units coming from the east. (See Illustrations)

Approximately 2:30 P.M, the crew of Engine 1169 observed the backing fire preheat and spread into the brush. The fire started to make a run into the patch of timber. On the tactical frequency, the company officer for Engine 1169 alerted the other units of the increased fire activity. The flare-up began to crown and push flames to the north towards the road. Engines 1169 and 1151 immediately backed their engines to allow the other equipment adequate room to travel west and out of harm's way. Battalion 1112 passed Engines 1151 and 1169 and turned around to face east on Blands Cove Road. Engine 1151 quickly reversed and in doing so backed into the driver's door of Engine 1169. With only a split-second viewing, the company officer on Engine 1169 saw the collision was imminent and sounded the air horn right at the point of contact. Due to the quick movement of vehicles by firefighting personnel, there was no further damage to the other equipment from the flare-up.

INJURIES/DAMAGE

There were no reported injuries. Engine 1169 (Model 34) received minor damage to the driver side door (a small dent) and a dent on the upper rear compartment. Engine 1151 (Model 34) received moderate damage to the engine's right rear corner. Engine 1169 was evaluated and repaired. Engine 1151 was evaluated to determine needed repairs.

SAFETY ISSUES FOR REVIEW

- Most fires are innocent in appearance before unexpected shifts in wind direction and/or speed results in flare-ups or extreme fire behavior. In some cases tragedies occur in mop-up stage.
- Fires run uphill surprisingly fast in chimneys, saddles, gullies, and on steep slopes.
- Know what your fire is doing at all times.
- Maintain situational awareness and promptly act accordingly.
- Maintain awareness of current and expected weather and fire behavior.
- Apply LCES.

INCIDENTAL ISSUES/LESSONS LEARNED (For Near-Miss and Non-Serious Accidents)

- Identify adequate escape routes and safety zones for personnel and equipment.
- Park apparatus facing away from the hazard and if possible with the pump panel facing the hazard.
- Do not stage equipment and personnel in the green where chimneys, saddles and gullies exist.
- Use topographic maps whenever possible to help identify features which may influence fire behavior.

ILLUSTRATION - A

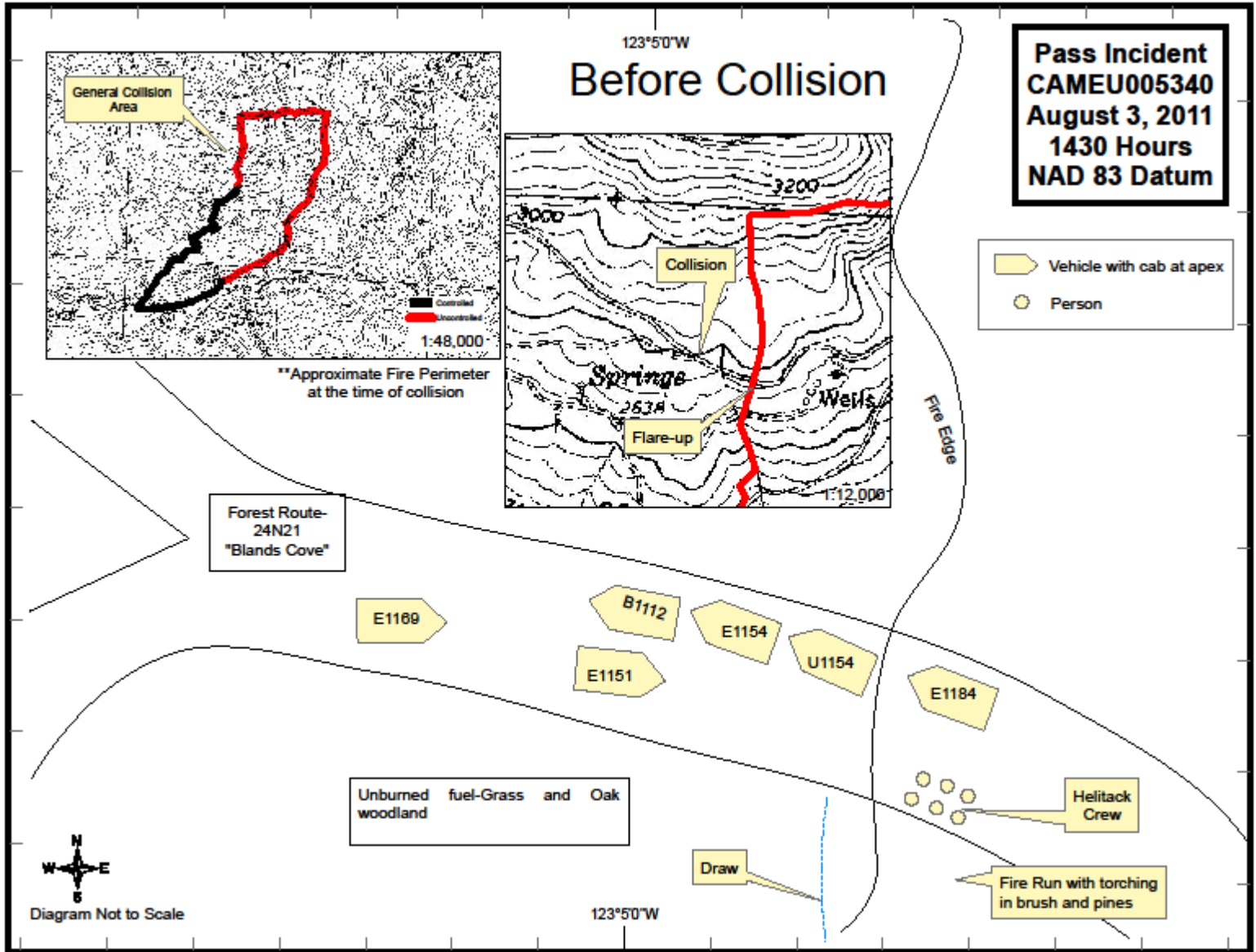


ILLUSTRATION - B

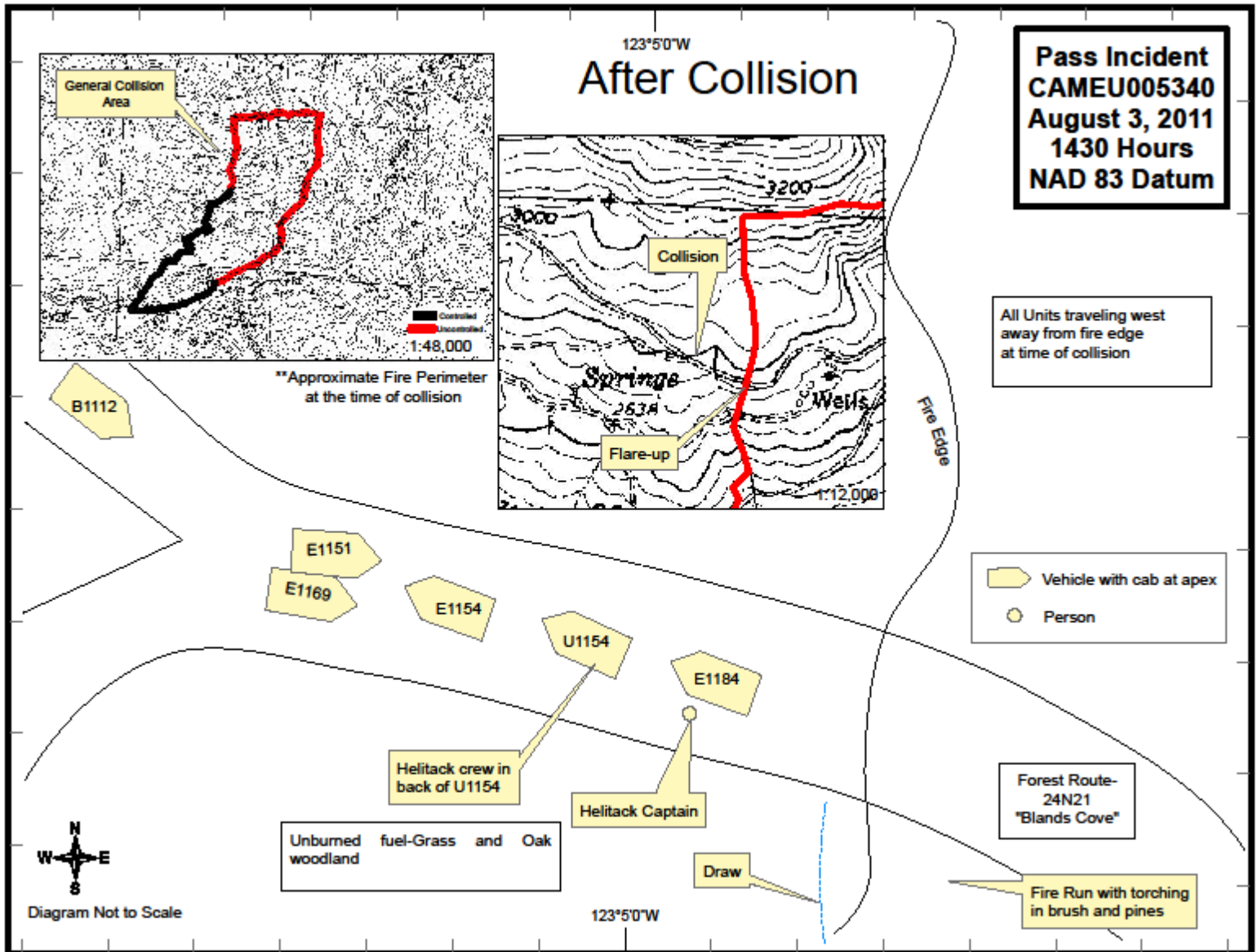




Image taken by Firefighter after collision and as flare-up has subsided.
Viewing east from collision location.



Similar view during post incident accident review.



North portion of the timber patch receiving the most intense heat.
Viewing south from Blands Cove Road.



The draw just west of the flare-up. Viewing south from Blands Cove Road.



Damage to Engine 1169 – Driver's door.



Damage to Engine 1169 – Driver's side compartment.



Damage to Engine 1151 – right rear corner and side step damaged.