

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



Inmate Firefighter Burn Injuries

September 5, 2012

Likely Incident - Vegetation Fire

12-CA-NOD-003916

12-CA-LMU-003925

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.

Lookouts

Communications

Escape Routes

Safety Zones

SUMMARY

On Wednesday, September 5, 2012, at approximately 11:27 AM, two CAL FIRE handcrews were dispatched from Intermountain Conservation Camp #22 to an initial attack vegetation fire south of Likely, California.

The handcrews arrived at approximately 12:56 PM, and were assigned to anchor the fire to State Route 395 and begin constructing direct handline. At approximately 2:00 PM, the lead handcrew was constructing direct handline and suppressing small slopovers when the fire behavior suddenly increased during a wind shift. As the majority of the crew retreated into the black, three inmates found their escape route blocked by the advancing flame front. The inmates passed through the flame front into the black where they sustained first degree and some minor spots of second degree burns to their faces. The inmate firefighters were transported by ground ambulance to Modoc Medical Center. The three inmates were treated for minor burns and released to CDCR at Devils Garden Camp.

CONDITIONS

Weather:	Blue Door RAWS:	(41.0547° N X 121.3375° W) BDOC1
	Orientation to Incident:	About 10 miles SE of Accident Site
	Date/Time:	September 5, 2012 / 1:59 PM
	Temperature:	81.0° F
	Relative Humidity:	7 %
	Wind Speed/Direction:	12 mph from SW
	Wind Gust:	23 mph

Fuel Type: Rangeland consisting of: low sagebrush, mixed annual grasses, western juniper, conifer, and shrubs. Accident site was primarily grasses 6 to 8 inches tall.

Topography: The accident site sits at 4,918 feet and is relatively flat with a gentle slope falling toward the north. Area is covered with loose rocks of various sizes.

Fire Behavior: Upon their arrival the handcrew encountered a backing fire along the flank with flame lengths averaging about 1 foot. The wind changed speed and direction at the time of incident increasing flame lengths to 3-4 feet with some sheeting and short range spotting.

SEQUENCE OF EVENTS

On Wednesday, September 5, 2012, at approximately 11:27 AM, two CAL FIRE handcrews were dispatched from Intermountain Conservation Camp #22 to an initial attack vegetation fire seven miles south of Likely, California, along Highway 395 at Sage Hen Summit.

After the crews arrived at approximately 12:56 PM, both Fire Captains met face-to-face with the Bureau of Land Management (BLM) Incident Commander (IC) and were given their assignment to anchor the fire at Highway 395 and construct direct handline along the left flank. After the briefing with the IC, the Fire Captains met and decided a “leap-frog” tactic would be used allowing the first crew to begin work about 200 feet up the fire’s edge from the highway and leaving the second crew the job of anchoring the fire at the pavement’s edge. Returning to the crew, the Fire Captain gave a quick, but thorough safety briefing prior to beginning work. Much of the briefing was dedicated to utilizing the black as a safety zone and to maintain a direct attack on the fire’s edge.

At the time the handcrews began working this portion of the fire, both the Captain and IC described the fire behavior as “not extremely active,” and was characterized as “backing against the wind in light grassy fuels.” Handline construction was hampered by the numerous rocks that were scattered throughout the area.

The “leap-frog” tactic worked well for the crews and as they progressed, a CAL FIRE dozer arrived, advanced up the completed handline taking a position in front of the lead handcrew. Rocky conditions slowed the dozers progress so the handcrew bumped past the dozer.

At approximately 2:00 PM, the weather conditions began to change and on several occasions the fire’s intensity increased due to wind gusts and small directional shifts. During these flare-ups, the Fire Captain would back the crew into the burn, and when conditions improved, the crew would resume working. At the time the inmates were injured, the crew was working parallel to a three-strand barbed wire fence. Three inmate firefighters at the rear of the hookline were working on a finger when the wind shifted and increased in speed, cutting them off from the safety of the black. Alarmed, the inmates moved away from the approaching flame front and began moving parallel to the barbed wire fence and the approaching flame front. At this point they saw the Fire Captain up ahead of them and could hear the other crew members yelling for them to move into the black. Instead of paralleling the fire, they turned and ran through the four foot sheeting grass fire into the black. Traversing the rocky terrain caused two of the inmates to lose their footing and fall into the flame front. The third inmate, seeing a crewmate fall, stopped and reached back to help but, due to the flames, was unable to assist. The two fallen inmates quickly regained their footing, and along with the third clambered into the black.

The Fire Captain seeing the event unfold, gathered up the entire crew in the safety of the black and surveyed the condition of the entire crew. All inmate firefighters on the crew appeared to be unhurt. Three of the inmates had some reddening of the cheeks and noses. At this point the Fire Captain, believing the inmates were not injured, put the crew back to work and continued to monitor the inmates' conditions. About 20 minutes later, the three inmates notified the crew's Swamper that they were burned. The Fire Captain re-examined the three inmate firefighters who had begun to exhibit more visible signs and symptoms of minor burn injuries and at approximately 2:29 PM, made contact with the IC with the injury report. The IC made an ambulance request through the local dispatch center. The Fire Captain moved the three inmates back down the handline to Highway 395 to rendezvous with CDCR Officers and the ambulance.

The inmate firefighters were transported from the incident by ground ambulance to Modoc Medical Center in Alturas where they were treated for minor first and second degree burns. They were released about an hour after they arrived and returned to Devils Garden Conservation Camp # 40 to rest and recuperate before being reunited with their crew.

INJURIES/DAMAGES

Minor first and second degree burns. One inmate had a first degree burn to the lower lip; one had first and second degree burns to the ear and cheek; and one had first and second degree burns to the nose and cheek.

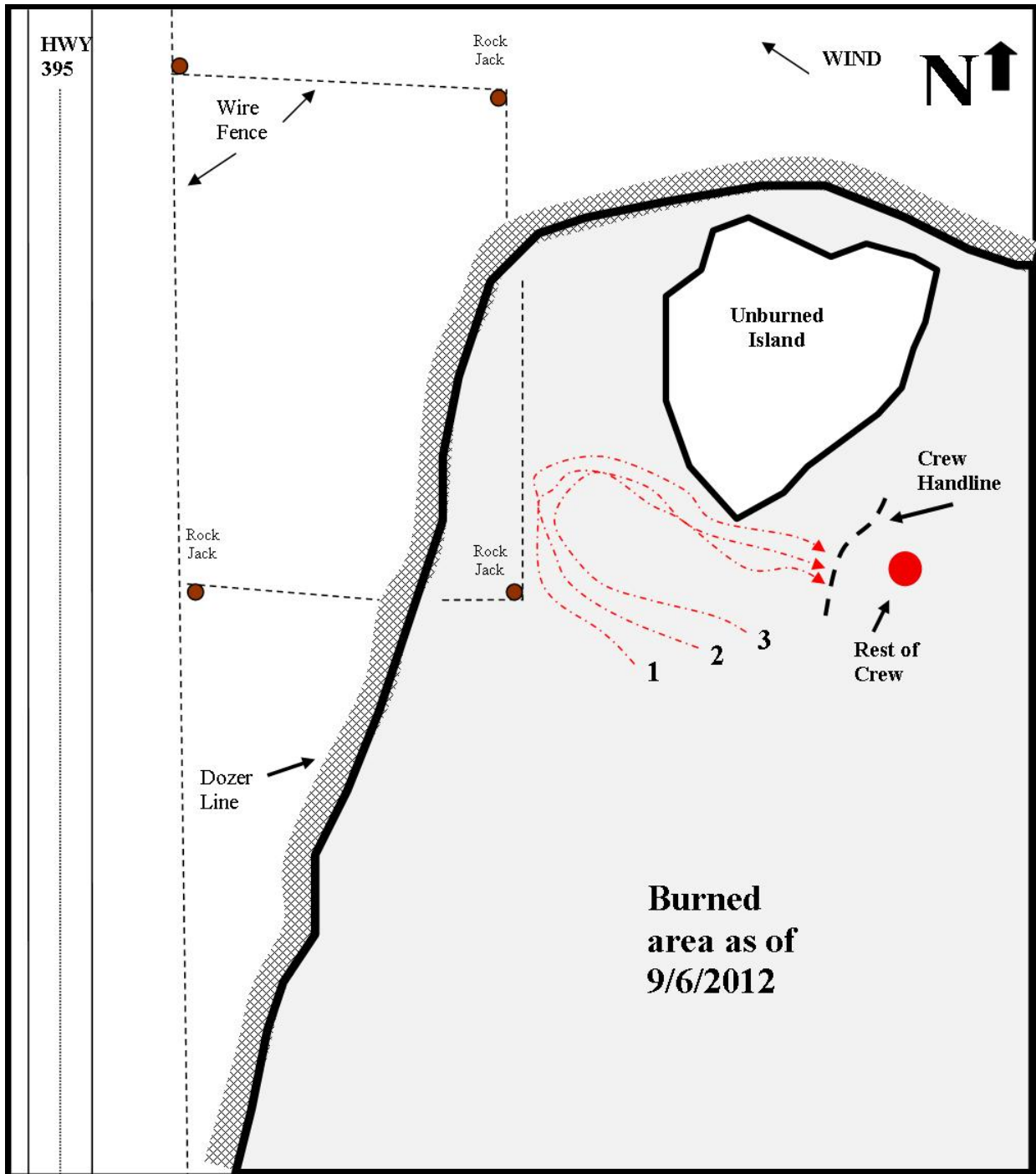
SAFETY ISSUES FOR REVIEW

- Most incidents happen on smaller fires or on isolated portions of larger fires.
- 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 the mop-up stage.
- Flare-ups generally occur in deceptively light fuels, such as grass and light brush. Fires run uphill surprisingly fast in chimneys, saddles, gullies, and on steep slopes.
- Full Personnel Protective Equipment (PPE) must be worn and fully utilized to reduce the risk of exposure to hazardous conditions and subsequent injuries.
- Identify safety zones and escape routes and make them known.
- You notice the wind increase and/or change direction.

12CALMU003925

LIKELY SITE SKETCH

9/9/2012



Not To Scale

J. Berglund

Lookouts

Communications

Escape Routes

Safety Zones



9/7/2012 1:21:35 PM
View to South West from Rock Jack 2.



9/7/2012 1:21:42 PM
View to North from Rock Jack 2.