

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



Firefighters Injured During Airdrop

Near Miss – Minor Injuries

August 14, 2012

Buck Incident – Vegetation Fire

12-CA-RRU-080142

CA-CSR

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

The following is an Informational Summary Report of an incident that occurred in conjunction with an air tanker drop on a wildland incident, resulting in minor injuries to two firefighters.

CONDITIONS

Weather- per Sage RAWs at 16:14 on 8/14/2012

Temperature - 95⁰ F

Relative Humidity- 16%,

Winds- SW at 12mph with gusts to 20mph

Fuel Moisture – 4%

Topography – south west facing aspect with approximately 8% slope.

Fuels- Fuel model 4 (Annual Grasses, Brush and Chaparral), Last recorded fire history in the area of this accident was in 1928. Live fuel moistures for representative fuels in the area are approaching or at critical levels; this is approximately 6-8 weeks earlier than average years.

Equipment - Riverside County Brush 58 (97X880) – 1997 International Model 15 Type 3 Fire Engine

SEQUENCE OF EVENTS

On August 14, 2012 CAL FIRE-Riverside Unit and Riverside County Fire Department resources were dispatched to a reported vegetation fire near the unincorporated community of Sage. The fire burned in an area of moderately steep and rocky terrain with old growth fuels. The last recorded fire history in the immediate area was an unnamed fire in 1928. During the initial attack phase of the incident, crews experienced rapid fire growth with extreme fire behavior, experiencing short to intermediate range spotting.

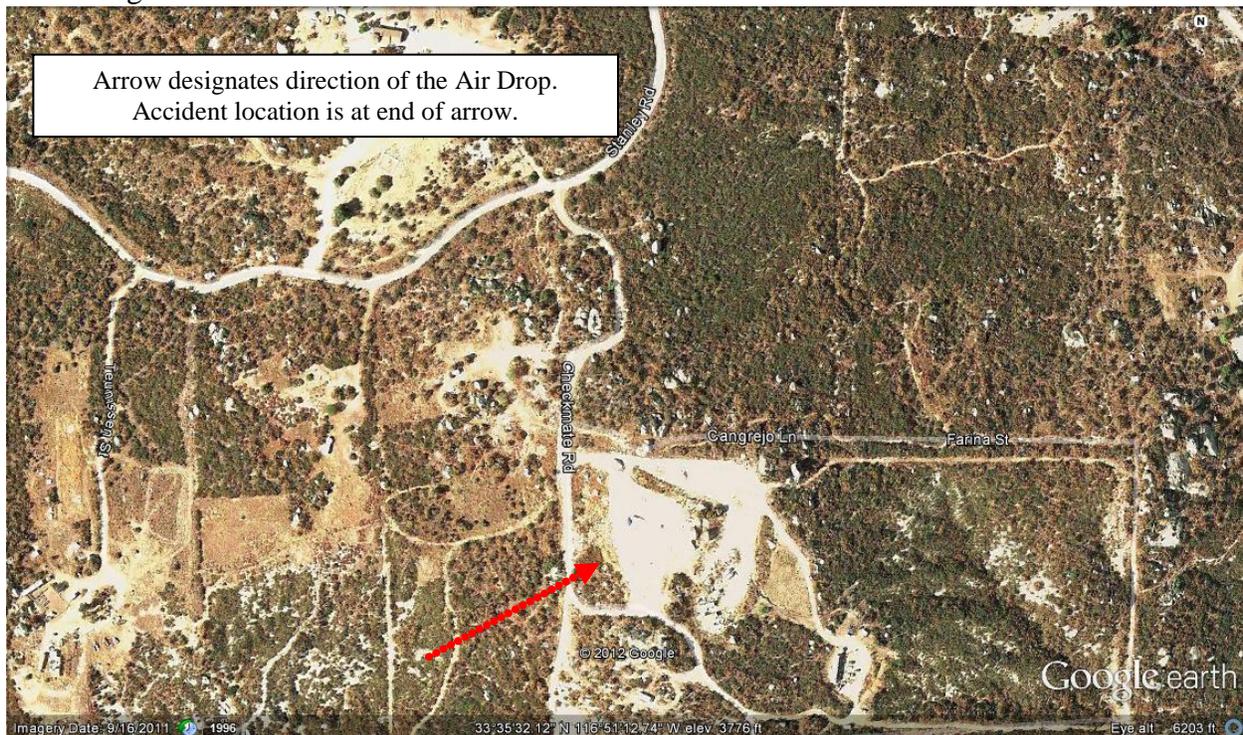
Riverside County Fire Department Brush 58 (RVC BR58), staffed with CAL FIRE personnel, was assigned to Division B in the area of Stanley Road and Checkmate Road (see figure 1). The engine made contact with the division/group supervisor who assigned them to anchor and flank utilizing a hose lay. The crew secured a position in a clearing to scout the area and determine needs. Division B left RVC BR58, and drove south on Checkmate Road where it was discovered that fire was on both sides of the road. Determining that the route was not safe to pass, Division B backed out of the area. At that same time, the Air Tactical Group Supervisor (ATGS) assigned made a radio call to Division B on the air to ground frequency advising of the intended air tactics. The ATGS observing Division B backing out, made the assumption that the division supervisor had acknowledged the notification and therefore cleared the Air Tanker Pilot to commence air drops in the area.

Prior to the air tanker making the drop, the Air Tanker Pilot made a low level pass over the drop site. He observed no personnel in the immediate area. The Air Tanker Pilot recognized that the drop would be made downwind, in rising terrain and at an increased airspeed. The pilot planned appropriately the start and stop locations of the drop. The tanker circled around and lined up to make a drop on the target outlined by the ATGS. The pilot released a half load over the site and returned to make a second parallel drop.

Upon completing the size up the area, the Fire Apparatus Engineer and Firefighter I began to return to the engine. Seconds after turning and walking up the embankment, the personnel were struck from behind by aerial fire retardant. The firefighters stated that they did not have time to assume the air drop safety position. Neither of the firefighters saw or heard the air tanker approaching their location until it passed overhead. Both personnel were knocked to the ground, but immediately returned to work. They recognized that the air tanker was returning to the area and they were able to clear the drop zone before the 2nd drop

Approximately 60 to 90 minutes later, the Fire Apparatus Engineer noticed that the Firefighter's face was swelling and that he was not acting normal. Notification was made to Division B and Branch. A Paramedic Engine Company was in the area and responded to evaluate the injured firefighters. Branch I requested an Ambulance to respond to the location. Both personnel were transported to a local hospital by ambulance.

Figure 1



INJURIES/DAMAGES

The Fire Apparatus Engineer that was struck was initially complained of pain to the back of his legs. He was transported to the hospital . Upon his arrival at the hospital he denied any pain or injury and returned to full duty.

The Firefighter I complained of facial pain and swelling. He was transported with the Fire Apparatus Engineer to the hospital for evaluation. He was treated and released from the hospital and placed off duty for three days.

SAFETY ISSUES FOR REVIEW

- At the time of the accident, personnel were wearing required safety gear other than goggles.
- Situational Awareness of the big picture must be maintained at all times; hazards can come from all directions including from above.
 - Look Up, Look Down and Look All Around.
 - Ground resources must be aware of the location of other resources operating in and around their area.
 - Air resources should be aware of ground resource locations in relationship to the drop area.
 - Warnings should be issued and positive contact should be made when possible to ensure that ground resources are clear of the drop area.
- Communications are often very busy during the initial attack phases of rapid moving fire; all attempts should be made to monitor important radio frequencies and ensure communications are clear and understood.
 - Tactical Resources should make the Tactical Frequency their primary frequency but should monitor the Air to Ground Frequency so that information and warnings can be communicated.
 - Division, Branch and Operations resources should be monitoring assigned Tactical, Command and Air to Ground Frequencies to ensure communications and coordination with other resources.
- Air Tanker Pilots and ATGS Personnel should review CAL FIRE Handbook [8364.6.3](#)
 - *“Retardant (or other suppressant) releases will be made at a high enough altitude where all forward motion of the fluid stops prior to impact with the ground. In no case will retardant be dropped lower than 150 feet above the top of vegetation.”*

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

- Firefighters should make every effort to keep their Wildland PPE in as clean a condition as possible. The bright yellow and orange color is designed to ensure increased visibility of personnel on the fire line.