

# Rapid Lesson Sharing

**Event Type:** Tool Strike, Red Medical IWI

**Date:** July 13th, 2025

**Location:** Green Fire, Division M

Shasta-Trinity National Forest

## Background:

On Sunday, July 13th resources assigned to Division Mike (Green Fire, Shasta-Trinity National Forest) were directed to construct an indirect hand line along Ripgut Ridge toward the Division Mike and Division Oscar break. The mile long hike was extremely strenuous with an elevation gain of 1250 feet in 100%+ temps and low RH.

During this smoke-filled and strenuous day of hiking on Division Mike, a firefighter was sitting down, wiping sweat from her brow, adjusting her gear, and taking a quick break. A tool propped up against a tree, with the working end up, was accidentally knocked over. This tool ended up falling approximately one foot, striking the firefighter with a glancing blow to the firefighter's unprotected head.

Initially, the injured firefighter said she was okay but was experiencing some head pain. After 5 minutes of evaluation, she was able to continue the hike up the steep, nearly inaccessible ridgeline. After approximately 3/8th of a mile she started vomiting with a severe headache.

In the days prior to the incident, a Rapid Extraction Module Support team (REMS) assigned to Division Mike scouted that section of the line in Division Mike and determined it was too steep for a UTV to be safely utilized and developed a plan for ground evacuation in the event of a medical emergency.

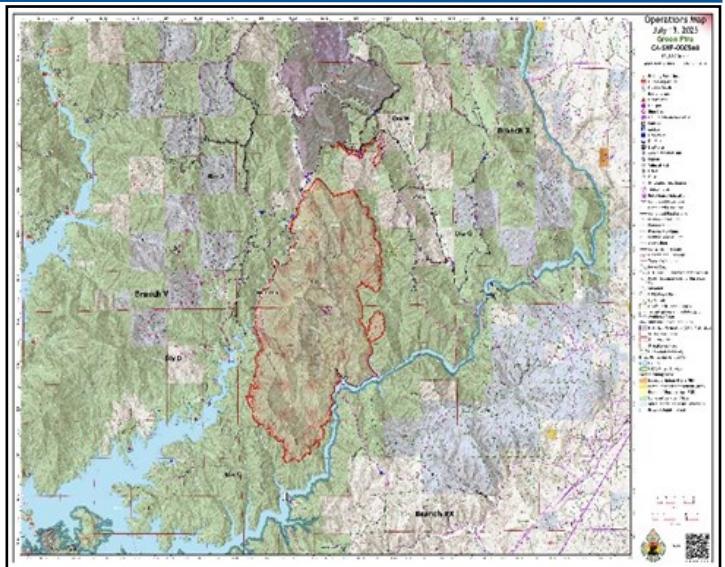
On this day, the REMS team and Line Medics were split between the two divisions and staged at Drop Point 5 (DP5) where they could quickly access both divisions in the event of a medical emergency.

## The Incident:

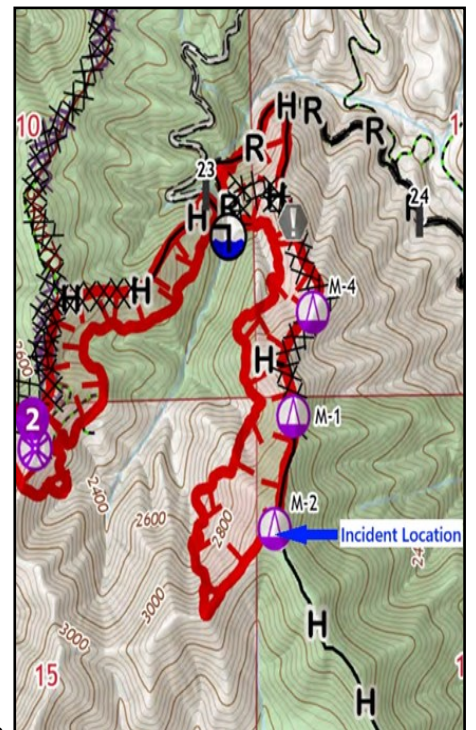
**1249 hrs.** - Green Communications received notification of a Yellow Incident Within an Incident (IWI) on Division Mike just above Sling Site M-2 for a blunt force strike to the head with a hand tool and vomiting.

Immediately, an IWI Incident Commander was established and medical personnel assigned throughout the division responded. The response included fireline paramedics, a Rapid Extraction Module (REMS), and a ground ambulance. In addition, a request was made for both an air ambulance/medical helicopter and a hoist capable helicopter.

**1301 hrs.** - At the scene of the injury, a paramedic firefighter and others who were part of a Strike Team working in the area began evaluating and treating the injured firefighter and preparing for evacuation. Upon evaluation of the firefighter, the determination was made to elevate patient status to a category Red due to the firefighter's condition (blunt head trauma, conscious, breathing, nausea, vomiting x 2, Pulse 100, Glasgow Coma Score (GCS) of 15, but a deteriorating Altered Level of Consciousness (ALOC). The fire medic administered an IV and treated the patient following ALS protocols.



Green Fire Operations Map 07/13/2025



Division M, on 07/13/2025

**1313 hrs.** - The REMS team and the Line Medics arrived at the bottom of the dozer line. Crew members gathered rope rescue equipment, a SKED unit, an ALS bag and began their 40-minute ascent toward M-1. As they ascended the dozer line, they strategically staged members in areas with steep pitches to begin pre-establishing rope systems to use as a contingency plan if the primary method of hoisting, via helicopter, the injured firefighter failed.

As the REMS team and the Line Medics were working their way up hill, they were contacted by a Heavy Equipment Boss who informed them that a dozer was en route to the bottom of the dozer line and could assist if needed.

The engine crews at the scene quickly treated and placed the injured firefighter in a device known as a MegaMover or Carry All and began their decent towards M-1 where they planned to rendezvous with the medevac ship (medical helicopter).

**1317 hrs.** - HLCO (Helicopter Coordinator) informed the IWI IC that the medevac helicopter could not be utilized at either M-1 or M-2. M-2 IC informed Green Communications and was informed that a hoist capable helicopter was enroute and would advise on the ETA. The crews on the ground determined that it was in the best interests of the patient not to delay transport and continued moving the injured firefighter downhill towards M1 which was approximately 15 minutes away.



MegaMover

**1335 hrs.** - Redding Interagency Command Center advised the incident Air Attack that the Hoist Helicopter had a 25-minute ETA.

**1344 hrs.** - As the patient arrived at M-1, they met up with a Line Safety Officer, the REMS team and Line Medics and placed the patient into the SKED device and prepare to either hoist the injured firefighter off the line or continue moving downhill if the hoist operation could not be completed. As the Line Medic performed another patient assessment, positive communications with the hoist ship were made. They were informed that the hoist ship encountered smoke approximately 4 miles out and had an ETA of 2 minutes to M1. Ground crews noted that visibility at this point was about 75 feet and diminishing rapidly. Crews set the injured firefighter down in the shade and waited for the hoist ship to arrive.



Sked



At this point the rescue team was notified that a dozer was working its way up the dozer line and could assist as a potential contingency plan for ground evacuation if needed.

Since arriving at M-1, roughly 5 minutes passed after pausing. The Line Safety contacted the hoist ship again requesting an ETA. The hoist ship could not provide an ETA due to heavy smoke over the area. At this point, the rescue team made the decision not to delay patient transport and continued to descend the ridgeline to rendezvous with the dozer.

Planning Ops contacted Air Attack to look at the viability of landing the medevac helicopter at various other locations, however that, too, was unsuccessful due to poor visibility.

**1421 hrs.** - Resources were notified that the hoist ship was canceling the mission due to smoke impacts and visibility.

With the assistance of the original rescue crew, the REMS team carried the injured firefighter in the SKED to a point where a pre-established rope system was already in place. at a section of line where the steep dozer line began.



Crews attached the injured firefighter to the rope and lowered her down approximately 130 feet utilizing a human anchoring system or “meat anchor” and a Munter Hitch while two other members guided the SKED down the embankment where the dozer was waiting and ready to accept the injured firefighter.

**1426 hrs.** - After another evaluation by the Line Medic, it was determined that the injured firefighter was stable and could be transferred safely inside the dozer for the remainder of the extraction. Under her own power, the injured firefighter entered the dozer cab and was transported to the bottom of the dozer line where a local 911 paramedic ambulance was staged.

**1444 hrs.** – The injured firefighter was transferred to a local 911 ambulance, who took over primary care, and was transported to a local emergency room.



**1633 hrs.**— The firefighter arrived at the hospital and was evaluated by the ER physician and received diagnostic testing.

**1840 hrs.**— With no external injuries the firefighter was diagnosed with a concussion and released back to her home unit.

#### **Conclusion:**

Even though it took multiple hours to extract and transport the injured firefighter off the incident, ground crews had multiple plans in place that allowed for the continuous movement of the patient towards an evacuation point. The utilization of a non-standard form of transport sped up the evacuation time by as much as 1.5 hours and reduced exposure to all involved.

#### **Successes and Lessons Learned:**

- Preplan for IWI's ahead of time. Scout the division you are working in. Develop a Primary, Alternate, Contingency, and Emergency (PACE) plan.
- Consider the utilization of unconventional resources, such as the use of the bull dozer, if the patient's condition allows, to aid in the extraction and rescue of injured or ill fire personnel and limit the potential exposure risk to rescue personnel.
- Take the time to build relationships with resources working in the area. Knowing their capabilities will help to ensure timely patient care.
- Line medical personnel should, if able, interface with medical air resources prior to an incident, gaining a better understanding of operational capabilities and possible response gaps.
- The Incident Management Team developed a system that provides IWI team members with time-stamped live updates of radio communications. These communications are entered by the Radio Operator and displayed on a monitor, enabling them to track communications without missing critical information.
- Radio operators within the incident Communications Unit were experienced 911 dispatchers which significantly improved radio communications and the ability to relay information with common terminology.
- Radio discipline is paramount when an IWI occurs. Communications with air and ground resources seemed to be lost with too much radio traffic.
- Ensure tools are secured in a manner that prevents their accidental tipping. Never rest a tool with the working end up.



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