

Rapid Lesson Sharing

Event Type: Heat-Related Illness; Short-Haul

Date: June 23, 2025

Location: Trout Fire; Gila National Forest; New Mexico

The Story and Lessons from this Short-Haul Medical Extraction Incident

Background

On Sunday, June 22, 2025, improved weather conditions coupled with projected monsoonal moisture allowed fire activity on the Trout Fire on the Gila National Forest in New Mexico to subside enough for direct fireline construction on several Divisions.

A total of five Type 1 Interagency Hotshot Crews (IHCs) across two Branches and two Divisions would make access to the active fire perimeter via a Gila National Forest trail system located on Branch I, Division Sierra.

The terrain was remote and steep with dry bulb temperatures hovering near 90 degrees Fahrenheit and relative humidity values in the teens.

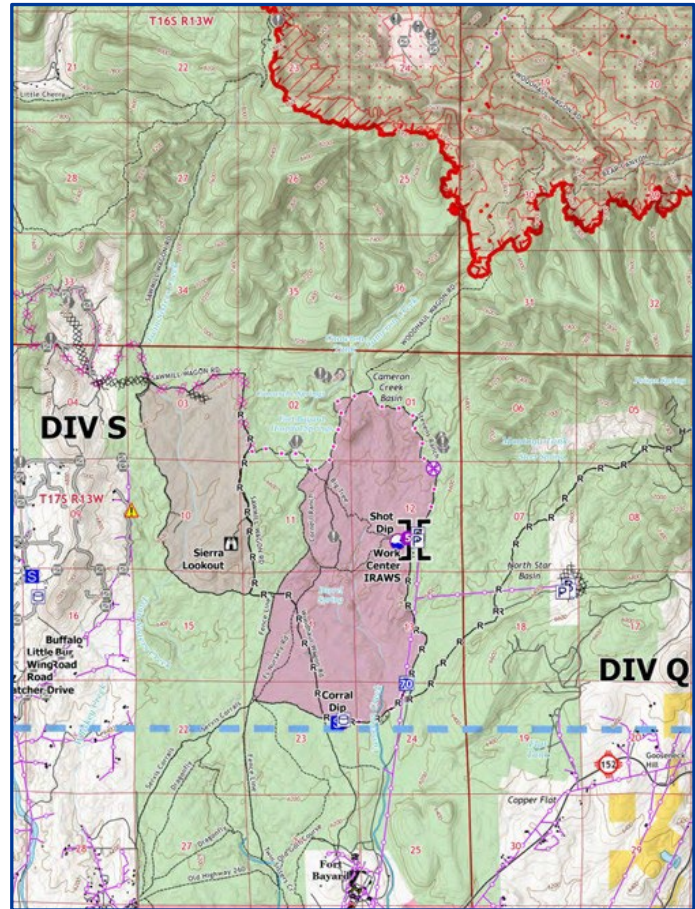
The IHCs had to hike several miles before reaching the fireline. Due to the remote and rugged nature of the fire environment, the Division Trainee [DIV S(t)] assigned to Sierra (DIV S) determined that a Type 1 Rapid Extraction Module Support (REMS) crew assigned to the Division should hike in with the IHCs to be strategically positioned in the center of the crews as they constructed direct fireline.

As IHCs from multiple Divisions would utilize the existing trail network on DIV S to access the fireline, it was determined that the REMS crew would also use this trail network.

Large Number of Personnel Operating in High-Risk Terrain

To make access to the fireline, firefighters would drive through the town of Santa Clara and then to the area of the historic Fort Bayard. They would then stage vehicles at Drop Point (DP) 70 north of the Fort Bayard and transition to shuttling by utility terrain vehicle (UTV) approximately 3.5 miles to the Cameron Creek Basin. Once at Cameron Creek, crews would begin hiking the Woodhaul Wagon Road (FS 55) to the perimeter of active fire. UTV shuttles took anywhere from 20 to 30 minutes one way and the subsequent hike took between 45 and 60 minutes one way.

Due to the large number of personnel operating in high-risk terrain, the REMS crew conducted extensive scouting of the area throughout the shift on that day (June 22). Helispots and Short-Haul sites were identified and reviewed with DIV S(t). Access and evacuation times were recorded and disseminated to the Medical Unit Leader (MEDL) and



Map of DIV S and DIV Q.

Field MEDL assigned to the Trout Fire Incident Command Post (ICP).

Firefighting, rescue, and medical equipment carried by the REMS crew was further refined to meet the operational needs of this assignment. It was estimated that if aerial resources were unavailable for patient extraction during an emergency, a ground-based evacuation would take two to three times as long as the hike-in time and require multiple handcrews to assist in the process.

With a successful shift complete, the plan for the following day would be the same.

On this day, June 23, an IHC assigned to Division Quebec (DIV Q) hiked via Woodhaul Wagon Road on DIV S to the edge of the fire where they would take the line east towards DIV Q. The REMS team assigned to DIV S had been tasked to tie-in with this IHC to evaluate potential helispots in the area of the DIV S/DIV Q break—which was also the Branch I/Branch IV break.

At approximately 1159 hours, the IHC made radio contact with the REMS crew on their tactical (TAC) channel requesting a face-to-face meeting. The REMS crew was located several minutes from the IHC and a REMS crew lead proceeded on foot to tie-in with them.

The Medical Extraction Incident

At 1159 hours, the REMS crew lead made contact with a Squad Boss from the IHC. The Squad Boss stated that one of their firefighters was suffering from a heat-related illness and was likely a “Green” medical.

The Squad Boss asked that the firefighter be assessed by REMS. The REMS crew lead then contacted the other members of the REMS crew and asked that they bump all equipment down to the location of the IHC.

Trout Communications was notified via the command (CMD) radio channel at 1207 hours that there was a Green medical on DIV S and that further information would be provided following assessment.

The patient was located resting in the shade against a tree approximately 1.5 miles and 1,000 vertical feet from the closest UTV access. The REMS Paramedic arrived and began assessing the patient and collecting pertinent information related to their illness. Upon further assessment, it was determined that the patient had not been feeling well for several days and that during this shift they had been lying on the ground for more than one hour—with no improvement in their condition.

After further assessment by the REMS Paramedic, it was determined that the patient was suffering from severe dehydration and heat-related illness. The patient was unable to stand or walk without assistance. Advanced life support including intravenous (IV) access was initiated.

At 1216 hours, Trout Communications was notified that this was being upgraded to a Yellow medical. The REMS crew lead, an ICT5, took command and named the incident within an incident (IWI) the “Woodhaul Medical.” Because of the location of the patient and the severity of the illness, a Short-Haul evacuation was requested by the REMS crew. A Short-Haul capable Type 3 helicopter was assigned to the Trout Fire and appeared daily in the ICS 220 Air Operations Summary.

An appropriately sized Short-Haul site was identified less than 100 feet from where the patient was originally

Time	Event
1207	Green Patient Assessment
1216	Yellow IWI Initiated <i>Short-Haul Requested</i>
1228	Short-Haul Check Flight
1231	Short-Haul Configure
1234	Short-Hauler on the Ground
1256	Patient Short-Haul to HS5
1305	REMS In-Service
1307	Care Transferred to Ambulance
1308	Ambulance in Transport
1319	Care Transferred to Local EMS
1322	Care Transferred to Emergency Department

located. Coordinates were collected via Field Maps. A pink VS-17 marking panel was placed on the trunk of a large downed tree at the perimeter of the Short-Haul site.

The remaining members of the IHC at the IWI site were briefed for Short-Haul site preparation as well as equipment staging and personal protective equipment (PPE). While REMS continued to assess and treat the patient, the IHC members cleared all brush and debris from the site in accordance with recommendations in the Incident Action Plan (IAP) and Incident Response Pocket Guidebook (IRPG) blue pages.

REMS determined that the patient could be transported in the seated position using a “screamer suit” (a vest-like patient harness) and that a 150-foot long line would be acceptable for the terrain and canopy height. This information, as well as the patient’s weight, was relayed to Trout Communications.

Contingency Options Identified

During that day’s daily briefing, the potential for low ceilings and monsoonal precipitation was identified by the Incident Meteorologist (IMET). If this weather were to occur, it was projected to start in the mid-afternoon and continue through end of shift, resulting in a possible grounding of aircraft. Due to this forecast, the REMS team identified contingency options after initiating the Short-Haul request. Because the patient would have to be carried on a litter, the alternate evacuation option included a 2.5 hour wheeled litter movement, transfer to a UTV for a 35-minute transport, and, finally, transfer to a fire-assigned ambulance staged at DP 70.

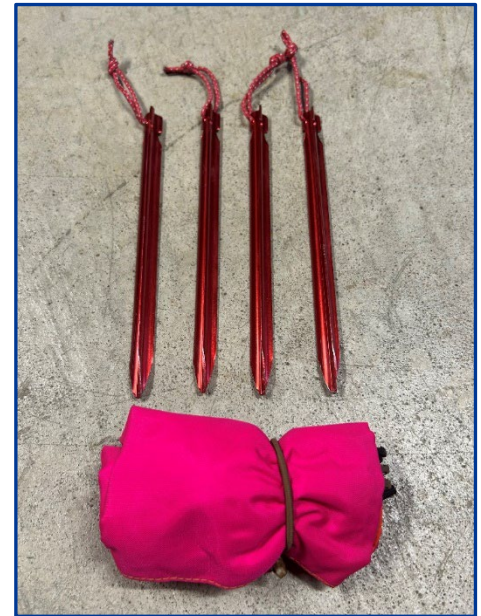
As a part of the contingency plan, an additional REMS team also located on the Division was requested to begin response to the IWI site to assist with evacuation if needed. In addition, members of the patient’s IHC and one additional IHC from the Division were asked by DIV 5 to be on standby to assist with litter movement as the contingency evacuation plan should Short-Haul be unavailable. REMS crew members assembled and staged their wheeled litter at the IWI site next to the patient to expedite the carry out if necessary.

Patient care continued at the IWI site and at 1228 hours, the Short-Haul ship contacted the REMS crew via Air-to-Ground Primary (A/G PRI). The REMS crew lead strobed the aircraft from the Short-Haul site and the Short-Haul ship conducted a check flight to assess the area before departing to configure the aircraft for Short-Haul at the nearby Helispot (HS) 5. During this time, the ambulance staged at DP 70 relocated to HS 5 to be nearer to the IWI site. A Division Safety (SOFF) and Field MEDL also arrived at HS 5 to assist.

Preparations Made for Extraction by Short-Haul

On the ground, final preparations were made for extraction by Short-Haul. The REMS crew relocated the wheeled litter that had been previously staged as a contingency and provided a final briefing to all personnel in the area of the Short-Haul site.

To reduce the risk of limbs and debris striking them, the patient was moved from where they were located beneath the tree. A mylar “hooch” tarp was used as a litter to move the patient into an open area and cover them.



Improved signaling kit with bi-color VS-17 panel and tent stakes.



The Short-Haul site.

Members of the REMS crew then laid across the patient to shield them from rotor wash and debris.

At 1231 hours, the configured Short-Haul ship again made contact with the REMS crew lead via A/G PRI and by 1234 hours the Short-Hauler was on the ground at the IWI site. The REMS Paramedic and Short-Haul EMT transferred care and packaged the patient for extraction.

At 1256 hours, the patient and Short-Hauler were lifted from the IWI site and transported to HS 5. Once the Short-Hauler and patient cleared the canopy, the REMS crew was able to return to service to support their assigned fireline resources. These resources reengaged on the fire.

The Short-Hauler and patient arrived at HS 5 and care was formally transferred to the ambulance at 1307 hours. At 1308 hours, the ambulance was in transport to the local emergency department.

The fireline ambulance transferred care to local EMS at 1319 hours and local EMS transferred care to the local emergency department at 1322 hours.

The patient would make a full recovery and reportedly returned to fireline duties after discharge two days later.

Lessons

The decision by the DIV to strategically locate a REMS resource centrally among the most remote and high-risk actions on two Divisions was essential in reducing evacuation time for the ill firefighter. The staging location selected by the DIV and REMS crew allowed response times for both DIV S and DIV Q to be minutes as opposed to hours. Short-Haul substantially reduced the evacuation risk of ground personnel and expedited the speed at which the ill firefighter received definitive care in an emergency department.

- Position medical resources where they can have the most impact during an IWI. Be aware that sometimes the closest resource may not be assigned to your Division.
- Immediate aid is essential during serious injury or illness, but transport to definitive medical care is the end goal. Medical plans should always emphasize rapid extraction.
- Evacuation should be considered as high of a priority as medical care during an IWI. Mortality rates sharply decrease when the time between injury and arrival to an emergency department are reduced.
- Less serious illnesses and injuries can be made more severe due to the location or estimated evacuation challenges. Consider that you may have a Green medical but in Red terrain. Do not hesitate to request aircraft early in the IWI. Order big and order early!
- Remember that the ground evacuation time of a patient on a litter can be much greater than the time it takes a crew to hike into or out of an area to work.



This is the actual tarp that was used to move the patient. (The roll of flagging is included to provide scale.)



The patient being lifted from the IWI site.

- Specialty medical resources such as REMS can have a pronounced impact on evacuation times when strategically placed near crews conducting high-risk actions.
- Evacuation plans should be modular and able to adjust to changing conditions and resource availability. Develop primary, alternate, contingency, and emergency (PACE) plans early in the incident—and be ready to shift plans if needed.
- All line personnel should be aware of the aerial resources available for evacuation. Crews should carry appropriate signaling and marking equipment to establish a Short-Haul site or helispot. The minimum area needed for a Short-Haul site is roughly the size of a Volkswagen Bug. The pilot-in-charge can determine if a spot is big enough.
- Medical resources should take the time to interface with their assigned crews to learn their work area, crew medical resources, and potential evacuation challenges.

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