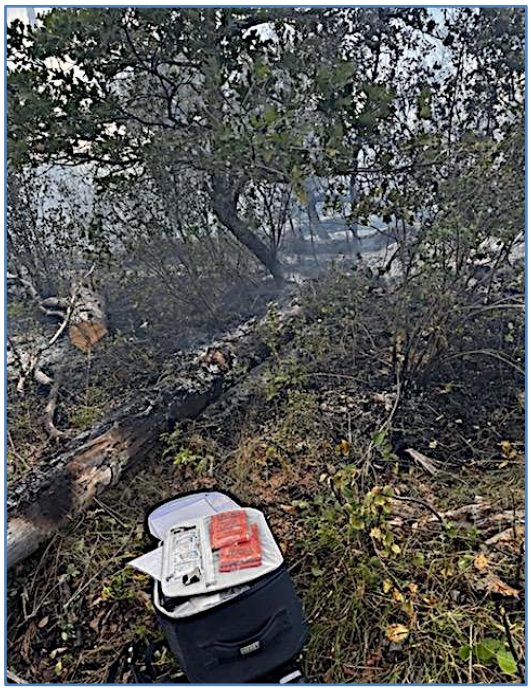
Rapid Lesson Sharing

Event Type: Tree Strike/Patient Extraction

Date: July 21, 2026

Location: Cottonwood Pass Fire, Colorado

The Story and Lessons from this Tree Strike Patient Extraction Incident



The burned aspen that hit the Firefighter Type 1 Trainee, with a medical pack in the foreground.

Summary

This Rapid Lesson Sharing (RLS) report examines the emergency extraction of a Firefighter Type 1 Trainee [FFT1(t)] who was struck by a tree on the Cottonwood Pass Fire in Colorado.

The resulting Incident Within an Incident (IWI) that occurred on this fire added to a particularly difficult season for wildfire-related accidents in this state.

This patient extraction incident provides a useful case study of a complex narrative that—despite numerous challenges—resulted in a successful outcome.

The total time from the initial injury radio call to the patient's arrival at the hospital was only one hour and four minutes. This success is attributed to several key factors that this RLS report will explore:

- **Flexibility in Roles**: Firefighters quickly transitioned into emergency roles based on their unique skills and the IWI's immediate needs.
- **Effective Tools**: The first-ever use of a brand-new IWI checklist helped the Interagency Wildland Fire Dispatch Center manage the complex coordination that this IWI required.
- **Seamless Teamwork**: Clear communication and the ability of various modules and aerial resources to work together prevented the delays that often occur in these medical emergencies.

By examining these factors through the perspectives of those involved, this RLS aims to share how practice, role flexibility, and clear communication can lead to positive outcomes in high-stress, dynamic environments.

Background

Just weeks prior to her accident, the FFT1(t) had participated in a helitack training scenario where she volunteered to be the mock patient. As a newly certified Emergency Medical Technician (EMT), she valued the opportunity to experience the patient's perspective while being packaged into a litter. At that time, she could not have anticipated that she would soon occupy that role in earnest, after being struck by a fire-weakened aspen while performing initial attack on a fire.

Other events continued to foreshadow this tree strike incident, including the module's "Six Minutes for Safety" briefing that morning that focused on the danger of hazard trees. Ironically, it was the FFT1(t) who had highlighted the challenges of assessing aspens during the briefing that morning.

That day, the six-person engine module included: a Fire Engine Operator (FEO), an Assistant Fire Engine Operator (AFEO), the FFT1(t), a crewmember, identified in this RLS as "CM," and two fill-in employees from the home unit's recreation division, identified here as "RT" and "WR."

Smoke Report

While on patrol that afternoon, the module saw smoke in the Cottonwood Pass vicinity. They requested helicopter response and began driving toward the incident. RT guided the module to a four-wheel drive access route to a meadow.

A local landowner and his dog followed them to the meadow on an ATV, creating an immediate distraction. The dog ran around yelping and then jumped into the firefighters' UTV, leaving RT to shoo it out, while the landowner peppered the firefighters with questions. Once disentangled from this encounter, the module hiked from the meadow to the fire, with the FEO assuming Incident Command (IC) of the fire. The Zone Fire Management Officer (FMO) arrived shortly afterwards.

A close-up view of the aspen that struck the Firefighter Type 1 Trainee, pinning her pack to the ground.

The Accident

At the heel of the fire, the FFT1(t) again verbalized the importance of staying aware of aspen trees in the area. The FMO and FEO went ahead to map the fire, while RT flagged the route for incoming firefighters. The rest of the module began fireline construction.

They had been building line for approximately 10 minutes. The FFT1(t) had just swung her Pulaski when something outside of her vision struck her hardhat, sending her to the ground in agony as burning pain ripped through her leg. Her module members and the FMO rushed to her side, finding the FFT1(t) conscious but injured underneath a 40-to 50-foot-long aspen tree that measured 10- to 14-inches in diameter.

They were relieved to discover that the tree was suspended above the FFT1(t), pinning only her pack to the ground.

Interagency Wildland Fire Dispatch Center Takes the Call

The AFEO assumed the role of the IWI Incident Commander (IWI-IC) for the tree strike. He called the incident in to the Interagency Wildland Fire Dispatch Center and requested a short-haul helicopter. His report described a tree strike with blood coming from the patient's ear and a leg injury. Unfortunately, the only EMT on scene was the patient herself.

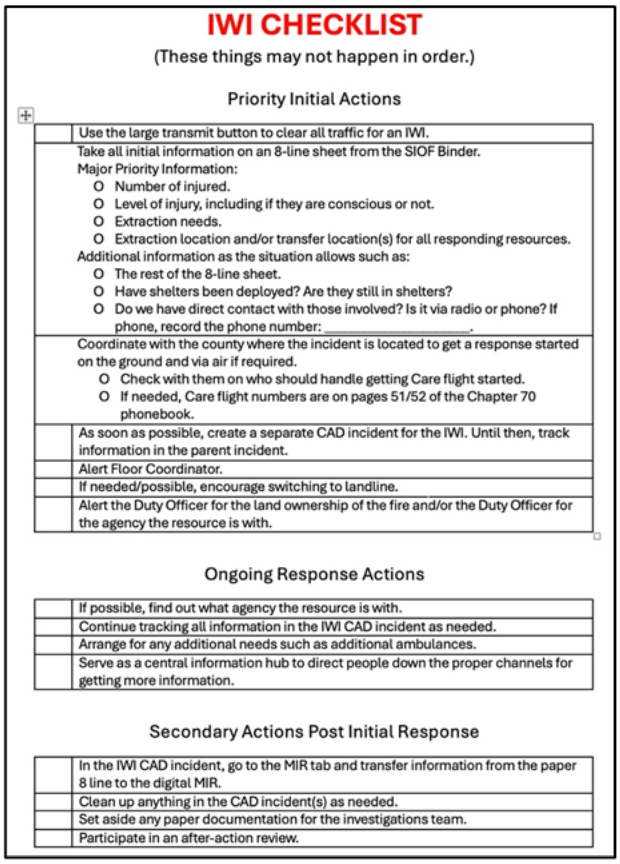
Dispatch was well-staffed, which was critical for the amount of coordination needed. Immediately, the Center Manager was able to take the lead for this incident.

Two Aviation Managers began securing aerial resources—one taking incoming calls, while the other identified possible resources and compiled contact information.

They reached out first to the nearby Babylon and Elk fires, requesting a short-haul helicopter.

In the meantime, the Center Manager and Dispatchers requested alternative transport options, including medical helicopter transport, ground ambulances, and the Colorado Air National Guard.

Dispatchers used a brand-new IWI checklist that they had developed after a tragic accident earlier this season. This was the first time that this checklist had been used, and it was extremely helpful in managing this busy IWI.



IWI CHECKLIST

(These things may not happen in order.)

Priority Initial Actions

	Use the large transmit button to clear all traffic for an IWI.
	Take all initial information on an 8-line sheet from the SIOF Binder. Major Priority Information: O Number of injured. O Level of injury, including if they are conscious or not. O Extraction needs. O Extraction location and/or transfer location(s) for all responding resources. Additional information as the situation allows such as: O The rest of the 8-line sheet. O Have shelters been deployed? Are they still in shelters? O Do we have direct contact with those involved? Is it via radio or phone? If phone, record the phone number: _____.
	Coordinate with the county where the incident is located to get a response started on the ground and via air if required. O Check with them on who should handle getting Care flight started. O If needed, Care flight numbers are on pages 51/52 of the Chapter 70 phonebook.
	As soon as possible, create a separate CAD incident for the IWI. Until then, track information in the parent incident.
	Alert Floor Coordinator.
	If needed/possible, encourage switching to landline.
	Alert the Duty Officer for the land ownership of the fire and/or the Duty Officer for the agency the resource is with.

Ongoing Response Actions

	If possible, find out what agency the resource is with.
	Continue tracking all information in the IWI CAD incident as needed.
	Arrange for any additional needs such as additional ambulances.
	Serve as a central information hub to direct people down the proper channels for getting more information.

Secondary Actions Post Initial Response

	In the IWI CAD incident, go to the MIR tab and transfer information from the paper 8 line to the digital MIR.
	Clean up anything in the CAD incident(s) as needed.
	Set aside any paper documentation for the investigations team.
	Participate in an after-action review.

The new Incident Within an Incident dispatch checklist that was used to manage this tree strike incident.

The Helicopter Crew Hears the Call and Responds

Having flown the fire after the initial smoke report, the Bell 407 had landed on a nearby earthen dam to configure for bucket work. Upon hearing this report of a "Red" (Evacuation Need is Immediate) medical, the pilot alerted the Helicopter Manager (HMGB) and they quickly shifted their plans. There would be no room for bucket work during this emergency and the HMGB, a qualified EMT, might be needed on scene. Their focus turned to assisting with the IWI.

While there was not room to transport a litter on this ship, the HMGB knew that they could take the patient if she could sit upright. It made sense to return to the fire. Even if they didn't land, they could provide some situational awareness from their aerial perspective. They quickly reconfigured the ship and headed out to the IWI scene.

The HMGB texted the unit's Aviation Manager to let him know what options the helicopter might be able to provide. This, one of the unit's Aviation Managers later noted, was *"the big win of the operation."*

Patient Assessment and Preparation for Evacuation

As a Wilderness First Responder (WFR), CM was now the highest-level medical provider and the module's EMT was his patient. He began patient assessment, while the AFEO, as the IWI-IC, focused on the 8-Line Medical Incident Report.

Crew members unbuckled the FFT1(t)'s pack. Immediately, *"adrenaline kicked in"* and the FFT1(t) sat up. Although told to stay still, she knew from her EMT training and her experience as a ski patroller that *"patients naturally choose a position of comfort*." She tried to move her leg and found that her foot was splayed out in an anatomically incorrect position. *"I have seen this in other people,"* she realized.

The FFT1(t) said she hadn't lost consciousness or had back or neck pain, but that her leg was broken. Upon examination, CM discovered that the blood on her ear was the result of a superficial injury. While the FEO supported her foot, CM splinted her leg using equipment from her pack. Although clearly frightened and in excruciating pain, the FFT1(t) was conscious and alert.

The stress level for the rest of the crew was high. Reflected CM, *"I work with her every day. This felt personal."* Other module members reported similar sentiments. *"My adrenaline was really going crazy,"* said WR. Providing emergency medical care is not an everyday function for members of this group. Several noted that they felt a sense of relief when they transitioned into jobs that they demonstrably knew how to do.

The FMO and WR therefore felt more at ease when they began the more familiar work of cutting and swamping the egress route that would be needed for crews to carry their colleague to the meadow, located approximately 200 yards away.

EMTs Respond from the Staging Area

After hearing the medical emergency broadcast over the radio, two EMTs from a Task Force at the trailhead gathered their medical kits and a Traverse Rescue Stretcher (TRS) and traveled in their pickup toward the accident site. They drove as far as possible before hiking through brush and downed timber toward the sound of a saw, passing the FMO and WR who were brushing the egress route, as they hiked uphill.

Upon reaching the accident scene, they rapidly reassessed the FFT1(t) and secured her in the TRS. The rest of the Task Force followed, clearing debris along the extraction route and standing by to assist without interfering with the medical treatment.

During this time, the AFEO and FEO were in contact with the helicopter overhead. *"We can take the patient if she doesn't need supine transport,"* said the HGMB. They looked to the EMTs, who affirmed that the patient could travel in a seated position.

Having secured the Bell 407 to transport the patient, the local Aviation Manager at the Wildland Fire Interagency Dispatch Center called the closest hospital to ensure that their helipad was clear. Due to his familiarity with the local hospital's helipad, he knew that he would have needed to send the helicopter to a different hospital if that one helipad had been occupied.

Personnel Carry the Patient to the Meadow for Helicopter Extraction

As the group carried the TRS with the patient to the meadow, one EMT stayed at the head while the other firefighters rotated in. CM and the AFEO grabbed onto the TRS and carried it the entire way to the helicopter. CM later noted, *"I felt capable of carrying the TRS but not capable of letting it go."* Those who didn't have hands on the TRS helped by chucking debris out of the way to clear the path for the evacuation.

Observing the *"centipede of folks below,"* the helicopter circled, burning off fuel so that it would be light enough to accomplish the mission. During this time the HMGB gathered data, completing a *"mental manifest"* of the patient's weight, along with that of one EMT. As the group got closer, he provided clear directions: *"We're going to set down. Stay clear of us. We'll come get you."*

The Helicopter Transports the Patient to the Nearest Hospital

After the ship landed, that same landowner with the dog at the meadow continued to be a nuisance. He darted around on his ATV, ran over firefighting tools and ignored firefighters tasked with keeping him away from the helicopter. His dog and cows wandered around and required constant monitoring and corralling.

At one point, just before the patient was loaded into the helicopter, the landowner asked the firefighters when they were going to *"get back to work."* While it was frustrating and demoralizing to tolerate this kind of behavior, the crew members were unsure what authority they had to control him on private land.

Once the patient was loaded into the helicopter, the AFEO and the FMO immediately drove to the hospital. The AFEO spent the night in the patient's room as she recovered from surgery. Many other coworkers also came to the hospital to support their colleague.

The Patient's Input to the RLS Team

One week after the accident, the FFT1(t) participated in an interview with the RLS team.

The team learned that the FFT1(t) never had a good view of the tree while she was on the ground after the strike. She was astonished by its size when she eventually saw a photograph.

She noted that from the time of the initial radio call of her injury to her arrival at the hospital was only one hour and four minutes. *"This has a lot to do with people sticking to their roles and working together to get me out,"* she said. *"This is important because long transport times and delays in care as a result of miscommunications and conflict are lessons that we've learned from other past situations."*

Lessons

Lessons Learned and Shared from this Incident's On-the-Ground Firefighters

- Practice and plan before the real-life high stress incident. Having practiced the 8-Line many times helped when it came to completing it during an actual emergency.
- It's difficult to evaluate aspen trees. "Dead aspens are going to fall without warning. Have your head on a swivel when working in burning aspen stands."
- *"Know what you're capable of and what you're not capable of,"* said CM. All members of this incident had to transition from their initial positions on the fire into new roles based on what they could contribute to the group's needs in this dynamic emergency situation.
- Talking about an incident afterwards is therapeutic. Many of the crew members felt unsettled post-incident. Most were not primary emergency medical providers and being thrust into this unfamiliar role—particularly when the patient was their good friend and coworker—was difficult. A number of crewmembers verbalized that they wished they could have done more on scene, despite having done all that they could in the moment. One crewmember noted that post incident, it helped to reach out to someone else who was struggling. *"Being there for other people can translate into being there for yourself."*
- The crew had just gone through and made sure that all of the hardhats were not expired. They had thrown away at least ten hardhats. The FFT1(t) was relieved to have had a good hardhat.
- It was helpful for the FFT1(t) to advocate for herself and direct those caring for her. Her previous training had taught her: *"One of the biggest indicators for a traumatizing event is helplessness."* Taking responsibility for her own care, she provided real-time feedback, such as during transport in the Traverse Rescue Stretcher when she informed: *"Whoever is on my feet, left side, you are too low!"*

- *"Everyone has a voice."* This incident highlighted that in this dynamic environment, each employee—from the novice to the most experienced—has unique skills and expertise to contribute to an incident.
- Firefighting is inherently dangerous. Said the FMO: *"We don't assign work, we assign risk."*

Lessons Learned and Shared from the Interagency Wildland Fire Dispatch Center

- Pre-planning and learning from previous emergencies were critical elements of the Dispatch Center's success, especially in the instance of the IWI Checklist.
- Defining clear responsibilities among the group from the very beginning allowed this team to operate efficiently during a high-stress incident.
- Familiarity with the local hospitals, the character of their helipads, and their contact information was key to making quick and informed decisions.
- Some type of follow-up with the counties about how to communicate and divide responsibilities in these situations will help. This is difficult because the Interagency Wildland Fire Dispatch Center spans five counties that all have different standard operating procedures. Moreover, this accident occurred right on the line between two counties, and the hospital was located in a third county.
- This was an excellent example of using the "PACE" (Primary, Alternate, Contingency, Emergency) model for patient transport.

Lessons Learned and Shared from the Helicopter Operations

- The pilot monitoring the fire's radio frequencies while crew members were configuring for bucket work was critical to the swift and proactive response from the helicopter.
- Being flexible in operational positions allowed the helicopter crew to adapt as needed. There are two qualified managers on this ship. Both are Type 4 Incident Commanders, one is an EMT, and both have worked as on-the-ground firefighters. This provided them the option to fill multiple roles that could have been needed in this evolving emergency.
- Strong crew cohesion and trust allowed for efficient and safe operations.

RLS Team

Keith Hackbarth and Jane Gordon

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