Rapid Lesson Sharing

Event Type: Fall from Vehicle, Medical Evacuation

Date: July 22, 2025

Location: Pomas Fire
Okanogan-Wenatchee National Forest

Incident Summary

Between 0750 and 0807 hours on Division H on the Pomas Fire, a water tender operator exited the water tender's cab and experienced a significant incident that required immediate medical intervention. The response involved a medical assessment on-site, followed by transport to a helispot where the injured party was transferred to an agency Type 3 Helicopter. The helicopter then flew to the helibase, where the individual was transferred to an air ambulance. The total elapsed time from initial notification to the patient's transfer to the air ambulance was approximately two hours.

When exiting the water tender, the operator slipped on the diamond-plate step, falling approximately 4 to 4.5 feet. The fall caused an impact to the ribcage on the corner of the diamond plate step.

Context and Conditions

This incident occurred within 24 hours after a rain event on a campground road on the Okanogan-Wenatchee National Forest in Washington State. The Pomas Fire was situated in inaccessible wilderness, prohibiting direct suppression tactics. Consequently, suppression efforts focused on constructing secondary lines along forest roads to prepare for potential fire movement later in the season.

Division H features an approximate 14-mile-long, one-lane dirt and gravel forest road in varying states of repair. Recent efforts included a project to add four feet of road base at the 13-mile mark to improve access. Construction activities involved mastication and establishing a Secondary Control Line on the east-northeast side of the road, with a prescribed fuel break width of approximately 300 feet where feasible. Heavy equipment such as chippers, masticators, forwarders, feller bunchers, and processors were employed, along with crews and water tenders, to minimize road impact.

Due to the high-risk environment, additional personnel were dedicated to shut down segments of the road intermittently to safeguard responders from falling debris and trees. These closures sometimes lasted two to three hours.

Weather and Access Challenges

On July 21-22, a forecasted rain event brought thunderstorms; some storm cells persisted for extended periods, making roads muddy, slick, and difficult to traverse. The drive from fire camp to Division H takes about 30 minutes; additional travel into the Division would take longer. Some crews departed early to expedite entry. The morning of this medical incident, briefing delays meant resources left the incident base shortly after 0700.

On that morning the water tender, which had been assigned as E-211, encountered muddy conditions shortly after leaving the pavement, with residual rain still falling. Mud coated the undercarriage and exposed areas of vehicles—conditions believed to have contributed to the water tender operator's slip and subsequent injury.

Incident Details

Although the precise time of the incident remains unknown, it is believed to have occurred between 0740 and 0755. This estimation is based on extended briefing and Division breakout timing, coupled with drive times from the last updated transportation map (July 21). Resources staged from the base camp, with the farthest units going in first—resulting in a delay before all were operational.

One sign indicated that the campground near the water fill site was located on Chihuahua Road. Owing to dense vegetation and tall trees within the campground, the fill site and accident site were difficult to locate, especially during an emergency. The Schaefer Creek Campground featured a central access point, a restroom, and a small loop used by water tenders.

Accident Sequence

On arrival, E-211 nosed into the camping area #5. Upon exiting the vehicle, the operator slipped on a diamond-plate step, falling approximately 4 to 4.5 feet. The fall caused an impact to the ribcage on the corner of a diamond plate step. Recognizing something was wrong, the operator attempted to alert others by partially re-entering the cab and honking the horn, but to no avail. Emergency assistance was then initiated via radio.

The first radio call was made on a tactical channel, where the operator reported: *"I think I broke my ribs. I need help."* After a brief interval with no immediate response, the message was repeated. A line EMT Advanced who was on the way to the area of Drop Point 94, heard the radio traffic and asked for the location. The tender operator replied only that he was at the Schaefer Creek fill site. One of the Incident Management Team's (IMT) Safety Officers, who was in the area, also queried for more precise location details, such as mile marker or drop point.

Fortunately, the EMT Advanced passing by recognized the sign for Schaefer Creek Campground and confirmed their location. Meanwhile, other teams confirmed their proximity—one at Mile Marker 6 and another two minutes out from the incident site. The tender operator stated that he was between Mile Marker 5 and 6.

At 0807, Incident Communications was notified of an "Incident Within an Incident" (IWI) at the fill site. Over the next several minutes, emergency procedures escalated, culminating in the decision to evacuate and transport the injured party by ground and air.

The accident site

The injured individual was carefully transferred from the ambulance to the aircraft. A team of six to eight responders coordinated this complex move, considering the patient's size and injuries.

Medical Response and Evacuation Timeline

0817

Ambulance 5 arrived at the scene with a paramedic.

0824

The Medical Incident Report (MIR) was transmitted to incident command, initiating coordinated medical response efforts.

Over the next 12 minutes, emergency personnel onsite stabilized the injured individual, conducted detailed assessments, and developed primary and contingency evacuation plans. Due to the individual's height (6'4") and

weight (approximately 300 pounds), additional manpower was required to safely move the patient.

0844
Ambulance 5 departed with the patient enroute from the Schaefer Creek Campground fill site to H-83, navigating muddy, hilly terrain at a slow speed (4-6 mph) due to heavy mud and the patient's injuries.

0848
Incident communications updated that the air ambulance's ETA was approximately 34 minutes. Meanwhile, weather and visibility conditions at the helibase were being evaluated to determine flight viability.

0908 (Approximately)
The agency helicopter launched from helibase enroute to H-83, landing there at 0915. Because of the altitude and dense tree canopy, the aircraft needed to shut down temporarily for reconfiguration.

0915–0935
While the helicopter was being prepared, the injured individual was carefully transferred from the ambulance to the aircraft. A team of six to eight responders coordinated this complex move, considering the patient's size and injuries. The doors and seats were partially removed to facilitate safe loading and the operation was executed flawlessly by the medical and helicopter crews.

Residual high terrain and forest canopy necessitated increased power during takeoff, so additional personnel (the helicopter crewmember and the paramedic assigned to the helibase), remained at H-83 during the departure.

0945
The helicopter lifted off enroute to the helibase, with the ambulance paramedic, the injured party and the pilot.

0954
The aircraft arrived at the helibase, where the patient transfer was completed by approximately 1017. The injured party, stabilized and monitored, was transferred to the waiting air ambulance for further transport to a medical facility.

Three Key Lessons

While there were numerous valuable insights gained from this Incident Within an Incident, these three components stand out as critical opportunities for improving future emergency responses. Implementing these lessons can significantly enhance outcomes for injured personnel involved in ongoing firefighting efforts or other incidents.

1. Launch Multiple Aircraft Whenever Possible
Helicopter Manager: *"If there is a medical first thing in the morning, when people are questioning visibility or questioning time to get enroute, launch the first aircraft from helibase to recon or to check visibility, to be an aerial repeater, or watch as the air ambulance goes in and out, like air attack would. It would be nicer to be sent sooner."*

A major challenge during this incident was the delay caused by the air ambulance's notification that they could not fly due to weather—an approximately 30-minute wait. To mitigate such delays, best practice suggests launching both an agency aircraft and a local air ambulance as soon as an incident occurs.

This dual approach creates redundancy; if one resource is grounded, the other can likely proceed, minimizing delays in transporting injured parties to definitive care. Additionally, when feasible, prioritize using a Type 2 aircraft as the incident medical platform over a Type 3, especially if multiple medical responders are involved.

Type 3 aircraft are typically designed for a single attendant, limiting their capacity during complex medical evacuations.

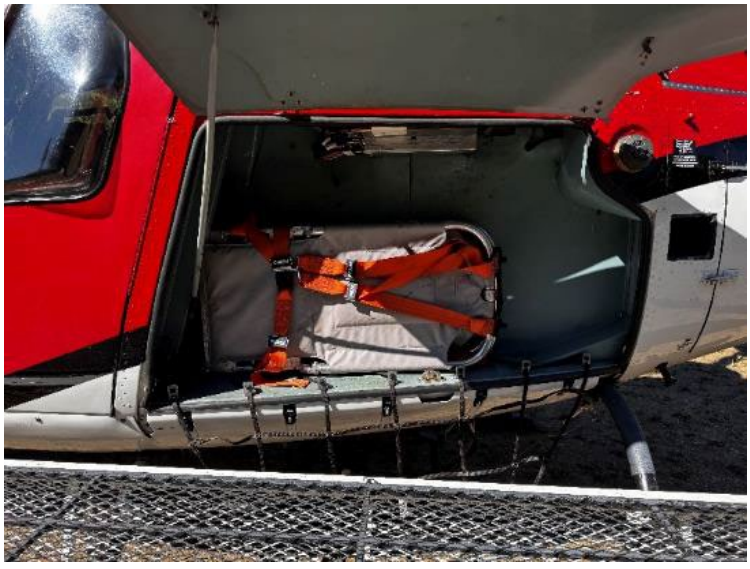
2. Aircraft Configuration and Preplanning

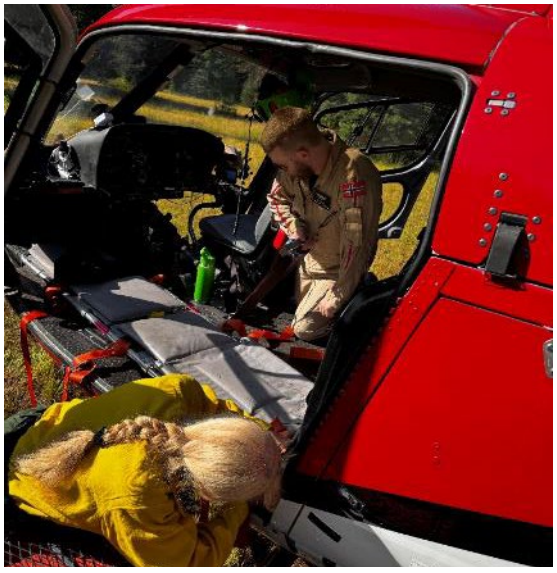
If an agency aircraft is designated or potentially needs to serve as a medical evacuation platform, it requires prompt reconfiguration prior to patient transfer. Unlike dedicated air ambulances, most agency Type 3 helicopters must be adjusted to accommodate a patient. This involves removing seats near the controls, folding or removing rear seats, and securing a specialized stretcher to the floor with specific retention devices. This process generally takes 5 to 20 minutes, depending on crew training, policies, and available personnel such as a flight mechanic.

Additional preplanning considerations include the need to hang medication bags or IV fluids, which may require specific straps or handling procedures. According to the Helicopter Manager: *"I was surprised and taken off guard when I found out the patient wasn't sitting up. We had talked about reconfiguring before but thought that the injured party would be sitting and guarding the side that was injured. Once I found out he was supine, I thought damn; we thought about it, wanted to preplan, but missed it on that one."*

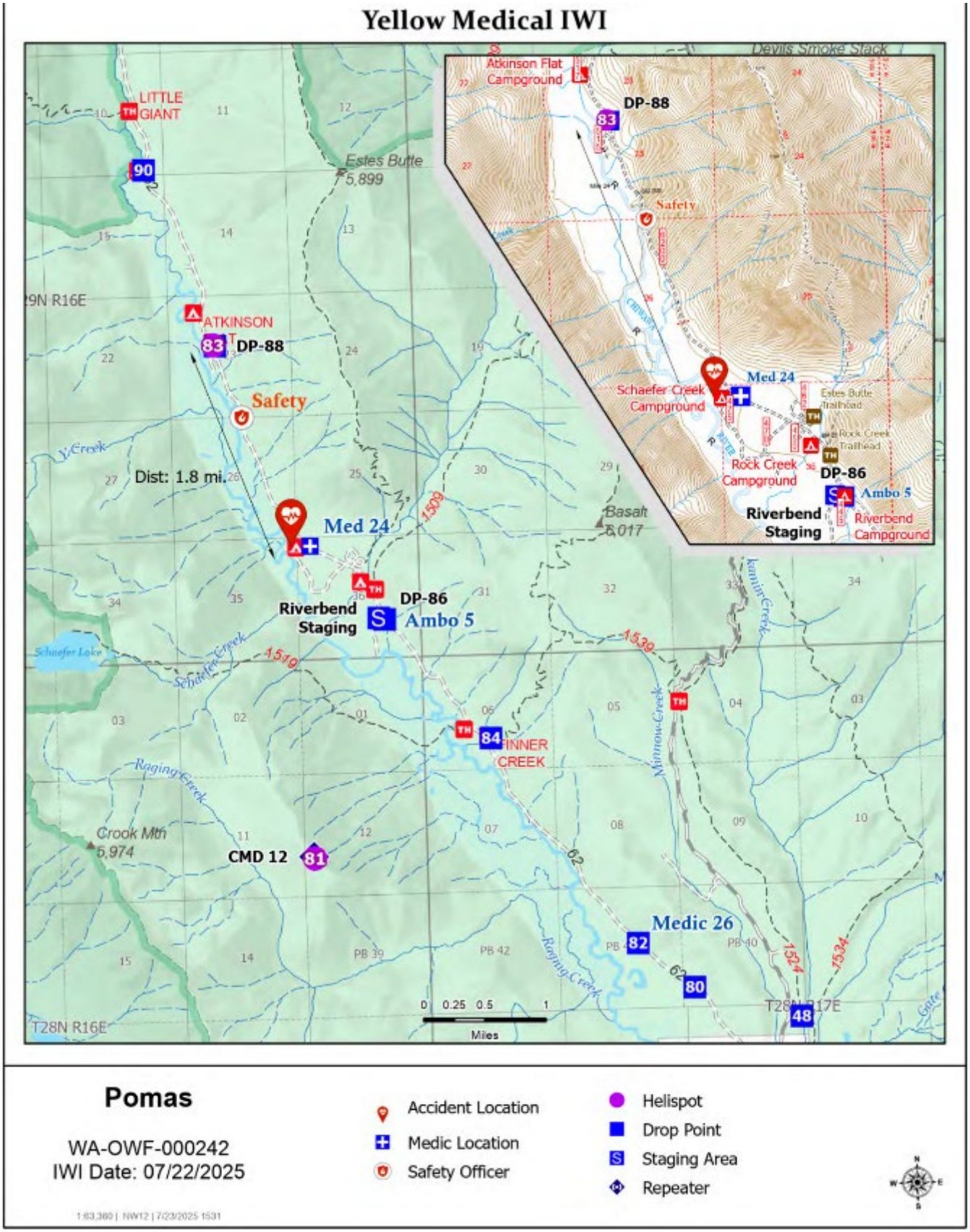
Whenever possible, utilizing a Type 2 aircraft is preferable (although each aircraft type has advantages and disadvantages), as it can provide more options for medical transport. A critical gap identified during this incident was the lack of communication regarding the injured individual's height, weight, and preferred transport position (sitting or lying down). Asking these questions early—involving the IWI Incident Commander, medical providers, helibase personnel, and Incident Command Post staff—can streamline configuration, reduce delays, and improve patient safety.

Aircraft Reconfiguration Photos – Adjusting the Type 3 Helicopter to Accommodate the Patient





Yellow Medical IWI



Pomas

WA-OWF-000242
IWI Date: 07/22/2025

- Accident Location
- Medic Location
- Safety Officer
- Helispot
- Drop Point
- Staging Area
- Repeater

3. Effective Mapping and GIS Utilization

One early challenge during this incident was the inability of incident personnel to accurately locate the campground. Despite clear signage to the entrance of the campground on the 6200 Road and an established location, the incident map failed to identify the fill site with a specific name or designated drop point. Efforts to mark locations on the map inadvertently obscured this important landmark, with pump symbols or field site icons, which hindered navigation and coordination.

To address this potential dilemma, always aim to use distinct, clearly labeled landmarks or features when dropping pins or icons on digital maps and make sure they do not obscure existing labels. This clarity ensures quick and accurate location determination, which is vital when declaring an IWI and coordinating rescue efforts in remote areas.

Loading the patient into the helicopter.

For future consideration of the NWCG Geospatial Subcommittee and to increase the speed and identification of rated helispots, it could be helpful for helispot symbology to identify the differences between Type 2 and Type 3. Not all helispots are rated for Type 2. (See page 66 of the 2025 Incident Response Pocket Guide).

EMS personnel must rely on the IWI process to learn the rating of the helispots. Presently, there is no way for ground personnel to know a helispot rating through the IAP or a quick look at a map. Generally, a map is located with Safety, MEDL, OPS/AOBD and the Incident Communications. However, it is not readily accessible for everyone when critical decisions are being made for injured parties to get to definitive care.

Geographic Information System Specialist: "*I was surprised to learn that relevant landmark features that should be showing on the map were hidden under other features or just not showing at all. I was also frustrated in our quality control process for missing this fact. It brought back to the forefront of my mind the necessity to perform quality control checks and ensure common landmark features are showing. Additionally, it reminded me to increase communication with Operations to ensure features that ground personnel are using are present on the map.*"

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