



LESSONS LEARNED

Lolo National Forest Safety & Health

Helispot Construction to Helicopter Medivac

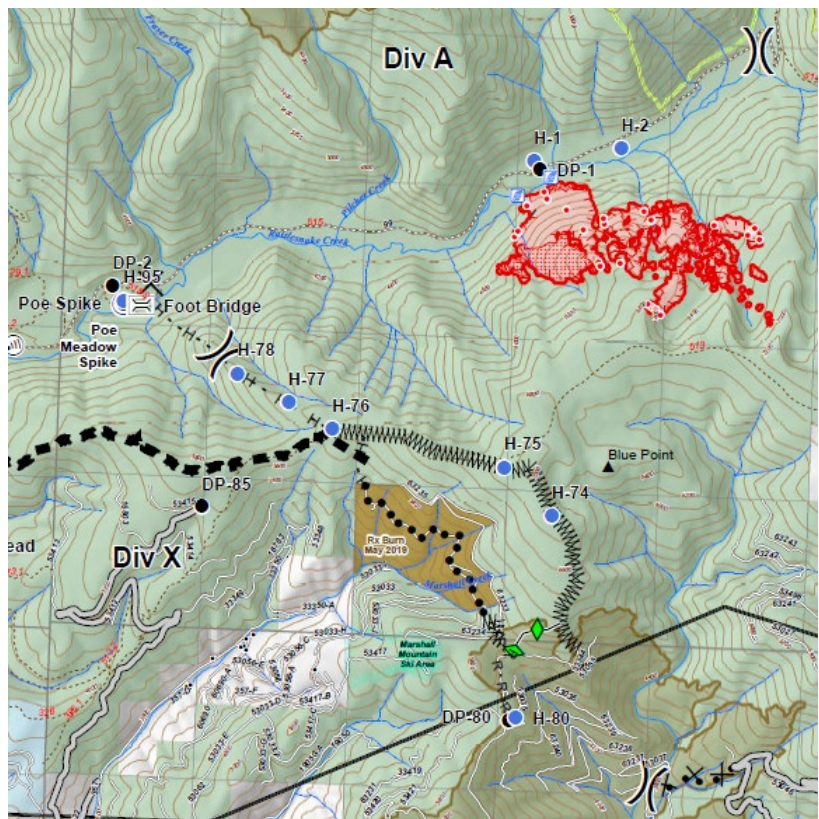
7/30/2019

Narrative

The afternoon of July 30th the fire was approximately 220 acres Type 3 incident with several hotshot crews, type 2 crews and helicopters assigned. For Interagency Hotshot Crew (IHC) #1 this was an out of region assignment. They had been on the incident for a couple of days and had a good operating relationship with the other IHC's assigned to Division X that day. The task: construct indirect hand line and helispots in a remote area with no roads nearby. IHC#1 crew superintendent noted that the forest/local ad hoc Type 3 fire team (ICT) talked a lot about values at risk, probability of success and having a well thought out medivac pre-plan in place. Subsequently the incident action plan had the forest's medivac protocols in it and there were numerous emergency medical technicians (EMTs) both assigned to the fire and embedded in the crews. They had a paramedic staffed (ALS) ambulance staged at Helispot 1 (H-1) and an agency short haul capable helicopter available at the fire's helibase several minutes away.

IHC#1 was working to create a new helispot (H-77) near an indirect hand line for Division X and Sawyer #4 was working on the assignment as a chainsaw operator. This was his second year on the crew and that afternoon he got the call to up-staff the saw squad as an additional sawyer. Sawyer #4 was a saw operator. He has a history of being a reliable cutter who is safety conscious, takes direction well and paces himself. He was eager to step up onto the saw squad.

By day 8 of the fire, the helibase had grown to 7 helicopters of various types. It included Heli-1, an agency short haul capable helicopter and Heli-2 the forest's local type 3 helicopter. Several of the helicopters were from in-region and most of the helibase personnel knew each other. They worked together well and having local knowledge made the air operations run smoother.



The ICT was mainly working out of the district office as a bigger base camp was being setup a few miles away. They had assigned radio frequencies for the fire and some of the communications were still being routed through local dispatch as there was no official communications unit set up yet. For the interagency dispatch center, IDC, this was ops normal and the tempo in IDC that day was moderate.

By 1630 hours IHC#1's saw squad & Sawyer #4 were getting close to finishing the new helispot. IHC#2 and IHC#3 were also working in the area building hand line and cutting new helispots. The work area was located in a mixed conifer stand on a ridgeline. It had been a long day of cutting so far and Sawyer #4 noted his saw wasn't cutting all that well. Just a few more minutes and H-77 would be operational if needed. As Sawyer #4 finished his cut on a four inch Douglas fir log, it happened. The saw came off the cut and into the left outside of Sawyer #4's saw chaps. The



Material Being Cut on H-77

spinning chain rolled the chaps up and then quickly sliced into his left leg above the calf before it finally stopped. His fellow crewmembers were quick to respond. IHC#1 had one fully qualified EMT, and several crewmembers were expired EMT's or had military combat medical training. The medical emergency call went out to the other crews working in the area and they responded too. That day there were more than 20 EMT's working on the incident!

Firefighters from IHC#2 and #3 quickly arrived and while EMT's were working to stop the bleeding and care for the patient. The others jumped in to finish cutting the helispot. Division Supervisor X (DIVS X) was notified of the emergency via radio and the Incident Within an Incident protocol (IWI) was initiated. DIVS X contacted IDC to clear the air for emergency traffic. IWI incident commander relayed the Medical Incident Report (also known as the MIR or 8 Line) to IDC, ordered the designated medivac helicopter from helibase (Heli-1) and ensured an ALS ambulance was being dispatched to the helibase as a backup. The local injury duty officer was sent to the hospital to meet up with the patient when they arrived. The medical evacuation plan was being put to the test and it was working.

The agency EMTs from the hotshot crews controlled the bleeding in short order and the helispot was finished just as Heli-1 came overhead. It landed at H-77 and Sawyer #4 was packaged for transport then loaded onto the helicopter. Local 911 relayed to IDC that the ambulance responding to helibase was 10 -12 minutes out. Heli-1 lifted from H-77 and headed to H-1 where the incident's paramedic ambulance was already staged, just two minutes away. Heli-1 talked to the medics there and it was decided that a direct patient transport via helicopter was prudent. The road from H-1 to pavement was long and bumpy, almost a 45 minute drive. Heli-1



communicated to helibase that they would take the injured sawyer directly to the local trauma hospital. Helibase relayed the ambulance to hospital radio frequency to Heli-1 as it wasn't previously loaded into the aircraft radio. Some confusion arose at IDC while trying to contact the local hospital to verify that the helipad was available for an inbound aircraft. Eventually IDC and Heli-1 both verified that information. With the new frequency programmed Heli-1 headed to the hospital and relayed the patient's status and their ETA. Heli-1 landed at the hospital and off loaded Sawyer #4 without incident.

Contributing Factors

From start to finish the IWI and medical evacuation took about 50 minutes. The protocols set in place by the ICT coupled with forest medical evacuation pre-planning and the crews' extensive pre-season training all paid off. Sawyer #4 received multiple stitches and was released from the hospital a short time later. He is expected to make a full recovery and return to normal duties soon. The Emergency room doctor stated that if it were not for the chainsaw chaps the laceration would have been all the way to the bone and the outcome would have been much different. Sawyer #4 stated that he thought the chaps could have been a little tighter.

(Checkout this link - http://fsweb.mtdc.wo.fs.fed.us/php/library_card.php?p_num=0567%202816)



It is worth noting that all the EMT's who treated the injured sawyer were all agency sponsored and enrolled in their regions' emergency medical services program. The agency EMS program provides funding, training and medical direction to EMT's in the field. These EMT's don't receive any extra pay for their services and enroll in the EMS program voluntarily.

Event Timeline - Compiled from multiple sources

- 1630 – Sawyer #4 cuts lower left leg with chainsaw
- 1631 – Initial patient care administered from fellow IHC#1 crewmembers
- 1633 – Radio call from IHC#1 to DIVS A/X relaying yellow status medical incident
- 1635 – Patient's bleeding controlled by EMT's on scene
- 1641 – DIVS A/X contacts Dispatch priority radio traffic for Yellow medical emergency
- 1645 – Full 8-Line radioed to Dispatch, agency medivac helicopter ordered & IHC #2 crewmembers arrive
- 1652 – Crewmembers from IHC #3 arrives
- 1656 – Heli-1 lifts from helibase for Helispot 77
- 1701 – 911 is contacted and an ALS Ambulance requested to rendezvous at helibase
- 1702 – Heli-1 lands at H77
- 1705 – Patient is packaged & loaded onto Heli -1
- 1706 – County ALS Ambulance is 10-12 minutes out from helibase.
- 1708 – Heli-1 lifts off from H77 and heads to H-1 to rendezvous with the incident ambulance
- 1709 – H-1 ambulance & Heli-1 confer about patient transport, Dispatch confirms the helipad is open at the hospital
- 1711 – Helibase contacts Heli-1 relays MT State Ambulance to Hospital radio frequency
- 1715 – Heli-1 in radio contact with local hospital, gives patient update & ETA, Also verifies pad is clear
- 1721 – Heli-1 lands at hospital and off loads patient
- 1728 – Heli-1 clear of hospital enroute back to fire

Things to Consider

- We all get fatigued when running a chainsaw for extended periods of time. What steps do you take avoid this & what are your trigger points to stop cutting?
- How do you recognize when your chain is getting dull? What are some indicators and how do you react when you notice them?
- Do you wear your chainsaw chaps - loose, tight or somewhere in the middle?
- When was the last time you reviewed your unit's medical evacuation plan. Are your contact phone numbers accurate, did someone validate them this year?
- Do you ALWAYS have a site specific medical evacuation plan filled out? What's in it, just the 8-Line or does it have all the information needed for getting a patient to the emergency room?
- Do you know what radio frequencies are needed to contact your non-agency partners and are they preloaded into your radio?

Things do go wrong and people have mishaps. Mishap response planning, training and evaluation should be done before someone has a bad day.

– WHAT'S YOUR PLAN?

Compiled by Forest Safety Manager – Kurt Kause
kurt.kause@usda.gov