

Devil's Garden Ranger District Modoc National Forest

Stone Fire Facilitated Learning Analysis

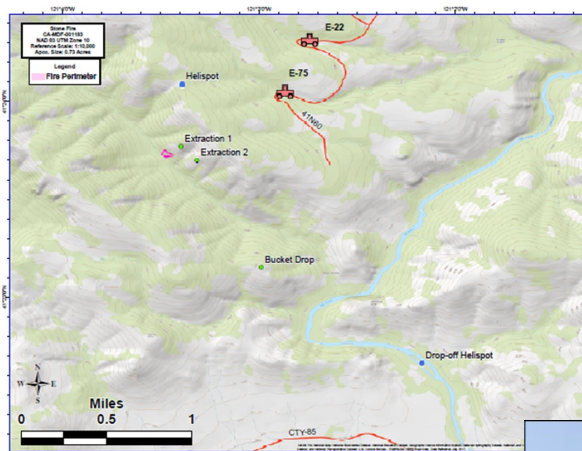


Earlier that day, when they were digging line there was mention of one area on the bottom left corner of the fire that would really suck if a spotfire started there because of all the dead and downed material. As luck would have it, that is where the winds carried an ember and a spot fire quickly grew.

Background

In August of 2018, the country had just entered National Wildland Fire Preparedness level 5. On the Modoc National Forest that meant weeks of above normal temperatures in the 90's and above normal grass fuel loadings in the volcanic rock that was intermixed with sage and timber. Aviation resources were stretched thin due to multiple incidents in the area.

On August 15, 2018, several individuals on the Modoc National Forest were dispatched to an initial attack that began like many others before it. During that initial response, in a span of 45 minutes their situation changed. Many firefighters from that fire ended their day thinking like one engine crew-member, "You always think it's never going to happen to you and then something like this happens." Other firefighters looked at the incident with a completely different perspective. They disengaged from the fire, flew out, picked up some more gear and went back to work. It got a little sketchy, but it wasn't a big deal.



The map to the left provides a broad overview of the locations where the engines parked, the 85 road, the helispot, the drop-off helispot, and the extraction sites.

The picture to the right was taken after the crews were extracted from the Stone Fire Initial Attack.



The story you are about to read is written to capture the perspectives of the people involved and endeavors to stay as close as possible to the story they shared. Some quotes are approximate but not exact. The names of the individuals have been changed.

THE STORY

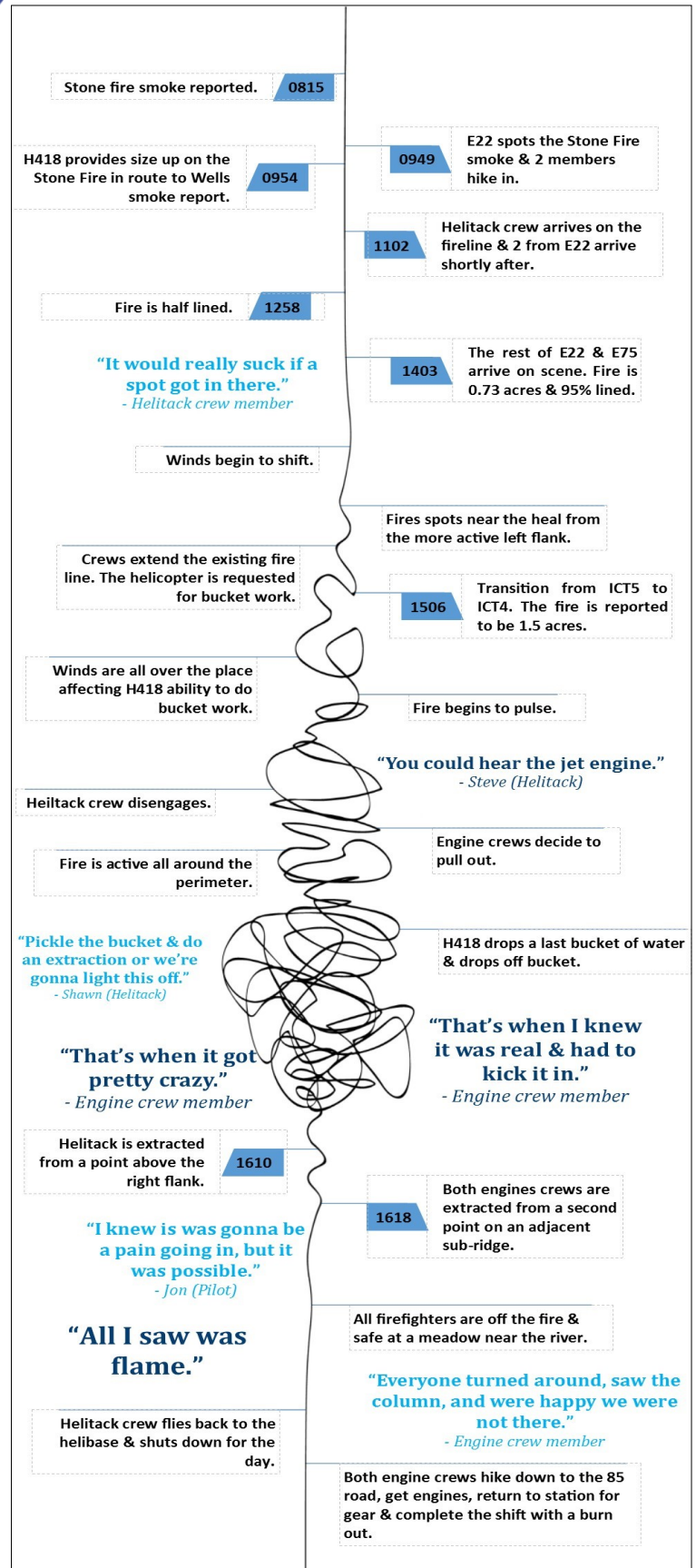
3

THE INITIAL ATTACK

It was the usual routine. On August 14, 2018, late in the day, H-418's helitack crew received the order for helicopter support on the Modoc National Forest. Seven crewmembers plus the relief pilot flew up to Alturas, California. They went through the process of getting ready to support the forest for the initial attack (IA) of wildfires. They received a thorough briefing on the situation about the local fuels, communications and expected lightning activity levels. They were also informed that due to the PL level and multiple incidents, the odds of getting tankers or other air resources were low. They broke the crew into smaller modules for IA.

That evening a thunderstorm moved through the area and the morning of August 15 started with briefings and information gathering while smokes were reported. The IA load was organized and the helicopter was launched to locate a smoke in the Wells area. While en route, they came across another fire. Taking GPS coordinates, they gave dispatch a rough size up on what was named the Stone fire. Captain Bert told the Modoc Interagency Communication Center, "It's a small fire with relatively little activity. The right flank was pretty dead and the left flank had the most potential." Bert asked if they should engage or continue on to the reported smoke in the Wells area. Dispatch relayed the helitack crew should proceed to the Wells area to locate the original smoke. Unable to locate the original smoke, Dispatch confirmed the helicopter was needed back on the Stone fire which now had two engines, Engine 22 and Engine 75, responding.

When the Helitack crew returned to the area, it was a routine response as they circled the



Stone fire. The crew looked out the windows, noting it still looked the same: relatively benign, a little white smoke on a south facing slope, in a steep canyon with timber, scabby Modoc grass and volcanic rock. Bert and the pilot located the only helispot available on a ridgeline above the fire. As the helicopter circled the area, the crew discussed the fire area, surrounding conditions, and access. Everyone gave it a thumbs up to take action.

Around 1044, the helicopter landed at the helispot, the crew unloaded and went to work. Crewmembers hooked the bucket to the helicopter, settled gear and cut minor improvements to the helispot. The helicopter left to drop a bucket or two of water before returning to the helibase for fuel. Shawn, the Crew boss for the helitack crew, hiked down to the fire to size it up. He formed a plan to engage the fire, contacted the engine crew hiking in, and an update was called into dispatch. All this took about 15-20 minutes. Just your typical IA.

"Just your typical IA."
- H-418 crewmember

On the home unit, the local engine modules had a fast start to the day. Around 0815, Engine 22 heard a smoke reported by the Happy Camp Lookout. The lookout was having trouble pinpointing the smoke due to the cloudy and smoky air, but felt the smoke was in the vicinity of Stone Cold Mountain. As per the lightning plan, Engine 22 was sent to respond to the area. They searched for 25 minutes before spotting the smoke from the 85 road. They decided to drop off Firefighter Taylor and Fire Engine Operator Terry to hike in to get a better location. As Taylor and Terry hiked, H-418 buzzed by and called in

the rough size-up on the Stone fire. At this time, Taylor and Terry had hiked to a vantage point and had two options: they could turn around, go back to the engine and drive to a better access road the helicopter had identified or they could keep hiking. According to the GPS, they had 0.87 miles to go and decided to hike to the smoke. Terry called his engine on the radio and relayed information about better access via the 84 road to the 41N60 road where they could hike in and meet them on the fire.

Down canyon, Taylor and Terry had a heck of a day so far. Before the helicopter arrived that morning, they were searching for the fire on foot, crashing through alder brush and crossing the river twice. Taylor thought he had had worse hikes, but on a scale of 1 (being the easiest) to 10 (being the hardest) that morning was a 6. Terry and Taylor used the helicopter flying between the fire and the dipsite as a guide into the fire along with their GPS and fire coordinates.

.....

Back on the fire Steve, a helitack crewmember, was established as the type 5 Incident Commander trainee with Shawn as his trainer. Steve contacted Taylor and Terry periodically to check on their progress hiking into the fire. As the Helitack crew hiked down into the fire from the helispot, the fire was mostly creeping, with the right flank and top of the fire smoldering in duff and litter. A vast majority of the heat and smoke was on the left flank, in the lower corner where a jackpot of heavies was burning. After hiking 2.5 to 3 miles, Terry and Taylor arrived on scene.

ENGAGING THE FIRE

The fire was burning in the understory, punky logs and duff. Fuels varied from ponderosa pine (the largest estimated around 60" DBH) to grasses, duff

and litter. Around 1130, everyone met at the heel of the half-acre fire where resources combined and split into two groups, each taking one of the flanks. After about 10 minutes of line construction, the firefighters on the left flank realized they needed more help and two people were pulled from the right flank to assist. The helicopter returned from refueling to do bucket work on candlesticks and stumps at the top of the fire and to cool the jackpot of heavies on the lower left corner. On the right flank, the line construction was fairly easy. The fire edge was smoldering duffers and the occasional small visible smoke. The firefighters joked that a simple scratch line was all that was needed to contain it.

The digging was not fun on the left flank. The line construction began with digging a cup trench through heavy, deep duff on the steep slope that immediately filled with crumbling heavies and roll out. The firefighters had to continually check the cup trench because it was filling with material igniting the berm. In the lower left corner of the fire, the jackpot of heavies was generating intense heat. After a few moments of line construction and the intense heat, the crew quickly realized direct line on that flank was not going to work and they needed to back off 10 to 15 feet. It was discussed that this indirect line would be burned out once they were done. It was very hot. People were going through their water quickly and the endless duff and rocks slowed progression.

.....

Northeast of the fire on the opposite side of the ridge, Engine 22 Assistant Fire Engine Operator and firefighters slowly navigated the 41N60 road. The road was not ideal, as it was “really thin.” The driver had to climb onto the cut bank to avoid the areas of the road that were sloughing off. Finally,

they stopped at a point where they could not drive any farther without using chainsaws to open the road. Since there were only three of them, the crew decided not to cut open the road, parked the engine, and hiked in with bladder bags Terry requested over the radio. They hiked down the road before going cross-country approximately 1.5 miles to the fire. A short time later Engine 75 arrived and began opening the road past Engine 22 to get their engine in farther. They made it roughly another three quarters of a mile before they



Stone Fire fuels in the timber.

parked their engine, grabbed more bladder bags and a chainsaw to hike the last mile to the fire.

.....

Back on the fireline, Steve periodically checked the status of the incoming engine crews until they arrived on scene and were briefed. The new crews jumped in and helped complete the control line. Around 1400, the fire control line was completed. They decided to allow the fire to continue to back to the line on the left flank instead of burning out. The fire was recorded to

be 0.7 acres.

The line was complete and everyone was “gassed.” It was well after lunch. No one had eaten any food since early that morning and drinking water was getting low. Some spread themselves out around the fire to monitor and grabbed a bite where they could. Others began mopping. Using the bladder bags and dirt, some of the engine crewmembers started working on the northeast corner.

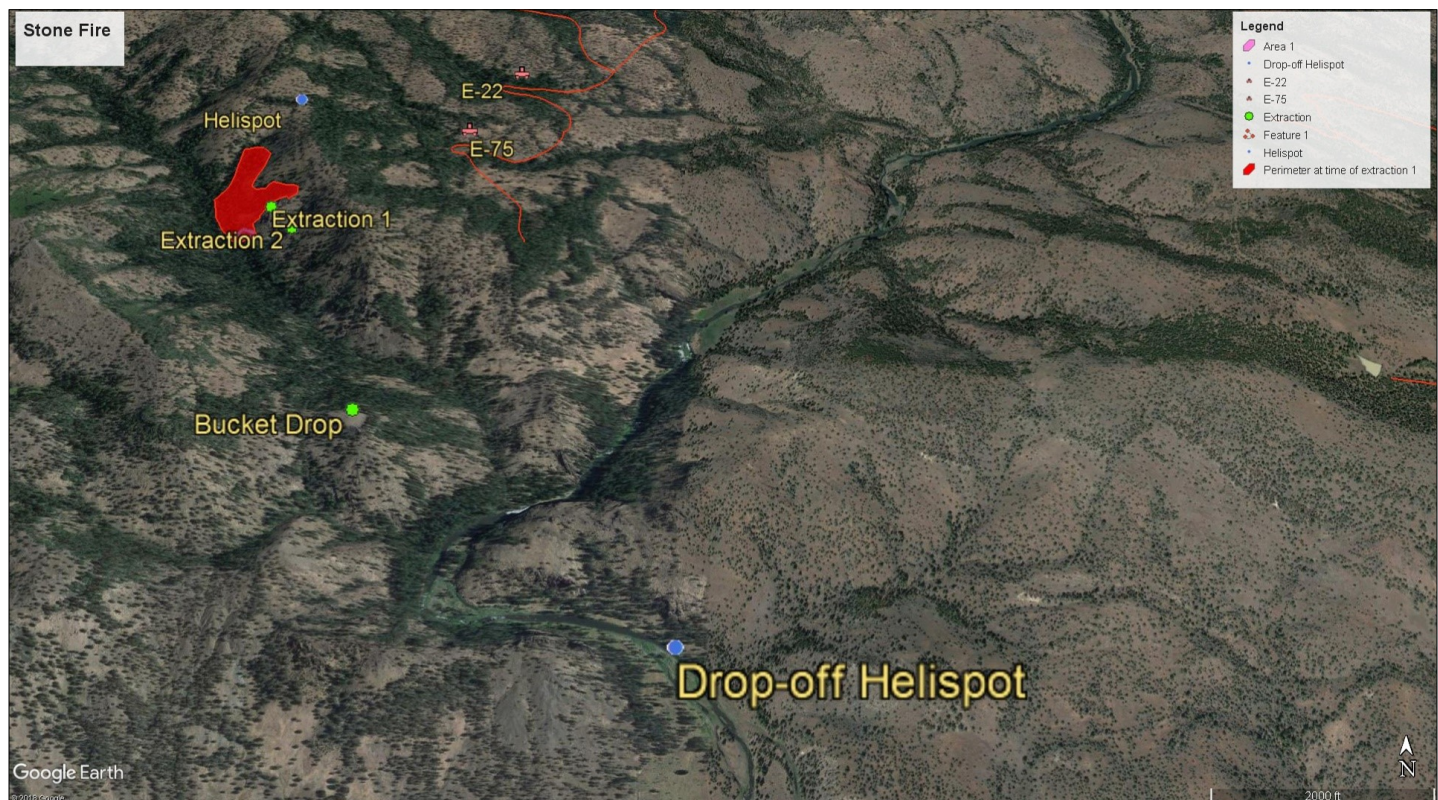
As the crews scattered around the fireline working on various tasks, Steve and Bert noticed it was around 1430, the witching hour. No sooner than they were talking about the time of day, the light upslope winds made a sudden shift to downslope and the fire responded. Shawn was taking a lap around the fire, when he felt the wind shift and saw a switch in fire behavior. Smoldering areas became flames and fire began to climb the trees. Everyone else noticed the fire stirring to life as

well and began to pull heavies away from the line. Shawn quickly scratched line around the base of trees while others were assigned to grid the green for spots. The winds fluctuated upslope, downslope and side slope.

.....

Earlier that day when they were digging line, there was mention of one area on the bottom left corner of the fire that would really suck if a spot fire started there because of all the dead and downed material. As luck would have it, the winds carried an ember and a spot fire quickly grew in that very place. The Incident Commander trainee requested H-418 to return for bucket work. It seemed as if every ember that landed across the line started a spot fire.

A plan was quickly formed to extend the left and right flank fireline straight downhill to an intermittent stream with green grass, squaring off the



THE STORY

7

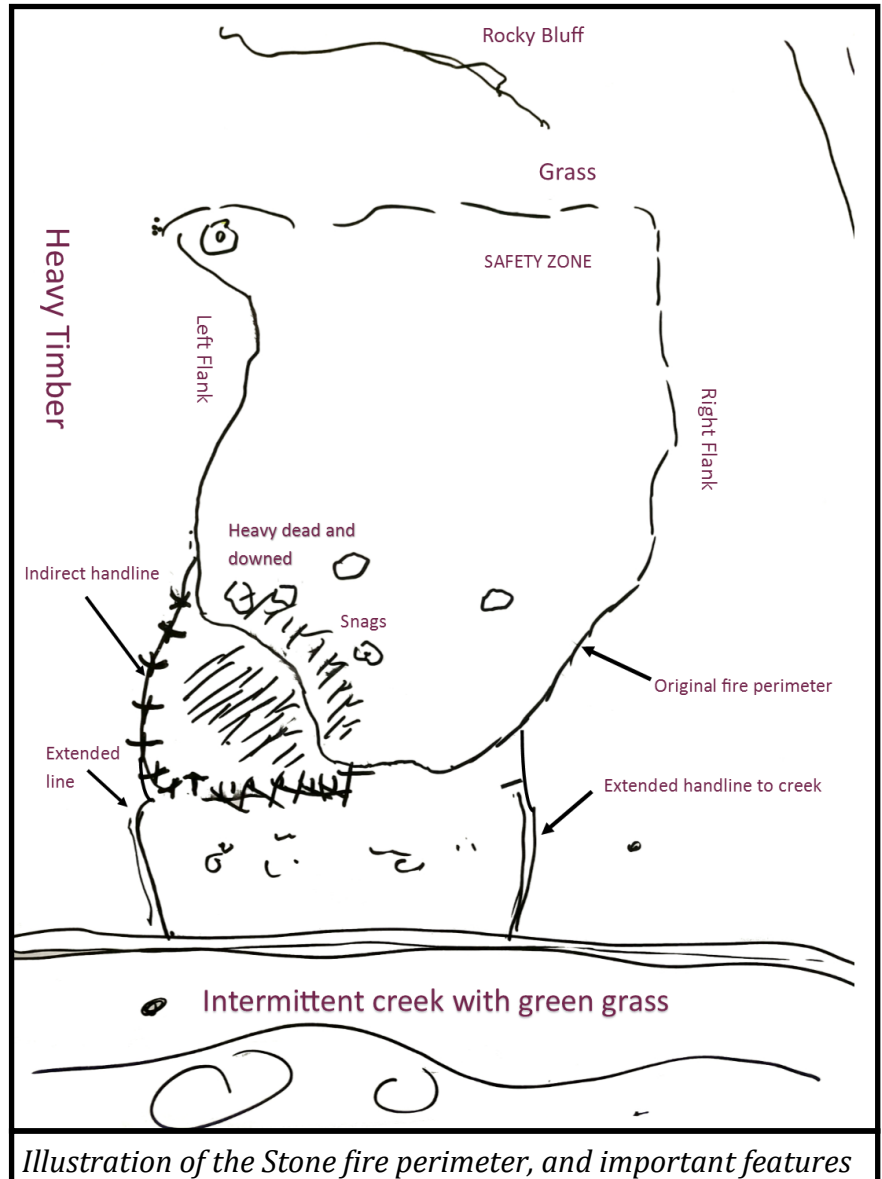
fireline. At the same time the spotting started, Pat, a crewmember from Engine 75, was established as a lookout.

The new left flank line was completed first, with the engine crewmembers staying behind while the helitack crew hiked to the right flank. Within ten minutes, both new lines were complete. They did not want the fire to cross the stream because the other side was bad (more and bigger, dead and downed). The interior spots grew big quickly but the new line was holding. After the lines were tied into the creek, they started to clean up dead and downed.

At this time, the ICT5 trainee transitioned the fire to ICT4 Terry. Terry updated dispatch that the fire was now 1.5 acres and began ordering more resources: 2 handcrews or if they couldn't get that, 4 more engines, more supplies, and a type 1 helicopter for bucket work. He knew they needed more bodies to assist with securing and mopping the fire.

The newly constructed fireline did not hold long as spot fires became established across the intermittent stream and into the heavy dead and downed fuel on the corresponding slope. When H-418 arrived back on scene Todd, the Captain from Engine 75, began directing bucket drops on the spots across the creek. The engine crews positioned on the lower left flank watched the heavy dead and downed material act like ladder fuels helping spread the fire into the crowns. Watching the fire behavior, the Helitack crew focused their efforts to reinforcing the right flank to protect their escape route to the safety zone in the black.

.....



Earlier in the day on the helibase around 1400, the remaining Helitack crew were busy preparing blivets, hose, water and food to be longlined out to the Stone fire when Jon, their primary pilot drove up. The day before when the relief pilot Peter received news they were dispatched to the Modoc, he contacted Jon concerned about the timing of a crew swap. The two pilots talked and came up with the plan that Peter would fly the crew up to Alturas and the incoming pilot, Jon, would meet them on

the 15th to swap out. When Jon arrived, the Helicopter Manager greeted him and said there was no rush, the crew was on a fire and the helicopter was on a fuel and hold. There were plans to fly out the sling loads when they were ready later that day. Jon and Peter exchanged information about how the aircraft was doing, fire location, etc. Peter soon left and Jon began settling into the helibase when they were radioed the request for bucket work. Jon and the crew attached the longline and bucket to the helicopter and at 1500, H-418 launched for the dipsite.

Jon flew to the vicinity of the fire and located a suitable dipsite about 3-4 miles away from the fire. He instantly noticed the winds aloft were all over the place. Upon arrival on the fire, he thought the upslope portion of the fire could use some work but was requested to deliver water in different locations. Jon figured he was not seeing the fire very well through the canopy and trusted the firefighters to identify the priorities. He began working with different points of contact delivering buckets of water all around the fireline. He fought the fluctuating winds as they forced him to reevaluate the wind direction on every drop. At one point, he dumped the water early due to a sudden tailwind and loss of lift. Suddenly across the radio he heard the request for a Type 3 IC as the fire slopped where they didn't want it and began spreading in multiple directions.

THE DECISION

On the ground, the helitack crew quickly realized their tactics were not working and they needed to disengage. Steve could "hear the jet engine" in the

lower left corner as the fire became very active, torching trees and pulsing into the timber. Radio traffic was manage-

able and people were talking. There was confusion about the lookout and whether anyone heard anything from him.

Jon and the Helitack crew talked about meeting above the fire on the ridgeline to give them more drinking water and to discuss a new plan. They did not have the amount of resources needed to handle the increasing fire behavior. Jon began bucket work on the right flank to help their egress. He noticed spots to the north that were being pushed by down canyon winds. Immediately concerned, Jon told ground forces, "Might want to beat feet out of there. You have a spot to the north above you. You guys need to go down canyon." At one point while getting a bucket of water, he can hear radio traffic about burning out. He thinks

Helitack Crew Supervisor

– A perspective from the helibase

We were on the Modoc last year for lightning support. We all thought this year would be the same. A lot of radio traffic we could hear was on the command channel. Everyone heard the transition to a type 4 IC. Then they ordered helicopter back up for bucket work. As pilot flew out, we heard an order for type 1 helicopter, 2 crews or 4 engines. You could hear in people's voices things were getting spunky. The next update we heard was the fire was getting into heavies and might have been torching. I thought, something is going on and the situation is a bit more than it was. I could hear voices changing when they ordered type 3 IC. At one point we heard pilot say they might want to beat feet out of there. Something about you have a spot above you and it might make a push downhill. The next thing we heard was the IC on a handheld radio telling dispatch everyone was off the fire. When the crew got back, I could tell something had happened. After I talked to Bert I began made notifications and requested a CISM team.

"You could hear the jet engine."

- H-418 crewmember

about the terrain, there isn't an adequate landing area on right flank, it is too steep to the helispot and he's not sure they can make it up to the ridge-line. Jon tells them he is going to drop water between them and the spots that are growing together.

Sometime during all of this, Shawn hiked to a rock cropping to get eyes on the spots mentioned by Jon and to check their way out. Through a discussion with Jon about the spots, Shawn realized that their egress to the ridgeline was no longer viable. Jon explained that with the way the wind was shifting, that part of the fire could become the head. On the other side of the ridge, another spot became established and was going to make a good run up hill, cutting them off from the morning's helispot. The switching winds could potentially cause the fire to make a good run down canyon making hiking out the canyon to the river not an option.

.....

From the lookout's perspective, Pat was told to set up on the northeast corner and keep an eye on the fire backing to the line. With the swirling winds, the fire switched between backing and head fire toward the control line. He set trigger points for when to notify the engine crews and ask for further instructions. When the fire hit his trigger point, he called the engine crews saying, "its gonna hit the line hard." Todd was working with the helicopter attempting to cool the lower left corner when he felt wind or rotor wash.

That's when things got pretty crazy.

.....

Shawn and Bert talked back and forth on the radio, realizing their safety zone in the black was no longer viable. The ground was black but the crowns that had not previously burned were now torching. The helitack crew decided they no longer want to be in the timber and needed to pull out. They knew the top of the fire was at the end of the timber with grass and rock above.

Jon and Shawn quickly formed two plans over their crew channel. They could burn out the rocky, grassy area, take some heat as the fire moves around them but would not have to deploy shelters or the helicopter "lands" there and picks them up. Shawn scanned the area and quickly identified where he felt they could burn out or the helicopter could perform a toe-in landing and get them. As the rest of the helitack crew joined him, he struggled with the first option. If they light that area off, where was the engine crew? In the erratic winds, the fire they lit could run right at the engine crews.

Shawn communicated his two ideas and Jon replied he could pickle his bucket and come get them. In his mind, Jon rapidly calculated what the helicopter could safely handle for weight. He knew the area Shawn indicated was going to be a pain going in because it was super tight, one way in and one way out, but knew it was possible.

Shawn decided to extract the crew and called Jon. He then shouted at Pat and told him get out of there. Looking up the



Fire begins crawling up the trees and activity picks up.

"Pickle the bucket and do an extraction or we're gonna light this off."

- Shawn (Helitack)



Photo taken from the first extrication site and illustrates the volcanic rock, fuels and the rapidly approaching fire.

slope Shawn saw the fire had gotten into the grass and a small timber stringer above. The fire was moving side hill and Jon reported from the helicopter he could see spots in the next drainage over. As Bert and rest of the crew met up with Shawn, he looked at Bert and said, "The ship is picking us up here". Bert looked at him and barked out, "Here? ARGH!"

.....

Around 1547, back on the lower left corner of the fire, the engine crews were still trying to contain the fire. Torching trees started another spot that quickly became established. They heard something over the radio about trying to hold the right flank and how people were running low on water. Wind or rotor wash increased the fire activity and

when the fire became established in the canyon to the north of them, they decided to pull out to the safety zone they had seen earlier.

IC Terry called dispatch notifying them the fire was making a good push with torching and uphill runs. He also requested a type 3 IC. He told dispatch they are backing off the fire and disengaging. The engine crews worked their way towards a large rock outcropping they estimate to be 100 yards by 100 yards wide. They decide with the current fire behavior they are not going to hike out to the engines. As the crews approach the rocks, they see the flame front picking up and wrapping the edge of the ridgeline above. Some individuals are "pretty gassed" as they move to the rock outcropping. Thinking the fire was mov-

Dispatch – *a perspective from the dispatch center*

Last year was historic for us with lots of fires, so much we had to include additional aircraft dispatch stations. but we never had to set up a large expanded dispatch. This year has been relatively slow up until now. Most of the work for Dispatch has been providing heavy support to other fires. We have been giving more support than we have done before, even going below drawdown to help our neighbors. It was a mellow start but a huge draw on our resources.

When we saw the forecasted LAL 6, we thought, "Sure we will believe it when we see it." We usually ramp up for it but didn't have many resources to ramp up with. Happy Camp Lookout reported a smoke over the radio first thing in the morning as a small blue column. We knew Engine 22 had a visual but were still hiking. We prompted Engine 22 if they could use H-418 because they were still not on scene. They said yes.

There was not a lot of radio communications. We knew they were having trouble getting access due to the lack of roads and it took a long time to gain access. When we heard the size up, it didn't seem like much. The last update we got was the fire was 95% complete with other resources arriving on scene.

There was not a great flow of information. There was not much traffic after Engine 75 on scene. The little bit there was seemed routine and not urgent. Next thing we knew they requested a IC-T3 and were disengaging. Then we got a call from the helibase telling us there was a rapid extraction. It felt like we had whiplash. We didn't know anything. The information we did get was 3rd and 4th hand. We started the notification process. It felt as if there was a lot of information sharing over the cell phones and not radio the whole day.

Once we started to hear about what had happened, everyone felt guilty because we didn't know the urgency firefighters were experiencing. There was heavy initial attack in the area and resources were being diverted everywhere. Normally, SEATS would have taken about 40 minutes to respond. Heavy Air Tankers normally take about 20 minutes. If we would have had an idea of what they were facing, we could have gotten priority and could have diverted resources.

ing up canyon, Todd feels it would be good to hike down canyon. Many do not hear the helicopter crew talking on the radio. Todd and Terry discuss their options: Stay in rocks, hike or get picked up. They decide to take the crew out via helicopter.

1610 - FIRST EXTRACTION

Jon sat the bucket down on an opposite ridge south of the fire. As he approached the extraction area, he saw the engine crew on their way up but were scattered along the hillside. The Helitack crew was hunkered down waiting. As Jon hovered the helicopter into the lee side of a high spot, he nosed into the hillside with only the toe of the right skid on the ground. The crew crouched to the left of the helicopter, outside the rotor system, watching the pilot intently for permission to get on. Jon checked the helicopter's torque gauge noting it was sitting at 70% giving him plenty of power to be there. Without looking at them, he gave a quick nod as he realized the fire was really starting to cook. As the fire closed in, nearby trees started torching and the fire sucked the wind up the canyon into the fire. It was difficult to hold the helicopter in place and Jon thought, "Don't mess this up."

"Don't mess this up"

- Jon, the Pilot

Once Jon nodded, the crew quickly approached. With the steep slope, the tail rotor system was roughly 12 feet off the ground and the skids were anywhere from waist to chest high as the crew scrambled on. The first two onboard worked together to pull others in. Still wearing his pack, Steve leaned far out the door with a crewmember holding on to his pack to anchor him. Steve grabbed a hold of the people struggling to climb in. With four people still outside the helicopter, the fire behavior accelerated. A flare-up from the rapidly approaching fire pulsed heat and gusting

wind that rocked the aircraft. As one crewmember is halfway up the skid, a strong gust causes the helicopter to lose contact with the ground. With her arms and legs, the firefighter wrapped herself around the skid thinking, "I am not getting left here. I will hang on right here if I have to." Steadying the helicopter against the turbulent wind, Jon plants the right skid back into position.

"I am not getting left here. I will hang on right here if I have to."

- H-418 crewmember

Outside, as Jon grappled the helicopter back into place, Bert realized his pack is hampering his efforts to get in and dumps it. Seeing this, another crewmember quickly does the same and both scrambled onto the helicopter, leaving behind the gear and chainsaws.

Standing in the helispot, Pat did what he could as the helitack crew load into the helicopter. As the last crewmember scrambled on, Pat maneuvered downhill to find his crew. Bert closed the door, turned around, reached into the cockpit and slapped Jon on the shoulder to let them know they were all in. Jon pulled the helicopter away from the rocky hillside heading down canyon with the entire helitack crew to where he left his bucket. From inside the helicopter many crewmembers saw different things. Some saw flames right next to the rotor system, some saw flames coming

"All I saw was flames"

- H-418 crewmember

over the rocks and for others the fire was up the slope away from them.

As the pilot flew towards the location where he left his bucket, Bert looked over Jon's shoulder to see where they were headed. Bert quickly decided, "No, not there," and tapped the pilot on the

shoulder pointing farther south down by the river as a suitable place to land. The pilot nodded his concurrence.

The moment the helicopter landed, it was empty of passengers in less than 10 seconds. As Jon left the helispot the helitack was visibly shook up. They stood in the grassy helispot, listening in silence to the radio traffic and the sound of the helicopter.

1618 - SECOND EXTRACTION

The day's activities and not having ate since breakfast had an effect on the hike to the rocky bluff. The way people were moving made it obvious they were pretty tired. The engine crews felt they had three options: use the helicopter, hike down canyon or burn out, scratch a spot and stay on the rocky bluff. Looking up the hill, Terry noticed the fire wrapped around the top of the ridge. He looked at a crewmember and said, "Does that look good to you?"

As the helicopter approached to extract the helitack, the engine crews looked uphill and saw a black column developing behind the landing area. Some individuals on the engine crews were seriously concerned the helicopter might catch fire or crash as it hovered. From their vantage point, it looked like the helicopter had fire under and around it. Terry yelled at his people to get behind the rocks.

As the helicopter moved away from the rocky hillside, Terry quickly scanned the engine crewmembers and came up missing one. Where was Pat? Terry yelled for Pat, not hearing a response, Terry contacted the helicopter to see if they had one of theirs onboard and if they would be able to return for them. In the confusion of the moment, no one understood the pilot's response. A few moments later, Pat came downhill around the rocky

bluff from where he was with the helitack. Terry asked Jon over the radio, "If we offload our gear can you take all of us?" Jon responded, "It's burned over. Go down canyon. I will get you". While they crouched behind rocks, catching glimpses upslope as the helitack crew scrambled into the helicopter, a diversity of thought and perspectives raced through individual minds.

Many felt "it got real" when the helicopter took off with the helitack crew. Different thoughts went through individuals' minds as they waited. Some felt people began to show signs of panic. Others felt they maintained their composure. Looking back, some felt there was a good command presence so it was not scary. As individuals, they thought about the three options they had discussed. Some felt walking down the canyon to the river would be a good idea. Others felt they would be fine where they were if they burned the area out. Some felt, "if we have to, we can burn this off and dig some bare soil. We would be fine." Another individual found himself wondering, "If we burn this off, everyone can get in them." He did not think they would have to get in their shelters but he thought about the possibility. Staying there meant they might take some heat when the fire hit the timber stringer in the drainage to the south but they would be ok. Many were not quite sure when they looked at the column.

Everyone agreed as the helicopter left, everything went pretty quickly. When the pilot told them they needed to move to a new location, they didn't look at the fire anymore. They just concentrated on getting to the next ridgeline to the south. As they left the rocky spot, slipping and sliding

"That's when it got pretty crazy."

- Engine crewmember

through the rocks sideslope into a small drainage and back up the other side, people just focused on moving as quickly as possible. Over the radio, Terry heard Jon say there was something hot mechanically with the helicopter and the pilot needed everyone in the new helispot before he could land.

Terry yelled at everyone to hurry up. One crewmember thought, "It just got real. I have to kick it in" and dropped their pack to move faster. Another crewmember ditched the chainsaw to scramble

"It just got real. I wasn't thinking I wasn't going to make it but it made me realize there is a chance."

- Engine crewmember

up the slope. The people waiting stashed their packs in the rocks at the extraction spot. As the

last of the crewmembers scrambled up the slope, Jon guided the helicopter in. There was less volcanic rock and the fire wasn't pushing this site so Jon was able to get both toes of the skids touching the ground.

.....

As Jon flew back to the fire, he saw the engine crews moving to what looked like a much better location. Jon briefly touched down to show the engine crew where to go. He knew he needed to minimize time spent on the ground to keep his cbox cool. He also knew it was going to be a tight squeeze with all ten engine crewmembers. He contacted the crew below, "Can't take you and your packs. People only. Pitch your gear." He let Terry know he'd circle until everyone got to the landing area. Todd notified Jon that they have a qualified helicopter crew member to load them.

Terry's radio squelched as the ICT3 tried to reach him. He quickly responded back, "It's not a good

time.” For Terry and the engine crews, it was a super quick load, with Pat helping people get in. They were snug but everyone was safely inside. Jon lifted the helicopter back into the air and headed down canyon.

.....

Back at the meadow, when Jon flew away, the helitack crew quietly listened to the sound of the rotors and Jon talking to the engine crews over the radio. Everyone was tensely waiting, thinking, hoping the engine crew and their pilot would return to them quickly. It was not until the pitch of the rotors changed that the crew knew the pilot was returning and relief crept in.

THE CONCLUSION

In the meadow after climbing out of the helicopter, the engine crewmembers were visibly excited. Bert shared water and Gatorade with everyone. He offered to give the engine crews a ride out. They declined, wanting to hike down to the road to tie in with their engines. Bert quickly selected two crewmembers to load up with him so they could go get the bucket. With the bucket retrieved, the helicopter returned, loaded the remaining crew and headed home. The direct route to helibase did not allow the crew to get a good view of the rapidly growing fire.

On the short and final for the helibase, the crew superintendent radioed asking if they wanted to hot fuel, so the helicopter could continue working on the fire. Their response was “No, we are shutting down to reconfigure.” As soon as the superintendent saw Bert, he knew something had happened. Once he heard the story and saw his crewmembers, he knew he needed to order a Critical Incident Stress Management team to help them sort through what they had just experienced.

.....

For the engine crews, landing in the meadow was a relief. One crewmember remembers someone saying “Oh, sh%t.” When they all turned around to look back up the canyon, they saw a large, black column and were very happy they were not still up there. Todd called the duty officer and requested someone move their engines from the 41N60 road. The engine crews then hiked down to the bridge on the 85 road where they waited for their engines.

“Everyone turned around, saw the column and were happy we were not there.”

- Engine Crewmember

.....

As the ICT3 transitioned into command, he arranged with a local single resource to move the engines parked on the 41N60 road. After talking with the Captains, the ICT3 talked with the line officer and let her know everyone was ok. Approximately 30 minutes later when the relief drivers got to the engines, they discovered the fire was 400 to 500 yards from Engine 75. When the drivers returned the engines to the crews, the engines drove to their stations, refurbished with gear and headed back out to the line. That evening they assisted with a burnout operation.

...

As of August 29, 2018, the Stone fire was contained at 39,387 acres.



View from meadow looking back to the fire.

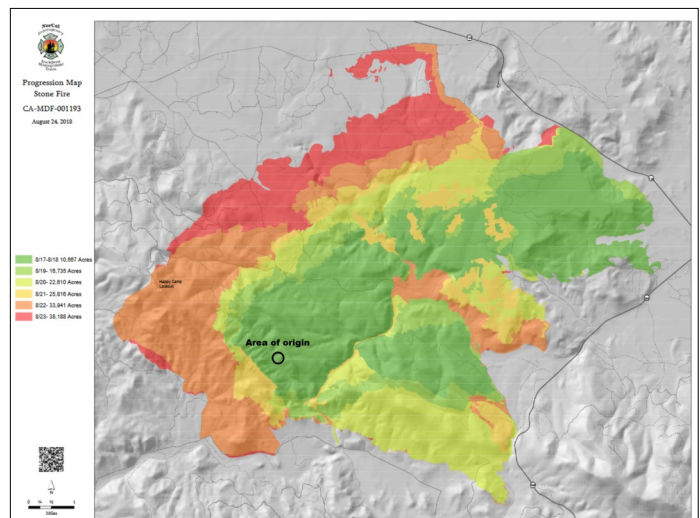
ICT3 – another perspective

A month and a half ago was our first lightning bust. Then there was nothing. I started my detail as the Zone FMO in Adin on August 5th. The day the fire was reported, other overhead were on days off. I was Duty Officer. That morning I looked at the lightning map and saw there were 7 positive strikes. The night before was a Lal 6 which usually means nothing happens or tons of moisture. When the helicopter located it, the fire plotted in the Devil's Garden Ranger District and I notified the District Ranger. We call the area where the fire was reported Gasoline Alley for a reason. It has a southwest to northeast alignment with predominant winds. There isn't a lot of roads and this year there was a lot of grass. On top of that we don't often get 90s for several days like we are experiencing this year.

Over the radio I overheard a couple updates, the fire was at half an acre and pretty much lined. After lunch. I heard them order more resources and two local cooperator engines were dispatched with a single resource to provide leadership. When I heard some information about the fire behavior picking up, I decided to move closer to the area to be able to hear better. Then I heard they were disengaging from the fire, withdrawing by helicopter and requested a Type 3 IC. I told dispatch I was responding after I transitioned DO responsibilities. On the way there Captain 75 called on the cell phone and asked me to move his engine. He also said he needed to talk to later. I assumed something had happened. I had started to stage some resources so I got a driver from one of them. It was a long way down in there to the engines and the road was 5 mph rough. One mile seemed like forever.

When I saw Engine 22 I was surprised. I didn't realize there were two engines so I asked staging for another driver. When I got to Engine 75, the fire was 4-500 yards from the engine and seemed hung up on a rim or the rocks. I dropped off the

driver and got turned around. When I got to a wide point almost to where Engine 22 was parked I hung out to watch the column, trying to figure some big picture plans. After the extrication of the crews, I assumed command. The District Ranger called and wanted to know how it was going. I reported everyone was out and safe. I heard the jet engine up the drainage above me and ordered a team. Then I drove around to the bridge on the 85 road and met up with Engine 22 and Engine 75 module leaders. They told me it was a close call of sorts, a little sketchy situation and equipment needed to be replaced. I asked them if they had their shelters out. They said no. I told them all that matters was they were safe. They seemed fine though a little concerned about the reaction people would have about their gear being left behind. They then returned to their stations to get more gear and returned to the fire.



Stone fire progression map.

The following are lessons the participants shared with the FLA team:

- All crews had leadership make tough decisions under pressure and the crews remained calm, not questioning decisions because of the trust and respect within the crews.
- Looking back, some participants wish they had left sooner. Recognizing a changing situation as early as possible buys you more time for decisions.
- When lookouts are established ensure everyone understands the communication expectations and where the lookout will be posted.
- Order your resources for the “what if” situation. Order more, earlier and not until things get bad.
- Understanding the urgency of the situation is important on scene and for those supporting the incident. Assistance can come from unknown sources.
- Relay information over established frequencies to help others. People often gather situational awareness from indirect communications.
- Communicate often to dispatch and paint the picture in order for dispatch to best support operations.
- Training was critical for how people worked together. When it started to get chaotic people knew how to act. My training kept me grounded.
- Subordinates have a desire to know what is going on so they can react and implement.
- As a person in a support role, you often wonder if asking for information is stepping on toes but after this I will ask questions so I will have a better idea.
- If you use cell phones, share information over radios to help others

FROM THE FLA TEAM

Throughout the development of this FLA, the participants often discussed conflicting viewpoints of the same moments in time. The story evolved and changed as the firefighters involved in this story processed the events. This is a great example of the Rashomon effect. We’ve all seen it play out in arguments on television dramas where spectators from opposing sides strongly swear about an observed series of events. However, their stories differ, describing completely different scenarios with each believing they are telling the honest truth and how it really happened. There are several very human characteristics that lead to these different interpretations of the same event. Simple things such as the physical angle from which we view it, can create different perspectives. Or different perspectives can arise from the complicated way our experiences color what we see. We want things to be black and white, right or wrong, one truth to a series of events. When presented with two contradictory realities, can it be both? Can we still learn from them?

Read this story then talk with someone you trust, maybe a peer. What would you call this series of events? Does it make a difference to label this incident?

What is this story about? Is this what aviation would consider an incident with potential? Does this sound like something else? Or is this a story that sounds like many others and you wonder what the fuss is about?

FLA Team Members: Sean Aidukas, Megan Saylor and Persephone Whelan

Many thanks to Brandon Lewis for helping the team with the maps.