When It Comes to Fires and Hikers – Do You Have a Plan?

The Story
The family’s plan was to hike the five miles into Lewis Lake in the North Cascades and spend the night. The group included Dad Brian; Mom Tonya; and five children, Izzy, age 7; Chase, age 11; Lindsey, Lisa, and Sarah, all 16; and three dogs, Moose (90 pounds), Stimey (40 pounds), and June (120 pounds).

They all hiked the five miles to the lake, set up camp, and began swimming and fishing. They had a “nice little camp.” The next morning around 1100, the group broke camp and began heading down the trail. Brian used his SPOT (Satellite Positioning and Tracking) GPS tracking device to send a message to the friends he had designated as emergency points-of-contact to indicate that the group was okay.

No Exits, Tons of Fuel, Fire Approaching . . .
About an hour later, they had made it about one half mile down the trail when Brian caught a glimpse of a huge column of smoke. He told the group to “take five,” remove their packs and rest while he went to get a better look. He borrowed Lindsey’s binoculars and made his way to the edge of the timber. He couldn’t see any flames, but he estimated that the column was about one half mile away.

The wind started to blow from the west, pushing down the valley—toward them. There were no exits, with tons of fuel between this group and the approaching fire.

Brian immediately thought about the fact that he was traveling with small children who had blisters on their feet. They were not “fast movers.” He quickly realized that “we are not going into that valley.” He therefore decided to turn their group around, return to the lake, and hunker down for a while.

Fire Starts to Blow Up
Brian also hit his SPOT GPS tracking device/locater once again to signal to his friends that he had turned around on the trail. (He would later confirm that his friends said that they understood immediately that he had turned
around. Their seven-member contingent with their three dogs made it back to the scree field by the lake. They all sat there for a while. That’s when Brian says the fire “just started blowing up.”

Growing more and more concerned about their situation, Brian hit the SOS button on his SPOT tracker. The device flashed the signal that looks like the “You Got Mail” symbol, which means that it had been sent. Brian initially thought “OK, it must have gone through.”

But then he realized “I can’t trust that this thing went through because we are on the back side of a 7,000-foot ridge line.” Next, Brian says that he decided “We’re going to plan for the worst.”

**They Swim Out to an Island— But What if it Catches on Fire?**

Brian determined that the best option might be to swim to an island out in the lake. He asked the group: “Any ideas about what we should do or how we can get to the island?” Chase, the 11 year old said: “We could use our little sleeping air mattresses.” “Brilliant idea,” Brian responded. Everyone had their own air mattress.

They had one waterproof “dry bag” with them, so they filled it with as much of their gear as possible (boots, sleeping bags, etc.) and began the approximate five-minute swim out on their air mattresses to the island. After several trips, they had most of their gear.

In case their island caught fire, they also developed an alternate plan. They would place the kids on their air mattresses and hang out “Titanic style” in the middle of the lake. However, Brian knew that they would only have about one hour in the water before they became hypothermic.

**They Unknowingly Cancel Their SOS**

Once Brian made the last trip to the island with their gear, he and his wife discussed that they couldn’t hear any planes. They decided to hit the SOS on the SPOT tracker one more time. (They didn’t realize that this cancelled their first SOS.)

The company who monitors the SOS SPOT trackers called the Okanogan County Sheriff’s Department and alerted them to the emergency. They also called Brian’s point-of-contact, Chris and told him: “We received an emergency beacon from Brian, you’re on his list. But the SOS was cancelled.”

Not knowing what the situation was, Chris and his two friends head to the sheriff’s department. They meet up with the department’s Search and Rescue (SAR) Coordinator and discuss the SOS. After talking about options, the “cancelled” SOS and unknowns, they all decided to head toward the trailhead. In addition, the sheriff’s office made contact with the military for a Search and Rescue aircraft.
The Fire’s Air Attack Joins the Search
By now, several hours had passed since that initial SOS was sent.

The trailhead was a two hours’ drive from the sheriff’s office. As the SAR Coordinator and the others approached the final stretch, they encountered fire personnel at two different points on the road. Because the road was not officially closed they were able to continue.

At the final checkpoint, they met up with Division W, the Division Supervisor for that section of the fire, and talked with him about the possibility that the hiking party might be in distress. Division W asked the Air Attack assigned to the fire to go see if he could locate them. At this time, the sheriff’s department SAR coordinator suggested a “unified command” for the search. He also advised of a military helicopter being ordered for extraction. Division W and the SAR coordinator discussed staying “side by side” to coordinate their efforts.

They Hear a Helicopter Approaching
At approximately 1600, Air Attack started circling the lake several times. However, they were flying at about 5,000 feet and were unable to locate the hikers.

Division W, in conjunction with the sheriff’s department, decided to launch 1VC, a Type 3 Helicopter from the Helibase located at the North Cascades Smokejumper Base, to locate the hikers. As the request came into Helibase and not knowing what to expect, the helicopter crew loaded extra Nomex, gloves, and flight helmets onto 1VC and departed for their mission.

Around 1730, the hiking party heard a helicopter approaching, moving very slowly. Still on the island, Brian told everyone to stand up so that the pilot and crew could see that they were ambulatory and not injured. The helicopter circled the lake several times and then went to find a spot to land. 1VC sat down in a basin about one mile above where the hikers were waiting on the island.

“The hair on the back of my neck stood up.”
Jagger, the Helicopter Manager, describing his immediate reaction after landing near the lake, seeing the column bending over, and realizing the rescue task that confronted him.

Where Division W and the sheriff’s office SAR Coordinator were parked (Chris and his two friends were also there) did not have adequate cell phone service. The SAR Coordinator therefore decided to leave that location to make several phone calls. Sometime during this separation, the request for the military helicopter was cancelled.

Fire Cuts Off Trail – Can the 1VC Helicopter Extract the Hikers?
After the helicopter shut down, Jagger, the Helicopter Manager, saw that the fire’s column was now bent over the ridge. It was obvious that the fire had cut off the trail. Jagger thought: “You might be able to survive if you stayed on the
island, but it would be extremely uncomfortable. And there’s no guarantee that an ember wouldn’t catch the island on fire.”

Around this time, the SAR Coordinator returned and informed Division W that the military helicopter had been cancelled for unknown reasons. The next question came from the sheriff’s department: “Can 1VC get the hikers out? If they’re already there, can we use 1VC for the extraction?”

Discussions started between Air Attack, the Helibase Manager, the Division Supervisor, Operations from the Incident Management Team, and the sheriff’s department about utilizing 1VC or ordering a Type 2 Helicopter from the state to assist with extraction of the hikers.

**Weighing Exposure and Risk**

Jagger immediately started thinking about risks and mitigations. The fire posed a potential imminent threat to the hikers. They didn’t have any tree falling to perform to clear a helispot for the larger Type 2 Helicopter. However, because the only available Landing Zone was near a lot of heavy brush, additional help and equipment would be needed to clear an appropriate site for a Type 2 Helicopter.

Jagger relayed this information to Air Attack. He then started weighing exposure and risk: “Is it worth adding additional flights, fly in some jumpers to start cutting brush. Then bring in a Type 2, load those guys up and fly them out. Then come back and get the jumpers and everybody else? You’re adding at least two more flights to everything, using more folks, and multiplying exposure.”

After weighing the potential risks, threat of the fire to the hikers and added exposure, the group (Air Attack, Division W and Operations), decided to move forward with utilizing 1VC for the extraction—and have the Type 2 Helicopter ordered as a contingency.

**Mission Success**

Jagger started hiking down to the lake.

About 30 minutes later, in the distance, the hikers could hear him yelling “Yoo-Hoo!” He made his way to the lake’s edge and began communicating with the hikers. Jagger told Brian that they were looking at a two-hour window to get everyone out.

By the time everyone—all the kids and dogs and parents—had successfully crossed the water and reached the shore, they were all “totally spent.” Nonetheless, they now had to make the 40-minute hike to the helispot.

The helispot was at the headwater basin of the lake. It was muddy and mucky and there was “a gazillion mosquitoes.”

Brian and Jagger spoke to the pilot who had concerns about the dogs. The good news is that the dogs were exhausted from swimming and hiking. They ended up being “very good dogs.”

The helicopter had been powered down. A complete briefing was given to the hikers. They all put on PPE. The dogs had leashes to ensure that they were secure in the aircraft. In the first trip, they flew out Izzy, Chase, Lisa, Lindsey, and Stymie, the 40 pound dog.

After an approximate five minute flight, they landed in a green field. This landing site was identified as an area that would reduce flight time and exposure, and also eliminate the need to take on additional fuel had they flown back to the North Cascades Smokejumper Base.
The fire crews who met them in the field quickly stripped off their PPE, placed it into a bag, and 1VC flew back for the second trip. On that flight they were able to transport the rest of the hikers and dogs to the same green field landing zone.

The third trip was to pick up Jagger who they flew back to the Helibase at the North Cascades Smokejumper Base.

LESSONS

Unified Command, Unified Decision Making
The Okanogan County Sheriff’s Department and the Incident Management Team made the decision to coordinate activities to meet the common goal of Life Safety.

While Division W and the Search and Rescue Coordinator agreed to stay “connected at the hip,” due to the limitations of cell phone service they were pulled in opposite directions. The lesson learned from Division W was: “I should have handed him a radio when he left, just to make sure we had commo.”

Somewhere in the mix-up, the original plan of using a military helicopter got cancelled. This reduced the options for extraction of the civilians.

Be Ready to Adopt a New Plan if a Better One Emerges – But Continue to Pursue a Workable Plan in the Meantime
Although multiple plans began to emerge during this emergency, Helicopter Manager Jagger continued to pursue a plan with the least amount of exposure and risk.

We can only plan so much to meet the needs of volatile emergency situations. When reasonable risk management and thoughtful mitigation has occurred, taking measured steps to achieve this plan is much better than “paralysis by analysis.”

Decision Space, Policy Conflicts and Life Safety
A lot of healthy debate and “What If” planning can be derived from how “Decision Space” involving potential conflicts in policy and the Forest Service’s mission of Life Safety all blends—or does not blend—together.

Although multiple plans began to emerge during this emergency, Helicopter Manager Jagger continued to pursue a plan with the least amount of exposure and risk.

1VC, the Type 3 Helicopter at the North Cascades Smokejumper Base, was ordered to assist in locating the distressed civilian hikers within the fire area. Once on scene, the plan changed due to resource availability, time constrains, equipment and personnel needs.

One of Helicopter Manager Jagger’s lessons learned was if they’d brought a saw, the LZ could have been brushed out while contact was made with the hikers and the Type 2 Helicopter could have been brought in for the extraction: policy issues solved, Life Safety solved. However, without a saw that solution was not available.

Operating in the Decision Space provided can be challenging at times and difficult to plan for random events like this. Fortunately, there are emergency exceptions to policy: “Federal employees who are involved in an event in which there clearly exists an imminent threat to human life and there is insufficient time to utilize approved methods, may deviate from policy to the extent necessary to preserve life.”

Even with this exception it is important to highlight that this is an emergency exception, not meant to be a “go to”.

Be VERY Familiar with Your Satellite Messenger Functionality
The hikers in this incident were very fortunate to have previously identified friends and family who tracked their progress through a satellite messenger. These devices (popular ones include SPOT and inReach) can be used to
check-in with friends, family, or coworkers, to let them know you are okay, or to send an SOS in emergencies. They also provide the means for receiving instruction in the field, which might avoid a rescue all together.

However, it is important to be familiar with your specific device. The hikers in this situation were unaware of the fact that if you hit the SOS button and then hit it a second time, you cancel your original SOS. It doesn’t matter if it’s 10 seconds, ten minutes, or ten hours later. The temptation to hit the button a second time while waiting for emergency services to arrive will likely be hard to deny.

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