

Extreme Fire Behavior on Fire B-222, June 11 1999

On Friday, June 11th, we received a fire call a few minutes after 10 am. When we arrived at the fire we had to circle until the retardant drops were done before we jumped at about 10:30. The fire appeared to be around 20 acres and most of the fire activity was at the head. There was a very light breeze out of the north. The second load of jumpers jumped immediately after us and as soon as we had our cargo my load started working up the right flank and the second load began working up the left flank of the fire. The fire was burning in thick black spruce with mostly feather moss and some caribou moss underneath. Once an area burned it appeared that it was not burning very deep and seemed to cool off fairly quickly with not very many hot areas remaining. The state people on the fire had a hose lay in up the right flank. When we got to the end of their hose lay, 3 of us stayed back to help continue putting in the hose lay, I and the other 4 continued on up the right flank beating out any hot spots we found. In most areas the fire had gone out where it hit the retardant and was only smoldering. We found several areas that we called in helicopter bucket drops to knock down active flame. At about noon, Bill Cramer took the weather and got a temperature of 76 and an R.H. of 26.

Throughout the day Bill and I were discussing that with the current fire behavior we were going to be seeing an increase in fire activity as it got warmer and drier and that when the predicted SW winds occurred we would most likely have some problems. For this reason we were especially conscious of any unburned fuels inside the fire line and kept track of the quickest way to get into good black areas. Around 1 PM a dozer caught up with us. It was going pretty direct on the fire edge until it caught up with us at which point the fire edge was more active and the dozer began working off of the retardant line, which at that time was holding well. Ken Perry, in the air attack ship, directed the dozer from this point on as he had a good view of the fire as well as the best location for the indirect line. The dozer went through about 150 yards of thick black spruce and then broke into more open spruce and dwarf birch and then it continued the line on to the assault strip where the 3rd load of jumpers landed.

Bill and I walked the line out to the assault strip and had the dozer come back to widen the line where it went through the thick black spruce. After the dozer had started back to the assault strip the fire started burning through the retardant about 75 yards south of where the dozer line began going indirect. This area was 50 to 75 foot white spruce with some hardwoods. The spruce torched and we got spotting across the line. This occurred sometime around 3 PM. Veitch and Hardy came up to give us a hand and Ortega and Jim Dibert also began searching the green for smokes. We found a lot of smoldering embers but only one spot that was

actively burning. Veitch and Hardy continued to look for smokes in the area while the rest of us went to see if we could burn out an adjacent, small patch of black spruce that was between the dozer line and the fire's edge. Around 4 PM I went into the patch and tried to light with a fusee but found that there was too much retardant to get it to burn. While I was in the spruce patch I started hearing a noise, coming from the interior of the fire to the south, near the head, that I could not identify. The fire was located on Fort Greeley and we had been hearing discarded blanks and/or small arms rounds going off most of the day. I heard Veitch and Cramer discussing the noise on the radio and heard Veitch suggest that it might be rocket engine igniting. I yelled out to Cramer that it might be an old fuel cache burning. At this point the noise was intermittent and sounded like a highly volatile fuel burning very rapidly and seemed to be at least several hundred yards away. I returned to Cramer, Ortega, and Dibert on the dozer line and by this time the noise was steady. At this point about 2 to 4 minutes had passed since we first heard the noise.

When I got back to the group on the dozer line I said the noise sounded something like a fire whirl. We had green black spruce blocking our view of the interior of the fire but looking over them we could see some unusual disturbance in the air. That was the first time we could see anything unusual and I don't clearly recall what it was that I saw, but something was happening out in the interior of the fire that did not look right. At this point Cramer said he didn't care what it was, lets get the hell out of there. We turned and ran back down the dozer line towards the tail of the fire. Cramer was in the lead followed by Ortega, Dibert, then myself. We ran about 75 yards and I remember looking over my shoulder at least once and seeing what looked like a large fire whirl following us and quickly gaining on us. At this point Cramer led us into the burn to the right, at close to a 90 degree turn, which was burned over black spruce with only a few smoldering areas. Most of the smaller limbs had burned off of the trees and we were able to run fast. I looked back and it quickly became apparent to me that the whirl was now on the same course as we were once again. Shortly after entering the black the fire whirl started sucking in the air from in front of us and we were running into an increasingly strong wind filled with ash and debris. Cramer apparently realized that we were in the whirls path and made several changes in our direction of travel but the whirl continued on the same course we were on. By this time visibility was only a few feet and I could just make out Dibert in front of me. At this time I got hung up in some small black spruce, dropped my beater, and tried to get through or around the trees. I immediately lost sight of my companions. Before I could get around the trees the wind increased to the point that I thought I was going to get picked up and I reached out to grab the nearest tree. As I reached

for the already burned tree trunk, it ignited and began glowing orange as did everything I could see including the ground around me as well as all the other trees I could see. At this point the wind was not nearly as strong and visibility was around 20 feet or more. There was debris swirling around but not really any smoke. Everything I could see had ignited and was glowing bright orange like the coals in a hot burning fire. I immediately thought that I couldn't breathe the super heated air I was in but I couldn't drop to the ground as it was all burning. I put my gloved hands over my face and ran to my left at a 90 degree angle from our previous direction of travel. I remember that everything on the ground was burning and glowing bright orange but that the tree trunks had black areas scattered over maybe 5 % of their total surface. I assume these were areas that were not burning. I knew I only had seconds to get out and chose to run to the left because the whirl had been following us and I didn't want to continue on that course for obvious reasons. I ran for 30 or 40 feet before I was clear of the area where everything was burning. I do not remember going through much of an area where the winds were as strong as they had been while we were running from the whirl.

When I got clear of the whirl I ran back to the dozer line we had ran into the black from. It seemed like it was about 75 yards back to the line. As I was running back I could feel that the back of my calves were burned as well as my right elbow. As soon as I got to the dozer line I called Cramer to see if they were alright. He responded that they were. As I was talking to Cramer I could feel that my face and ears were also burned. As soon as I got off the radio I began putting water on my face that I soaked up from melting ice in the dozer line. From the time we began running until I was back out on the dozer line was no more than 2 to 3 minutes, possibly less. I walked back down the dozer line and then followed a road that led into the black and met up with Cramer, Ortega, and Dibert. Shortly after that Hardy and Veitch were able to make it to where we were at. We knew that if any more whirls came through we were not safe in the black where we were but Ortega thought he remembered a wet meadow nearby. We found it and stayed there for around 3 hours, until things had settled down enough that we could return to the jump spot. I continued to cool my face and ears with water. I ended up with second degree burns on my ears, nose, upper lip, chin, cheeks and right elbow. The rest of my face including my eye lids had first degree burns.

The next day when I was back in Fairbanks and being questioned, I was asked if I had thought about using my fire shelter. There is very little doubt that if I had attempted to use a fire shelter I would not be alive to write this statement. First of all, the only possible spot to deploy a shelter on this fire was in the black. As I think I made clear in this statement, where I was at the black glowed orange when

the whirl came through. Even if you were somehow able to hang on to a shelter in winds that I thought I was going to have to grab a tree to keep from being blown away, you would have cooked nicely when the center of the whirl arrived. I was also asked if I thought about using a shelter as a shield while running. Obviously it would not have been possible to hang on to a shelter and I don't really understand which side I would be shielding when the ground beneath me and everything around me was burning. On this fire, as on almost all fires in Alaska, there was only one safe place to be and that was in good burned black in which case a fire shelter is not needed. If people are led to believe that a fire shelter is usable in most Alaska fuel types and try to use them rather than getting to a truly safe spot, we will have fatalities. When a rare event such as this fire whirl occurs there is no safe place to be except out of its path.

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