

The First California Cadet Corps Snow Survival Bivouac

In 1964 or 1965 I was helping Paul Krumhaus coach the La Sierra Rifle Team at the El Camino range when I overheard Colonel Armstrong talking about running a snow survival trip at the San Juan Unified School District's summer camp, Camp Arcade. The previous year he had taken several cadets into the Sierras for a one-day "snow survival" field trip. I think that part of Colonel Armstrong's motivation was that Jim Winthers, the district's director of PE and Recreation wanted to begin using the Camp Arcade facilities the year around.

As a Cadet, I had been involved in the wilderness survival training programs that had been conducted in the Sierras during the California Cadet Corps summer camps so I was interested in this new concept of an overnight Snow Survival Bivouac. However I was also a little intimidated about the idea. I had never done anything like it before. I had never, ever, even been camping in cold weather. But there was something about the challenge of a Snow Survival that made me want to do it. The more I listened to Colonel Armstrong talk about the idea, the more my interest increased.

After much thought over the next week or so I decided to volunteer to help out on the trip. When I mentioned participating, as an Assistant Commandant, I remember Colonel Armstrong asking me if I was really sure that I wanted to go. It was as if he needed a strong commitment from me and didn't want me to back out. Perhaps he sensed my initial apprehension or just wanted to ensure that he got the extra help. I didn't know it at that time, but few participants on that trip knew more that I did about snow survival. But that was part of the challenge – I always loved to discover how to do new things.

I actively participated in several of the planning sessions that were conducted at El Camino High School and in Jim Winthers' office. Mr. Winthers had a number of connections in the area around Camp Arcade and Soda Springs because of his active involvement in the amputee skiing program. As a result, he promised to obtain the loan of a Thiokol Sno-Cat from one of the ski resorts in the area to help us move our parachute shelter material and other equipment into Camp Arcade. As the planning progressed, I lost my apprehension and got rather excited about this survival trip. Still, I had no idea about what was I was going to be called upon to do.

There were a number of challenges for me to overcome before the trip. I did not have nearly the right kind of equipment needed to live comfortably in the snow. I didn't have a good backpack, a good cold weather sleeping bag, or even waterproof boots to use on the trip. Instead, I had a bunch of equipment that I simply improvised for the trip.

My sleeping bag had belonged to my great grandfather and was old and heavy, probably made with cotton batting or perhaps wool. It had always been warm enough for me on summer camping trips but I figured that I needed more than that to sleep comfortably in the snow. I was right. I found an old wool army blanket that my mother sewed together so that it would fit inside the sleeping bag and provide some extra insulation. I was also able to borrow an air mattress from a friend that would keep my sleeping bag and me up off the cold snow. I did have a good warm coat, several pairs of wool socks and was able

to borrow a couple of pairs of wool long underwear from my uncle. The extra wool long underwear and socks really made a difference for me and some others on the trip. For footgear, I decided to use my National Guard issued combat boots, thinking that they were waterproof and designed for use in the snow.

The Trip In

When we got to the Soda Springs area, there was a little delay as Mr. Winters searched for the person that was going to get us the Thiokol Sno-Cat. After checking several places he finally arraigned for someone to meet us at the trailhead with the Sno-Cat. This is where we joined Colonel Armstrong and all of the survival students that had come up by school bus. Colonel Armstrong had brought a large toboggan along and we loaded the parachute material, snow block cutters, and other items in the cab of the Sno-Cat.



The Thiokol Sno-Cat The idea was to have the Sno-Cat pull the toboggan into the camp area. However going into Camp Arcade from soda Springs is mostly downhill and we needed a way to keep the toboggan from running into the Sno-Cat. The solution was to have me and a couple others act as brakes by holding onto the ropes attached to the toboggan. We were to trot along as the Sno-Cat moved across the flat terrain and then act as brakes like a snow plowing skiers on the downhill sections. It wouldn't be long before I wished that I had been on skis. I discovered that I was running a lot more than I was trotting in order to keep up with that Sno-Cat. The only advantage to acting as a brakeman was that my heavy sleeping bag and other packed possessions were being carried inside the cab of the Sno-Cat.

There was 6 or 7 feet of snow on the ground and it was fairly hard packed and frozen on the surface as we began the trip into Camp Arcade. This was typical for spring conditions at 6,000 feet in the Sierras. The sun was shining and it was fairly warm, especially with all of the running that I was doing. When we were about halfway into Camp Arcade I noticed that the surface of the snow was becoming slushy which made running more difficult but it also slowed down the Sno-Cat. My feet were now wet and were starting to get cold. This bothered me because I realized how important it was to keep everything dry in the snow. But, there was nothing I could do about it, as I had to keep up with the Sno-Cat.

Surviving

We arrived on the plateau just north of the main part of Camp Arcade a little bit after noon. We untied the toboggan, unloaded the Sno-Cat so that Mr. Winthers drive it back to Soda Springs. I was dead tired and rested by lying on top of my poncho and other equipment in the sun. I almost fell asleep. Most of the Cadets and Commandants who were hiking in with their packs arrived a couple of hours later. They told us that the Sno-Cat had broken down in the slushy snow on the way out. We were lucky to get everything in to our campsite.

We gave the Cadets a little rest after they arrived, but soon got them building their shelters for the night. Everything had to be completed and occupied before the sun went down and we did not have much time left. The snow was in perfect condition to cut snow blocks for shelters. We had several air force surplus snow block cutters that the Cadets used for that purpose. The Cadets built two circular, vertical walled structures about four or five feet high. We cut trees to make long wooden poles to support the cargo parachute material that was used for the roofs of the shelters. Colonel Armstrong and Lt. Krumhaus supervised that shelter building activity while Lt. Robinson from Grant Union High School helped myself, Richard Martimo and one other Cadet staff member build a para-teepee to house the Commandants and staff. It was made with even longer poles that were lashed together at the top and then covered with a single orange and white parachute. The green bows from the trees that we had cut were used for the floors in all of the shelters. Not only did they provide some insulation, they really made the shelter smell good.

Other cadets were sent out on wood foraging trips to bring back wood to feed the fires during the night. Being six or seven feet off the ground made it easy to find and gather dead branches from the trees in the area. Some of the branches were quite large. By sundown each survival shelter had a large supply of “dry” wood. Another party of Cadets took the toboggan, everyone’s canteens, and two five-gallon water cans down to Cascade Lake where they were filled with water. This group really had to struggle bringing the water back to camp.

We placed fire platforms in the center of each of the shelters. During the planning sessions for the survival trip, Colonel Armstrong had suggested the idea of placing aluminum foil on the snow to act as a fire platform. He said that El Camino Cadets had used this technique for cooking fires on their previous one-day snow trip. He said that it had worked quite well. The shiny aluminum foil was supposed to reflect the heat from the fire away from the snow. This would allow the fire to be able to burn on top of the snow without sinking. It was a good theory, but no one had thought about aluminum also being a good conductor of heat. We brought a large supply of aluminum foil with us to use for this purpose.

Once we had the para-teepee built, I placed a layer of fir boughs on the snow and covered them with my poncho. Next came my air mattress and then my sleeping bag. I would be plenty warm – I thought! We put an aluminum foil fire platform in the center of the shelter and the sleeping platforms were arraigned around it. Everything seemed to be going well as the sun set in the West. Everyone had recovered from the trip in, the shelters were up, morale was high, and everyone had a fire going to keep warm as they consumed their evening survival rations.

It began to get very cold as soon as the sun had set. The sometimes-slushy surface became rock hard again. As a result, everyone could be found in their shelters keeping warm around their fires. Many were tired and were already in their sleeping bags. It was about 7:30 PM when Colonel Armstrong made his final rounds of the shelters to ensure that everyone was OK.

Lt. Robinson and Lt. Krumhaus worked on getting the fire started in the para-teepee, while I rested inside my sleeping bag. I had never been so tired. I noticed that there was a problem with the fire from the start. The wood must have been too wet or green and the shelter quickly filled with smoke. It was hard to breathe even with the open shelter entrance. I remember lying in my sleeping bag with my head almost outside the shelter. I pulled some of the parachute material out of the snow so that I could breathe fresh air from outside. When Colonel Armstrong came into the shelter after making his rounds he started coughing and said that the smoke was intolerable. He decided to solve this problem himself. He picked up an arm full of dry twigs that we collected as fire starting material and put it all on the smoldering fire. In a minute or two, smoke was no longer a problem. The flames were leaping high in the shelter and were lapping at the parachute material. It was as if he had poured gasoline on the fire. I was sure that the whole place was going to go up in flames. I began pulling more of the parachute material out of the snow so that I would have a way to exit. Fortunately, the fire receded before igniting the parachute material. All the smoke was now gone and the fire was burning brightly. Some smoke returned later, but it was not nearly as bad as it had been in the beginning. The heat from the fire took it out the top of the teepee.

That night was a long one for me, as I had to keep inflating my air mattress because it had a slow leak. Even with the fire burning in the shelter, I was cold; especially when the air mattress deflated. So I put on every piece of dry clothing that I had with me to try and stay warm. That is where the two pairs of long underwear and extra wool socks came in handy. Even with all this clothing, I could feel my body losing its heat to the snow below. Sometime in the night I even put my damp coat between my air mattress and poncho for additional insulation. I had learned an important lesson – insulation below your body is much more important than insulation above it. The coat helped a little and I remember others complaining about being cold and putting more wood on the fire throughout the night. I do not remember how many times that I looked at my watch to see how much longer it would be before the sunrise. I must have checked it every ten or fifteen minutes. Toward morning I remember hearing crashing sounds whenever someone who was probably colder than me put more wood on the fire. But I was miserable and didn't think much about it. Throughout the night I repeatedly asked myself why I had come on this survival trip



Richard Martimo in the Para Teepee fire pit

When the sun finally did come up, I rolled over and almost fell into a huge hole where the fire platform had been. The fire had burned all way to the ground that night which was 6 or 7 feet down. This hole was about 4 or 5 feet in diameter.

Some of the people in the shelter had placed boots and socks up on sticks stuck in the snow in front of the fire hoping that they would dry out during the night. I had decided not to do that because the survival manual that I read indicated that the heat from the fire could damage both boots and socks. I had tied my wet socks onto one of the support poles well away from the fire and had used my boots as a pillow. As we started to get up, someone noticed that their boots and socks were missing, as were the sticks that had been used to prop them up. As the fire sunk into the snow and expanded

the resulting hole, the boots and socks fell in to the hole and were burned up. My first concern was that the same thing had happened to many other cadets in the other two shelters. This would have been a disaster because everyone had to hike all the way out. Mr. Winthers had skied back into our camp late in the previous afternoon to tell us that the Sno-Cat had broken down and would not be able to come back and take anything out. Some of the other Cadets had lost their socks, but only the residents of the para-teepee had lost their boots.

I had solved my problem with the leaky combat boots the previous afternoon by putting dry socks on and then covering them with plastic bags before I inserted everything into my boots. This had worked well for me, although I had to change my socks a couple of times. I placed the damp socks next to my body and my body heat quickly dried them out. The survival manual was right! We decided to use a similar technique to improvise foot protection for those unfortunate souls that had lost their boots.

We found several extra pairs of socks from others on the trip. I donated a pair of mine. We had the cadets without boots put them on and covered them with plastic bags. To keep the plastic bags from being punctured from the snow and to provide additional insulation, we covered everything with nylon material cut from the parachutes. Everything was lashed together with parachute line. Although this field expedient kept the feet warm and protected them, walking was difficult at best. Those unfortunate souls were constantly falling down especially when they got to be steeper slopes during the hike out. They wisely decided that they could not possibly carry a pack out and left all of their possessions at Camp Arcade.

Since we didn't have the Sno-Cat to pull the toboggan back out with us, we decided to do the same thing with it and the other equipment that had been pulled in. We simply placed all the items under the wooden tent platforms that had been propped up against trees so that the snow would not crush them. I decided to also leave my heavy sleeping bag and a number of other items there since I would be back at Camp Arcade that summer to help run the California Cadet Corps summer camp. That was a wise decision as it allowed me to help many others carry their equipment on our hike out.

The Hike Out and Killer Hill.

The hike out became the longest and hardest day of my life. I was tired from lack of sleep; my muscles were sore from all of the running behind the Sno-Cat, and being a brake for the toboggan on the previous day. Plus I knew it was a long way out with much of it being up hill. The first couple miles of the trip from Camp Arcade was generally flat and easygoing. Colonel Armstrong asked me to bring up the rear and keep the Cadets moving forward. This was difficult because many of the Cadets were also tired and not used to the level of physical activity that they were experiencing. I began to notice that many of them were lightening their loads by discarding items along the trail. It started with small items such as a canteen, or a cooking container at first and then progressed to the abandonment of coats, and entire packs along the way. I decided that this activity had to stop and I began by having the Cadets without packs return with me to pick them up. I became a very unpopular person, perhaps even hated by some. But this was also hard for

me, as I had to hike a lot farther. However, it did stop Cadets abandoning their gear when that saw others having to go back and get their belongings. I also helped by carrying the packs for some of the cadets that were having the most difficulty. The other commandants were doing the same thing. I was also constantly yelling at Cadets to keep them moving forward. My mission became a quest to get everyone out with their gear.

I'm not sure who name it Killer Hill, but I am going to give the credit to Bruce Cox and Craig Mommer from San Juan High School. The name was really appropriate. Killer Hill is located beneath the power lines on the trail going out to Soda Springs. It was a very deceptive hill that is steep and consists of multiple levels. As we hiked up the hill we thought that we could always see the top, just a little farther on. When we got to what we thought was the top, it flattened out a little but then continued on up. Killer Hill must have deceived me like that fifteen or twenty times. I didn't think that I was ever going to make it to the top. Everyone was having difficulty now. We would hike a short distance and then rest. I started helping weaker Cadets carry their packs for a while. Many refused the help saying that they wanted to do this themselves. They earned a great deal of respect from me. Others seemed very appreciative. Even though they were tired some of the Cadets followed my example helped other Cadets with their gear.

I remember two cadets from San Juan, Bruce Cox and Craig Mommer. It was obvious that they were friends as they had stayed together on the long hike out. But they were also having a great deal of difficulty with Killer Hill. I began pushing them hard, probably too hard. I had never met them before the snow survival, and they must have hated me for the pressure and pushing that I applied to keep them moving. But, I think that this hate turned into a desire to prove to me that they could make it up the hill. I think that the hate was what got them out. I was really pleased when both of them made it back to the trailhead together with all of their equipment. They had performed very well and I think that they both discovered that no matter how tired and miserable they got, they could always take one more step. Later, I became the best of friends with both of them. Somehow, we finally got everyone safely to the trailhead and waiting school bus.

The first Snow Survival trip was a learning experience for everyone. We were fortunate that we had such good weather so that we could learn techniques about how to teach kids to survive in the snow. We learned about the difficulties of cross country movement, equipment requirements, fire building techniques, keeping warm, and dealing with leadership problems under very difficult conditions. The next time that we went into the Sierra's we were much better prepared, and this second time we went in the middle of winter which brought its own unique set of learning experiences. The soft deep snow of January presented its own unique problems to solve. But that is another story...