



Helicopter and Snowmobile Crashes

Snow Surveyors have one of the best jobs in the world. The office work is very interesting and challenging and the work just gets better when we go to the field. We are surrounded by natural beauty as we traverse the mountain ranges of the West trying to further our understanding of snow hydrology--and they pay us to do it! There are inherent dangers in our vocation, however, that have the potential to result in serious injury or worse.

The use of two of our most common forms of motorized transportation, helicopters and snowmobiles, although enabling us to accomplish much more in a given time frame than would be possible otherwise, can also have very dangerous consequences. After-all, they are just machines and machines sometimes break. Compound mechanical problems with bad weather, poorly maintained equipment, a lack of experience or just plain bad luck and a beautiful day can turn into a nightmare.

On March 3, 1983 a snow survey crew in Idaho consisting of Peter Palmer, Rick Eastland and their pilot had their day turn sour when their helicopter plowed into a mountainside at 50 mph while trying to get through a high mountain pass before an approaching storm obscured passage. Because of their good survival training, protective gear, a detailed flight plan and more than a little luck, they were able to survive the helicopter accident, a blizzard and near zero temperatures with just superficial injuries.

I have personally experienced a couple of near misses while working in and around helicopters. The first was engine failure and the second was a sling that self-released. Fortunately, we were just a few feet above a 100 inch cushion of Utah powder when the engine died. The ship, pilot, and I were uninjured. What we learned from that experience is that snow deflectors don't deflect when you are sitting on the ground with the engine idling in an intense snow storm. The air intakes had frozen over and starved the engine of oxygen. We found an open window on a nearby cabin and spent the night quite comfortably and flew out the next morning after the sun had warmed things up a bit.

The self-releasing sling was a mechanical malfunction. It happened between the staging area and the Snotel site. We were able to locate the sling and salvage what was salvageable and now we know why you should never stand beneath an airborne sling.

I am sure there are many, many more untold helicopter stories that will surface some night when snow surveyors get together to share their experiences but now let's move on to snowmobile accidents.

Yours truly, "Crash" Wilson had a close encounter with a buried rock coming out of Jack Creek, NV which, although bruisingly painful, turned out to be much more catastrophic for the Ski-Doo I was riding than for me.

John Weeks, leader of the Snow Survey Electronic Maintenance Facility in Portland, OR, reports being body-slammed and ridden by his snowmobile as he was returning from a maintenance trip. A good chiropractor and three or four weeks of recovery time and he was vertical again.

On another trip John's machine died and he injured his back so badly trying to restart it that he couldn't even stand. When his bush pilot returned to pick him up, he located John about 500 yards from his snowmobile. John had pulled himself to that point with his elbows in an attempt to make it back to the remote air strip where the pilot had dropped him off.

Other accidents have happened before the snowmobiles even got unloaded. Once again, John Weeks recounts having the front corner of his tow vehicle run over and crushed to the ground by the rear trailer tires of a fully loaded log truck as he was enroute to the snowmobile unloading area. He adds that if he would have been pushed a couple more feet, his truck would have rolled down the embankment into the river.

Allen Aronica, working out of the Ellensburg, Washington Natural Resources Conservation Service (NRCS) field office left to conduct a snow survey in the Manastash Range on February 27, 2001 with his co-worker Chris Johnson. On the way back to the truck Allen was thrown off his machine after accidentally hooking a tree with his right ski. He then slid down an embankment and broke both legs. Chris was able to contact search and rescue and build a fire. Search and rescue arrived between 1900 and 1930 hours. It was 2100 hours before they were off the mountain. Allen and Chris's cool heads, the ability to call for help, and a survival pack with fire starting aids paid off big time! The following image is Allen's wrecked snow machine.



A 17 inch pin was inserted into Allen's left leg and he had to keep weight off it for 6 months. What puzzles Allen is that this accident shouldn't have even happened. He says, "That was the first accident I ever had and I look back at all the times I probably should have gotten hurt much worse than I did."

This last incident is so bizarre, it is hard to believe. At one time Utah's Snow Survey office had several mountain-top radio repeaters used for data transmission and emergency voice communications. Mountain-top repeaters, being situated in such inhospitable places, are prone to failure. Utah's Ed Harrelson, the electronic technician for the office, was on his way to the repeater to try to get it back on-line when the incident occurred.

The road to the Francis Peak site is also the access road to a radar site used for commercial and military aviation and thus is kept open year-around. Ed and his partner had radioed ahead as required to inform the road crew of their intentions. That being done, and approval to proceed granted, they started up the road. Just before getting to the repeater site there is a long, narrow passage through a snowdrift that can reach 30 or more feet of depth in the middle of winter with no place to go on either side. They had just passed through that passage in a blinding windstorm when Ed saw what appeared to be headlights approaching. Knowing that this could be the huge snow auger that was used to keep the narrow passage open, Ed bailed of his machine just in time to avoid being eaten alive. The auger driver hadn't seen the approaching snowmobiles. He only knew he had hit something. When he got down to ground level he saw a half-chewed snowmobile in his auger. The cowl and part of the engine head were gone. Imagine his relief when Ed clawed his way back up to the road and they made eye contact.

Somehow the communication protocols had failed and the auger continued to operate even though our crew was approaching. Once again, the accident outcome was much better than it might have been. The following image is of the chewed-up snowmobile.



It wouldn't be hard to write a book with the stories Snow Surveyors tell of their exploits. Some are the terrifying kind. The personal accounts from those cited in this article are chilling to read in detail. They make a good bar-side or fireside tale. And, happily, most of them have a happy ending. But, just a little less training and preparation or a little worse luck and the outcome could have been tragic.

Hone your survival skills, go prepared for the worst, take the time to file detailed trip plans , arrange for check-in personnel , enjoy our beautiful work surroundings, but make it home safely.

Ray Wilson
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