

with a safe run out selected. It does point up the inherent, but unavoidable potential of the ice axe in the hands of a beginner.

*Washington, North Cascades, Sharkfin Tower, Cascade Pass Area.* On August 7 a party of 6 (3 ropes of 2) was returning from an ascent of Sharkfin Tower. They were at the base of the rock summit at the top of a steep snow slope (50-40°). At 3:15 P.M. the first rope of Greg McGibbon and Bob Fraser had descended the snow slope and was a few hundred feet below in a rock gully as the second rope of Dave French and Fran Stevenson reached the snow slope. Mary McEachern of the third rope had reached the snow slope also and was belaying Dave Stevenson down the last 60 feet of rock. Dave French began to descend by heeling in (facing out) while on an ice axe belay by Fran Stevenson. The belay axe was fully inserted in a two foot wide snow platform. Dave French had descended about 20 feet at a slight angle when snow broke out under his feet and he fell, starting to slide rapidly. He slid about 15 feet while assuming an ice axe arrest position and the rope came up against the ice axe. The belay axe pulled out (it was later found half-way down the slope sticking in the snow), pulling Fran Stevenson from her belay stance with considerable force and starting her on an uncontrolled slide down the snow slope. About two thirds of the way down the slope she slid by French who was in arrest position, but still sliding rapidly. Fran encountered the rocks first. At this time she was falling on her back, head first. She made three complete backward rolls through the boulders and finally stopped twenty-five feet down the rock slope. Dave French slid over the rocks in arrest position a very short distance. Both climbers lost their hard hats. Fran's had been broken during the encounter with rocks and no doubt saved her from a severe skull fracture. Both climbers were stopped by the rope which had snagged on the rock. The entire fall for French was approximately 100 feet, and for Stevenson about 160 feet. Both climbers were conscious after the fall. Dave French had a severe pain at the base of his spine and Fran had extreme pain in her neck in addition to serious bleeding. French administered first aid to Fran to stop the bleeding from a lacerated skull and a deep puncture wound below her left knee. With the aid of the other climbers in the party she was moved to a small improvised ledge of rock and extra clothing was placed around her.

At 4 P.M., after obtaining full details of the nature of the injuries, McGibbon, Fraser, and McEachern returned to base camp. Dick Irwin then proceeded by foot and car to the ranger station (U.S.F.S.) at Marblemount, arriving there at 6:10 P.M. Details of the accident were then relayed by F.S. personnel to Skagit Sheriff's office.

In the meantime a relief party of five returned to the scene of the accident from Sierra Club base camp in Boston Basin with shelter, food, sleeping bags, and other supplies. Fran was moved again to a larger platform. A pack frame was used to help support her back and neck. Dave French was able to return with care to base camp. Fran's husband, Dave, and Dick Brown remained with her during the night.

The morning of August 8 was cloudy. A rescue party with two Stokes litters, a Navy medical corpsman (member of N.A.S. Search and Rescue

and trained as a climber) proceeded to the accident scene, about four hours from the road end.

A helicopter made an early morning attempt over the area, but cloud cover was too heavy. Chopper returned to Whidbey Island to wait for the weather to clear. In the meantime ground parties had reached Fran and were preparing her for evacuation. Lt. Greenway returned just as fog began to lift. It was necessary to discharge weight from the helicopter. One crewman was left out at Marblemount and considerable fuel was jettisoned over the mountains. On the second pass over the accident scene a cable was lowered from the UH2B and the Stokes was hooked in with carabiers. With skill the pilot maneuvered the "chopper" out over flying space and reeled Fran into the cabin. The pick-off was accomplished at 2:20 P.M. and Fran was flown to an air field near Mount Vernon where she was taken by ambulance to Skagit Valley Hospital. Her injuries were diagnosed to be a fractured neck (Atlas Vertebra), lacerated skull, and deep puncture of the left leg.

Dave French had been able to walk, with assistance, to the end of the road. He was transported to the town of Concrete by Forest Service vehicle for examination by a doctor. He was then placed in the hospital at Sedro-Woolley for observation for 24 hours. His injury was a bruised socket in his lower back.

*Source:* David A. Stevenson and Skagit Mountain Rescue Unit.

*Analysis:* Although an ice axe belay is adequate under many conditions when an experienced person uses this belay, it seemed to be less than adequate under the rotten-snow conditions experienced. It is also considered that if a completely static belay had been maintained, the loss of control of the belay would not have been experienced. A belay set up from the rock, or in a moat, would have been considerably more secure, especially with persons more accustomed to rock than snow. A more cautious descent of the steepest part of the snow slope could have been made facing the slope and using the shaft of the ice axe to arrest any slip. Although the members of the climbing party had considerable skill in technical rock climbing, they lacked experience in snow climbing. As a consequence they failed to appreciate the potential danger of a steep slope of rotten-snow. This accident also points out the hazard of the relaxation often experienced when returning from a successful climb.

It is quite certain the blow that damaged Fran's hard hat also caused the neck fracture. Nevertheless, it did prevent what certainly would have been a fatal fracture of the skull. It is noteworthy that both hard hats came off during the encounter with the rock. This points out the need for a more effective chin strap system to keep hats on during falls.

*Oregon, Saddle Mountain.* On 2 August Dennis Bean, John Neuschwanger, and Bob Kennedy started a climb of Saddle Mountain, a rock-buttress in Oregon's Coast Range (elev. 3282'). They chose to climb the series of cliffs to the left, or west of the State Park area at the south base of the peak. After an approach up brushy and talus slopes, a narrow ledge was followed out onto the rock face to the right for several hundred feet, then a direct ascent up a shoulder of the rock. Bean, with basic