

memory. The Assistant Guides Course did not inform the victim's parents about the accident and only considerably later answered their letters inquiring about their son. (Source: Dick Culbert.)

Analysis: First, since the climber was carrying a heavy pack on a technical pitch, he should have been tied in with a chest harness. Second, a properly placed chock should be at least as strong as a piton. However, since chocks are placed rather than pounded, they can be less secure. This defect can be compensated for by frequent placement and long slings. Third, reliable mountaineering outlets do not sell poor quality helmets. This accident demonstrates the narrowness of the philosophy that "any helmet is better than no helmet at all." A helmet should be judged not only by the strength of the shell, but by its ability to absorb shock from the side and the top, and to stay on the head in a fall. (Source: James Prior.)

AVALANCHE IN A BOWL—Yukon, St. Elias Mountains, The Weisshorn. After having climbed Mt. Hubbard and Mt. Kennedy, the Polish Mountain Expedition *Alaska 1974* set out to climb the virgin peak, the Weisshorn, and nearby peaks for one of which they planned to propose the name, *Mt. Poland*. They had supplied their high base camp at the 8300-foot level on the Cathedral Glacier by helicopter from their main base camp at Mile 1022 on the Alaska Highway, where they had set up a sophisticated amateur radio station, SP9PT/VE8.

After several days of bad weather spent in high base camp, good weather on 28 August prompted the team, Henryk Furmanik (leader), Adam Bilczewski, Adam Zyzak, Janusz Baranek and Krzysztof Tomaszewski, to start. Jerzy Kalla remained at high base camp to relay radio communications between the climbing team and the helicopter patrolling the area. After traveling down the Cathedral Glacier for about a mile, the climbing team turned left, crossed the ice fall, and reached the bowl under the west slope of the Weisshorn in the afternoon. The entire route from high base camp to the bowl was wanded and hourly radio contact was maintained with Kalla during the day. Since the weather was good and it was relatively early in the day, the team decided to try for the unclimbed peak approximately 1500 feet above them just to the southwest of the Weisshorn by the northeast ice flank. At first the terrain was easy but progress was slow due to the softness of the snow. In the middle of the ice flank, there were some technical difficulties and considering the approach of evening, it was decided to try again the next morning. Furmanik, Bilczewski and Tomaszewski returned to the bottom of the bowl and prepared a bivouac in a narrow depression about ten feet deep surrounding a single ice block about 15 feet in diameter. Zyzak and Baranek made a visual reconnaissance of the eastern ridge of the same peak and the south ridge of the Weisshorn, establishing that these two ridges were the easiest approaches to the summits; they then descended to the common bivouac. Furmanik, Bilczewski and Tomaszewski slept on the south side of the ice block, while Zyzak and Baranek chose the west side of the block. The night was beautiful with light frost and there was no wind.

About 7:30 a.m. on 29 August, a great ice barrier block above severed and caused a great avalanche of snow blocks and loose snow. Bilczewski saw it coming and he immediately shouted to the others and retreated to the north side of the ice block. Baranek and Zyzak, though hindered by their anoraks, crawled about ten feet around to the same side of the block. The front of the avalanche was about 30 feet high and it seemed to have stopped; but then the lower part was pressed forward and Zyzak, Baranek and Bilczewski found themselves in a six-foot wide

shadow of the ice block as the tongues of the avalanche flowed past. Zyzak's right foot was caught in the compressed snow. Baranek and Bilczewski immediately tried to dig for the two who were missing, and were joined by Zyzak after he had freed himself. The three survivors could find no sign of Furmanik and Tomaszewski, the radio, or the ice axes, which were most important at the moment. Search was possible only by hand and was abandoned after about 30 minutes. Further action seemed useless because of the time lapse and the fact that the avalanche consisted of great ice blocks several hundred pounds in weight, was 1500 feet long and 600 feet wide. Henryk Furmanik and Krzysztof Tomaszewski were probably buried in the depression and covered by ten feet of snow, presumably dying immediately.

The survivors decided to descend to the high base camp as soon as possible before the snow softened and snow bridges over crevasses became unsafe. They traveled without ice axes and rope by the route marked on the way up the day before. Bilczewski walked without shoes since they were lost. The camp was reached without incident in three and a half hours. The helicopter came to high base camp at 3:00 p.m. and by evening the four remaining members were evacuated from the Cathedral Glacier to the base camp near the Alaska Highway. The news of the tragedy was sent by the amateur radio station there to the town of Katawice, Poland.

On the morning of 30 August, the Canadian Rescue Group with a Canadian Mounted Policeman and Adam Zyzak flew by helicopter to the accident site. The leader of the rescue group decided that further avalanche danger precluded any work by ground parties in the area. (Source: Adam Bilczewski.)

Analysis: The St. Elias range receives an enormous amount of precipitation in the form of snow, so the whole range is subject to severe avalanching. During several days of bad weather¹ a brand new snow load is added to the high slopes and often comes off in the form of avalanches. This party was well prepared and quite well equipped. Communications radios were carried, but no avalanche radios were. Avalanche cord appears to have been absent. The bowl at the foot of the Weisshorn was an avalanche track, since the huge ice block could have gotten there no other way.² Avalanches, like lightning, strike in the same places more than once. A ridge, though windier, is far less dangerous in avalanche conditions than a valley or a bowl. (Source: James Prior.)

¹ Bilczewski responds in a letter that the precipitation prior to this avalanche was rain.

² Bilczewski feels the ice block was brought down by an earthquake at least ten years ago, as the block appears in a photograph taken that long ago.