
*4 caught***Weather Conditions**

In early December 1969, a shallow snowpack lay over much of the Wasatch Range. A storm moved into the region on December 4 and snow fell daily for nine straight days. By the 12th, 36 inches of new snow had increased the snow depth at Alta from 17 to 39 inches. Temperatures had remained cold, rarely exceeding 20°F at any time until the end of the storm on the 12th. Then the temperature rapidly warmed, reaching a high of 48°F on the afternoon of the 13th. Winds had been strong and from the west on the 9th to the 12th.

Accident Summary

On the morning of December 14, a party of five experienced ski tourers left Alta and proceeded up to Cardiff Pass enroute to Lake Blanche. The group skied down the north side of Cardiff Pass on what appeared to be stable snow and then traversed below the east ridge of Mt. Superior. From this point it is necessary to traverse a broad, open bowl, climbing all the way to reach a saddle on Cardiac Ridge. From this saddle, it would be downhill all the way to Lake Blanche.

As the group began their traverse of the open bowl east of Cardiac Ridge, it became apparent that wind action had produced soft-slab conditions. They continued their climb and reached the final steep section near the ridge crest. In this area the snow had formed a uniform hard slab. The surface was so icy that the main concern of the skiers was to maintain their footing.

When the two skiers in the lead were within 100 yards of the saddle, a wide area of the slope broke loose 50 yards above them. Skiers 1 and 2, who had been highest on the slope, remained on the surface as the snow slid out from beneath them. They were carried on a fast ride but were not buried. Skier 3 was farther downhill and in the center of the slide area. He was hit hard by the avalanche and was tumbled downhill. Although he was buried several times during his ride, he came to rest on top of the snow. Skier 4 was nearer

the edge of the slide and rode it on top of the snow. Skier 5 was below and to the right of the avalanche area and was not involved.

All five skiers were using special ski poles supplied by the International Vanni Eigenmann Foundation. These poles have an avalanche cord coiled inside the handle which can be ejected when necessary. In addition, the two poles can be joined together to form a probe pole. Before skier 3 was swept off his feet, he removed his skis and ejected the avalanche cord from one of his ski poles. Fortunately skier 3 came to rest on top of the snow, for his poles, skis, and the entire length of the avalanche cord were buried beneath the snow. It is not known whether any of the other skiers ejected their avalanche cords.

The group probed for the equipment lost by skier 3 and after 45 minutes finally found one ski and both poles. Skier 3 had suffered a twisted knee but still was able to walk out with the rest of the group via Mill D South Fork to the Big Cottonwood Canyon road.

Avalanche Data

This avalanche was classified as HS-AS-3. It ran on a steep, open, east-facing slope and had been formed by the strong west winds of a few days earlier. The fracture line was 2 to 3 feet deep and was about 225 feet in length. The slide ran about 900 feet slope distance and dropped a vertical distance of about 400 feet. A layer of depth hoar lay beneath the hard slab snow making a highly unstable snowpack when supporting four skiers.

Comments

The route taken by these skiers is strictly a high-hazard route. Most of the skiers taking this tour realize the danger but feel the rewards of the tour are worth the risk. However, there have been enough avalanche accidents on this route to make it taboo for the timid or the safety-conscious skier (see *The Snowy Torrents* No. 64-1. Another accident occurred in February of 1972.) There is simply no safe route across the cirque north of Cardiff Pass