TWO COLORADO SKI TOURING HUT SYSTEMS - A COMPARISON OF PURPOSES, AVALANCHE AND SNOW SAFETY, PLANNING AND MANAGEMENT

H. PETER WINGLE

ABSTRACT

Two ski touring hut systems in Colorado have different approaches to market group clientele and avalanche hazard avoidance. The earlier Braun system was designed for people with ski mountaineering experience who have a good knowledge about back country skiing safety and are better equipped than those usually using the Tenth Mountain Trail Association huts. Originally Stuart Mace and others contemplated routes that would be largely above timberline. The routes that are generally used follow roads and pass through numerous avalanche paths. Topographic maps showing vegetation and routes, safety information, avalanche information forecasts and substitute reservations for those already paid for, are methods used to reduce skiers' exposure to hazards. TMTA huts were located to avoid avalanche terrain. However, numerous peaks are nearby which can challenge the telemark skiers. Signing of obvious hazardous terrain near certain cabins, and direction on marked topographic maps are methods used to direct skiers away from hazards. One hut system concept is not wrong and one is not right. Both hut systems have their place. This paper describes the situation with both systems and is intended to give insight to those who contemplate develop ski touring hut system.

THE ALFRED A. BRAUN HUT SYSTEM

"The Alfred A. Braun Hut System, Colorado's first hut system, was designed for the advanced skier and mountaineer. The six high mountain cabins provide hut to hut opportunities while also promoting endless backcountry skiing and mountaineering

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2There are six huts making up the Alfred A. Braun Hut System of the U.S. Ski Association. These are the Barnard Memorial, Goodwin-Green Memorial, Markley Memorial, Tagert Memorial and Green Wilson Memorial Huts. Other huts in the area include the Friends Hut on the south side of Pearl Pass and the Toklat Chalet, which is a European style, backcountry hostel which offers meals and a bedroll.
possibilities in one of Colorado's most spectacular mountain ranges, the Elk Mountains.\(^1\) The routes are also described in *Colorado High Routes* (Dawson 1986)\(^2\)

The original skiers frequenting the Aspen area were ski mountaineers, interested in enjoying the high country above timberline near the mountain divide between the White River and Gunnison National Forests. In those days, this was an exclusive sport for relatively few men and women. They were familiar with the area and wary of potential hazards. Because of the remoteness, a series of small cabins were constructed, mainly at the lower elevations in the major drainages leading into the high country. Old mining roads had been constructed in these mountains around the turn of the century and later and provided the necessary access. These routes crossed numerous avalanche paths. Refer to Map "Figure 1", which illustrates the routes and shows the avalanche paths.

Recall that miners worked in these areas throughout the year, and exposure to avalanches was something that these people were familiar with. Aerial oblique photograph, "Figure 2", illustrates the terrain leading into the headwaters of Castle Creek which contain the Toklat Chalet (10,850' elevation) and the Tagert and Green/Wilson Huts (11,250' and 11,280' elevations) which are located in the upper timbered reaches of the drainage. "Figure 3" shows the Toklat Chalet (roof) as it is located between avalanche paths which cross the access road to the upper huts and Pearl Pass. This figure is shown looking down the Castle Creek drainage. "Figures 4 and 5" show the touring route above the lodges and timberline as it crosses over Pearl Pass.

The Friends Hut, located on the south side of the mountain divide in the Gunnison National Forest, is another hut in the vicinity and is regularly accessed by ski tourers using this same route or by skiers coming north out of the town of Crested Butte. In 1988, three skiers, two men and a woman, were caught in an avalanche and killed as they were attempting to traverse toward Castle Peak from the Pearl Pass vicinity, on the north slopes of the mountain divide. This traverse route was off of normal ski touring route. However, it does represent the type of country that back country skiers are seeking these days whether or not they are utilizing the hut systems.

While the accident was unfortunate, the Forest Service policy is not to close potentially hazardous terrain to skiers using the hut systems or other undeveloped areas. A back country skiing policy was developed because of accidents that occurred in 1987. In 1987, five skiers were killed in a bowl adjacent to the Breckenridge ski area in Summit County, Colorado. All were skiing out of bounds, after cutting through a gate near the top of a ski lift. After skiing the uncontrolled bowl, skiers would normally cut back into the ski area and continue the pattern. The accident precipitated the Forest Service backcountry skiing policy, but further reinforced the philosophy and policy that back country should not arbitrarily be closed to everyone, just because some inexperienced people may choose to venture into hazardous country. The policy has been described in John Korb's\(^3\) paper (Korb, 1990) earlier this afternoon. Refer to his paper described in the proceedings of this conference. The point is that it is appropriate to have different types of skiing terrain available for different types of skiers.
Figure 1. The 4-wheel drive road, which is the ski touring route to the Toklat Chalet, the Tagert and Green/Wilson Huts and Pearl Pass. The cross hatching shows the timbered areas between several avalanche paths.

The Braun Hut System managers, Scott Messina and Julie Mace, operating under a permit to the United States Ski Association, provide safety messages and information to safeguard skiers using their system. In cooperation with the local ski areas, residents, and the Colorado Avalanche Information System, the U.S. Forest Service provides up to date avalanche forecasts for the local area. Forecasts are based on some observations, but there is no specific snowpack condition tracking performed. The NE, SE and E slopes are usually the first to slide. Scott Messina has a backcountry safety user’s group brochure that tells where to obtain avalanche information. Avalanche prone terrain is described, but not specifically marked. The Forest Service does post a sign where the avalanche prone terrain begins in the upper reaches of Castle Creek, near the Ashcroft Ski Touring Center. Advertisement is aimed at the more advanced skier and mountaineer. They tend to get more smaller, technically advanced groups, that will use the huts for a couple of days, and ski. The entire cabin is always reserved for a single group, which average space for eight people. This is a case of good marketing. We define marketing as achieving organizational goals through customer satisfaction. Clearly, this system is intended mainly for the more experienced and capable ski mountaineer who is well equipped for travel in this terrain. The use of avalanche transceivers is common with this system, but unusual with the Tenth Mountain Trail Association system.
Figure 2. The view into the headwaters of Castle Creek. The Toklat Chalet, and the Tagert and Green/Wilson Huts are at the head of the drainage in the last timbered islands. The ski touring route road is visible to the left of Castle Creek. Pearl Pass is at the top left, Castle Peak is at the top right. Three skiers were killed in 1988 as they were traversing toward Castle Peak from the Pearl Pass vicinity, off of the main ski touring route.

Spring, as compared to mid-winter, skiing is advocated, as this is the best time to ski in this area. The terrain is higher and the avalanche hazards less severe.

Individuals that have reservations for any hut are given the opportunity to reschedule at a later time without losing their prepaid user charges for the huts if they are concerned about avalanche danger. This takes the pressure off of the skiers who are concerned about losing their money. Scott and other guides will suspend trips, or advise against travel if they believe the hazard warrants it.

Both Scott Messina and Julie Mace are in the audience today and are willing to answer questions about this and the Tenth Mountain Trail Assn Hut and trail system.

The total use of the Braun system in the 1989-90 season was 1,800, with 50 percent of that occurring in February.

A side-by-side comparison of the Braun and Tenth Mountain Trail Association hut systems is provided at the end of this paper.
Figure 3. View looking down Castle Creek. The Toklat Chalet roof is visible in the island of trees between two avalanche paths. The trees fallen by recent avalanches illustrates the intermittent severity of avalanches in this area.

Figure 4. The ski touring route to Pearl Pass and over to the Friends Hut follows the 4-wheel drive road that winds its way up from the valley floor. The three skiers killed in 1988 were high above the road, traversing the steep snow covered slopes.
The TMTA system is different from the Braun system. It is not better or worse, it merely provides recreation for a different clientele - one that is interested in hut to hut or backcountry skiing but is not necessarily an experienced ski mountaineer. Accommodations are better, and the huts are larger. Normally several different groups will be using any of the huts. When Fritz Benedict, an Aspen architect, Bob McNamara and Ben Eiseman approached the Forest Service about building a system, District Ranger Denny Bschor and the recreation staff officer for the White River National Forest, Bob Miller were reasonably positive. The Forest Service has had problems with huts and their management for decades, and they were intent that this one, if it ever got off the ground, would be successful. The TMTA system has evolved into one that has approximately one million dollars in assets. All new huts will have endowment funds that equal their original cost, and only the interest above inflation is being spent in order to preserve the value of the capital. Last year receipts were over $277,000, with $165,000 of that coming from hut user fees. It has a strong and active Board of Directors and a highly qualified and dedicated paid staff. These are necessary for systems of this type, at least here in the western United States. "Figure 5" shows one route leading to the Polar Star Inn. The routes avoid avalanche hazards. However, skiers can leave their cabins and climb nearby peaks for good telemark skiing. Hazards may occur there.

The market has changed since the early days of skiing. Equipment is better, access has improved, and there are more people that want to spend some time doing this. Last winter, the TMTA system served over 10,000 skier days. As with any marketing, the first thing to learn is what the customer wants. It wanted touring routes which could be traversed with reasonable safety which were free of avalanches. This is a variable that most people can not deal with effectively. On the other hand, it had to be a system which would attract those that wanted to telemark ski on open, steeper slopes and provided access to open country with pretty vistas. For many years, there have been groups anxious to have a route which could take them from Aspen to Vail. Until this system was constructed, only the Diamond J Resort midway between the two areas could accommodate winter guests.

There are now nine TMTA owned huts in the TMTA system, with another seven privately owned cabins located on private lands supplementing that system. Total use for the year was over 11,000, with 2,876 of that occurring in February. The point is that a large number of people want this kind of a hut and trail system.

From the avalanche standpoint, routes between the huts are specifically located to avoid avalanche hazards. However, many skiers divert from those routes to meet their own needs or to make loop returns more interesting. Each cabin contains large posters describing the basics of avalanches and safe route finding principles. Where a cabin, such as the Fowler-Hilliard Hut, lies near the top of terrain that has avalanches from time to time, a sign is posted warning skiers of the potential hazard. Where routes
pass potentially hazardous overhanging cornices, they are marked in a way that directs skiers around them. The nearby slopes can provide excellent skiing, and none of them are marked relative to their stability.

Figure 5. Section of Tenth Mountain Trail Association map which shows contours, routes, hut locations and the timbered/non-timbered areas. Access routes avoid avalanche hazards, but skiers can climb above timberline to such peaks as New York Mountain, shown on the right, where hazards may occur.

Knox Williams and his staff, who operate the Colorado Avalanche Information Network, conduct schools that attract hundreds of people every year. Each year, in the metropolitan areas of Denver, Boulder, Colorado Springs and Fort Collins, thousands of people receive basic instruction. Necessarily, most of this is not intended to make experts out of them, but to help them identify and avoid potentially hazardous conditions and situations.

The TMTA membership drive this year was unusual, in that new members would

In conclusion, these two hut systems can be models for those that plan to develop one elsewhere. The TMTA system was designed as it was because of the Forest Services and proponent’s knowledge of the situation with the Braun system. The market is different, and that provided the motivation for the investment that has occurred. So far, the safety record with the TMTA system has been excellent.

A tabular comparison of the two areas follows:

<table>
<thead>
<tr>
<th>ALFRED BRAUN HUT SYSTEM</th>
<th>TENTH MOUNTAIN TRAIL ASSOCIATION</th>
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<tr>
<td>Trails basically follow valley bottoms. In all cases, you can cross avalanche runout zones. Only the main route to the Barnard Hut, which is on the top of Richmond Hill above the Aspen Ski Area, is away from avalanche paths.</td>
<td>All access routes are avalanche free. They were located and designed with the intermediate skier in mind. Distances between huts is about seven miles, which is easy to do in good weather.</td>
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<td>It is intended for Advanced skiers.</td>
<td>Intended for Intermediate ability skiers</td>
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<td>The six cabins generally sleep 8 people. One accommodates 6 and another 14.</td>
<td>Capacity is about 16 people.</td>
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<td>Cabins are rented to one group. These tend to be tighter knit groups, and provide more mutual support that the groups using the TMTA system.</td>
<td>Multiple groups may use hut at the same time.</td>
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<td>85 percent of the users have avalanche gear, including SKADIs or Pieps, and shovels.</td>
<td>Most users simply bring sleeping bags and a minimum of survival equipment. Those with survival gear is estimated at about 15 percent.</td>
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1. Introductory paragraph of Alfred A. Braun Hut System brochure which is distributed to potential users. The system is managed by Scott Messina and Julie Mace, of Aspen, Colorado (Alfred A. Braun Hut System 1989).