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Ironman Patrollers
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STUDY GUIDE INSIDE

SEARCHING DONNER SUMMIT

A LAKE TAHOE BACKCOUNTRY PATROL BANDS TOGETHER TO FIND A MISSING SNOWSHOER IN A WINTER STORM.

BY GREG MARSDEN

When searchers found Kevin he was freezing, huddled in the snow and too tired to stand. He'd been missing for three days, during which 80 volunteer searchers from various local agencies scoured the area near Northern California's Donner Pass. A raging storm had deposited several feet of snow during the search, but for the Tahoe Backcountry Ski Patrol's Search and Rescue team (TBSP-SAR), the search was on home ground: the winter wilderness of the Tahoe National Forest.

Three days earlier, Kevin had departed the Sierra Club's Peter Grubb Hut, where he had spent the night with friends. On snowshoes, he left the 7,800-foot backcountry destination ahead of his group, expecting his skiing companions to catch up along the three-mile tour back to the trailhead. Yet, after arriving at their cars and waiting for several hours, the group called the local Nevada County Sheriff to report him missing. They had seen snowshoe tracks going off in the wrong direction, heading downhill instead of climbing the 250 feet up Castle Pass and onto the trailhead. It was late afternoon on Tuesday, and a storm was rapidly moving towards Donner Summit.

The TBSP team was called out at 7:40 p.m. that evening. The volunteer patrol provides search and rescue, winter safety and emergency medical services in the Tahoe and the Humboldt-Toiyabe national forests. TBSP operates a search-and-rescue team, part of the NSP Far West Division, with training based on the national MTR curriculum. All training sessions and missions

are conducted under the umbrella of California's Emergency Management Agency. In the last few years, the patrol has been engaged in several major winter operations.

The first night on Donner Summit, rescuers from several local agencies, including Tahoe Nordic Search and Rescue and Nevada County Sheriff's Search and Rescue, joined TBSP-SAR at the incident command post at Boreal Mountain Resort. The first team of TBSP rescuers entered the search area at 10 p.m. Patrollers Mark Schlosser and Peter Beaupre were dispatched to the west side of the Castle Pass area.

Traveling on backcountry equipment, they spent the night searching in low visibility conditions. They were able to pick up snowshoe tracks heading south out of the grid area and just beginning to be covered by falling snow.

Caught between the responsibility to search the areas assigned to them and their inclination to follow the footprints before they disappeared, the two chose to follow the tracks as far as

they could. It appeared that Kevin had found a snowmobile trail and followed it away from the trailhead. He then removed his snowshoes and attempted to use one as a makeshift shovel to dig a snow cave on level ground but was foiled by the firmness of the underlying snow pack. The tracks continued on, disappearing into a wind-swept meadow. Schlosser and Beaupre split up, circumnavigating the meadow, where they again found the solitary snowshoer's tracks. The tracks, though visible again, disappeared shortly at a windswept bluff. Discouraged, they returned to complete the search of their grid area and then, exhausted, to the base of operations around sunrise the next morning.

On Wednesday, ground teams searched the area throughout the daylight hours, but steady snowfall and low visibility hampered the effort and prevented any hope of air support. By

Contra Costa Search and Rescue coordinates the helicopter extraction.
Photo: Contra Costa SAR.

nightfall, no further clues had been found, but the storm was finally beginning to let up. It was Kevin's second night out, and the forecast called for a low of 4 degrees.

It was almost midnight when patrollers Tom McBride and Greg Marsden arrived at Donner Summit amidst a fleet of local squad cars and over-snow vehicles. The base of operations was an old ski museum. A room had been transformed into the incident command center, complete with charts, maps and communications gear. Outside, a van from the Placer County Sheriff used high-powered radios to communicate with teams in the field. A large map with grid regions indicated assigned search areas.

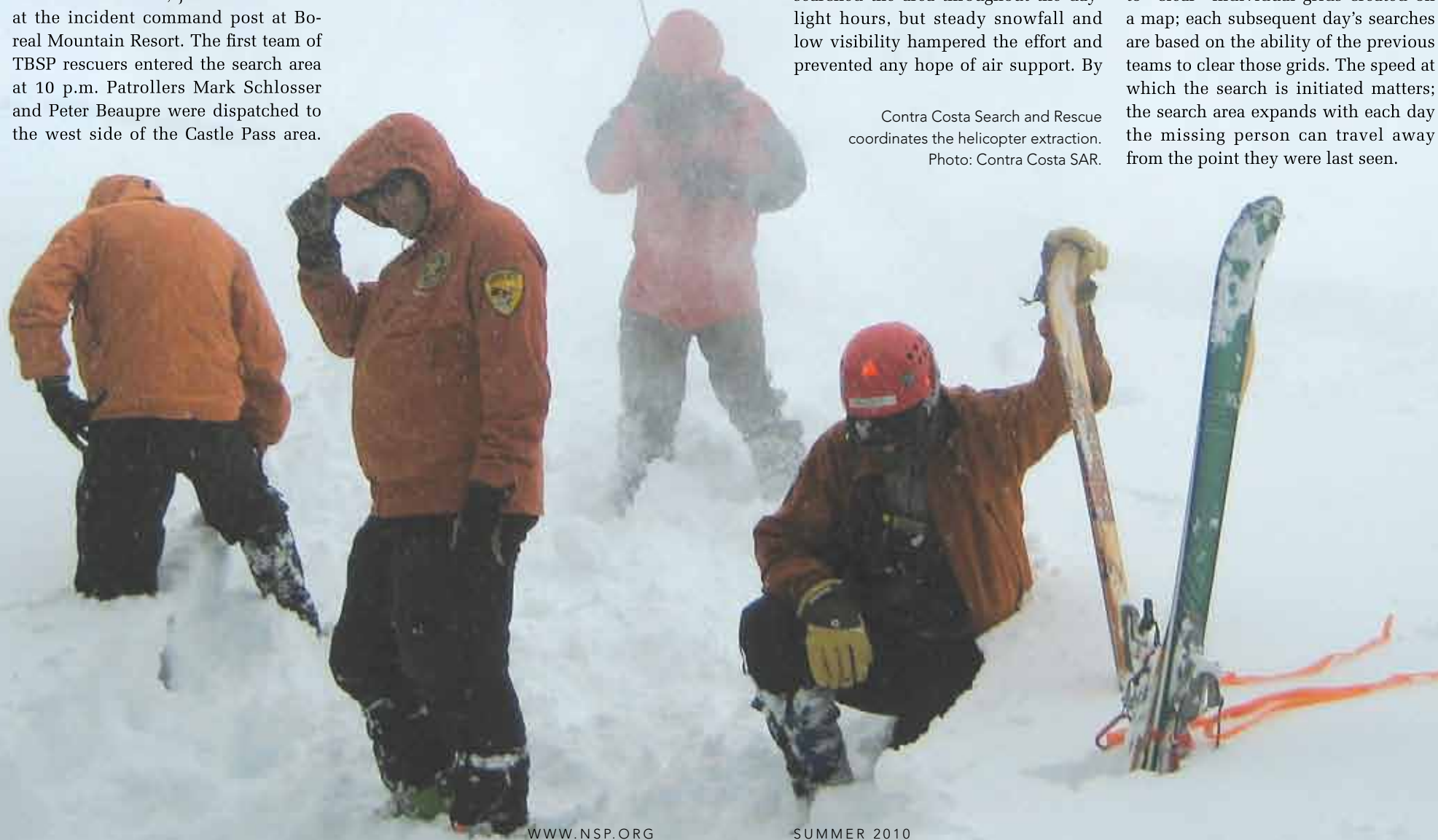
Search and rescue is often a mechanical operation. Teams are sent out to "clear" individual grids created on a map; each subsequent day's searches are based on the ability of the previous teams to clear those grids. The speed at which the search is initiated matters; the search area expands with each day the missing person can travel away from the point they were last seen.

During this search, it was important to check each grid for the possibility that the lost person was either responsive or unresponsive, and searchers were asked to assign two distinct probabilities of discovery. With two feet of new snow since Kevin was reported missing, the chances of finding a responsive subject were small. Searchers' personal GPS units were configured to track progress and display the coordinates of each grid area. At the end of the search, the GPS log of these paths would be downloaded and used to plan the next day's operations.

The patrollers were assigned to search three areas marked off at the top of the map north and west of the Peter Grubb Hut, and to sleep at the hut once the areas were cleared. The next morning, a second set of grid areas in a ravine several miles towards nearby Paradise Valley would be searched, from which they would be airlifted back to the base of operations. The two-person team joined eight rescuers from Contra Costa County Search and Rescue to clear the gridded areas.

Having been given radios and dispatch sheets, the team emerged from the incident command center and headed to waiting snowcats. Like the previous night's TBSP search team, McBride and Marsden were traveling light, with a minimum of gear, and planning to depend on Tahoe Backcountry Ski Patrol's backcountry caches for overnight supplies. The team crammed into the back of two cats. Twenty bumpy minutes later, they arrived at the base of Castle Pass, a 200-foot climb up to the ridge overlooking the Peter Grubb Hut. This was as far as the snowcats could go: The incline was too steep to proceed beyond this point.

At 2 a.m. Thursday, the 10 searchers from Contra Costa and TBSP-SAR began the climb up Castle Pass and along the ridge toward the hut. Seven other searchers on snowshoes traversed below. They descended quickly towards the hut, spreading out and attempting to give extra coverage to additional grids as they headed towards the main >





1. Secured to a backboard to prevent cold injury complications, rescuers carry the patient to a waiting helicopter. Photo: Contra Costa SAR. 2. Rescuers hike out of Round Valley. Photo: Contra Costa SAR. 3. Tom McBride (left) and Greg Marsden (right) awaiting the National Guard helicopter. Photo: TBSP.

search region. The Peter Grubb Hut lies near the center of Round Valley, flanked from north to east by the imposing Castle Ridge and Basin Peak, and to the south and west by a gentle downward sloping forest filled with complex terrain, including ravines. They would search the ravines to the west that night.

* * * * *

The key to a grid search is keeping partners close enough that you can see and communicate with one another, but far enough away that you are able to reliably cover a large area. Already the two feet of fresh snow was impeding the search. It was decided that the skiers would cover the perimeter of the search areas while the snowshoers would fan out and attempt to cover the interior sections. With the three-quarter moon overhead, the other searchers and their tracks were clearly visible without headlamps. The search area was mostly flat with a gentle downslope away from the hut, abutting a large meadow and an imposing buttress of cliffs. By 6 a.m., the team of skiers had barely managed to cover the perimeter of the first of three search areas, and the decision was made to pause search activities and return to the hut for some much-needed rest.

Search-and-rescue personnel should be equipped to spend the night outdoors if necessary, and to self-rescue or self-evacuate. While McBride and Marsden had backcountry caches of equipment to rely upon, McBride decided to forgo the trip to the cache and napped under a pile of down jack-

ets. Despite major exhaustion, both were awake again after three hours, readying their gear by 9:30 a.m. The sun was shining and the untouched, snow-filled valley was radiant—this was the break in the storm everyone had been waiting for.

* * * * *

Another team of Tahoe patrollers, Eric Chesmar and Ted Hullar, were inserted that morning on the other side of Castle Pass to look for evidence that the missing hiker made it over the pass then succumbed to fatigue or injury. Their morning progress was impeded significantly by considerable avalanche danger, and they spent much of the morning navigating around unstable overhanging cornices before returning to base.

The high walls of Castle Ridge blocked radio traffic with the incident command base, so most communications with dispatch had to be via cell phone. Searchers were instructed to bide their time at the hut, and told that either a helicopter or another search team would be arriving soon with a cache of new radios and a repeater to relay their communications back to base. Several hours passed, and the team and helicopter arrived at the same time, dropping off a resupply of radios and a fresh team to search other grid areas near the hut. The Air National Guard Chinook helicopter rising over the walls of Round Valley was a sight to behold as it touched down gracefully in the center of Round Valley, kicking off a giant plume of blowing snow. After a short stop to deposit another search

team and a cache of supplies, the dual rotor helicopter took off.

The team’s objective for the day was to pass through recently-searched areas then follow a drainage out to nearby Paradise Valley. The thump of helicopter rotors was prevalent overhead, as two aircraft searched the area. Less than an hour into the resumed search, the group noticed the smaller helicopter, a California Highway Patrol A-Star B3, hovering nearby. The pilots had received the coordinates of a potential sighting from the Chinook and had gone in for a closer look. It turned out that Kevin had signaled the aircraft by tying a corner of his space blanket to a ski pole and waving it from the edge of a small clearing.

The highway patrol aircraft confirmed the sighting but could not land due to low fuel and lack of a suitable landing zone. The patrollers were the closest rescue team, and Kevin’s coordinates were relayed to them as the chopper headed out to refuel. Not bothering with the GPS, the searchers moved quickly to follow the bearing towards the coordinates and soon could hear Kevin yelling and whistling. McBride was the first to make contact with him; it was now 12:30 on Thursday, about 44 hours since he’d been reported missing. When rescuers arrived, Kevin was huddled in the snow.

Because of their OEC training, McBride and Marsden assumed responsibility for Kevin’s medical care. A rescuer from Contra Costa assumed field command and orchestrated the >



Where in the world is Patagonia?

Snowsports professionals know Patagonia is found online. As a professional courtesy, NSP members can also find Patagonia on the National Ski Patrol website, at www.nsp.org, as part of the Patagonia Online Pro Program. You’ll also find Patagonia apparel in the NSP *Winter Catalog*. Patagonia clothing and gear have set the quality, construction and style standards on the slopes by which all others are measured. And it’s skiing and boarding apparel make a big impression without leaving a big impact on the environment. Visit our site. Click on the Promotional and Professional Offers link. And check out the Patagonia Pro Purchase Plan for the greatest clothing on earth.



communications relay and evacuation logistics. Kevin was wrapped in blankets and sleeping bags, and a full assessment was completed by the time the helicopter returned 45 minutes later. The patrollers provided insulation including gloves, ensolite pads and sleeping bags, assisted by a nurse practitioner from El Dorado's Search and Rescue who had arrived on snowshoe. As the rescue helicopter returned, the weather was starting to close in again, and the pilot was anxious to get the patient evacuated. With hypothermia a real possibility, the decision was made to not hoist Kevin via "screamer suit," but to try to land the helicopter and backboard him for a gentler helicopter extrication.

Despite the helicopter's modified ski-like skids for touching down in heavy snow, the team of searchers had to stomp out a path for hand carrying the backboarded patient to the aircraft. The helicopter touched down, using the downdraft from the rotors to sinter the snow in the landing zone. Five minutes later it was on the ground. The medic

tossed rescuers a folding backboard, and they gently rolled Kevin onto the backboard, strapped him down, and carried him to the helicopter. After a quick assessment by the flight medic, Kevin was en route to a local hospital.

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Kevin had wandered for about two miles during his ordeal, eventually trying to backtrack to the Peter Grubb Hut and ending up less than a half-mile away. Disoriented by the sloping descent along his path, he missed his target and settled in the ravined area downhill, where he built a tiny shelter in a snow drift. The shelter was barely large enough for his head and shoulders and left the rest of his sleeping bag exposed to the clear night sky. At the closest point during the previous night's search, the team of skiers passed within 200 meters of his shelter. Kevin's sleeping bag and resourcefulness kept him alive. He staved off dehydration by tying his water bottle to a string and lowering it through a hole in a snow bridge

to a creek to get water. During the cold, clear night he lit a propane lantern inside his sleeping bag to keep warm, but quickly realized the fumes would be dangerous. He credited survival television shows for his resourcefulness, and they did help keep him alive, however, his crude attempts at shelter construction on level ground highlight the benefits of competent instruction in backcountry safety practices.

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Not long after Kevin lifted off, the searchers were again socked in by snow and low clouds. With no hope of an air evacuation for the rescuers, McBride and Marsden led 30 volunteers back up to the Peter Grubb Hut and up and over Castle Pass to waiting snowcats. The searchers who helped make the incident a success included search and rescue resources from Nevada, Contra Costa, Placer, El Dorado, Washoe and Marin counties, the California Air National Guard, and the Tahoe Backcountry Ski Patrol Search and Rescue Team. +

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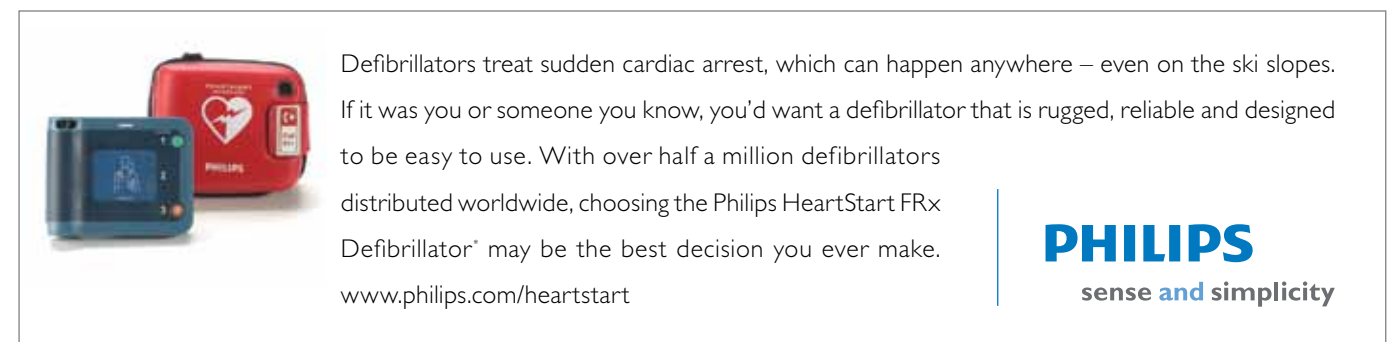
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