can be particularly difficult due to the short days, low temperatures, frequent and long duration storms. For this particular accident, it appears that all of the bivy gear was cached below the technical route and did not contribute to the survivability of the party. "Travel light" practitioners assume the risk associated with delaying action of injuries or storms. It appears that James was only able to survive in the snow cave for three to four days with his minimal equipment.

Climbers carrying cellphones are not always capable of reporting distress situations, especially in wilderness environments lacking urban cell coverage. In this case, the cellphone message appeared to be too late and non-specific to be useful. Also, radio-location of cellphone signals was not precise enough to be helpful. For those climbers who feel the need to rely on high technology, a Personal Locating Beacon (PLB) will provide fast and accurate location information to relevant authorities. Alternatively, a GPS-assisted cellphone (called Enhanced E911) could also help in situations where only a single cell tower is accessible.

As a direct consequence of this high profile search, the Oregon state legislature proposed bills which mandate electronic signaling devices (Personal Locator Beacons, Mountain Locator Beacon, GPS receiver with cellphone, and/or two-way radios) for all climbs above 10,000 on Mount Hood. Most local rescue personal and climbers encourage the use of such equipment but do not believe its use should be required. For this particular accident, the stormy weather delayed reaching even known locations in the summit area, so electronic signaling would not likely have affected the outcome. (Source: Jeff Scheetz, Portland Mountain Rescue)

(Editor's Note: Robert Speik, one of our sources for reports from Oregon, has an interesting website readers may wish to access. It is as follows: http://www.traditionalmountaineering.org)

## FALL ON SNOW, CLIMBING UNROPED Utah, Mount Olympus

On January 21, a group of seven climbers from the Korean Alpine Club of Utah started an ascent of Mount Olympus from the Pete's Rock trailhead. Their plan was to snowshoe to the South summit via the Tolcat Trail, then down-climb to the couloir between the two summits and descend the couloir back to the trail.

After summiting, the group began the down-climb to the couloir. This is a 50–70-degree snow climb, with areas of exposed rock and ice. The easiest route descends for about 300 feet and then traverses slightly West before continuing to the saddle between the summits. The climbers had removed their snowshoes and were down-climbing unroped and without crampons.

In Han (47) and Usun Park (63) descended first, missing the traverse and continuing lower in the fall line, where the slope angle gets steeper. Han was able to make it down safely, but Park slipped and tumbled 100-plus feet to the couloir, landing on the 35-degree snowfield below. Han yelled up to the others to try to traverse over and take the lower angle route down, but they traversed East instead of West, taking an equally steep line. During that descent, both Jakyung Sung (51) and Abeyta Kiok (50) slipped and fell all the way to the snowfield below, while Oknam Han (48), Inheu Yun (41), and Hoon Lee (51) were able to down-climb successfully.

Park was able to get a cellphone out of his pack and call a friend in town, who in turn called 911. Six members of Salt Lake County SAR were flown to the summit of Mount Olympus, with sleeping bags, food, stoves, medical supplies and rope rescue gear. They rappelled the route the climbers had intended to descend, fixing three pitches to the saddle and a fourth pitch down onto the snowfield. Arriving there, they found the climbers all together, with the three injured climbers having been helped into additional clothing.

After medical assessments, an additional flight was made to drop a bean bag vacuum splint at the saddle for Sung, who had a suspected pelvic fracture. Rescuers shoveled a large platform in the snow, packaged Sung in the vacuum splint and a sleeping bag, and prepared the other injured climbers as well as they could to spend the rest of the night on the mountain. Oknam Han would also spend the night, as she was unable to walk with frostbitten toes. The low temperature that night was six degrees F.

Three rescuers gathered the remaining functional snowshoes and started the hike out with In Han, Lee, and Yun at 3:00 a.m., arriving at the Neff's Canyon Trailhead around 7:00 a.m. During that time, the other rescuers repeatedly checked vital signs on the injured climbers, brewed hot water, and shoveled more snow. Shortly after sunrise, a Lifeflight helicopter began the first of seven hoist extractions for the four climbers and the three remaining rescuers, bringing the climbers to ambulances waiting at the trailhead.

## **Analysis**

The group was experienced at this sort of winter mountaineering adventure, having summited peaks all around the Wasatch, but they seriously underestimated the difficulty of the down-climb off the summit of Mount Olympus. The route they descended became progressively steeper as they went. At any point before Park's initial fall, the group could have called a stop and returned the way they had come. After his fall, the urgency to aid an injured partner caused two more accidents. The group is incredibly fortunate to have had three major falls in a remote location on a cold night and still escape without any fatalities. (Source: Tom Moyer, Salt Lake Country Sheriff's Search and Rescue)