

guides were explaining that they would be turning back due to this. Leaving the safety of Ingraham Flats was not a risk they would accept. It is likely that some of these clients saw the score of headlamps above them on the Ingraham Glacier Headwall and considered whether they had spent their money wisely on such tentative guides. Moments later, the slab avalanche ripped out and the debris came down to within a few hundred yards of Ingraham Flats.

The trigger of this avalanche is unknown, but it was likely a natural avalanche, as there was a great distance and elevation between the uppermost climber on-route and the crown. To choose to climb at a time when naturally triggered avalanches are possible is an even bigger error than to choose to climb when human-triggered avalanches are possible.

The one fatality that occurred was of a solo climber who was the highest on the route at the time. All the other injuries and burials that took place were of climbers lower in the run out zone, and this is possibly why many of them survived and were able to be found quickly by the guides nearby. The available rescue resources were tapped out dealing with searching, digging out those that survived and tending to the injured. By the time resources were freed up some 90 minutes later, the likelihood of finding the avalanche victim alive was less than ten percent.

There are many hazards on Mount Rainier, but there are only a few that climbers must take seriously enough to turn them around immediately. One of these is avalanche danger. On average, there are a dozen or so days during the typical climbing season where avalanche danger is so significant that it demands immediate action.

It is apparent that this avalanche would have resulted in more fatalities had there not been guides with avalanche safety training in the vicinity who acted rapidly. The fact that there were several parties on the upper mountain ignoring the obvious clues of avalanche danger speaks both to the goal orientation and level of commitment to achieve that goal that can blind-side climbers. Additionally, many independent climbers here lack avalanche knowledge and the mountaineering skills to manage the conditions. (Source: Edited from a report by Glenn Kessler, Climbing Ranger)

(Editor's Note: According to The Seattle Times on June 9, 2010, Mark Wedeven, 27, from Olympia was the missing climber. He had climbed Mount Rainier numerous times. He was solo climbing at the time.)

HAPE AND HACE

Washington, Mount Rainier, Camp Muir

On June 23 at 1745, rangers at Camp Muir were alerted of a climber (male, 49) who was having difficulty breathing after returning from a summit at-

tempt and resting in the public shelter. Rangers and a physician's assistant assessed the patient, consulted medical control, and concluded the man was suffering from high altitude pulmonary edema (HAPE). A decision was made to airlift the patient from Camp Muir, using a contract helicopter that was already in the park doing project work.

While rangers were preparing to fly the HAPE patient off the mountain, another report came in from guides at Ingraham Flats who were attending to an independent climber (female, 41) showing severe signs of high altitude cerebral edema (HACE), including rapidly decreasing levels of responsiveness. Due to the seriousness of the second patient's condition, a decision was made to fly her off the mountain also.

Analysis

High altitude pulmonary and cerebral edema can happen to anyone who is at altitude, and the only cure is to go to a lower elevation. Both patients were able to descend and get to definitive medical care in a timely manner. Patient care was expedited by experienced climbers and medical personnel who saw the signs of HAPE and HACE and reacted quickly.

One thing to note, though, is that the signs and symptoms of HAPE and HACE were not reported or reacted to early on by the people in the patients' climbing party but rather by other climbers and guides who happened to be on the mountain. In a popular mountain environment such as Mount Rainier, people often seem to rely on the presence and expertise of other more experienced climbers rather than using their own knowledge and skills to make decisions.

Another large contributing factor to altitude emergencies on Mount Rainier has to do with people living at relatively low elevations, then coming to the mountain and ascending from approximately sea level to 14,410 feet within 48 hours. These rapid ascents, especially when the person climbing might not have much experience with altitude, leaves little time for the body to properly acclimate. (Source: Edited from a report by Cooper Self, Climbing Ranger)

CLIMBER UNTIES FROM TEAM – DISAPPEARS DURING SEVERE WEATHER, INEXPERIENCED CLIMBING PARTNERS

Washington, Mount Rainier, Gibraltar Ledges

On the morning of July 1, Eric Lewis (57) went missing when his climbing companions discovered that he had unclipped from the climbing rope and disappeared. The three-man team was ascending the Gibraltar Ledges route and encountered high wind and low visibility. The climber in the lead, Don Storm, Jr., stopped and was joined by the second climber on the rope, Trevor Lane. At 13,900 feet, as they waited for Lewis to join them, they discovered only a coil with a butterfly knot when they reeled the rope