

was reassessed, immobilized on a backboard and transported via snowcat to Pinkham Notch where he was transferred to an ambulance and brought to the hospital. We later learned that he had fractured two vertebrae in his lower back and had numerous sprains and contusions

### **Analysis**

This was the third sliding fall injury in three days. All of them would likely have been prevented with a quick self-arrest. The surface that all of these occurred on was a very hard, icy snowpack from the January thaw, which is difficult to stop on, so if a fall isn't arrested immediately, one will get out of control fast.

In each of these incidents, the parties involved did a good job getting to the Harvard Cabin under their own power.

## **FALL ON SNOW – LOSS OF CONTROL ON VOLUNTARY GLISSADE**

### **New Hampshire, Mount Washington, Lion's Head Winter route**

On March 3, a group of mountaineers (ages unknown) were glissading Lion's Head Winter Route when one of them lost control and fell down approximately 75-100 feet through the trees to the bottom of the steep section of trail. Along the way, he hit some trees and came to a stop against a large stump.

USFS Snow Rangers were notified of the incident by a hiker who had been sent to Hermit Lake to get help. Although below the steepest section of trail, the patient was found in terrain sufficiently steep to warrant belaying the litter downhill until the flat section of trail. From here he was sledged to the junction of the Winter Route and the Huntington Ravine Winter Access Trail, then transported via snowmobile and haul sled to Pinkham Notch Visitor Center.

### **Analysis**

The Winter Route on Lion's Head is a steep mountaineering route that requires the ability to self-arrest in the event of a fall. Glissading was a reasonable descent option given the soft snow conditions on this day.

## **AVALANCHE, POOR POSITION**

### **New Hampshire, Mount Washington, Huntington Ravine**

During the afternoon of March 30, two climbers (ages unknown) emerged from North Gully onto the more open slopes above the gully. After simul-climbing the gully's midsection, they unroped and began to climb the snow up toward Ball Crag. They identified an area of potentially unstable snow and decided to move off to the side of the slope and travel one at a time. One of the climbers triggered an avalanche, but neither were caught or carried in the slide. Unsure of the outcome below, they quickly worked their way around the ravine and descended the Escape Hatch to see if anyone needed help.

A second party of two experienced ice climbers (ages 32 and 26) believed the first party had already finished the climb so they began the first ice pitch. The leader arrived at a fixed belay above the first pitch of ice and clipped his rope to the anchor with a carabiner. He was in the process of backing up the anchor when the avalanche came from above. At this point, the anchor was serving as a piece of protection and he was essentially still on lead.

The avalanche carried the leader down over the top of the first pitch of ice. The belayer was unanchored at the bottom and was lifted upslope and into the ice. He was able to maintain control of the belay and the fixed anchor held, resulting in approximately a 50-foot fall for the leader. Both climbers were shaken up, sore, and had damaged their helmets in the fall. Examinations by Snow Rangers at the scene found no serious injuries. The climbers stayed overnight at the Harvard Cabin, where the following morning they reported general soreness but no other injuries.

### **Analysis**

The weather leading up to this incident is an example of a classic setup for an avalanche cycle. On March 28, Mount Washington received 6.4 inches of 7.8-percent density snow. Hermit Lake recorded almost eight inches from the same weather system. Friday night and Saturday the winds wrapped from the W to the NNW and increased in velocity before falling again on Sunday. Evidence of natural avalanche activity was visible Sunday morning in several locations, including Hillman's Highway, South Gully, Raymond's Cataract, the Lion Head Summer Trail, the East Snowfields of the summit cone, and in small snowfields that descend from Lion Head toward the Tuckerman Ravine Trail. Avalanche danger for North Gully on Sunday was rated Moderate.

Fortunately this incident turned out well for all parties involved. It very easily could have been worse. Several lessons can be gleaned from this incident:

- *Choice of route.* Five of eight gullies in Huntington had Low avalanche danger while three (North, Damnation, and Central) had Moderate. In regards to snow stability, choosing another gully would have been a safer option.
- *Climbing below another party.* Ice climbing below others always carries additional risk, whether it's from falling ice and rocks or avalanches. The party that was hit by the avalanche understood that climbing under another party was a bad choice. They thought that the gully was clear and that it was safe to start up. It is difficult to see the entire gully from the base of the ice, but a short walk to a better vantage point is all that is required for a view of the entire gully.
- *Ongoing stability assessments.* The top party did a good job of recognizing the unstable snow at the top of the climb. Traveling one at a time off to

the side of the area in question helped prevent them from being caught in the avalanche. Had they wanted to protect themselves further, they could have roped up again and climbed to the top using belays and protection. *(Editor's Note: During the spring skiing season in Tuckerman, there were several falls that required Snow Rangers, members of the Mount Washington Volunteer Ski Patrol, and AMC caretakers to assist with lowers and medical conditions. Sometimes skiers put themselves in poor positions that can and often do result in being struck by falling ice or falling into moats.)*

*The source for all the incidents on Mount Washington is the Tuckerman Ravine website and conversations with Justin Preisendorfer, Snow Ranger/Backcountry & Wilderness Supervisor)*

## **FALL ON ROCK**

### **New Hampshire, Cathedral Ledge**

In August, Christopher Townsend (27), an experienced climber from Cambridge, MA, took a twenty-foot fall that left him hanging unconscious on his rope for about two minutes. He walked out of the hospital later in the day “courtesy of his helmet.”

*(Editor's Note: No other rock climbing incidents were reported by the Mountain Rescue Service located in North Conway. Rick Wilcox, the President of MRS, indicated in a phone conversation that there were probably more incidents, but unless rescue is required, climbers tend to leave without telling about their mishaps.)*

### **FALLS ON ROCK (16), FALLING ROCK (1), RAPPEL ERROR (1), INADEQUATE PROTECTION (10), PROTECTION PULLED OUT (4), INADEQUATE BELAY (3), NO HARD HAT (1)**

#### **New York, Mohonk Preserve, Shawangunks, Various Routes**

Eighteen reports were submitted for 2008, with dates ranging from March through November. Most incidents occur in July and August.

The average length of the falls was sixteen feet, with seven of them ending up on the ground, mostly because of inadequate protection on the first pitch. The average age of the individuals injured was about 46 and the level of difficulty of the routes averaged 5.7. Eleven of the individuals directly involved were experienced climbers. Most injuries were relatively minor, with sprains and strains being the most common (10).

The rappel error incident was the result of a climbing rope mid-point not being correctly marked. The climber (59), who had 36 years of experience, rappelled off one end of the rope—luckily for only ten feet.

There was one fatality. An experienced climber (58) was on a route rated 5.2-5.3. He climbed out of sight beyond his belayer. He fell past the belayer to the ground. There was a cam and sling behind him, indicating that either he was in the process of setting protection or that it had come out.