

lance, both of which were refused. Finnegan was later admitted and kept overnight at Estes Park Medical Center, where he was treated for superficial burns.

### **Analysis**

Summer lightning storms are quite common and violent in the Rockies. The best strategy for surviving lightning storms is to avoid them through careful planning. This entails planning to leave for the climb at an unattractively early hour (predawn), and picking a route where it is possible for the climber to summit and be descending before the storms hit. Lightning storms are regular events; if one occurred at 1500 today, there will probably be one at 1500 tomorrow. There may be tips on what to do if caught in a lightning storm. Prevention is the best cure. According to the United States Weather Bureau, there are over 40 days with one or more thunderstorms in June, July, and August in the Central Rockies. At Rocky Mountain National Park in 1991, there were two other lightning incidents in addition to the Finnegan incident. A female climber on the Book at Lumpy Ridge received minor burns, and a female tourist on Trail Ridge Road was severely injured, requiring CPR and advanced life support. (Source: Jim Detterline, Ranger, RMNP)

### **AVALANCHE, CLIMBING ALONE, LATE START**

#### **Colorado, Rocky Mountain National Park, Tyndall Glacier**

On November 9, 1991, at 1400, Dan Hepburn (26) triggered an avalanche while ascending Tyndall Glacier in Rocky Mountain National Park. Hepburn was only 40 feet from the top of the route when the entire upper glacier released, carrying him an estimated 1,000 to 1,500 feet. Hepburn was buried waist deep and positioned upright in the avalanche debris. He sustained a fractured arm. Hepburn was able to extract himself from the debris and hike out four miles to the trailhead, where he notified the park and then drove himself to the Estes Park Medical Center.

### **Analysis**

Hepburn was fortunate in surviving this event, and should be commended for his successful efforts at self-help. Had his injuries been more severe or had he been unable to extract himself from the avalanche debris, the results could have been fatal, as Hepburn was climbing alone. One should keep in mind that early season snowfalls in the Rockies often take much time to bond sufficiently to the icy surfaces left over from the end of the summer months. Thus it is common for the avalanche conditions on permanent glaciers to be quite high in the autumn. Slab conditions are generally most unstable during the warmest part of the day, which is when Hepburn was climbing. (Source: Jim Detterline, Ranger, RMNP)

*(Editor's Note: Chief Park Ranger Joseph R. Evans reported the following in his cover letter accompanying the reports from RMNP:*

Rocky Mountain National Park's search and rescue team responded to a total of 267 callouts (71 missions, 196 incidents) in 1991. For your information, we define a mission as any SAR activity requiring response beyond the trailhead, or any activity involving premium pay or more than \$50 expense to the park. An incident is a minor SAR activity occurring during normal working hours and not meeting the criteria of SAR

mission, or an off-duty incident resulting in not more than \$50 expense. Major SAR missions involve expenditures of \$500 or more. In 1991, there were 19 major missions, 42% of which involved technical climbers in trouble. Of the 267 total callouts, 27.0% were for overdue parties, 71.9% were for emergency medical services, and 1.1% were for stranded parties.

Of the 267 total callouts, 32 (12.0%) involved technical climbers. Of these 32 callouts, 12 were missions and 20 were incidents. There were 19 overdue parties, 11 medical responses, and two stranded parties. Three of the overdue incidents were quite significant in that they involved overnight responses, lots of manpower and other SAR resources, and large expenditures of money. Interesting and unusual for the year are two reports of accidents involving technical rescuers in practice session.

*An additional comment is that one "overdue" party was cited by the Park Rangers because of their negligence in not following their itinerary and not returning to the trailhead to recontact family and park officials of their new plans. Failure to do this resulted in an extensive search effort.)*

## **FALL ON ROCK, OLD PITON BROKE**

### **Maryland, Delaware Water Gap NRA, Mount Tammany**

On August 11, 1991, Mike Morlock (16) and Rick Lago (24) had finished climbing the Rib (5.3) and started climbing Triumvirate (5.4). Mike led the first pitch to a ledge, set up an anchor system, and Rick started following. Rick got nervous and tightened up. Mike said, "No problem, I will let you back down using the rope." When Rick reached the ground, he sat down and watched Mike pull the rope up, do some rigging and start down climbing.

Mike threaded the rope through the eye of a rusty steel angle piton that was left by a previous party. He tested the piton by putting weight on the rope. Mike put both sides of the rope through a figure 8 rappel device to use as a back up in case of a fall. He down climbed about 15 feet when he put an estimated 30% of his weight on the rope. The piton broke, Mike lost his balance and fell back an estimated 45 to 60 feet, striking several ledges and hit his head on the bottom. He remained conscious and told Rick to go get an ambulance.

After a few minutes, Mike got up, coiled his rope, packed his gear, and started walking down the steep, rocky path toward the road about half a mile away. Two-thirds of the way down the trail, Mike was met by another climbing party that helped him to the road where he met Park Rangers and Portland Ambulance.

### **Analysis**

Any climbing area has several resident placements, which are pieces of protection left by previous climbers. Resident protection is known to be risky and often used to supplement other placement. Mike had a full rack of equipment with him but used one old piton for his sole protection. The piton was found on the rope and was about 75% rusted through where the shaft entered the rock. Mike was confident in his ability to safely down climb the route but said he got lazy and put his weight on the rope. (Source: Ronald Matthews, Delaware Water Gap NRA)

*(Editor's Note: There were two other incidents reported from this area, both of them involving non-climbers who became stranded and had to be rescued. One was a ten*