

### **Analysis**

The experience of the party was adequate for the objective. The primary cause of the fatality was human error and unfamiliarity with the descent, as the steep steps which they intended to rappel can be avoided completely by descending slightly to the south-west. (Source: Canadian Parks Service, Jasper)

*(Editor's Note: This kind of accident is frequent enough to mention once again the need for great caution around rappel stations, where people are likely to be tired after the climb, may be chilled after waiting for the anchor to be set up, and where exposure is often dangerous. In cases where one must move down over an edge to reach the anchor, it would be appropriate for each person to be belayed or provided a hand line until securely on rappel.)*

## **FALL ON SNOW AND ROCK, ROPED BUT NOT BELAYED**

### **Alberta, Rocky Mountains, Mount Collier**

On August 18, 1991, a party of four were proceeding up from the Victoria-Collier col to the summit of Mount Collier as two ropes of two when they encountered a steep snow slope. The party leader, Hans, belayed his partner, Gerry, across the slope to a rock outcrop, and then followed on the rope but without belay. Halfway across the slope, he slipped and could not self-arrest. He slid into the rocks below and over a low cliff, and then Gerry was able to hold him from falling farther. The second rope team helped to bring Hans up onto a ledge, and then left to get help. They were benighted on their way out, and reached Lake Louise the next morning. The injured climber and his partner were helicopter-slung out by the Warden Service later that day. (Source: Banff National Park Warden Service)

### **Analysis**

Traverses on steep snow slopes can be difficult to protect. A combination of poor techniques, crampons becoming clogged with wet snow, and lack of a belay caused this accident. (Source: Banff National Park Warden Service)

## **FALL INTO CREVASSE, IMPROPERLY PLACED BELAY ANCHOR, POOR POSITION**

### **Alberta, Rocky Mountains, Mount Victoria**

On August 19, 1991, David B., Ian F., and Renata S. were descending from Abbot's Pass hut around 0830, and reached the bergschrund about 0900. They decided to jump the 'schrund (about three meters) to a narrow blade serac from which they could reach its lower lip. David jumped first, landing safely; Renata jumped next and also landed safely. They placed a T-slot anchor to hold a fall on the uphill side of the serac, and then Ian (least experienced) jumped. He landed on target, but skidded past his belayers into the bergschrund. This pulled the anchor, along with the other two climbers, into the hole. Ian was uninjured and went for help. David appeared uninjured, but Renata had fractured and dislocated both ankles.

Ian was able to negotiate the rest of the glacier and summon help from the Warden Service. A helicopter flight check of the area revealed very turbulent flying conditions, so the first rescue party was dropped off at Abbot's Pass (less than a half hour's walk above the accident site). After descending to the injured party, they found that David

had sustained head and chest injuries and would also require evacuation by stretcher. Ground evacuation was initiated, but then a break in the winds allowed for a sling evacuation of the injured pair and the rescue crew. The last staff were removed by 1600. (Source: Banff National Park Warden Service)

### **Analysis**

The climbers had moderate experience and were properly equipped, but the decision to jump a three-meter wide crevasse onto a two-meter wide sloping platform was questionable, as there was no margin for error. A contributing cause was the unidirectional nature and unreliability of the T-slot anchor, and ice ax buried sideways in 15 cm of wet snow. It was intended to hold a fall on the uphill side of the ice blade, but not on the downhill side. The usual technique employed at this obstacle is an “end run” around it. (Source: Banff National Park Warden Service)

*(Editor's Note: In such a case, the skid-past could have been foreseen, and a second anchor set up to protect it, such as an ice screw, or an ice ax embedded deep in the uphill wall of the serac in inverted position, and tied in to the belay system.)*

## **HANDHOLD PULLED OUT, FALL ON ROCK, INADEQUATE PROTECTION (CHOCK PULLED)**

### **Alberta, Rocky Mountains, Lake Louise Area, Back of the Lake Crag**

On September 1, 1991, Andrew S. and his friend were rock climbing at the Back of the Lake. Andrew fell when a handhold broke while he was leading the route “Arrow Float” (5.12a). His protection pulled and he fell approximately ten meters to the ground, injuring his femur and head on contact. A doctor on the scene administered first aid, and the victim was flown out with a helicopter by the Warden Service. (Source: Banff National Park Warden Service)

### **Analysis**

Such a long fall may have been prevented by more, and secure, protection. (Source: Banff National Park Warden Service)

*(Editor's Note: On extreme climbs, it's usually not possible to test holds, which is one other reason for good protection.)*

## **RAPPEL ANCHOR FAILURE**

### **Alberta, Rocky Mountains, Mount Fay**

After completing an ascent of the north face of Mount Fay on September 16, 1991, Bill E. and a friend were descending the west ridge, when they reached a ten-meter step. In order to rappel, they placed a sling around a large boulder to serve as an anchor. Bill rappelled first without incident, and then his friend started down. When he was about three meters from the bottom, the boulder anchor came loose and he fell to the ground, then tumbled a further 15 meters on the talus. The boulder then continued to roll down and glanced off his back. The victim is a doctor and initially assessed his own injuries as minor, although he was in pain and had limited movements in his shoulders. He took some pain killers, and with Bill's help, descended to Neil Colgan Hut.