times and was able to travel only a short distance. Rain and then snow began. Two days later he was discovered by a party of hikers, still mobile and staggering toward the trees. When Warden Service rescuers reached his wife a short time later, she had already died.

Analysis

1993 had a cold summer, and an unusual amount of snow remained on the peaks in this region. As a result, the couloir the victims had been climbing had a deep narrow trough in it, caused by avalanches running down its length. Temperatures had remained well above freezing during the previous night, and the first rays of morning sun likely started debris falling off the walls of the gully. The survivor recalled that they had felt fairly safe cramponing up the trough because of the early hour. They were in it when the avalanche occurred. When they heard the slide approach, they had confidently expected to stand up to it by setting their tools in the sides of the trough. As it turned out, however, the force of the wet debris stripped them off their stance. Using the runnel to travel in saved time but was risky as its sides are usually steep, making escape difficult.

The climbers had been confident in their ability to complete the route in a day, and as a result they had light packs and no extra survival gear. They had not left word of their plans with anyone or used the registration system offered by Parks Canada. This is a case where it might have made a difference. (Source: Banff National Park Warden Service)

SLIP ON ICE, UNROPED

Alberta, Rocky Mountains, Scott Icefield

On August 18, 1993, J.B. and A.G. were out for a day trip on the Scott Glacier. J.B. was walking above A.G. and about 60 meters above the toe of the glacier, when J.B. slipped and fell. The ice was too steep and hard for him to self-arrest, and he slid out of sight below A.G. A.G. descended to look for him, but fell near the base and also slid off the toe, injuring his shoulder in doing so. He located J.B. nearby about five minutes later. J.B. was conscious and walking, but very disoriented, with lacerations and contusions to his face and back, as well as broken teeth.

A third member of the party, J.C., who had stayed in camp at the toe of the glacier, arrived and began first aid on J.B. J.B. was given a thermarest and sleeping bag, and then A.G. walked out to Moab Lake to report the accident to Jasper Warden Service. Wardens evacuated the injured party with a helicopter as darkness approached.

Analysis

The two climbers had adequate experience and equipment, but self-arresting on bare ice is usually impossible. Most climbers do not take into account how difficult it is, and how quickly one accelerates on sloping ice, even at a low angle. Being roped and placing protection along the way is recommended under these conditions. (Source: Jasper National Park Warden Service)

SLIP ON SNOW, UNROPED

Alberta, Rocky Mountains, Mount Deltaform

On August 21, 1993, K.V. and R.P. were doing the traverse of the Ten Peaks from west to east. While descending the east ridge of Mount Deltaform (3425 meters) unroped, K.V. slipped on a patch of snow and fell 150 meters down the south face to his death. R.P.