ROCKFALL

Alberta, Banff National Park, Mount Patterson, East Face

On September 5, a party of three started early for a two-day ascent of this alpine grade IV, 5.6 route. The route involves climbing a few pitches of glacier ice followed by mixed climbing on snow and rock.

Part way up the lower ice tongue, one of climbers decided to turn around while the other two continued. At 2100, the third climber could see that the other two had only gained another 125 to 150 vertical meters and had not yet reached the upper rock face. On the second day the climbers continued. On one of the upper pitches rockfall from above hit one of the climbers, and he sustained a fractured arm. The climbers were able to take shelter in a nearby cave. The uninjured climber continued alone to the summit to summon help.

On the third day the party was reported overdue. A Warden Service rescue team responded and easily located the cave as the climbers had stamped "HELP" in a snow slope nearby. The rescue team was inserted below the cave by helisling. The victim was treated and then lowered out to where he could be evacuated by heli-sling. The second climber was found near tree line on his descent. He was flown to the staging area. (Source: Parks Canada Warden Service) **Analysis**

Rockfall is a common natural hazard in the Canadian Rockies. Many routes become more dangerous as the day wears on and the sun warms up the mixed snow and rock faces. This party appeared to be moving quite slowly on the route, and their timing may have contributed to the accident. (Editor: Nancy Hansen)

FALL IN CREVASSE, CLIMBING UNROPED, INADEQUATE EQUIPMENT Alberta, Jasper National Park, Athabasca-Andromeda Glacier

On September 5, P.P. and A.B. departed the climber's parking lot below Mount Athabasca at 0430 to climb Mount Athabasca via the Athabasca-Andromeda col. On reaching the toe of the glacier they roped up and put their crampons on. They had 25 meters of 8mm rope. Much of the lower glacier was clear of snow, and the crevasses could be easily avoided. As the snowcover increased they found travel arduous as their footsteps punched through the poorly consolidated snow surface. Higher up on the glacier they started to walk on rock deposits along the flank of the glacier below Mount Athabasca. Feeling that they were safe from crevasses on the rock, they unroped. Traveling on the rock was awkward with crampons so they moved back onto the glacier and continued unroped. They found the snow more consolidated at this elevation of approximately 2900 meters. A.B. was following P.P.'s track when he stepped through a poorly bridged crevasse and fell 22 meters. The time was approximately 1100. P.P. established voice contact with his partner, who reported that he was on a snow bridge and had hurt his chest. Lowering a rope end to his partner, A.B. tied in. There was insufficient rope-end left at the surface to set up a crevasse rescue system. A.B. was unable to ascend the rope due to his injuries. Putting on extra clothes, A.B. got into his emergency shelter as his partner ran for help. At 1320 the Jasper Warden Service was notified. By 1525 a rescue party of six Park Wardens had been helicoptered in close to the accident site on the glacier. Using a mechanical winch a Warden was lowered to A.B. who was secured to a line at 1605. He was hoisted to the surface without complication by 1620. A.B. was flown to the staging area below Mount Athabasca where he was transported by ambulance to the Jasper hospital. His injuries were cuts and bruises.

Analysis

All the glaciers in the vicinity of the Columbia Icefields are in a rapid state of retreat. This contributes to the highly crevassed character of the glaciers. This party should have roped up once they left the rocky flank of the glacier. They believed they were traveling on ice, but it was in fact consolidated snow. Second, the rope they were using was not long enough to set up a crevasse rescue system. A.B. was very fortunate not to have been injured worse during the fall. He was also fortunate he was not wedged at the bottom of the crevasse or buried by the falling snow bridge. Crevasse bridges at this time of year are often very weak. Recent snowfall had masked signs of sagging snow bridges over crevasses. (Source: Jasper National Park Warden Service, R.W.)

CARDIAC ARREST—FALL ON SNOW

Alberta, Banff National Park, Mount Temple, East Ridge

On September 15, a party of two was ascending the Aemmer Couloir variant of this route. This is a snow and ice gully of 45 to 55 degrees. About halfway up the route one of the climbers started suffering from chest pains and respiratory distress. Shortly after, he fell approximately 150 meters to the bottom of the gully.

His partner descended and detected no vital signs. He continued descending for help. A Warden Service rescue team responded and evacuated the vic-

tim. It appears that he suffered a cardiac arrest prior to his fall.

The victim had a history of heart troubles. (Source: Parks Canada Warden Service)

FALL ON ROCK, FOOTHOLD BROKE—FAILURE TO TEST HOLDS Alberta, Mount John Laurie (Yamnuska)

On September 29, two experienced climbers were ascending the Redshirt route on Yamnuska (II, 5.7). On the fourth pitch, leader I.H. (51) traversed left, clipped a bolt, and then began the five-meter, somewhat diagonal down-climb to the next belay station. He could not see the belay below him, and spent a few minutes searching around. As he stepped back and forth, his foot settled on a patch of loose rock that gave way. He lost his balance and fell upside down in a pendulum fall of five to six meters. His rack of rock protection ended up between his back and the rock, injuring his ribs. He was able to climb back up to his partner and was then lowered to the base of the route. Fearing further injury on the steep hike out, the climbers called Natural Resource Services, Kananaskis Country, when they reached the base of the cliff.

Analysis

Yamnuska is a very popular traditional rock climbing cliff with over 70 multipitch routes. It is also renowned for having sections of loose rock. Climbers