protection should have been used. The leader was familiar with the route and conditions they had ascended the day before, which would have been the safer choice. Had they carried extra batteries for their radio, the pair could have been warned about the conditions in the descent route.

The two who survived four nights out in bivi bags were incredibly lucky. A strong will and determination kept them alive. (Source: Roger Robinson, Mountaineering Ranger.

FALL ON ICE, UNABLE TO SELF-ARREST, INADEQUATE BELAY Alaska, Mount McKinley, West Buttress

William Finley (24) and Jeff Munroe (25) were injured in a 2,000 foot fall down the "Orient Express" section of the West Rib route on Mount McKinley June 18 at 0040. Both were descending roped together when they slipped on 45-degree ice around 17,800 feet, ending their fall at the 15,800 foot level. Finley sustained chest injuries while Munroe was knocked unconscious. Both men were lowered down to the Ranger Camp by a rescue team. Munroe remained unconscious through his evacuation on June 19. Finley was evacuated on June 21 by an Army Chinook helicopter. Both were transported to Alaska Regional Hospital in Anchorage.

Analysis

Billy Finley and Jeff Munroe were the eighteenth and nineteenth climbers to have fallen down the Orient Express. They were only the third and fourth to have survived. They were very lucky the two British climbers witnessed the fall and could immediately provide assistance. The quick responses from Johnston, Whitfield, 14K rescuers, the NPS LAMA, and the 14K medical attention certainly saved their lives. (Source: Roger Robinson, Mountaineering Ranger)

HAND-HOLD CAME LOOSE, FALL ON ROCK, PLACED NO PROTECTION California, Yosemite Valley

On January 26, Katherine Davis (31) was climbing on Supplication (5.10). She was leading a 5.8 approach to set a belay at a ledge when the rock handhold she was holding crumbled off the wall. At the time of the fall Davis was wearing a seat harness with gear, but was not clipped through any protection. Eric Pearlman, her partner, said that Davis pitched out and back as she fell, rotating 360 degrees head over heels. They estimated the fall to be between 25 and 30 feet. Davis fell onto a steep granite slope covered with heavy duff and soil. She landed on her feet and left side, then slid another 20 feet down a steep soil slope missing the talus. Pearlman stated that he was sure Davis had not lost consciousness because he heard her say, "I'm OK, I'm OK," as she slid down the slope. After checking on Davis' condition, Pearlman hiked out and reported the incident to Yosemite Dispatch, using the phone at the Arch Rock Entrance. Ranger Carol Mutch was the station attendant at the time. After making his report, he returned to Davis' location to await rescue crews.

She was placed in a full body splint which was secured in a litter. A litter carry out team was assembled and, using several belay systems, the litter was

carried down approximately ¼ mile of talus slope to Hwy 140. Although the air ambulance was ordered, it was later canceled and Davis was taken by ground ambulance to the Yosemite Medical Clinic where she was treated for a greenstick fracture of the pelvis and released. (Source: Ruth Middlecamp, Ranger, Yosemite National Park.)

Analysis

The first 50 feet of this route is rotten (loose) rock, with lousy protection possibilities, so the standard practice is to free-solo that part before setting up a belay anchor. We don't know whether she tested the hold. She leads hard routes and is comfortable free-soloing 5.9. (Source: John Dill, SAR Ranger, Yosemite National Park)

EXPOSURE TO SEVERE WEATHER, HYPOTHERMIA, INADEQUATE EQUIPMENT—PORTALEDGE, POOR POSITION

California, Yosemite Valley, El Capitan

On May 26 at 1415, Yosemite Dispatch received a telephone call from Robert Burton, who reported that he had received a cellular telephone call from Craig Calonica (45), who, along with Jordi Tosas (30) was climbing "New Dawn" on El Capitan. Calonica asked Burton to call the Park and summon help for Tosas. According to Calonica, Tosas was hypothermic and in "pretty bad shape" after spending the night "sitting in a waterfall" inside his portaledge. Tosas' single, A-5 portaledge fly system was inadequate against the snow/rain storm they experienced the night before. Calonica did not believe Tosas would make it through another night without suffering severe hypothermia.

A rescue effort was immediately initiated to remove Tosas from El Capitan before nightfall. A two-pronged strategy was developed. First, fly the rescue team to the top of El Capitan to implement a raising/lowering system; second, fly a helicopter with winch capability to remove Tosas from the wall. Tosas was removed using the throw bag technique and winch from Naval Air Station Leemore.

Calonica was raised to the top of El Capitan by the rope rescue team. By 2030, all rescue personnel and both climbers were returned to the heli-base. Tosas was transported to Yosemite Medical Clinic for medical observation. (Source: Ruth Middlecamp, Ranger, Yosemite National Park)

Analysis

Calonica had a cell phone, lap top, e-mail setup and a weather radio, yet he said the storm was a complete surprise. Tosas is a very experienced international climber and UIAGM guide. Tosas' portaledge was an older style and not adequate for the conditions, especially in the location where it was pitched. Here is part of a transcript from an interview with Craig Calonica:

"We were both getting wet, damp, but not really soaked. We were sitting on the ledge under the fly, getting condensation on us where we touched the fly. We sat there for quite a while, waiting for it to stop. We didn't want to break out the other ledge because we thought it was going to blow through and we weren't planning to stay there.