further down the talus slope than they did. Both climbers agreed that had this piece of protection not held the injuries sustained could have been more serious. More importantly, an effective self rescue may not have been possible in this relatively obscure climbing area. (Source: John Kascenska)

FALL ON ICE, CLIMBING ALONE AND UNROPED

Washington, Mount Rainier, Gibraltar Ledge

On March 21, E. Dawes Eddy (56) fell 1600 feet while soloing the Gibraltar Ledge route on Mount Rainier. A four-person climbing team on the same route witnessed the accident and subsequent tumble down the 40–50-degree icy Gibraltar Chute. Eddy's fall was arrested where the slope angle decreased onto the Nisqually Glacier. One member of the witnessing party used a cell phone to alert the National Park Service while another member down-climbed to Eddy.

During the fall, Eddy had sustained bone fractures to his lower right leg and possible internal injuries. That climber helped stabilize Eddy and stayed with him while the other members of his team returned to Camp Muir to retrieve a rescue liter. The Park Service dispatched a helicopter with rangers Brenchley, Turner, and Winslow. They were flown near the accident site where they climbed to Eddy with rescue gear, litter, and medical supplies. Eddy was prepared for extrication and lowered to the helicopter, then flown to a hospital.

Analysis

Eddy had extensive experience climbing Mount Rainier, both solo and in the winter, and therefore understood the risk of his undertaking. Solo climbers in the winter can expect hidden crevasses, poor weather, and, most notably, no backup. Eddy was fortunate that another team was on the same route and witnessed the fall. He stated that no particular event caused the slip to occur, only that he recalled losing his footing and quickly falling backwards, sliding out of control before he could get into a self arrest position. Note that the slope angle was steep—50-degrees, and the snow was hard and icy. There had also been a significant amount of snowfall that winter. This coated the normally rock exposed gully, and he felt the snow helped to cushion his tumbles and prevent more serious injuries. Eddy was wearing his helmet and attributed his survival to this fact. (Source: Mike Gauthier, SAR Ranger, Mount Ranier National Park)

FALL INTO CREVASSE, CLIMBING UNROPED, WEATHER

Washington, Mount Rainier, Muir Snowfield Paradise Glacier

On April 1, Michael Corroone (51) and Dan Gallagher (36) set out to climb Mount Rainier. Severe weather prevented a summit attempt, and they began descending back to Paradise on April 12. High winds, low visibility and whiteout conditions continued, forcing them to follow compass bearings down the Muir Snowfield. Near 8,800 feet, the unroped pair simultaneously fell into a deceptively covered crevasse on the Paradise Glacier, the eastern edge of the Muir Snowfield. Gallagher's backpack caught on the slender entrance and he was able to extricate himself. Corroone, however, slipped through the crack and disappeared into the crevasse.

Gallagher set up a snow anchor and lowered a rope to Corroone. However, Corroone was wedged in such a way that he could do little to assist himself or tie off on the rope. Gallagher then resorted to his cell phone and called 911, reaching an operator in Oregon after waiting for some time for cell service coverage. The call was transferred to the Mount Rainier communications center and a rescue was initiated.

Rangers Gauthier and Mallard, while patrolling at Camp Schurman, were notified of the accident and reported that the weather was improving on the upper mountain. A helicopter dispatched from Seattle transported the rescuers from Camp Schurman to the 9,200-foot level on the Muir Snowfield above the accident site. They descended to the crevasse where Gallagher was awaiting assistance. Gallagher reported that his partner had been trapped in the crevasse for over two hours and there had been no communication between them for the last hour and a half. New rescue anchors and rope were quickly put in service and Gauthier hastily rappelled into the crevasse to assess the situation. Eighty feet below, he found Corroone alive but very hypothermic and tightly wedged between the icy walls of the crevasse. He was suspended from his armpits by his backpack straps like a parachutist trapped in a tree. Corroone was unable to feel or use his arms and could do little more than press his legs against the crevasse walls to prevent slipping further.

For over an hour Gauthier dangled, working at times upside down to dislodge Corroone from his trapped position. Once Corroone was freed from his pack and snowshoes, he was pulled onto a small ledge and stabilized in a harness. Mallard and Gallagher then hoisted him to the surface with a Z pulley system.

As the weather seemed to be improving, the helicopter returned to fly Corroone off the mountain. Shortly after it reinserted, a cloud enveloped the landing zone and super-cooled rime ice quickly coated the rotors and turbine intakes of the ship. The helicopter could no longer achieve lift and became grounded. Pilot Uttecht stated, "I don't want to, but I have shut down." Limited daylight and bivouac resources increased the urgency of the new situation. Ice was scraped from the rotors and turbine intakes of the helicopter with snow pickets. After 30 minutes of ice removal, the clouds again cleared and Uttecht decided to try a flight with only Corroone on board. Conditions continued to improve and Corroone was safely lifted off the mountain before sunset. Uttecht then flew subsequent missions to retrieve Gallagher, the rescue gear, Gauthier, and Mallard.

Analysis

Corroone and Gallagher made the right decision to use a compass for navigation when descending under such adverse weather conditions. Traveling unroped is also a common practice on the snowfield. What caused them difficulty was the blowing wind and snow. Despite following the correct compass bearing, strong winds easily blew the team off course. It is like a small airplane flying on bearing with a strong crosswind that will slowly cause it to be blown off route, even though the bearing remains the same. This is what happened to

Corroone and Gallagher. The crevasse fall occurred roughly 100 yards from the main route taken by thousands of climbers in the summer.

Although Gallagher did a good job setting up snow anchors and lowering a rope, this accident demonstrates that more may be necessary to rescue your partner from a crevasse. Climbers who have fallen in a crevasse cannot always help themselves, and teams should always take this into consideration. If the partner falls, can the second member set up the anchors AND rappel into a foreboding crevasse to render assistance? Many teams elect to go with a minimum of three members (four in the winter) to alleviate some of this stress. Climbers turned rescuers need to be mentally prepared for this daunting task.

The pair was fortunate on many counts. One, that they both didn't fall all the way into the crevasse; two, that their cell phone worked (they don't always on Rainier), and three, that two rescuers happened to be on the mountain during the very early season.

Although it was clear when the helicopter landed, the landing zone did not remain as such after a few minutes of waiting. Weather conditions seemed to be improving. However a rogue cloud made the rescue much more interesting and stressful. It was also fortunate that the helicopter did not require more de-icing in harder to access places. Additionally, if the weather had not cleared, it would have been a long night for the pilot with only a flight suit and leather jacket, not to mention Corroone in his severely hypothermic condition.

Corrone, who is married with two teenage daughters and who has climbed for 22 years, said the accident raised his safety standards. "I'm thinking now I wouldn't go out with less than four guys and full battle gear. I made every possible mistake, and I could have paid dearly for this one." (Source: Mike Gauthier, SAR Ranger, Mount Ranier National Park and *The News Tribune*, April 14)

PARTY SEPARATED – ILLNESS, POOR PLANNING AND LOGISTICS, MISCOMMUNICATION

Washington, Mount Rainier, Muir Snowfield Paradise Glacier

John Repka was last seen alive descending the Muir Snowfield on May 16 during a planned day climb with the group One Step At a Time (OSAT). Repka fell behind the main group because he was feeling ill, vomiting and moving slowly. Near 9,000 feet, he turned around with other group members on their descent from Camp Muir. Repka followed the team but could not keep up. Near 8,000 feet in a whiteout, a member of the group warned Repka that he was heading too far west and possibly off route. That group continued to descend believing Repka was either behind them, or that he would be met by another part of the team still descending from Muir.

When the team regrouped in the parking lot and Repka had not arrived, they began communication with him over a two-way radio (which some members were using). Repka radioed that he was near Panorama Point, but he wasn't certain. They lost contact with him after 5:30 p.m. In that conversation, Repka