were coming from the scene. Larson prepared to respond to the scene with park em-

ployee Jack McConnell and emergency hire Steve Griffin.

Based on available information, Ranger Mark Magnuson, Rescue Coordinator for the day, requested the contract helicopter respond to Lupine Meadows. Exum Guides Doug Chabot and Wes Bunch, who were above the Lower Saddle, received word of the accident and proceeded directly to the scene.

Chabot and Bunch climbed the first three pitches of the Lower Exum and arrived on scene at 1235. They reported a 32 year old male who had taken a 40 to 50 foot leader fall, sustaining superficial lacerations to the head, hands, and arms, and banged up knees. The victim was alert and oriented, had not lost consciousness, and was ambulatory. The party's intent after the accident had been to rappel the route, but their rope was shredded in the fall, Ranger Larson and his team, who traversed onto the Lower Exum via Wall Street Couloir, arrived on scene at 1250 and performed additional patient assessment. Following consultation with Dr. Rick McKay at St. John's Hospital emergency room, the decision was made to assist the injured climber, Don Saver, down to the Lower Saddle. Full consideration was given to a thorough neurological examination prior to

Larson and party assisted Saver down to the Lower Saddle by traversing back across the Wall Street Couloir, then down the Owen Couloir. Upon arrival at the Saddle, Saver was flown by helicopter to Lupine Meadows, with ranger Jim Phillips attending. He was then transported by ground ambulance to St. John's Hospital where he was treated for

multiple lacerations and contusions.

this decision, which was agreed to by the patient.

Analysis

In a follow-up interview with Saver, he stated that he was leading what appeared to be the third pitch of the Lower Exum route when he lost his grip on the smooth slab and fell. He pulled three pieces of protection during the fall: a small three cam unit, a fixed pin, then a #1 Metolious 4 cam unit. The rope snagged over a rock horn, stopping Saver's fall about 15 feet above a ledge. An examination of the rope (10.5 mm Blue Water) at the point where it snagged the horn, revealed approximately 36 to 48 inches of exposed core (sheath gone), with three internal strands broken. An examination of what is believed to be the 4 cam unit revealed deep scratches/gouges to the curved cam faces. No examination of the other two pieces was possible.

Saver is likely quite fortunate the rope snagged the horn described and performed as it was intended. He was also wearing a helmet, which likely contributed to the minor nature of his injuries. Saver described his fall as "pure air, bouncing several times against

the rock." (Source: Mark Magnuson, SAR Coordinator)

(Editor's Note: The victim is also fortunate that rangers and guides were able to respond expeditiously to the scene.)

LOSS OF CONTROL—VOLUNTARY GLISSADE, CLIMBING ALONE, NO HARD HAT

Wyoming, Wind River Canyon, Dinwoody Pass

On September 1, Steve Fleming (45) was unable to self-arrest while descending from Dinwoody Pass. In a report he submitted, he stated that the snowfield he ascended in the morning required crampons, but had softened in the afternoon to the point where

"my ice ax would not hold as my brake." He said he slid over 100 yards, striking many exposed rocks. He as able to slow his descent somewhat by rolling onto his back and digging in his heels.

Analysis

This accident could have been avoided if I had taken the time to test conditions. It would also have helped if I had used the shaft end of my ax, not the point.

Because of a severely sprained ankle and a gash on the back of my head, I was medivacked to the hospital in Jackson. I also received excellent help from other climbers in the area.... (Source: Steve Fleming)

FALL ON ROCK, RAPPEL ROPES KNOT "UNRAVELED" Wyoming, Grand Teton, Guide's Wall

On September 13, Karen Turk (32) Matt Goewert (33), and Carrie Dagher were descending Guide's Wall when this incident occurred. Goewert and Dagher stated that the party of three had climbed the Guide's Wall route to within two pitches of the top. At this point, Turk elected to remain while Goewert and Dagher finished the route. In preparation for their descent, Goewert tied both their ropes together using an overhand knot, leaving about six to eight inches of tail. One rope was 10mm in diameter and described as new, the other rope a 10.5mm in diameter was described as used. Goewert and Dagher each rappelled down to Turk's position, then the three of them each rappelled once down to the next station. At this point, Goewert started to untie the knot by loosening it (for a single rope rappel) then decided to keep the ropes tied together as the final rappel would be another long, double rope rappel. Goewert re-secured the knot by pulling on all ends to tighten, which he demonstrated. The ropes were threaded through three rappel rings which were secured by multiple pieces of webbing tied around a tree. Goewert then rappelled approximately 80 to 90 feet to the next ledge. When Goewert finished this rappel, Dagher said that she and Turk moved the knot about twelve inches forward, but did not adjust it. Turk then proceeded to rappel. When Turk was approximately 30 feet above the ledge, Dagher states that she watched the knot "unravel," causing Turk to fall. Turk fell about 15 to 20 feet, struck her back against a rock prow, then fell another ten to 15 feet onto the ledge, landing on her back.

Goewert said that Turk never lost consciousness, but was in significant pain. In conducting a physical assessment of Turk, he found a large laceration across her lower back, with exposed spine, but no other significant injuries. His treatment included care and comforting of the patient and monitoring vital signs. Dagher reported the incident via Goewert's cell phone.

Analysis

Goewert, an experienced lead climber, said that he's been using the overhand knot for a couple of years, but has always been a little uncomfortable with it. He added that it's a knot used by a lot of climbers he knows. He's not sure why the knot came untied. It had held multiple rappels and, after having been loosened, had been re-secured by himself and rappelled on once again. Goewert added that he would no longer use this knot.

In a phone interview with Turk on the morning of September 13, she described herself as fairly new to climbing, having started in May of this year. She said she has climbed a lot in Illinois, but this was her first "alpine" route. She could offer no additional infor-