notified Life Flight of need for hoist rescue. The team surveyed the scene to determine if hoist rescue could be safely performed. Avalanche risk was deemed minimal due to the lack of snow accumulation on the steep slope: all ice and rock. The victim was located below the anchored belay station at the base of the third pitch. Just out of the drainage upslope and to the east of the Rawson was a moderately-sized flat platform with snow, but no ice in which the hoist paramedic could be safely lowered and prepare the victim for evacuation. Life Flight had communication with EMS on scene and indirectly with the climber responders. The climbers hauled the patient on the backboard up to the flat platform. The medic was inserted via hoist to this location, followed by a vacuum mattress rescue bag to maintain spinal precautions and provide protection from the below freezing temperatures. After the patient was prepared for evacuation (ten minutes), the helicopter returned for hoist evacuation. Mr. Rawson was transported via helicopter to local hospital where he required surgery for a femur fracture. (Source: Carol Rhoades, Flight Nurse, Intermountain Healthcare Life Flight)

Analysis

In an interview with *The Salt Lake Tribune* on January 8, Gene Rawson said trying to climb solo was a mistake. "If I was roped up and had gear in the ice, the chances of anything severe happening would be minimal," he said. "When you go solo, it is taking the sport to the very extreme. It's not a smart thing to do at all, but it is a decision that people make at this level. That is a lesson learned from a lot of people, but being able to live through this, with a 300-foot fall, is huge. Normally, you never hear that someone would live."

The climber, who works for a company in Butte called The Peak that trains Special Forces and other military personnel on rock and ice climbing and mountaineering, praised the work of the Life Flight paramedics who came to his rescue. "It was a great experience to be rescued by these guys," said Rawson. "If it wasn't for them, this would not have gone well. My hats are off to them for everything going as smoothly as it did."

FALL ON ROCK, INADEQUATE PROTECTION

Washington, Columbia Hill State Park, Horsethief Butte

On Sunday April 5, Tony Silva (30), a Gresham Oregon Police Detective, his sister-in-law Laura (26), and her husband, Bobby Silva, along with three young children, planned to set a top rope at Horsethief Butte, a sport climbing area popular with beginning to intermediate climbers from nearby Portland, Oregon, and towns in Washington on the Columbia River.

Horsethief Butte is characterized by many user traces and scrambles climbing up 25 to 50 feet to large ,flat, weathered basalt overlooks. The Park

has a "no bolt policy" because of the Native American culturally sensitive nature of this area.

The investigative report and photos show that Tony and Laura were linked together by the system they were constructing. If one fell, the other would be pulled off.

The report stated, "The anchor consisted of two stoppers placed in cracks at the top of the route with three separate loops of grey nylon webbing attached... The middle loop of webbing appeared to be the only loop that had been bearing weight due to all of the knots being weighted... All of the knots in the other two loops (and a third stopper) were non-weighted..." A third stopper was left in place and not attached to the webbing.

Detective Gresham and Laura Silva fell to their deaths from the top of the cliff. The actual fall was not observed.

Analysis

Experience tells us that stopper placement in the typical shallow, worn, narrow, parallel cracks in the flat top of basaltic columns is very insecure. Placements are certainly one directional.

It is believed that one of the climbers was standing or kneeling at the cliff-edge while the other was searching for a placement just below the cliff-edge. When the fall occurred, the anchor was shock-loaded by both climbers and possibly pulled up and out by the climber above.

The Washington State Patrol Investigative Report concludes: "This fall most likely occurred due to human error in building the anchor."

Members of the Mazama climbing club from Portland were also sport climbing nearby. Their monthly print and web publications noted the tragic accident and offered this advice to their readers: "When setting a top-rope or rappel anchor on a cliff-top, a rule of thumb is always secure yourself if you are within two meters of the edge." They suggested that you self-belay by attaching the end of your climbing rope with a locking carabineer to a solid natural or constructed "SERENE" (Secure, Equalized, Redundant, No/Extension) anchor "well back from the cliff", attaching the climbing rope to your harness with a Prusik or Klemheist friction knot looped through a locking carabineer. Of course, traditional practice dictates you should back up your friction knot by tying a figure eight on a bight of the climbing rope a couple of feet below your Prusik loop and clip it to the locker on your harness. The climber should work on the anchor system in the exposed area with a slack-free self-belay.

The Experience Level was described in the Investigative Report as "low intermediate and high intermediate". Both were gym climbers, but neither had much experience in setting traditional anchor systems on basalt columns at Horsethief Butte. (Source: Robert Speik, following interviews with

witnesses and study of the Investigative Report and photographs from the Washington State Patrol, Investigative Services Bureau)

FALL ON SNOW – UNUSUAL SLIP

Washington, Mount Shuksan

On May 23, one of two clients sustained an ankle injury when the guide (29) lost his footing on the descent of Mount Shuksan. He slid down a snow slope, and pulled the clients from their stance. Because of snow conditions and gradient, the guide was unable to stop himself before passing the climbers and before the slack in the rope was spent. The total fall was about 400 feet.

Analysis

The guide hadn't set any protection for himself (nor had the other climbers done so as they descended with his belay) because he was on, what was for him, moderate terrain where he felt no danger of losing his footing. It was a very unusual slip—a freak accident—for a skilled guide.

Throughout his career he has guided his clients without error, and he felt terrible about this accident.

The guide commented, "Among many other responsibilities, a guide's job is never to fall. We put in protection on challenging terrain so that if the unexpected happens, ill consequences do not occur or are minimal. We also put in protection on moderate terrain when conditions dictate, such as objective danger or probable difficulty in stopping a slip or a fall by clients. In the case of this accident, we were in open terrain with no objective dangers from above, and I felt secure in my footing. Though the snow was soft, I felt that I could fully control my stance and movement. I have always been conservative in placing protection (especially with clients), and this experience has made me even more so." (Source: Kelly Bush, Wilderness District Ranger, and the guide)

SLIDE INTO STEAM VENT

Washington, Mount Rainier

On May 24th, a climbing guide (age unknown) near the summit of Mount Rainier slid into a steam vent and fell 15 to 20 feet. Climbers with her reported that she had injured ribs on her left side, was experiencing difficulty breathing, and had a reduced level of consciousness. Ranger Chris Olson and two employees from one of the park's guide concessionaires headed out from Camp Muir with a litter and gear for a technical lowering. Rangers David Gottlieb and Jeremy Shank departed Camp Schurman with an oxygen kit. Rangers Philippe Wheelock and Rachel Mueller, having just climbed Fuhrer's Finger, were also directed to the scene.

Her partners, who were part of a commercially guided climb, extricated