ACCIDENT REPORT: MICRODOT PEAK, HATCHER PASS ALASKA

***Date:**: March 1, 2003., **Time:** approximately 12:30 pm. **Location:** The south face of Microdot at Hatcher Pass, approximately 1.5 miles north-northeast of the Hatcher Pass Lodge **Author:** Ed Kamienski., **Anchorage Nordic Ski Patrol Summary**: One skier caught, carried, partially buried & injured. Two caught in powder blast.. **Weather:** Partly cloudy to sunny, temperatures 25-30 degrees F, winds calm.*

Background Weather and Snow Conditions

When the Anchorage Nordic Ski Patrol (ANSP) contacted Alaska State Parks on Friday, February 28, to inform them of the planned Saturday patrol, Alaska State Parks reported avalanche hazard at Hatcher Pass was "Considerable to High."

Heavier snowfalls with moderate temperatures occurred during the week preceding the accident. Between February 20 and February 28 the Hatcher Pass NOAA/National Weather Service station (Elevation 3450) recorded an additional 17" of snow. Though no large wind events were recorded by the National Weather Service station prior to the event, adjacent slopes were moderately wind loaded. A test pit dug two days after the incident on an adjacent slope revealed 50 inches of new snow, on a layer of faceted snow, which rested on a knife-hard layer of rounded melt-freeze snow.

Terrain Factors

The main section of the south face averages more than 35 degrees, with some steep convex "rollover" sections exceeding 40 degrees. The overall runout angle for the slide event was measured at 30 degrees. The starting zone was estimated at 38-42 degrees. Multiple known avalanche slide paths and starting zones exist on the face.

The Accident

A group of seven experienced backcountry skiers and one snowboarder, each equipped with an avalanche beacon, probe and shovel, ascended Microdot. One person from the party reported that all of them had skied backcountry over 100 days. They also reported having previously triggered avalanches and skiing out of them.

The group dug a snow pit during the ascent and determined that snow conditions were unstable, but decided to continue on the ascent anyway.

Upon reaching the top, the party chose to descend individually. They also filmed the descents with a video camera. Two reached the bottom without incident. At approximately 12:30 pm the fifth person in the party began to descend, fell and triggered a slab avalanche that carried him over a rock outcropping down to the foot of the peak, approximately 700 vertical feet below. He was partially buried with his head and one arm extending from the debris.

Two party members who had already descended ran, but were enveloped by the powder blast, which knocked at least one of them over. The remaining three members of the group were able to descend without further incident to aid their partially-buried companion.

The Rescue

The location of the partially-buried skier was observable by the members of the party who were still at the top. They descended and, with another member of the party, immediately started to dig their companion out. One member from the group immediately proceeded to ski down to the Hatcher Pass Lodge parking lot to report the accident and procure aid.

A group of three skiers including two ANSP members had arrived to patrol the Hatcher Pass Bowl area that day and checked in with Alaska State Parks by radio at approximately 12:15 p.11. At 12:45 p.m., a skier and witness from the group approached ANSP members in the lodge parking lot and reported the

avalanche, its location and that one skier was "being dug out." The incident was immediately reported to State Parks by radio and to personnel at Hatcher Pass Lodge. The group of three skiers immediately started for the accident scene with the
witness. The Alaska State Parks notified the Alaska State Troopers and EMS and placed Alaska Mountain Rescue Group (AMRG) and Backcountry Avalanche Awareness Response Team (BAART) on standby. A helicopter was dispatched.
Two skiers from another party witnessed the avalanche and proceeded to the scene to aid in the rescue. One of the skiers from the other party was a member of the AMRG. At approximately 1:05 p.1., the victim was retrieved from the avalanche debris, and set on packs and insulating pads and covered with extra clothing by the skiers. One skier from the initial ski party and a member of the Alyeska Resort professional ski patrol performed an initial assessment and took baseline vitals. The initial assessment indicated pain in the right shoulder, right abdomen, ribs, back, and right knee, but no external bleeding.
ANSP members reached the accident scene at 1:30 p.m. The victim was conscious, continued to complain of back and shoulder pain and shivered from being cold. ANSP members provided medical support and coordinated rescue operations at the site. A helicopter landing zone was prepared.
Six snow machines attempted to access the accident scene to deliver equipment from the rescue cache. The snow machines became bogged down in the snow until, at 2:15 p.m., two snow machines successfully delivered a hypothermia bag and marking media for delineating the helicopter landing zone.
Lifeguard helicopter arrived at 2:30 p.m. EMS personnel assumed responsibility for medical. ANSP members and others assisted with applying the cervical collar, back boarding and transporting the victim to the helicopter. The Lifeguard helicopter departed with victim at 2:55 p.11. for Alaska Regional Hospital in Anchorage.

Injuries

The victim was admitted to Alaska Regional Hospital. Injuries included a broken scapula, ribs, and a fracture in his lower back. The victim was encouraged that the injuries would heal completely and would not likely be debilitating in the long term. The victim expressed thanks to ANSP and all who assisted with the rescue.

The Avalanche

The fracture line of the main slab avalanche occurred an estimated 40 feet below the main peak at approximately the 4,600-foot level. The depth of the crown face was estimated to be about 3 feet and 150–200 feet across. The skier was carried with the debris over a rocky ledge and down an estimated 700 vertical feet to the valley below. The debris pile at the bottom was estimated at 30 feet wide by 30 long and 4-6 feet deep. The pile contained debris from the main (skier-triggered) slide as well as a smaller adjacent slide that also released during the event.