Mt Herman Avalanche Accident, 1-19-2000

Near Mt Baker, Washington

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Date & Time—1/19/2000, 230 PM PST

Location: Mt Herman, just west and adjacent to Mt Baker ski area

Weather—Sky clear, Temperature ~low-mid-30's

<u>Number in party</u>—three—two snowboarders and one photographer; one caught and mostly buried (to his neck). Recovered alive with significant injuries.

Type of Activity—snowboard

Type and Size of slide—HS-AS-3

Other slide parameters: N-NE aspect; slope angle=38-40 deg; 4 ft deep X 50 ft wide ~4700 ft elevation; vertical fall ~1,000 ft; victim traveled about 800 vertical

Preliminary Accident Summary--

At approximately 230 PM on Tuesday, January 19, 2000, a group of three snowboarders (two boarders and one photographer on board) had reached a ridgeline shoulder at about the 4700 ft level on the N-NE flank of Mt Herman (just west of the base of the Mt Baker ski area). The area is in the Mt Baker Wilderness outside of the developed ski area and is not controlled. In order to set up for a photo shoot on the slope below, which had several prior ski or snowboard tracks lower on the slope, the photographer proceeded to go down the angled ridgeline shoulder and dropped off the ridge about 200 vertical feet below to get ready for the shot. One of the snowboarders then proceeded up toward the lip of the cornice for a jump when a 4x4x4 ft block of cornice (weight about 1200 pounds if the cornice density is estimated at 30%) broke off and triggered a 4 ft x 50 ft hard wind slab created during the high wind episode of the previous Sunday (three days prior). The weather at the time was clear and sunny with temps estimated in the low to mid 30's (nearby weather sensors at the base of Mt Baker (elevation 4200 ft) indicated an air temperature of about 37-38 degrees F). Once the slide broke, it caught the photographer and carried him downslope some 800 vertical (total vertical for the slide was estimated at about 1000 vertical), moving over several 40-60 ft cliff bands and through considerable tree cover. The victim tried to swim, which may have aided in the fact that he was not completely buried. He was also aware of the cliff bands as he was carried over them, noting times of light and dark, and being well aware when he struck rocks after one such transition. When the slide came to a rest, the photographer was buried to his neck. He was quickly located and dug out by the other members of the party who rapidly boarded down to the toe of the slide and the debris. Unfortunately the victim had sustained significant injuries, including a broken femur, compression fracture of the back and numerous lacerations. Although both snowboarders who were not caught had transceivers and shovels, the photographer did not. The group had apparently discussed avalanche danger but did not feel that the slope presented a problem. After reaching the victim who lay within blocks of the hard slab material, and ascertaining the extent of injuries, one of the boarders then proceeded to the base to request rescue assistance. An Army Rescue helicopter was dispatched and arrived on scene at approximately 1630

PST, when the victim was airlifted out. He was subsequently reported in stable condition at the hospital (as of 1/20/2000) with the aforementioned injuries.

Ancillary Snow, Weather and Avalanche Information:

In most areas, the recent hard wind slabs created the prior Sunday had begun to settle and stabilize with about 8-10 inches of settlement reported. Also, no natural or human-triggered slides had been reported since Sunday. Although large explosives (50# bags of anfo) had released very large (6-12 ft) slabs on several north-northeast exposure slopes at the 5500-6000 ft level on the Shuksan Arm Wilderness area to the east of Mt Herman on Tuesday, it was felt that very large explosives or shocks to the snowpack were needed to precipitate such deep releases. These slides had probably released to the late December crust.

As a result of the settlement and the lack of avalanche activity either within or outside developed ski areas, and several field reports indicating a strengthening wind slab and no new loading, the Northwest Weather and Avalanche Center forecast for Wednesday called for a moderate danger. The forecast issued on Tuesday for Wednesday mentioned that human-triggered unstable wind slabs remained possible on steeper terrain, mainly on northwest through northeast exposures, and the forecast issued on Wednesday morning reemphasized the potential for pockets of unstable wind slab and triggered slab releases.

A combination of factors probably led to this incident, including the warming trend during the afternoon, the existence of a relatively large unstable cornice, and the still stabilizing old wind slab probably created on Sunday. With other skier traffic in the vicinity not releasing the slab, it is uncertain whether or not the slab would have released without the added shock applied by the cornice block.