

Avalanche Details

- **Date:** 03 April 2016
- **Time:** 3:00 pm AST
- **Location:** Hoodoo Mountains, Eastern Alaska Range
- **Accident Site Coordinates:** 63.222883° N 145.320565° W
- **State:** Alaska
- **Reporting Agency:** Eastern Alaska Range Avalanche Center
- **Fatalities:** 1

Number

- **Caught:** 2
- **Partially Buried, Non-Critical:** 1
- **Partially Buried, Critical:** 0
- **Fully Buried:** 1
- **Injured:** 1
- **Fatalities:** 1

Avalanche

- **Type:** HS
- **Trigger:** AM – Snowmachine
- **Trigger (Subcode):** u – Unintentional
- **Size – Relative to Path:** R3
- **Destructive Force:** D3
- **Sliding Surface:** O - Density Change

Site

- **Slope Aspect:** E and NE
- **Site Elevation:** 5800ft
- **Slope Angle:** 35° - 45°
- **Slope Characteristics:** Complex and Wind Loaded

Avalanche Comments: Two snowmachiners were caught in the avalanche they triggered. It released at a faceted layer beneath a hard slab (ranging from 30-70cm in thickness) HS-AMu-R3-D3-O. The crown fractured along an East through North East slope above a gully terrain trap. The crown face was 30-70cm in depth, 200ft in width, and 800ft in vertical run. All numbers are estimates as direct access to the crown was not possible due to avalanche danger.

Snowpack and Weather History: The day of the accident skies were clear with temperatures above freezing and no wind. Throughout the season the Alaska Range had seen abnormal and variable wind directions as well as major fluctuations in temperature. In the weeks preceding the accident there was snowfall with significant wind loading. At the edge of the fracture line a snowpack assessment revealed the surface layer of snow consisted of a melt freeze crust over near surface faceting. Below the melt freeze crust and facets was a wind slab overlaying an ice lens and pencil hard facets. The pencil hard facets were above a layer of 4 finger hard facets (see snowpack profile below). This is the weak layer on which the avalanche was triggered. During the day of the accident widespread recent natural avalanches were observed as well as several large human triggered avalanches on similar aspects.

Accident Summary: Two snowmachiners were caught by an avalanche triggered by the party. Rider #1 and Rider #2 were ahead of the rest of their party upon arrival at the parking lot on the day of the accident and proceeded to head out to the mountains. At approximately 3:00 pm Rider #1 was ascending the slope while Rider #2 was watching from the bottom of the slope. Rider #1 was mid slope when he triggered the avalanche and was unable to remain on his machine, he was carried down slope where he was partially buried. Rider #2 was unable to get out of the path and

she was struck and fully buried by the avalanche as debris washed into the terrain trap at the bottom of the slope and up the other side.

Rescue Summary: Rider #1 sustained a leg injury but was able to free himself and recognized that Rider #2 was not visible. Both riders had recently taken an avalanche awareness course, they were both wearing avalanche beacons, and carrying probes and shovels. Rider #1 began a beacon search and had located Rider #2 within 10-15 minutes. At this point other riders in the area had responded and helped to dig out Rider #2. Rider #2 was unburied 25-30 minutes after being caught. She was buried at least 6 feet, likely more, and had been forced up against her snowmachine. Upon removal it was noted that she was “blue in color” and had evident trauma. Two members of the rescue party began CPR on Rider #2. They noted she had snow in her mouth obstructing her airway, which they cleared before administering rescue breaths. CPR was continued for 10 minutes until the rescue party said it was apparent that Rider #2 had passed. A bystander was able to ride to an area close by that had cell phone reception and request EMS. At this point my party arrived on scene and took over management of Rider #1 and Rider #2 until the Alaska State Troopers and Delta EMS were able to get several snowmachines out to the accident site to transport Riders #1 and #2.

A special thank you goes to the responders on scene for their openness and willingness to share their story and to the State Troopers and EMS for responding to the scene.

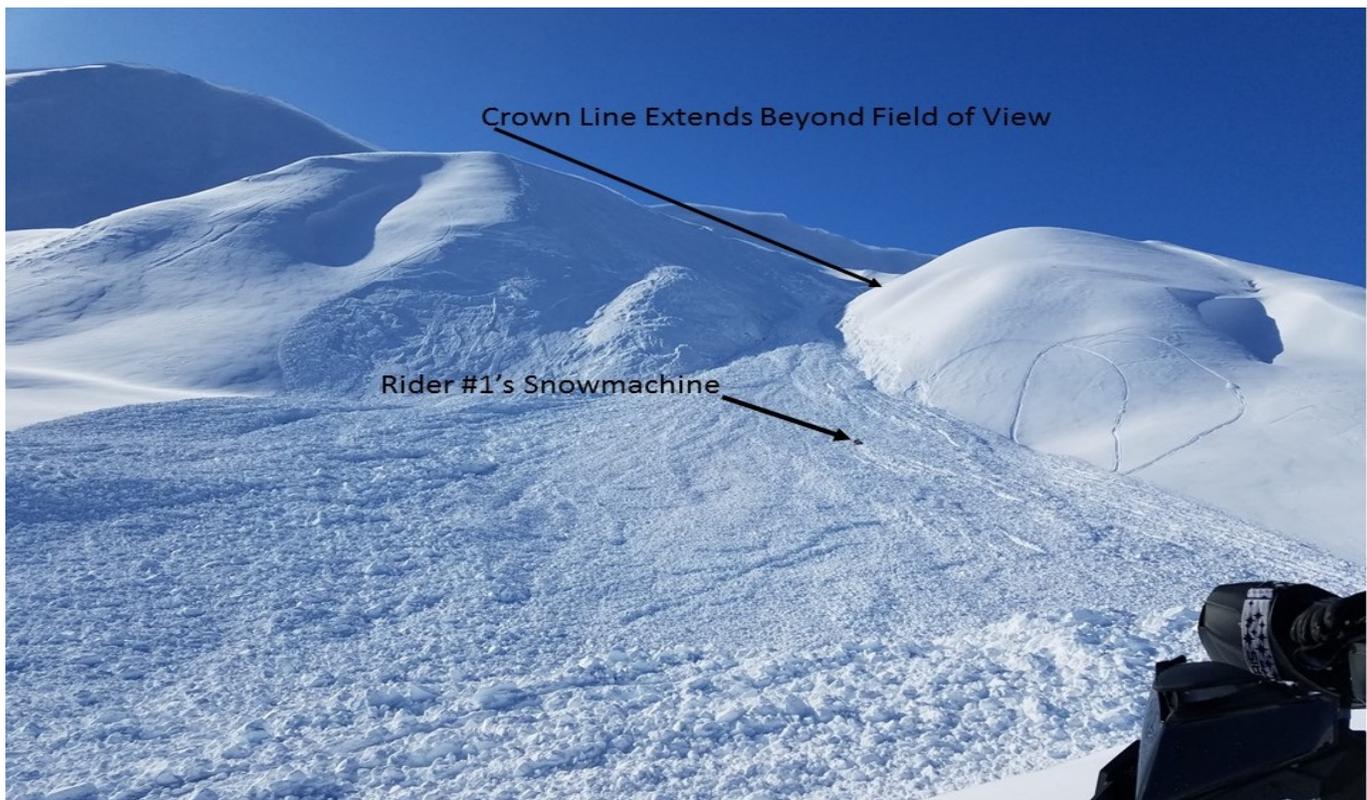


Figure 1: Accident site photographed from below. Shows extent of crown line & Rider #1's snowmachine.

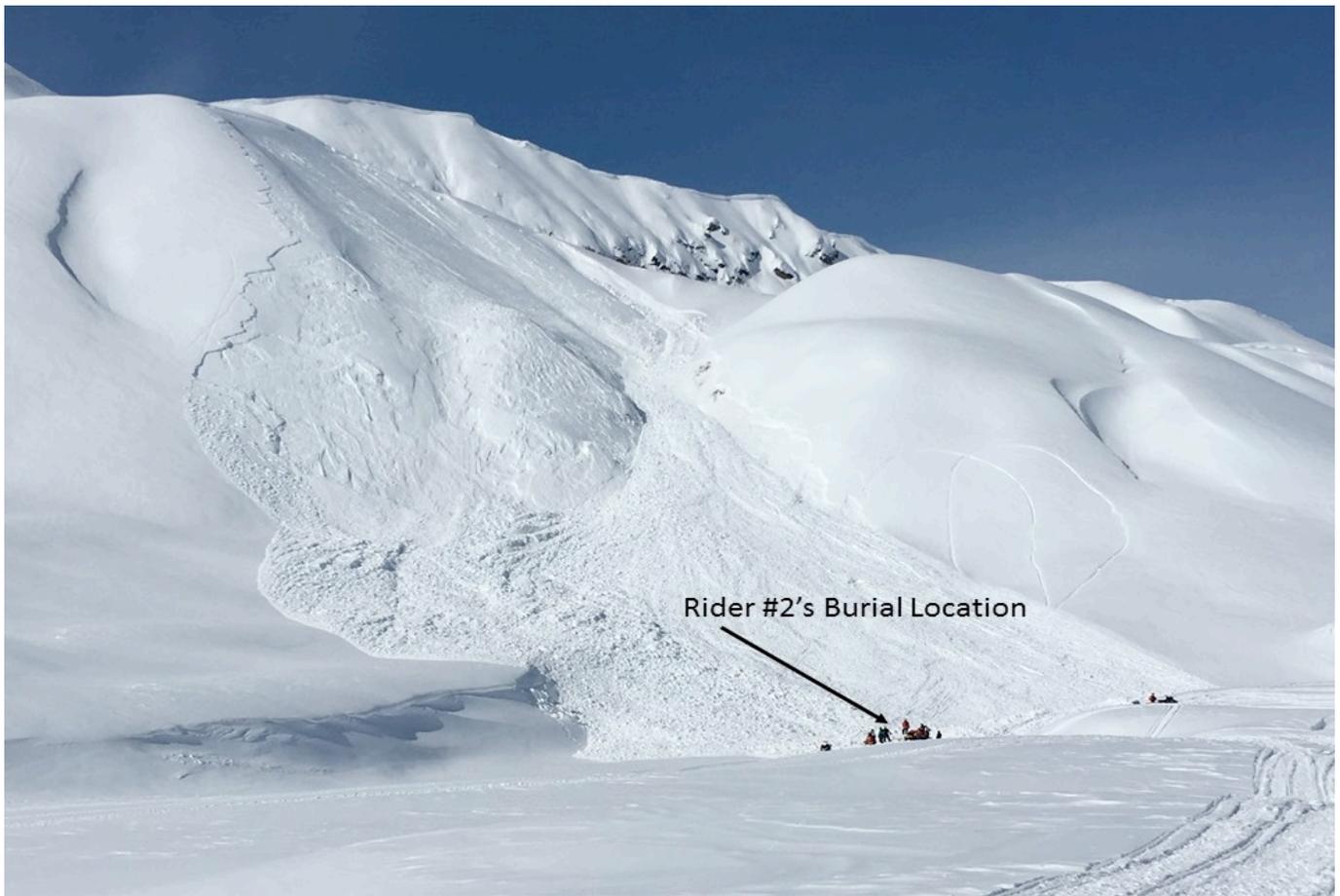


Figure 2: Photo Credit Matt Kennedy. Photo of the extent of the avalanche with Rider #2's burial location.

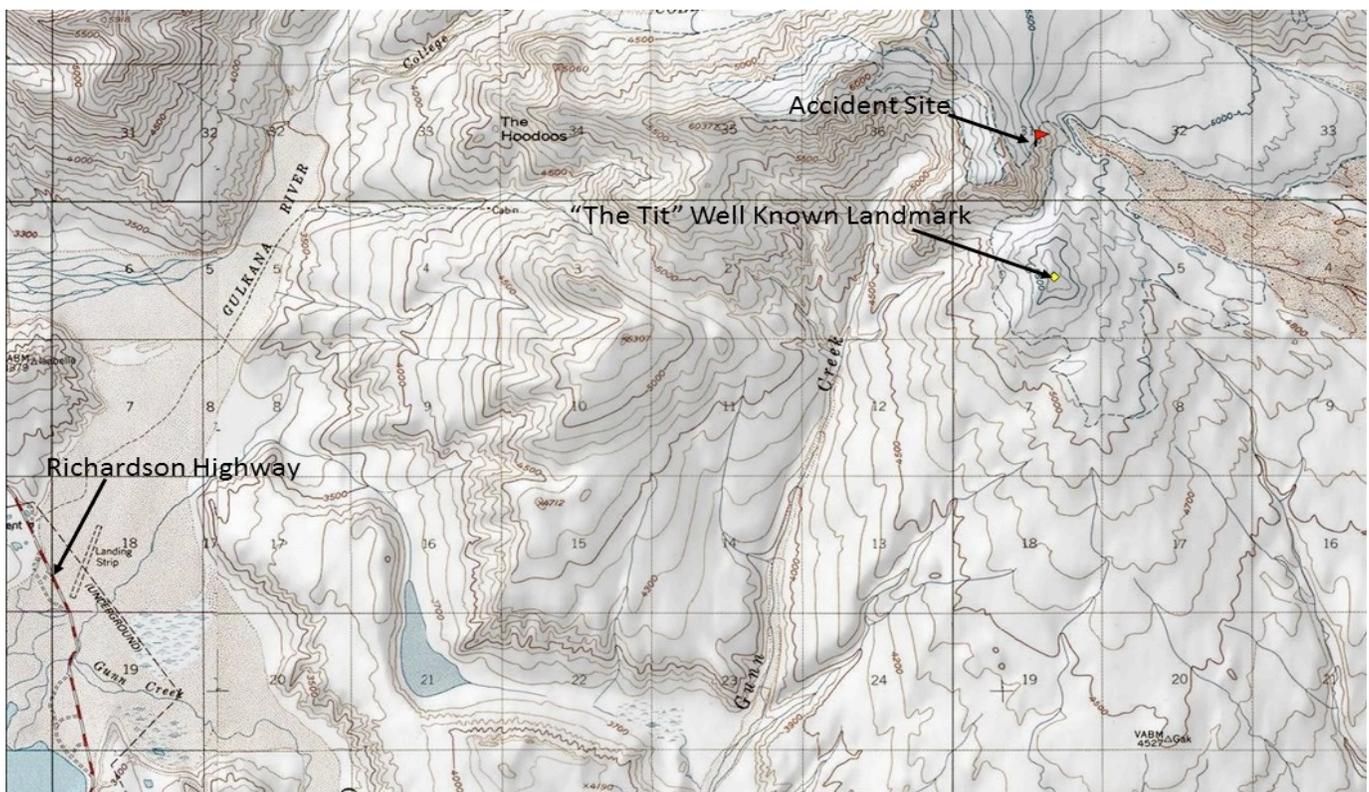


Figure 3: Topographic map of the area. Shows the accident site, "The Tit", & the Richardson Highway



Figure 4: Photograph of a human triggered avalanche on the same day on a similar aspect.

Organization: Alaska Avalanche Information Center

Location: E Face of Courage, E. AK Range

Date: --

Snowpit depth: 206 cm

Lat/Lng: 63.22383, -145.32526

Observer: Erik Stevens

Snowpack depth: 206 cm

Elevation: 1,620 m

Wind: Calm, --

Fracture profile was not possible due to dangerous slope. We inspected the edge of the crown to verify weak layer depth, type, and HS. We then dug this pit in a safer area 700ft below the crown on an adjacent slope of the same aspect. Snowpack was nearly identical to that at the crown. Observers were Erik Stevens, Kevin Salys, and Sean Sullivan.

Slope: 31°

Blowing snow: None, --

Aspect: 90° E

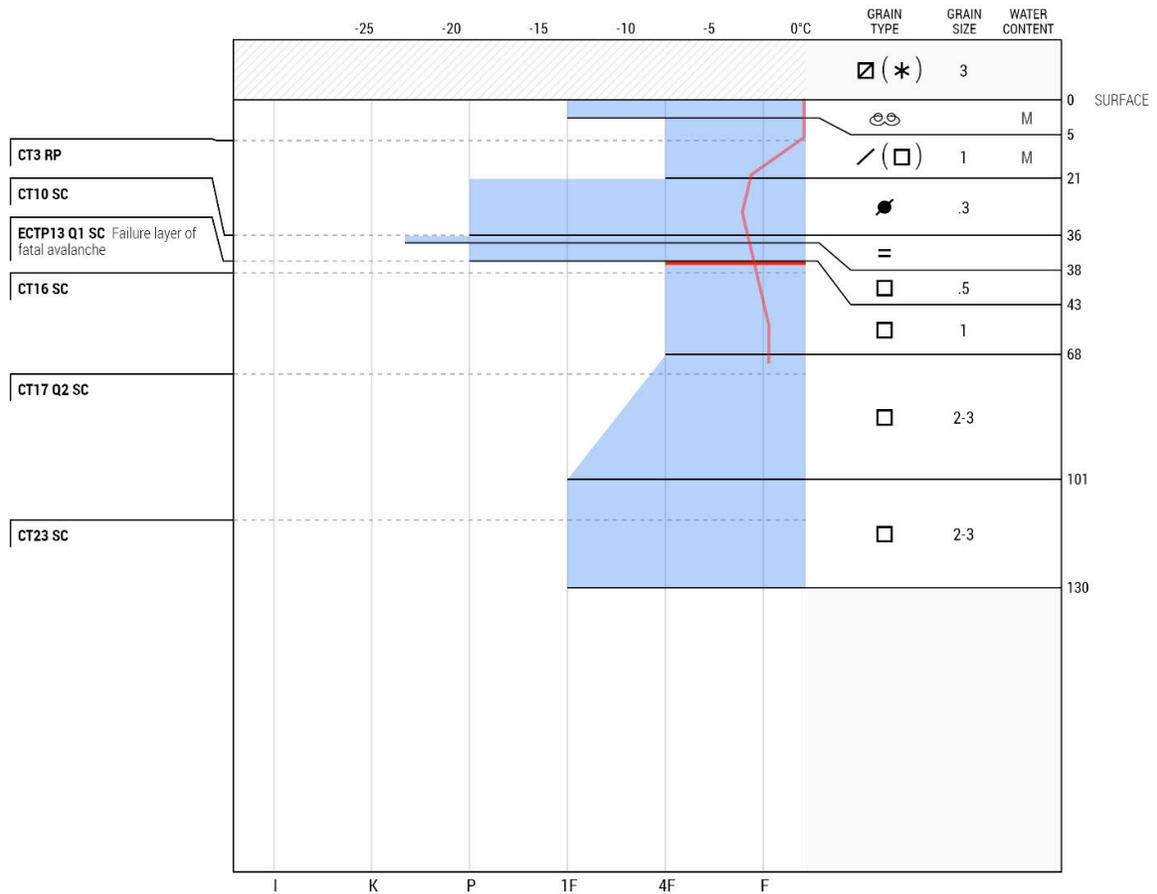
Precipitation: No Precipitation

Air temp.: 1.0°C

Foot Pen. (PF): 15 cm

Sky: ☁ Few

Ski Pen. (PS): 10 cm



570454AF568D3F0F00E70565

Powered by AVATECH

Figure 5: Profile of edge of crown from 2 days after accident