Sunburst - Near Miss Avalanche Incident
Dec 18th, 2014

Location: Sunburst Ridge, Turnagain Pass, Alaska
Date: 12-18-2014, Time: 1330-1400
Report by: Chugach National Forest Avalanche Center Staff, Published 12-22-2014
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Synopsis:
Skier triggered avalanche on the Southwest face of Sunburst. One person caught, carried and fully buried. Recovered with no injuries.

Avalanche Details:

Avalanche Code: SS-ASu-D2-R3-I
Trigger - Skier
Aspect – SW
Angle – N/A (estimated 37-40 degrees)
Elevation - 3600'
Crown Depth – estimated 2'
Width - 300'
Vertical Runout - 1000' (Toe of debris reported to have stopped short of the creek drainage.)
Weak Layer – Suspected Buried Surface Hoar

Events:
On Thursday, December 18th, a party of two long-time Turnagain Pass skiers skinned up the common up-track on Sunburst's Westerly ridge. After gaining the upper portion of the ridge, around 3,700', they descended the popular Southwest face one at a time. Skier 1 descended first and safely skied to the valley floor without incident. Skier 2 began skiing and on the 7th or 8th turn triggered a large slab avalanche. The avalanche propagated up-slope and broke 15-20' above Skier 2. Skier 2 was caught (See photos), carried and fully buried. Skier 2 came to a stop near the top of the deposition zone with their head roughly 1' below the surface of the debris and a hand sticking out. Later, Skier 2 said they had "a good air pocket" and was able to begin self-excavating with their free hand. Skier 1 was out of the way of the debris and able to move uphill to assist digging their partner out.

Skier 1 reported: My partner "went under and over, rode the slope, and luckily was able to clear the snow out from around his head. About two minutes after the powder blast, I could hear him yelling to me. I was on my way up to help dig him out."

No one was injured. There was one lost pole. Both skiers made it back to their vehicle on their own power and with their own gear.

Weather:
On the day of the avalanche skies were clear and temperatures were in the mid 20's F. Ridgetop winds at the Sunburst weather station (3,812') were reporting 9mph with gusts to 13mph from the East. No precipitation.

Snowpack History:
The avalanche occurred on the first clear day after a four day storm (12/14 - 12/17) deposited 24" - 30+" of new snow in the Turnagain Pass zone. The storm snow fell onto a very well developed and widespread layer of surface hoar (formed Dec. 11-13) that extended to the ridgetops. The general snowpack structure consisted of a 2' slab (storm snow) sitting on a layer of buried surface hoar (0.5 - 2cm in size) on top of a melt-freeze crust below 3,000' and settled rounded grains above 3,000'. Continued poor snowpack structure and avalanche danger has, at this time, delayed performing a crown profile. However, due to the well-documented evolution of the buried surface hoar and associated poor stability test results at this layer on nearby ridgelines, the avalanche is suspected to have failed on the Dec 11-13 buried surface hoar.

The CNFAIC avalanche danger was rated CONSIDERABLE. Advisory link:
http://www.cnfaic.org/advisories/current.php?id=1074

Media article:
http://www.adn.com/article/20141218/turnagain-backcountry-skier-survives-full-burial-avalanche

Map of Turnagain Pass, Sunburst Ridge and Avalanche

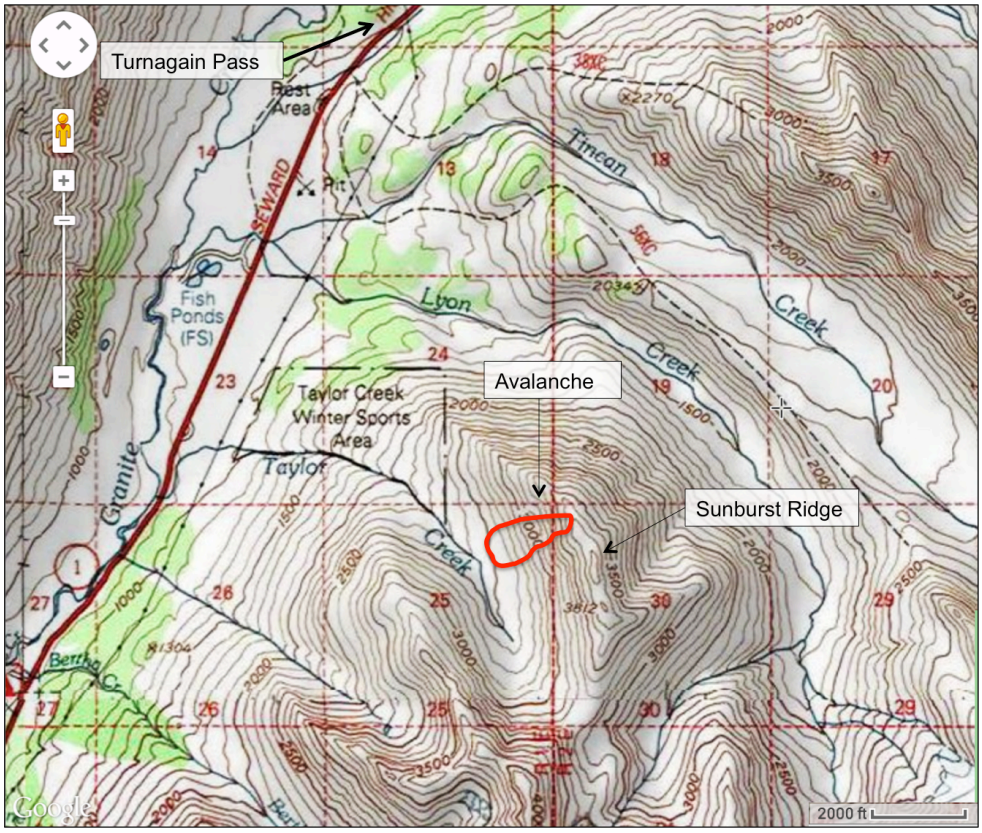

Photo 1. View of Skier tracks and avalanche crown (Heather Thamm)

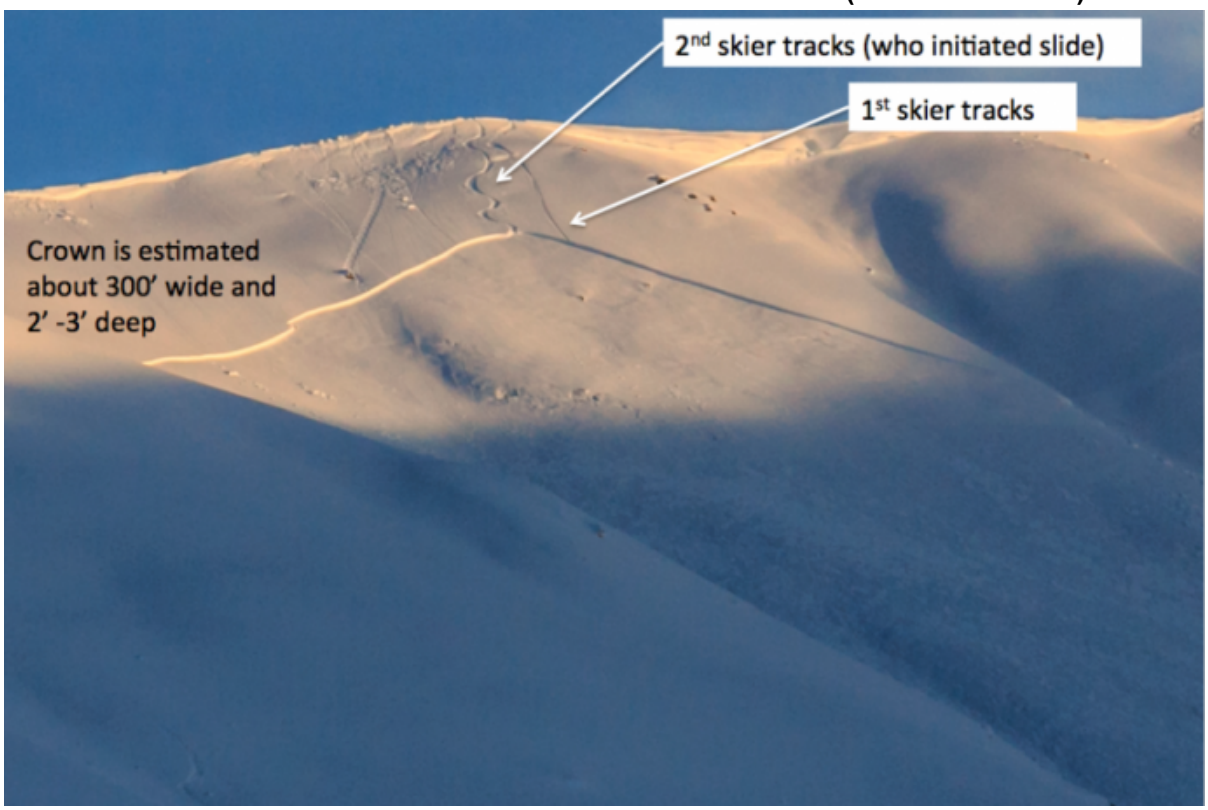

Photo 2. View from the road (Heather Thamm)

Photos 3 and 4. A series of the avalanche just after release with Skier 2 on the slab (taken by Skier 1)

Photo 5. Another image of the avalanche as it's descending (taken by Skier 1)

Photos 6. Crown and bed surface with some debris (taken by Skier 1)

Photo 7. Crown and bed surface (taken by Skier 1)

Photos 8. Avalanche crown taken from the ridge, looking East, by another party (Kugler)