2014/03/30 - Oregon - Paulina Peak, south of Bend

Published 2014/04/14 by Mike Maurer - Deschutes County Search and Rescue

Avalanche Details

- **Location**: Paulina Peak, south of Bend
- **State**: Oregon
- **Date**: 2014/03/30
- **Time**: 3:00 PM (Estimated)
- **Summary Description**: 1 snowmobiler caught, buried, and killed
- **Primary Activity**: Snowmobiler
- **Primary Travel Mode**: Snowmobile
- **Location Setting**: Backcountry

<table>
<thead>
<tr>
<th>Number</th>
<th>Avalanche</th>
<th>Site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caught: 1</td>
<td>Type: SS</td>
<td>Slope Aspect: N</td>
</tr>
<tr>
<td>Partially Buried, Non-Critical: 0</td>
<td>Trigger: AM - Snowmobile</td>
<td>Site Elevation: 7200 ft</td>
</tr>
<tr>
<td>Partially Buried, Critical: 0</td>
<td>Trigger (subcode): u - An unintentional release</td>
<td>Slope Angle: 45 °</td>
</tr>
<tr>
<td>Fully Buried: 1</td>
<td>Size - Relative to Path: R3</td>
<td>Slope Characteristic: --</td>
</tr>
<tr>
<td>Injured: 0</td>
<td>Size - Destructive Force: D2</td>
<td></td>
</tr>
<tr>
<td>Killed: 1</td>
<td>Sliding Surface: I - New/Old Interface</td>
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</tbody>
</table>

Snowpack Summary

The local snowpack has been more variable this season than in the recent past. After a dry spell in January, significant storm cycles occurred throughout much of February creating volatile and widely variable conditions. Toward mid February and early March the cycles abated somewhat and the seasonal snowpack largely stabilized. Prior to this last storm cycle, a melt freeze crust dominated much of the local snowpack, with mixed wind hardened and ice surfaces in isolated areas. On northern shady aspects near/above treeline, isolated pockets of cold snow had faceted and remained at the surface. During the storm cycle that preceded this incident, these isolated near surface facets and then the arrival of cold new snow were buried by the first storms of this cycle. At roughly the cycle's mid point, temps warmed temporarily and a graupel layer covered the area, which was then buried by subsequent colder snow. These two weaknesses were the primary causes of the natural and human triggered avalanches noted locally during this storm cycle.

Accident Summary

Mid afternoon on March 30th 2014 three snowmobile riders entered the Paulina Peak playground area from the east, near an area known as the Rollercoaster. As they gained the open north facing slope they traveled together as a group, staggered above one another across a North facing shady slope that averaged 35-38°, toward a notable rock outcrop. This visible rock had a convex roll feature below it on the slope. The first rider passed the rock outcrop and continued west. As the two subsequent riders reached the outcrop, the stress bulb was sufficient at this trigger point.
to fracture a faceted layer beneath the current storm slab. The weak layer propagated outward and upslope and released an R3/D2 Persistent Slab. The second rider was able to outrun the avalanche and was not harmed. The third rider was caught mid slope while the slab was releasing and was subsequently fully buried.

**Media**

**Images**

Figure 1: Approximate entry tracks.
Figure 2: Trigger point and burial location.

Figure 3: The avalanche ran into a terrain trap.
Figure 4: The slab and weak layer.

Snowpits
Figure 5: Snow profile.