

Date: 2014-05-03

Submitted By: Steve Karkanen, West Central Montana Avalanche Center (WCMAC)

Place: Olson Gulch, Flint Creek Range, 10 miles NW of Anaconda, MT

State: MT

Country: USA

Fatalities: 1

Summary: 1 backcountry skier caught, partially buried and killed

Classification: WL-ASu-R2-D2-I

Coordinates: N46 11.83 x W113 06.91

\*\*\* FULL REPORT FROM THE WCMAC \*\*\*

View report and photos online at: [www.missoulaavalanche.org](http://www.missoulaavalanche.org)

**Note:** The Flint Creek range is located between and outside the advisory areas of the Gallatin NF Avalanche Center in Bozeman and the WCMAC in Missoula. Avalanche specialists from the WCMAC were initially contacted on May 4. We did not conduct a site visit but collected information and photographs from responding SAR and EMS individuals. Mark Schaffer, a close friend of the victim, visited the site on May 4 and provided valuable detailed information to us including photos, maps and an assessment of the snow and weather at the site. We commend Mark for his assistance during a difficult time.

## **SYNOPSIS:**

On Saturday, May, 3, 2014, 46 year old Ron Russell from Anaconda, Montana died from blunt force trauma after being caught in a wet, loose snow avalanche 10 miles northwest of Anaconda, MT on the Pintlar Ranger District of the Beaverhead-Deerlodge National Forest. The location is southern portion of the Flint Creek range between Philipsburg and Anaconda, MT and is not covered by an avalanche information center.

Ron was an experienced and well trained backcountry skier familiar with the area and the snowpack history. He was traveling solo on this outing so there were no witnesses to the event.

At 1000 hrs, Ron was caught in a small point-release wet snow avalanche that either knocked him down as he tried to escape the slide or was unexpectedly caught from behind and knocked down. After being caught he was strained through a group of small trees and was carried approximately 760 feet before being caught up on a small fir tree. He was partially buried up to his chest but unable to move due to his injuries and the heavy snow cementing him in place. He was able to reach his cell phone and immediately contacted local EMS and the Anaconda Search and Rescue team.

SAR personnel arrived on scene at 1240 and began extrication and stabilization efforts. Butte Life Flight Helicopter arrived shortly after this and flight paramedics post-holed to the site from the LZ at the bottom of the mountain. It took 1.5 hrs for the paramedics to reach the scene.

Ron died from his injuries while he was being stabilized.

## **AVALANCHE:**

The Avalanche Classification is: WL-ASu-D2-R2-I; a wet, loose snow, unintentionally triggered avalanche that could bury, injure or kill a person. The size of the avalanche is small relative to it's historic path and the snow released on the new snow and old snow interface.

The avalanche start zone is at 7890 feet on an east-northeast aspect. The avalanche was reported to be 15-80 feet wide x 1300 feet long (Google Earth). The terminus of the slide is at 7160 feet. The alpha angle of the avalanche is 30 degrees.

The point of release is on a short 38-40 degree slope convexity which drops to 36 degrees on the upper path above the trees. The involved snow depth was 6-12 inches on a melt-freeze crust. (Mark Schaffer, 05/08/14 site visit).

(See photos and map)

## **WEATHER:**

The Flint Creek range received above normal precipitation during February, March and April with cool mountain temperatures persisting through April. During 4/25-4/28 the area received over 1 inch of SWE. BC skiers reported excellent powder skiing conditions in the area with 10-15 inches of new snow on a firm surface.

The nearest representative SNOTEL site (Warm Springs at 7800 feet) recorded a temperature of 54 degrees at 10 am May 3. The previous 48 hour temperature remained above freezing for the first time this spring.

SNOTEL data from the Flint Creek basin is reporting 160% of normal snowpack as of early May.

(see attached SNOTEL charts)

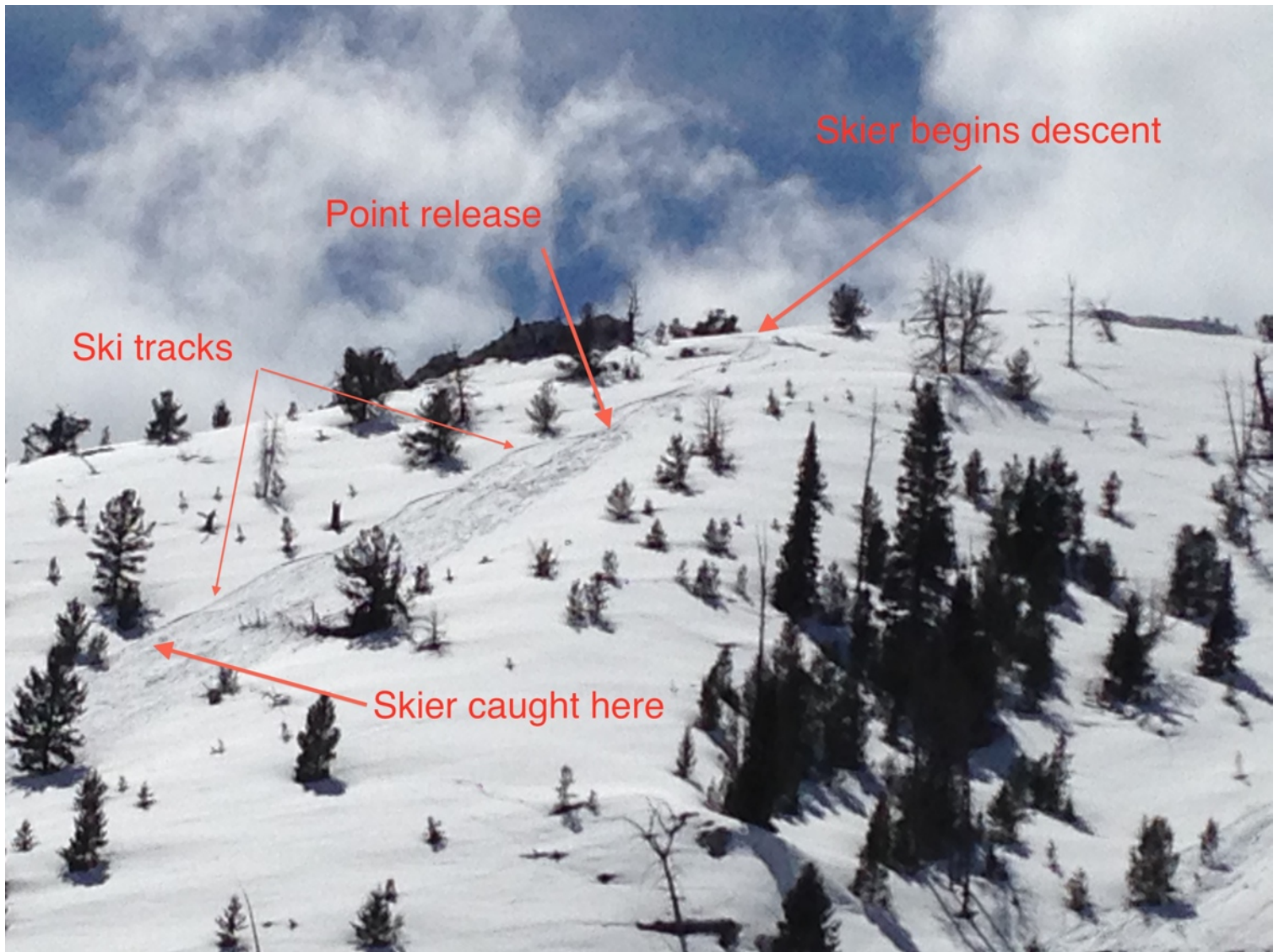
## **CONCLUSION:**

The 2014 winter was exceptional with many mountain ranges and river basins reporting 150% of normal snowpack in early May. This spring mountain temperatures have remained relatively cool with several periods of clear and warm days and cold nights. The resulting melt-freeze cycles helped settle and strengthen a notoriously weak snowpack common to the Flint Creek



range. A snowmobiler was buried and recovered w/no injuries in December and a backcountry skier was killed in an avalanche on March 10. A faceted layer at the ground (depth hoar) was a factor in both these earlier accidents which occurred just a few miles north of Olson Gulch. The persistent weakness at the base of the snowpack was not a factor in the Olson Gulch avalanche.

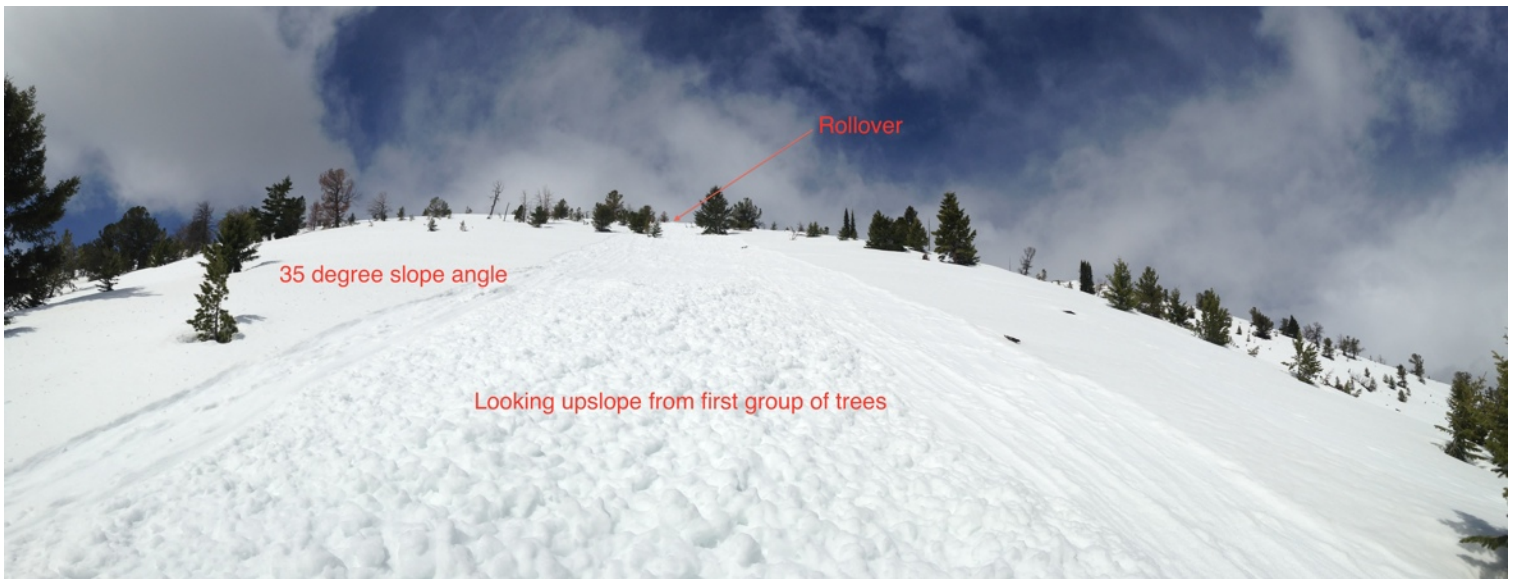




A point release wet snow avalanche involving the most recent storm snow ran on a firm melt-freeze surface which may have been made even more sensitive by percolating melt water.

Though we may never know for certain, it appears that Ron was caught from behind, knocked down and strained through small trees until he came to rest at the mid point of the avalanche.

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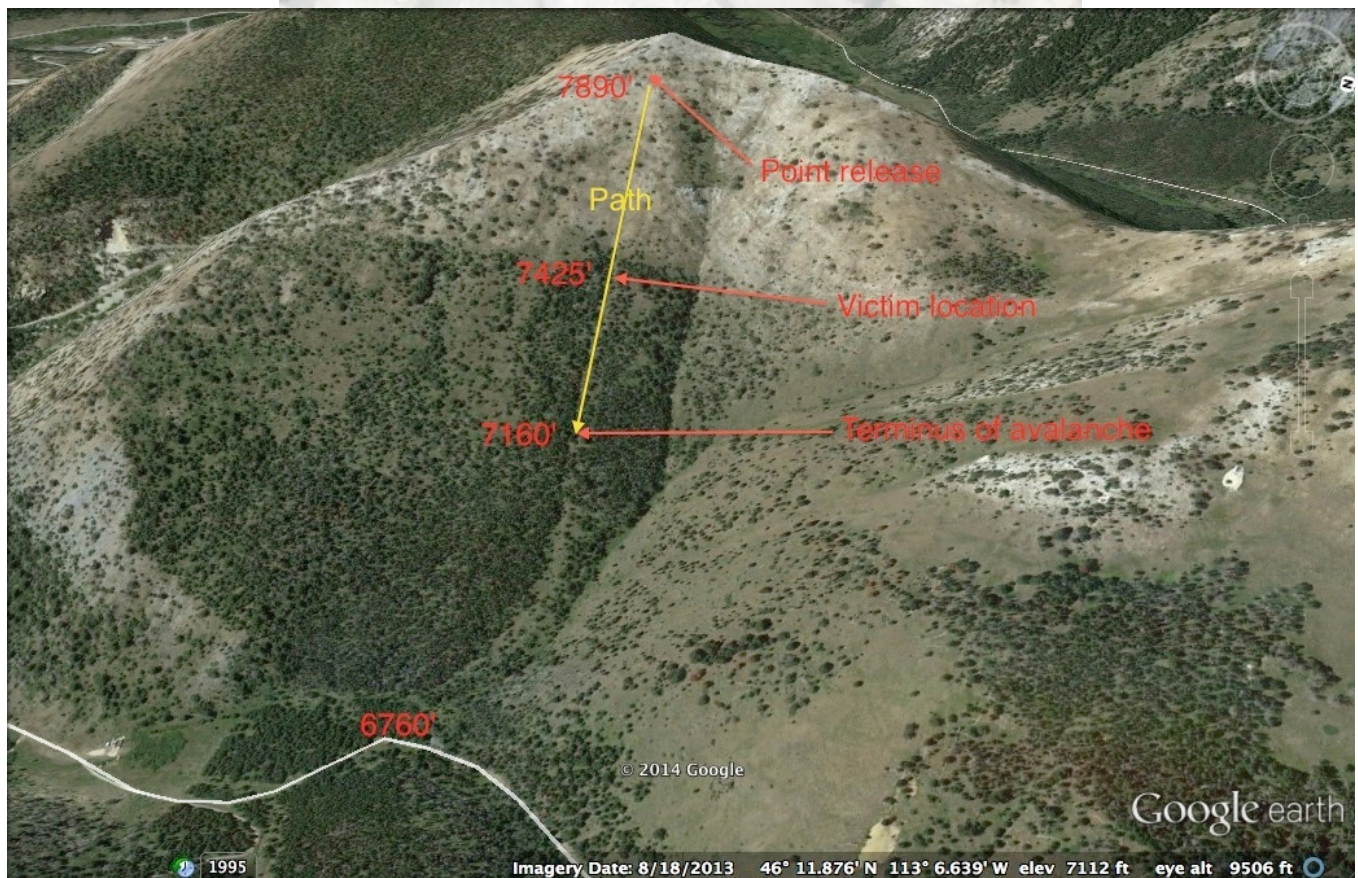


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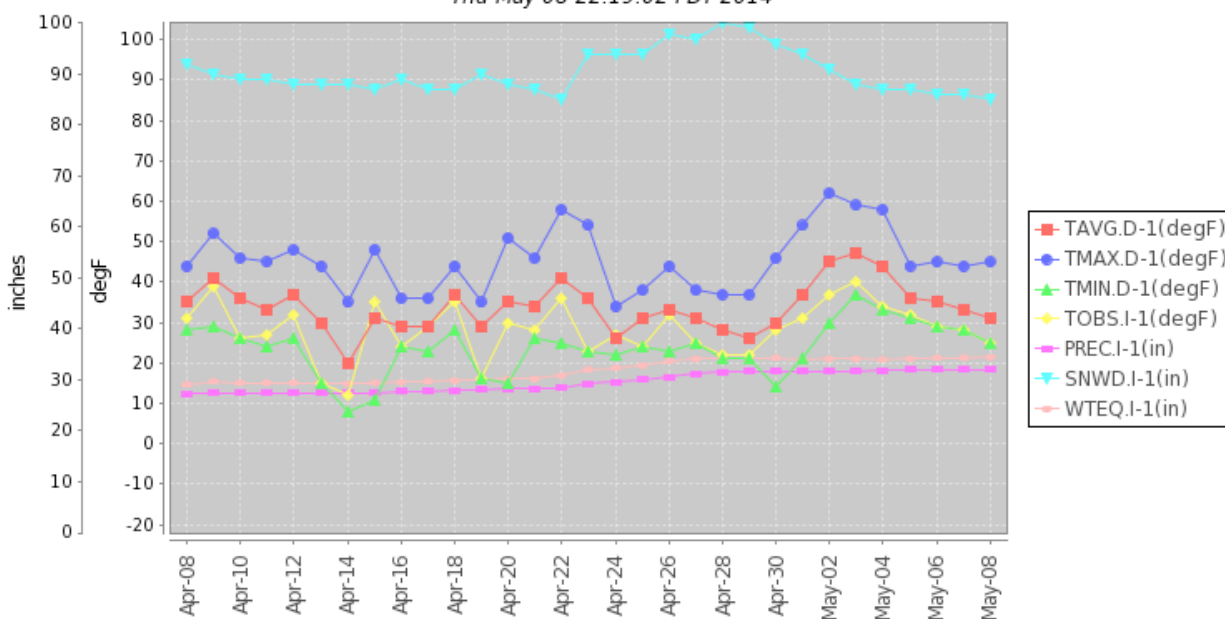
All photos courtesy of Mark Schaffer.





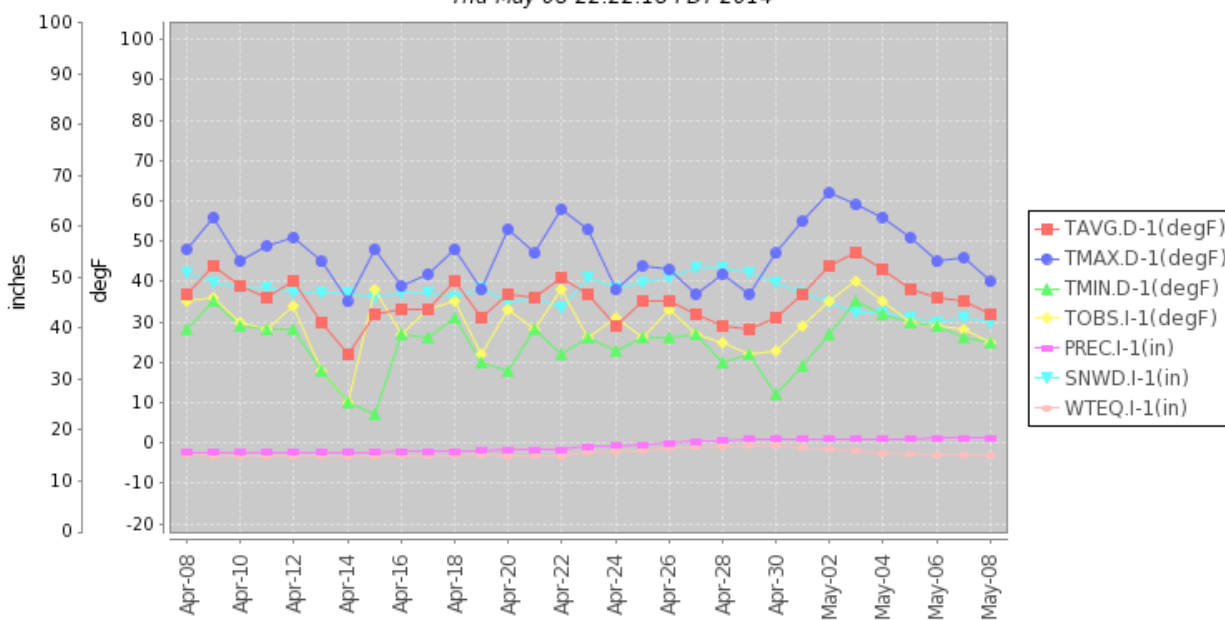


Station (850) MONTH=2014-04-08 (Daily) NRCS National Water and Climate Center - Provisional Data - subject to revision  
Thu May 08 22:19:02 PDT 2014



Warm Springs SNOTEL @7800'

Station (930) MONTH=2014-04-08 (Daily) NRCS National Water and Climate Center - Provisional Data - subject to revision  
Thu May 08 22:22:18 PDT 2014



Peterson Meadows SNOTEL @7200'