

# 2013-14 Annual Report



## Galatin National Forest AVALANCHE CENTER



FRIENDS OF THE AVALANCHE CENTER  
COOKE CITY MOTORSPORTS  
BRIDGER BOWL  
MONTANA FISH, WILDLIFE AND PARKS

Montana Import Group  
Grizzly Outfitters  
Mystery Ranch  
Montana Ale Works  
Yellowstone Club Community Foundation  
Gallatin County Search and Rescue

REI  
ASMSU Outdoor Recreation  
Alpine Orthopedics  
Javaman  
Helio Colective  
Buck Products  
Outlaw Partners  
Big Sky Ski Patrol  
Gallatin Valley Snowmobile Association  
Beartooth Powder Guides  
Upper Yellowstone Snowmobile Club  
NRCS  
World Boards  
Bountiful Table  
406 Brewery  
Lone Peak Brewery  
Northern Lights Trading Company  
Ticket River  
International Snowmobile Manufacturers Association

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# 2013-14 Annual Report Galatin National Forest Avalanche Center

APRIL 2014

## Season Summary

What a year! Mother Nature was kind and gave us plenty of snow, about 140% of average. Snows came early and continued throughout. Skiing and snowmobiling were the best in years and the avalanche danger was the worst.



Our 24<sup>th</sup> season started when skiers triggered an avalanche on October 14<sup>th</sup> after late September snows made early turns possible. We issued periodic information bulletins as storms came and went through October and November and began our daily avalanche advisories December 6<sup>th</sup>. This season we issued 134 advisories and five separate avalanche warnings spanning 12 days, a record. Unfortunately, there were two snowmobile avalanche fatalities on two of those warning days. Eighty avalanche incidents were reported this season resulting in 23 folks caught with five partial burials, five full burials and four injuries.

**The mission of the GNFAC is the same as the US Forest Service's first priority for the national Recreation program: public safety.** We achieve this through avalanche advisories, field days, education and outreach. Avalanche education continues to grow in the community, both in the number of classes offered and number of attendees. Luckily we have a professional cadre of instructors working with the Friends of the Avalanche Center who taught 70% of the avalanche classes this winter.

The numbers tell a compelling story. The amount of people using our service continues to increase as does the demand for more data, information and education. Our website, [www.mtavalanche.com](http://www.mtavalanche.com), is refreshed every year and is a portal for avalanche products: advisories, accident reports, articles, videos, photos, snowpits, and weather stations to name just a few. **The following index quantifies some of the work we've done this season.**

## GNFAC Index

- Number of people who get our daily avalanche advisory: 4,715
- Total number of avalanche classes and attendees: 91 and 4,328
  - Number of snowmobiler classes and attendees: 30 and 978
- Number of people who took an avalanche class in the last five years: 21,781
- Number of YouTube Videos and views this season: 62 and 96,417
  - Number of videos and views since we posted our first in 2006: 336 and 936,679
- Number of avalanche incidents: 80
  - Number of incidents last winter: 27
  - Area with the most incidents as expressed as a percent: Cooke City, 34%
- Minimum number of times Eric locked himself out of the office: 3
- Number of field days: 103
- **Number of day's volunteers helped us and its work equivalent: 74 and one half-time position.**

Inside this issue:

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## *GNFAC Index Con't*

- State that leads the nation in snowmobile avalanche fatalities measured over 10 years: Montana
- **Montana's national rank of all avalanche fatalities in last 10 years: 2<sup>nd</sup>**
  - State that is first: Colorado
- Days when the danger was either HIGH or LOW in some part of our advisory area: 27 and 11
  - Last season: 10 and 55
- **Number of Facebook "Likes" and Twitter followers: 3,243 and 1,415**
- Name of forecaster responsible for ripping the lugs off the Yamaha Nytro track: Mark
- Daily average of pageviews to our website and advisory: 4,038 and 978
- Percent of people accessing our website via desktop, mobile and tablet: 56%, 35% and 9%
- Minimum number of times Doug wrote in the advisory it would snow and it did not: 3
  - Number of times he said it would not snow, but it did: who cares, it snowed.
- Number of weather stations the GNFAC and Friends of the Avalanche Center maintain: 4
- Articles that the GNFAC wrote for outside publications: 12
- Number of times the GNFAC was contacted by the media for an interview: 60

This winter  
4,715 people a  
day accessed  
our avalanche  
advisory.

## *Avalanche Advisories*

Daily avalanche advisories are the staple of our work. This winter we issued 134 daily advisories beginning December 6th and ending April 6th. Most people view them online and spend an average of 2:32 minutes reading, which means folks are taking time to digest the content. On average, our phone lines get 47 calls a day and we sent out 30 faxes. Email subscriptions total 3,660 with the advisory web page getting an additional 978 views a day. The advisory reaches 4,715 people a day, a 5% increase over last year.

Most people get our advisories from a desktop, but an ever increasing number read it on their smartphone (35%). Of these mobile access's 68% are on an iPhone, a testament to **Apple's market share in southwest Montana. In January we launched a GNFAC App for Android** to make it easier for people to get the advisories. An iPhone App had to be delayed because of technical hurdles, but we plan to release one at the start of next season. To help the ever increasing smartphone use, Jim Earl, our website developer, has made the website much easier to use on this platform.

## *YouTube*

We uploaded our first video to YouTube in 2006 and had no idea this medium would be so popular and successful for giving regular avalanche and snowpack advice. The avalanche danger was extra tricky to understand this year and the videos allowed us to more **effectively show the day's avalanche concern. Most clips are under two minutes which** helps people retain the information. This season we made 62 videos that were viewed



96,417 times. Even our older videos continue to get hits, especially those that demonstrate a particular stability test or document an accident. The *AvalancheGuys* channel currently has 936,000 views for all 336 videos and we are excited to break the million viewer mark sometime next season.

### *Facebook, Twitter and Instagram*

Social Media continues to help us with avalanche messaging. Most days we post links to our advisory on Facebook and Twitter, an easy way for people to read and watch what concerns us. These outlets allow us to post videos, pictures and snowpack descriptions in the afternoon as a trailer to the next day’s advisory. **The Friends of the Avalanche Center also set up an Instagram account this winter where we posted many of our advisories. Our Facebook page has 3,243 “Likes”, with Twitter showing 1,415 followers and Instagram having 476. Facebook helps drive people to our website and is the third source of all traffic behind direct visits and Google searches.**

### *Media*

Given the dangerous avalanche conditions this season, print and television media were keen to help us warn people. This season was especially busy given the unprecedented number of days (12) we issued Avalanche Warnings. We had 20 print media requests and 40 television interviews this year, the most ever. Consequently the message of dangerous avalanche **conditions permeated the public’s consciousness which helped us greatly. The awareness of parents, spouses and friends of the danger of those recreating contributed to the low number of fatalities this season.**

This season we made 62 videos that were viewed 96,417 times.



*Investigating a natural avalanche at Lionhead.*

### *Avalanche Articles*

Every winter we write articles about avalanches for publication. It is always a challenge to give these articles a wider audience, but this season we made significant headway by posting our writings to a new blog page. The blog allowed us to write short, pertinent articles about avalanches that would not be appropriate for an

advisory. We wrote monthly articles for Carve and the Montana Snowmobile Association Newsletter plus other safety articles for Powder Magazine, Citizens of Balanced Use Newsletter, SnoWest and Avalanche Review. In all, we wrote 16 pieces for distribution outside our usual avalanche advisory readership.

## Avalanche Incidents

This season was heavy on avalanche incidents because the snowpack was especially dangerous. An incident is when someone unintentionally triggers an avalanche. This winter there were 80 incidents, a very high number, since many people do not report their incidents to us. There were two avalanche fatalities this season, both involving snowmobilers. A total of 33 people were caught (11 skiers/12 snowmobilers) with 5 partially buried (3 skier, 2 snowmobiler), 5 fully buried (1 skier, 4 snowmobilers) that resulted in 4 injuries (2 skier, 2 snowmobiler) and two deaths. One death is one too many, but we are grateful there were not more given the vast number of close calls to both user groups. Pages 21 and 22 list all the incidents.

This winter we had 80 incidents with 33 caught, five fully buried and two deaths.

Cooke City, the northern Madison and Bridger Range are number one, two and three in number of avalanche incidents over the past five years (Charts, page 18). This regional split was true this year as well. Over the past ten years Montana is ranked second in the nation in fatalities with 41, behind Colorado with 66 (Graph 1, page 19). For



*Henderson Mountain avalanche outside Cooke City buried a rider who was rescued by his partners.*

snowmobiler avalanche fatalities, Montana holds the grim distinction of leading the nation with 23 fatalities (Graph 2, page 19).

## Avalanche Education

The GNFAAC works closely with the Friends of the Avalanche Center to provide a wide range of avalanche programs to the public. Skier, snowboarder, snowmobiler, snow biker and snowshoer can all find something to make their sport safer. We offered 46 one-hour *Avalanche Awareness* programs to give the beginner some basic avalanche information. We also offered 5 *Companion Rescue Clinics* in which we spent a day in the field practicing with beacons and working on complex rescue scenarios. Our *Avalanche Awareness Class with Field Session* through ASMSU gave hundreds of folks an in-depth education in avalanches with two evening sessions and an all-day field session. A table on pages 22-24 list all our classes this winter.

Overall we taught 91 classes and reached 4,328 people of which 1,014 were kids. Thirty of these classes were snowmobiler specific which reached 978 riders. The Friends of the Avalanche Center taught 70% of the classes and are responsible for helping us teach 21,781 individuals in the last five years! Jay Pape and Alex Marienthal were the education



coordinators for these classes which required expert juggling skills to succeed. Our instructors are professional, knowledgeable skiers and snowmobilers. They are Alan Adams, Chris Billbrey, Bill Buchbauer, Gary Clutter, Clark Corey, Ella Darham, Taylor DeTienne, Ryan Diehl, Beau Fredlund, Quint Gidley, Mark Greeno, Dale Gullett, Marcie Hahn-Knoff, Ian Hoyer, Fay Johnson, Ladean Mckitrick, Ben Nobel, Josh Olsen, Scott Schmidt, Travis Swanson, Lenore Thompson, Graham Turnage, Matt Wieland, Robyn Woolridge, Ben Zavora and Lucas Zukiewicz.



*Digging a snowpit at Lionhead.*

We taught 91  
avalanche  
classes to  
4,328 people.

Highlights include 350 people attending avalanche classes at MSU; 220 kids attending an awareness class at the Sleeping Giant Middle School in Livingston and avalanche awareness and beacon workshops held at Bozeman High School that reached 200 students. Classes were held in Bozeman, Big Sky, West Yellowstone, Livingston, Big Timber, Helena, Great Falls, Butte, Dillon, Choteau, Harlowton, Billings, Cooke City, Pray, Gardiner and Salt Lake City.

This April we hosted the 5<sup>th</sup> *Professional Development Workshop for Avalanche Professionals*. This one-day event featured 12 lectures centered on avalanche science. Dr. Bruce Jamieson from the University of Calgary was the honored speaker. Over 60 professionals attended from Montana, Idaho and Wyoming. The lectures were filmed and are posted on our YouTube channel for everyone to watch.

The Friends also pay registration fees for the GNFAC and a ski patroller from the three ski areas to attend the International Snow Science Workshop (ISSW) this September in Banff, Canada. Held every two years the ISSW is our chance to teach and learn from some of the best educators, forecasters and researchers in the avalanche world.

## *Finances of the GNFAAC*

The Gallatin National Forest provides the Avalanche Center with 57% of its funding. This amounts to \$116,695 which covers benefits, travel, vehicles, computers office space and 70% of our overall salaries. We rely on other sources for the shortfall, namely our long-term supporters listed below.

The Friends of the Avalanche Center (FOAC): \$53,166

The FOAC was formed in 1992 to financially support the Avalanche Center. They cover the expenses related to the education program, as well as administrative, snowmobile, weather station and website costs.

Montana Fish, Wildlife and Parks: \$31,500

MT FW&P has supported the Avalanche Center every year for 14 seasons through their Recreation Trails Grant. Competition continues to be fierce for these monies and we hope our latest application is viewed favorably. We rely on this steady funding to keep our current level of services.

Gallatin County Search and Rescue: \$4,000

Gallatin County Search and Rescue have been out partners since the birth of the Avalanche Center in 1990. They donate \$4,000 every year to our operation. We work closely with **Gallatin County Sheriff's department since they are the lead agency for all SAR operations.** Lt. Jason Jarrett and Sheriff Brian Gootkin work with an exceptional crew of volunteers that make our local SAR team one of the best in the nation.

## *Friends of the Avalanche Center*

The Friends of the Avalanche Center is a nonprofit organization whose mission is to financially support the work of the Avalanche Center. They were founded in 1992 and have donated over \$355,000 since then. Almost all the monies came from local businesses and individuals in southwest Montana. This year their total contribution to the GNFAAC was \$53,166, their largest commitment ever.

The Board of Directors represents a varied slice of the winter recreating community. They include: Jeannie Wall (President),



43% of our annual budget comes from the friends of the avalanche center and Montana fish, wildlife and parks.



Jay Pape (Treasurer), Laura Ryan (Secretary), Greg Caracciolo, Dale Sexton, Ben Nobel, Adam Knoff, Ben Zavora, Mark Greeno and Dawn Brown.



*Snowmobiler triggered slide at Daisy Pass.*

### *Where the Friends money got spent:*

Avalanche Education Program: \$38,523

The Avalanche Education Program is by far, the largest program the Friends operate. They **started out assisting the GNFAAC with the teaching load in 2002, but now it's an impressive** program employing 28 instructors who teach 70% of all our avalanche classes. The costs associated with running the program include liability insurance, payroll, lodging, teaching supplies, beacon checkers, beacon parks and monies to pay the registration fees to ISSW.

GNFAAC Support: \$14,643

The Friends financial support falls into four categories:

1. General Support: \$2,813

General support are the things outside our normal operation: an Android app, GPS units, software, avalanche safety brochures, educational materials, beacons, office supplies, editing services, email subscription fees.

2. Snowmobiles: \$4,822

Cooke City Motorsports worked with Yamaha to secure us two Nytro sleds again this year. The Friends paid for maintenance, insurance and repairs.

3. Weather Stations: \$4,838

The Friends pay for the repair, upkeep and annual installation of our four weather stations located up Hyalite Canyon, in Taylor Fork, on Lionhead and at Lulu Pass outside Cooke City.

4. Website Maintenance: \$2,170

The website is a vital part of our operation. This year Jim Earl, our web developer, made the

Over \$38,500 was spent by the friends on avalanche education.

site user friendly for mobile phones, cleaned up the weather station page, and added pages for place names and blog. The site gets heavy use and requires attention to keep it fresh and relevant.

### *Where the Friends money comes from:*

Powder Blast: \$29,303

The Friends held the 15<sup>th</sup> Powder Blast on Friday, October 25<sup>th</sup> at the Emerson Cultural Center. Over 250 people attended the party with lots of food, drinks, bidding on outdoor gear and dancing. The title sponsor was Montana Import Group with supporting sponsorships from Mystery Ranch and Grizzly Outfitters.

Donated labor  
and equipment  
to the GNFAC  
total ed  
\$36,240.



*Investigating an avalanche on Henderson Bench, Cooke City. Photo: B. Fredlund*

Avalanche Classes: \$17,259

The Friends accept donations for all their classes. Online registration through Ticket River has made it easy to sign up and donate.

Yellowstone Club Community Foundation: \$7,000

Casey Schwartz at the YCCF supported us again with two grants again this year.

King and Queen of the Ridge: \$9,608

This season was the 12<sup>th</sup> King and Queen of the Ridge. Individuals and Teams hiked for pledges. **Montana Ale Works team raised the most monies (\$2,172). This year's King was**



Alan Adams with 29 laps and Lizzy Adams was crowned Queen with 24 laps. The Team with the most hikes (averaged), was Team Timber!

Montana Ale Works: \$2,025

Besides the impressive fundraising at the King and Queen, Montana Ale Works hosted the 6<sup>th</sup> annual dinner and wine pairing. Dawn Brown worked with Chef Roth to organize this exquisite evening in which all ticket proceeds were donated to the Friends.

Other Donations:

Ruggles Foundation: \$2,000

Stetson Family, in memory of Tyler Stetson: \$1,000

Carstensen and Haferman: \$2,500

Upper Yellowstone Snowmobile Association: \$500

Ben Zavora: \$750

Montana Import Group from auto sales in November: \$950

**International Snowmobile Manufacturer's Association:** \$750

Alan Crawford: \$750

### *Donated Labor and Equipment*

It would be impossible for the GNFAAC to operate at its current level without the local **community donating time, expertise and equipment. When it's all added up their work totals \$36,240.** These donations reflect a dollar estimate of what it would cost to hire people or buy/rent equipment.

Field Volunteers/Observers

Volunteers donated 74 field days to the GNFAAC which is the equivalent of one half-time position. **It's not possible for the three of us to always go in the field with each other so we rely on a team of skilled volunteers to be our partners.** These folks are our peers with many being professional snow workers. We also count on folks emailing in their personal field observations, stability test results and snowpits. Three of our most prolific observers are Beau Fredlund, Mason Young and Ben Vandebos. The accuracy of our forecasts is a direct reflection of their detailed and steady reports.



Field volunteers partnered with us 74 times, the equivalent of one part-time position valued at \$8,880

Cooke City Motorsports and Yamaha

Shannon and Mona Abelseth, owners of Cooke City Motorsports, make sure we have snowmobiles to ride every year. They worked with Craig Gagne Yamaha to get us two new 4-stroke Nytro snowmobiles again this season. A large part of our job requires field work on snowmobiles and we could not do our jobs without their dedication and generosity.

Volunteer Labor and Donated Equipment

VOLUNTEER LABOR( billed at \$15/hour):

NRCS	\$3,600
Big Sky Ski Area (~175 hours)	\$2,625
Bridger Bowl Ski Area (~130 hours)	\$1,950
Yellowstone Club (~130 hours)	\$1,950
National Weather Service (121 hours)	\$1,815
Volunteer observers (~500hours)	\$7,500
Field volunteers (592 hours)	\$8,880

EQUIPMENT RENTAL (Contributed):

Cooke City Motorsports and Yamaha (two sleds loaned):	\$8,000
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TOTAL	\$36,240
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*Skier triggered avalanche in Beehive Basin.*



*An ocean of avalanche debris outside Cooke City.*



## Income

### Income

#### Montana FW&P Rec Trails Program

◆ RTP 2012 \$31,500

Gallatin County Search and Rescue \$4,000

#### Friends of the Avalanche Center

◆ Avalanche Education Program \$38,523

◆ General Support \$2,813

◆ Snowmobile expenses \$4,822

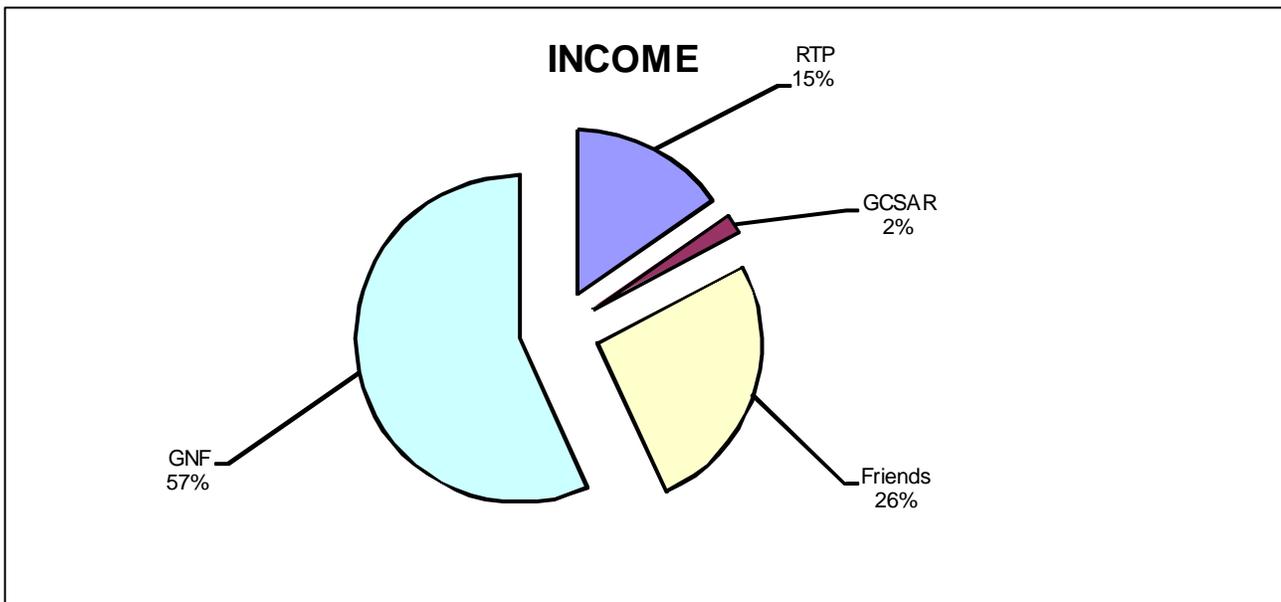
◆ Weather Stations \$4,838

◆ Website Development \$2,170

TOTAL OUTSIDE CONTRIBUTIONS (Non-Gov) \$88,666 (43%)

TOTAL GALLATIN NATIONAL FOREST CONTRIBUTION \$116,695 (57%)

TOTAL INCOME \$205,361(100%)



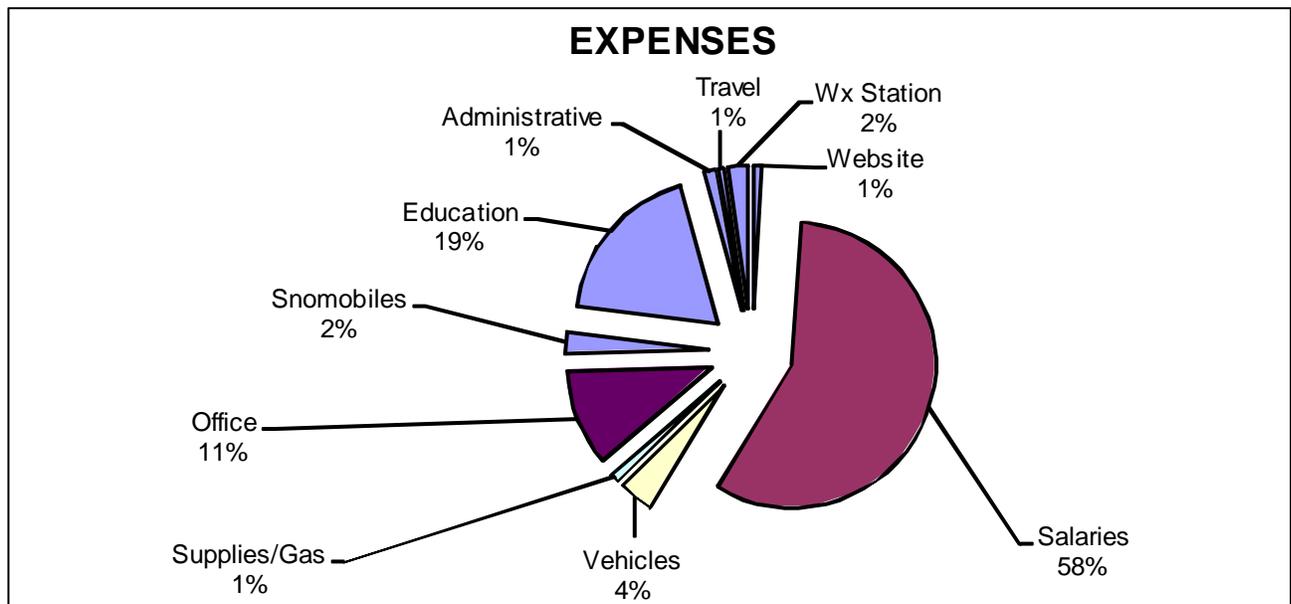


# Expenses

## Expenses

### Salaries/OT/Benefits

GNF	\$82,995
Outside sources	\$35,500
GNF Office	\$22,500
GNF Vehicles	\$8,000
GNF Travel	\$1,200
GNF Supplies/Gas	\$2,000
Friends: Snowmobiles equip/maintenance	\$4,822
Friends: Education	\$38,523
Friends: General support	\$2,813
Friends: Weather Stations	\$4,838
Friends: Website Development	\$2,170
<hr/>	
TOTAL EXPENSES	<\$205,361>





## Snowpack and Weather Summary

Defining weather events of the 2013-2014 winter were a cold snap in early December, a two week period of high pressure in late January and nearly continuous snowfall until March, finishing with a well above average snowpack.

Early October brought plenty of snow, especially in the Bridger Range. Warm weather followed. The first and third weeks of November received 1-2 inches of SWE each. The second and fourth weeks had relatively warm and dry weather. December started with a storm delivering 1-3 inches of SWE. Temperatures plummeted after this storm and ranged from -10 to -20 degrees F from December 3<sup>rd</sup> to 5<sup>th</sup>. Despite a relatively deep snowpack, this cold weather formed a layer of facets generally 1-2 feet above the ground on many slopes. This layer created avalanches throughout the season and remained a concern as we entered spring.

The Bozeman Ice Festival followed this cold weather. While good for forming ice, this cold weather and the resulting weak layer made avalanches a serious hazard though there were no accidents. Through mid-December strong winds kept the avalanche danger elevated with many natural and remotely triggered avalanches. A storm just before Christmas delivered 1.5-3 inches of SWE, and we issued an Avalanche Warning. Big avalanches occurred everywhere, including one that nearly killed a skier on Mt Ellis and one that caught two snowmobilers in Teepee Basin. A storm at the end of December prompted **another Avalanche Warning for the Northern Gallatin Range on New Year's Day**. Unfortunately a local snowmobiler was killed in this area during the Warning.

Snowfall continued through the first two weeks of January while the rest of the western U.S. remained under a ridge of high pressure. During this time most places in the advisory area got 3 inches of SWE while Cooke City got 6 inches. We issued another Avalanche Warning for the southern areas on January 11<sup>th</sup> and 12<sup>th</sup>. Two weeks of high pressure finished off January. This dry weather combined with a few inches of snow on Jan 22 formed a layer of small facets on the snow surface. This layer either did not form in the Bridger Range or formed but was destroyed prior to snowfall returning.



Snowfall returned on January 28<sup>th</sup> and didn't stop until March 11<sup>th</sup>. During this 43 day period, the Bridger Range got 13 inches of SWE, Cooke City got 18 inches, and the rest of the area got 10 inches. In Cooke City that snowfall averaged 6 inches per day! A spike in snowfall prompted another Avalanche Warning for Cooke City from February 13<sup>th</sup> to 17<sup>th</sup>. With another spike in snowfall on March 11<sup>th</sup>, we issued another Avalanche Warning for the entire advisory area. Unfortunately the second fatality of the season occurred that day in Cooke City. At some point in early March, the January facets stopped producing avalanches. As the load of new snow mounted, the December facets started producing avalanches again. By April 1<sup>st</sup>, December facets were the primary weak layer of concern and it was unclear if they would produce wet slab avalanches. With little hot, sunny weather, no wet avalanches had occurred by April 1<sup>st</sup> when the snowpack was at 170% of the 30 year average in the Bridgers, 140% near Big Sky, Cooke City and south of Bozeman, and 115 % near West Yellowstone.



*Hyalite Ridge. Photo: B. Vandenbos*

## Avalanche Incidents Charts and Graphs

Chart 1

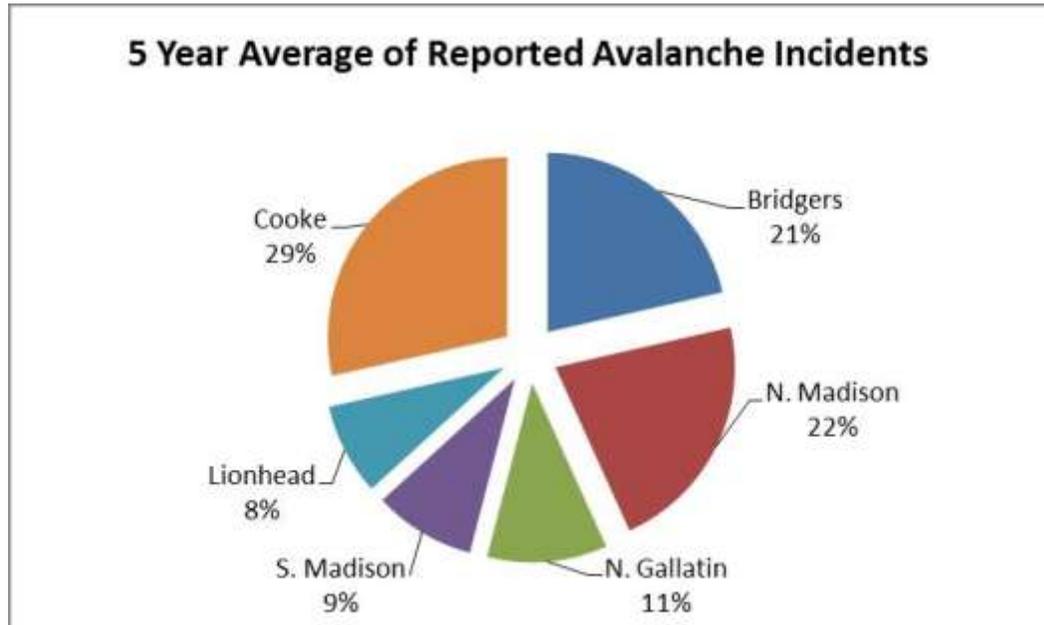
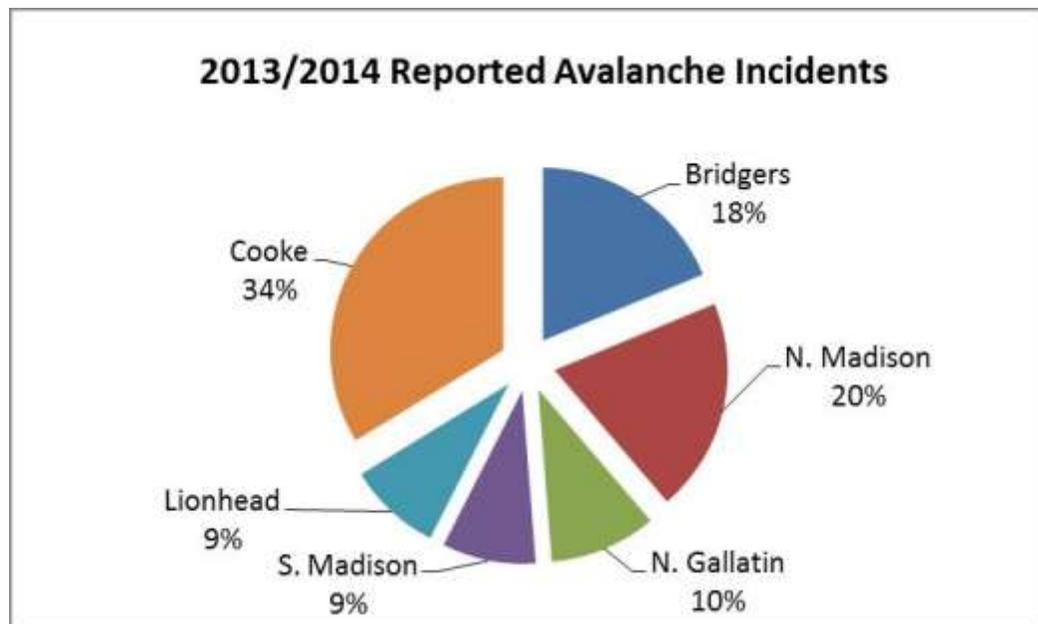
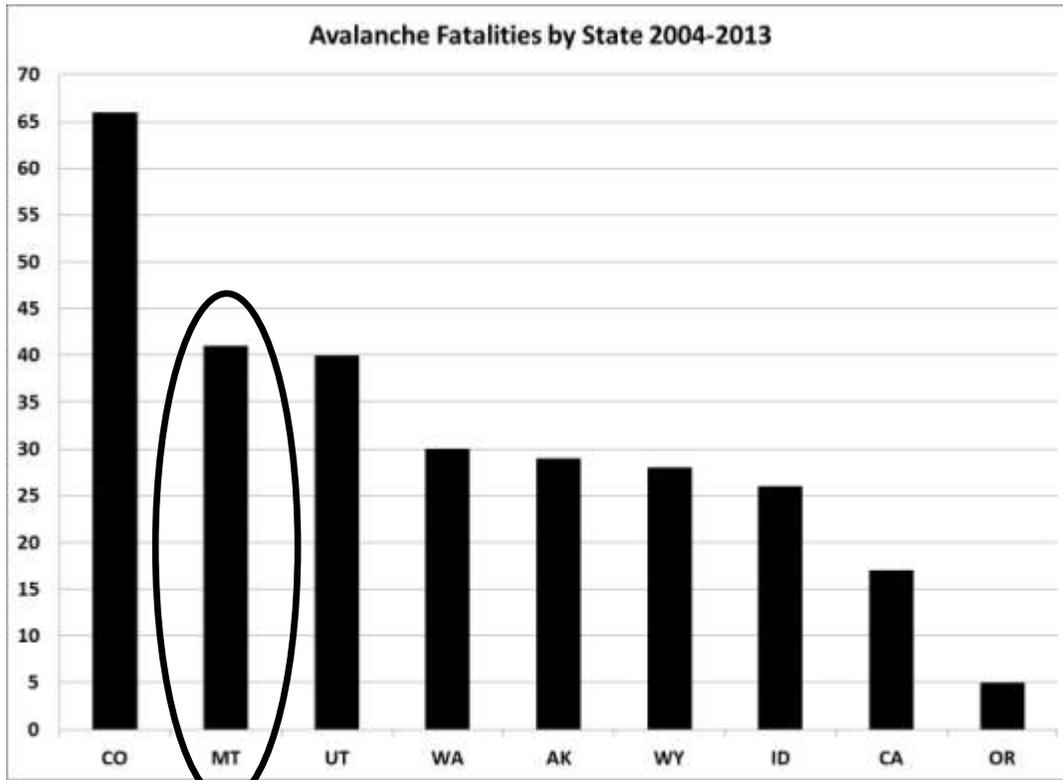


Chart 1

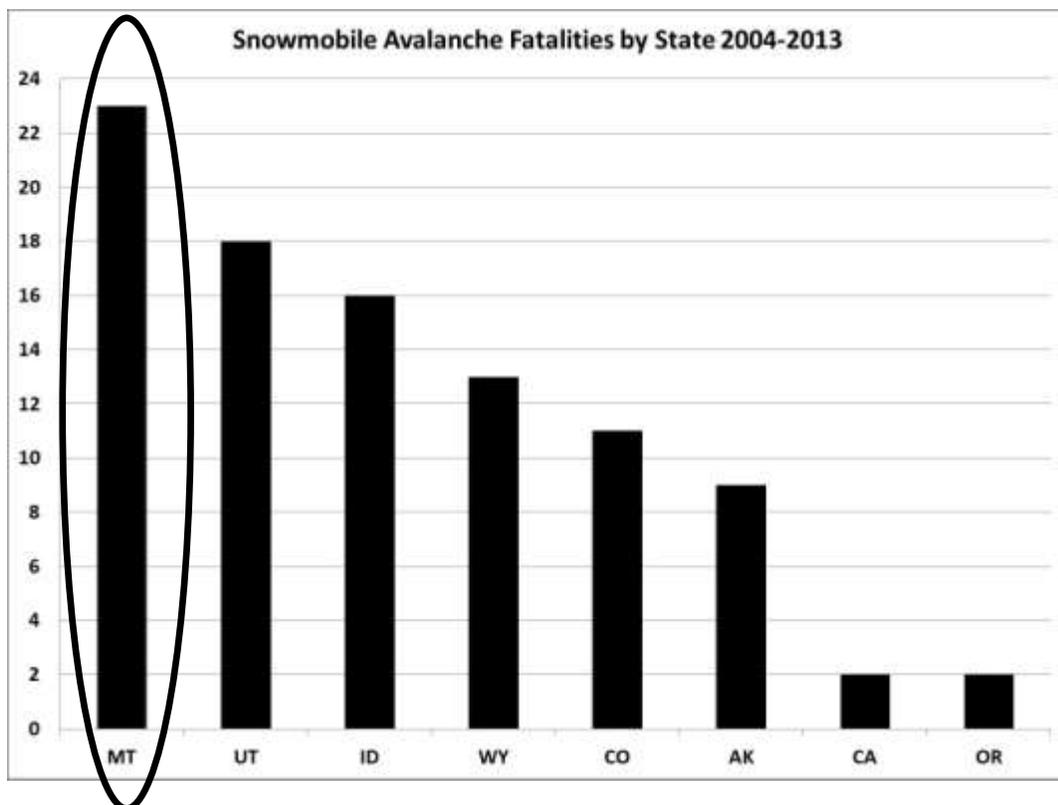




Graph 1



Graph 2



### *Avalanche Incidents Table*

DATE	LOCATION	DETAILS
10/14/2013	Bridgers	2 skier triggered
11/21/2013	Bridgers	1 skier triggered
11/22/2013	Bridgers	1 skier triggered
11/23/2013	Bridgers	1 skier triggered
11/23/2013	Cooke	1 snowmobile triggered
11/23/2013	Cooke	1 snowmobile triggered
12/10/2013	Hyalite	1 ice climber triggered
12/11/2013	Hyalite	3 separate ice climber triggered
12/11/2013	Cooke	1 skier triggered (remote)
12/11/2013	Cooke	1 snowmobile triggered
12/11/2013	Bridgers	1 skier triggered (remote)
12/11/2013	Bridgers	1 skier triggered
12/11/2013	N Madison	2 snowmobile triggered (remote)
12/12/2013	Bridgers	1 skier triggered - Ross Peak
12/13/2013	Bridgers	1 skier triggered - partially buried the Throne
12/13/2013	Beehive	1 skier triggered
12/16/2013	Hyalite	1 skier remote trigger
12/16/2013	Cooke	1 snowmobiler triggered
12/14/2013	Bridgers	1 snowmobiler triggered (remote)
12/14/2013	S. Madison	1 skier triggered Cabin Creek
12/15/2013	N. Madison	1 skier triggered Beehive
12/16/2013	N. Gallatin	1 skier triggered Hyalite (remote)
12/16/2013	Cooke	1 snowmoile triggered
12/18/2013	Bridgers	1 skier triggered Saddle - caught but not injured
12/20/2013	N. Madison	1 snowmobile triggered Buck - remote
12/20/2013	Cooke	2 skier triggered - small wind slabs
12/21/2013	Bridgers	2 skiers caught, 1 injured
12/25/2013	N. Gallatin	1 skier triggered - Mt Ellis
12/27/2013	S. Madison	1 snowmobile triggered, 2 caught in Teepee
12/27/2013	Cooke City	2 snowmobile triggered - non caught
12/29/2013	Lionhead	2 snowmobilers caught, 1 buried. 2 snowmobilers caught, 1 partially buried and injured, 1 fully buried and killed
1/1/2014	N. Gallatin	
1/1/2014	S. Madison	1 snowmobile triggered
1/5/2014	N. Madison	1 skier remote trigger (Beehive Basin)
1/10/2014	N. Madison	human triggered beehive
1/11/2014	S. Madison	near miss with motorist on hwy 287 near Quake Lake
1/12/2014	N. Madison	remote trigger Slatts Hill Buck Ridge 1 snowmobiler triggered, another snowmobiler caught, buried, CPR revived, uninjured - Henderson Ridge
1/17/2014	Cooke City	
1/18/2014	Cooke City	4 snowmobiler triggered - Sheep Creek
1/17/2014	N. Madison	1 skier and dog caught, partially buried - Beehive Basin
1/19/2014	Lionhead	1 snowmobiler triggered
1/25/2014	Cooke City	1 snowmobiler triggered, 1 caught, not buried - Sheep Creek
1/18/2014	Cooke City	1 snowmobiler triggered, not caught
2/1/2014	Bridgers	1 skier triggered, not caught - Dogleg Chute
1/16/2014	Bridgers	1 skier triggered, noit caught - Dogleg Chute



2/2/2014	Cooke City	1 skier triggered, not caught
2/2/2014	N. Madison	1 skier triggered, not caught - Lone Lakes
2/3/2014	Lionhead	1 groomer triggered
2/4/2014	Cooke City	3 skier triggered slides, none caught
2/7/2014	N. Gallatin	1 skier triggered - cornice drop
2/8/2014	S. Madison	2 skier triggered Beaver Creek - 1 remote.
2/9/2014	N. Madison	1 snowmobile triggered Buck Ridge
2/9/2014	Lionhead	1 snowmobile triggered
2/10/2014	Cooke City	1 skier remote triggered
2/9/2014	Cooke City	1 skier remote triggered Woody Ridge
2/10/2014	N. Madison	1 skier remote triggered Yellow Mtn
2/10/2014	Lionhead	1 skier remote triggered Ski Hill
2/11/2014	Cooke City	1 snowmobiler remote triggered - Sheep Creek
2/11/2014	Cooke City	1 snowboarder caught and buried near Companion Lake
2/11/2014	Cooke City	1 snowmobile triggered near Round Lake
2/14/2014	Cooke City	1 skier triggered
2/15/2014	S. Madison	1 skier triggered - Bacon Rind
2/16/2014	N. Madison	3 skiers caught 1 mostly buried and injured (leg injury) - Beehive Basin
2/17/2014	Lionhead	2 snowmobilers partially buried
2/27/2014	N. Madison	1 snowboarder triggered - Chippewa Ridge, Big Sky
2/27/2014	Cooke City	1 skier triggered - Woody Ridge
2/28/2014	N. Madison	1 skier triggered - near Little Bridger, Big Sky
2/28/2014	N. Madison	1 snowmobile triggered - 2nd Yellowmule, Buck Ridge
3/1/2014	Henry	1 skier triggered - above Hebgen Lake
3/9/2014	S. Madison	1 snowmobiler triggered, caught - Carrot Basin
3/11/2014	Cooke City	3 snowmobiler triggered, 1 caught. buried killed (Crown Butte)
3/15/2014	Cooke City	2 snowmobiler triggered, 1 caught partially buried, injured (Abundance)
3/15/2014	Cooke City	1 snowmobiler triggered, 1 caught, airbag save (Chimney Rock).
3/29/2014	N. Gallatin	1 skier triggered (Blackmore)
3/30/2014	Bridgers	2 skier triggered, 2 caught (Frazier Basin)
3/30/2014	Cooke City	1 skier triggered (Republic)
3/31/2014	N. Madison	1 skier triggered (Middle Basin)
3/30/2014	Cooke City	1 skier triggered (Woody Ridge)
4/5/2014	Cooke City	1 skier triggered (Woody Ridge)

80 Incidents with 33 caught, 5 partially buried, 5 fully buried, 4 injuries and 2 deaths.

*Avalanche Education (next 3 pages)*

Date	Instructor	Group/Topic	Total
10/3/2013	Knoff	Awareness, Madison County SAR	6
11/28/1931	Chabot	Lectures on SnowProfiles & Stability Tests, NAS, Snowbird, UT/	133
11/6/2013	Knoff	Awareness, Harlowton - Musselshell RD	15
11/10/2013	Knoff/Chabot	Awareness, Season Review, Gallatin County SAR	20
11/13/2013	Marienthal	Awareness, The Base Camp - Helena	50
11/12/3013	Greeno	Awareness, Sleeping Giant Middle School - Livingston	220
11/19/2013	Marienthal	Awareness, REI - Bozeman	50
11/19/2013	Buchbauer	Awareness, Big Timber High School	3
11/20/2013	Marienthal	Awareness, The Base Camp - Billings	50
11/20/2013	Nobel	Awareness, Grizzly Outfitters - Big Sky	55
11/21/2013	Knoff	Awareness, Avalaunch - Bozeman Library	20
11/21/2013	Chabot	Avalanche Terrain Lecture, MSU Mountain Geography Event	20
11/23/2013	Gullet	Awareness, Thunderstruck Premier - Lewistown	8
11/26/2013	Greeno	Awareness, West Yellowstone Ski Fest	19
12/2/2013	Marienthal	Awareness, Northern Lights Trading Company	50
12/4/2013	Birkland/Staples	Friends/ASMSU Intro to Avalanches, Lecture Night 1	220
12/4/2013	Knoff	Awareness, FW&P	40
12/5/2013	Pape/Knoff	Friends/ASMSU Intro to Avalanches, Lecture Night 2	220
12/7/2013	Misc	Friends/ASMSU Intro to Avalanches, Field 1	79
12/7/2013	Knoff	Awareness, Groomer Meeting Helena	75
12/7/2013	Misc	Friends/ASMSU Intro to Avalanches, Field 2	42
12/8/2013	Knoff	Awareness - Private Residence	20
12/11/2103	Chabot	Avalanche Forecasting, Mountain Symposium, MSU	125
12/11/2013	Marienthal	Awareness, REI - Bozeman	23
12/11/2013	Gullet	Awareness, GVSA, Bozeman	27
12/12/2013	Marienthal	Awareness, Teton Pass Ski Patrol & Gen Public, Choteau	55
12/13/2013	Gidley	Awareness, Thunderstruck Premier, Butte	30
12/13/2013	Gullet	Awareness/Rescue- Great Falls	70
12/14/2013	Bilbrey/Pape	Beacon Worskop, Bridger Bowl	65
12/12/2013	Chabot	Current Avalanche Conditions/ Ice Fest	200
12/16/2013	Darham	Awareness for GVSAR	40
12/18/2013	Greeno	Awareness, Bozeman HS	108
12/19/2013	Greeno	Beacon Workshop, Bozeman HS	108
12/19/2013	Knoff, Gullet	Intro to Avys, Ski/Snowmobile, West Yellowstone	50
12/20/2013	Knoff, Gullet, Pape, Misc	Intro to Avys Field Ski/Snowmobile, West Yellowstone	50
12/21/2013	Greeno, Hoyer	Beacon Worskop, Bridger Bowl	6
1/1/2014	Greeno	Awareness Table, Hyalite XC Ski Day, Gallatin NF	10
1/4/2014	Greeno, Bilbrey	Beacon Workshop, Bridger Bowl	5
1/6/2014	Chabot, Knoff	Awareness, Snow Rangers, Avalanche Conditions	15
1/7/2014	Gullet	Awariness, Billings Middle School, Science Project	4



1/7/2014	Gullett	Snowmobile Rescue Lecture, Billings	75
1/8/2014	Marienthal	SC is BC, REI, Bozeman	30
1/9/2014	Nobel	Awareness, Mystery Ranch, Bozeman	20
1/9/2014	Marienthal/Hoyer	Awareness, Exploration Works, Helena	70
1/10/2014	Marienthal	Awareness, Monforton School, Helena	20
1/11/2014	Campbell	Awareness, West Yellowstone	55
1/13/2014	Hoyer	Awareness, University of MT Western, Dillon	17
1/13/2014	Knoff	Avalanche Conditions/USFS Safety Meeting	20
1/15/2014	Marienthal	SC is BC Awareness, MSU, Bozeman	0
1/16/2014	Bilbrey	Awareness and Beacons at Beall, Bozeman	20
1/17/2014	Marienthal	Field session w/ Monforton @ Bridger	20
1/18/2014	Fredlund	Awareness, Cooke City	11
1/18/2014	Gullett	Snowmobile Intro to Avalanches w/field, Lectures	6
1/18/2014	Darham	Awareness @ IMME EMT Refresher	40
1/19/2014	Gullett	Snowmobile Intro to Avalanches w/field, Field Day	6
1/22/2014	Pape, Staples	Friends/ASMSU Intro to Avalanches, Lecture Night 1	120
1/23/2014	Pape, Knoff	Friends/ASMSU Intro to Avalanches, Lecture Night 2	120
1/25/2014	Misc	Friends/ASMSU Intro to Avalanches, Field Day 1	54
1/25/2014	Gullett	Beacon Drills, Buck Ridge Fun Run	31
1/26/2014	Misc	Friends/ASMSU Intro to Avalanches, Field Day 2	59
1/22/2014	Schmidt	Snowmobile Intro to Avalanches, Billings Lecture 1	27
1/23/2014	Schmidt	Snowmobile Intro to Avalanches, Billings Lecture 2	27
1/25/2014	Campbell	Awareness, West Yellowstone	40
1/26/2014	Schmidt, Gullett, John-	Snowmobile Intro to Avalanches, Field day	24
1/29/2014	Staples, Birkeland	Friends/ASMSU Advanced Avy's w/Field, Lecture Night 1	39
1/28/2014	Greeno	Awareness @ Headwaters Academy	6
1/30/2014	Staples, Chabot	Friends/ASMSU Advanced Avy's w/Field, Lecture Night 2	39
1/31/2014	Pape	Companion Rescue, REI, Bozeman, Lecture	10
2/1/2014	Pape, Greeno	Companion Rescue, REI, Bozeman, Field Day	6
2/1/2014	Misc	Friends/ASMSU Advanced Avy's w/Field, Field Day	39
2/6/2014	Pape	Awareness, Alder SAR, MT	6
2/6/2014	Hahn-Knoff	Awareness & Beacons, Beal Park, City of Bozeman	20
2/8/2014	Campbell	Awareness, West Yellowstone	30
2/10/2014	Greeno	Awareness @ Livingston H.S.	28
2/11/2014	Greeno	Awareness @ Bozeman H.S.	98
2/12/2014	Marienthal	SC is BC Awareness, MSU, Bozeman	2
2/12/2014	Greeno	Table @ BC filmfest	30
2/13/2014	Greeno	Beacons @ Bozeman H.S.	98
2/18/2014	Greeno/Hoyer	Awareness @ Lamotte School	70
2/20/2014	Hahn-Knoff	Women's Awareness @ REI	9
2/22/2014	Campbell	Awareness, West Yellowstone	20

2/22/2014	Bilbrey/Hoyer	Companion Rescue, Grizzly Outfitters, Big Sky	12
2/25/2014	Gidley	Snowshoot	60
2/26/2014	Marienthal/ Wooldridge	Winterfest @ Sac M.S.	220
2/27/2014	Marienthal	Awareness @ Mammoth Hot Springs, for YNP sci- entists	20
3/2/2014	Wieland	Snowshoot	56
3/5/2014	Marienthal	Beacons @ Arrowhead School, Pray, MT	11
3/6/2014	Hoyer	Awareness @ REI	14
3/17/2014	Wieland	Awareness/Field @ Yellowstone Club	4
4/2/2014	Chabot/Knoff	Pro Dev Seminar	63
		TOTAL	4,328



*Jay Pape teaches an avalanche beacon class.*

## Letters of Support





To whom it may concern,

My name is Jeff Watt, I am the owner/guide of Ace Powder Guides, LLC. located in West Yellowstone, MT. Ace Powder Guides specializes in backcountry snowmobile trips in the Gallatin and Beaverhead-Deerlodge National Forests. Each season we provide over 100 guided tours to clients with all levels of experience in backcountry snowmobiling, backcountry travel and avalanche knowledge. The Gallatin National Forest Avalanche Center is a vital resource for our service.

Each morning when our trips get started we cover a variety of business and safety factors with each group, two of which are providing the clients with avalanche safety equipment and a brief update of the current avalanche conditions. Our guides are all Level 1 &/or 2 avalanche certified and have a first hand view of the snow conditions in the areas we ride. However, there is no way we can keep up with the subtle and constant changes in the snow pack as the experts Doug Chabot and the rest of the crew at the GNFAAC does. Their daily avalanche advisory is valuable tool for our business by keeping our guides up to speed with these constant changes. The GNFAAC has provided level 1 and level 2 classes for our guides, guides of other snowmobiling businesses and the general public. These classes have given us the tools to further educate our user group, renters and guided clients about proper use of beacons, navigating avalanche terrain safely, proper rescue techniques and assessing snow stability. The GNFAAC crew's knowledge, proficiency and commitment to avalanche study is vital to the safety of our clients through the education they provide.

Brochures, podcasts, emails, phone advisories, youtube videos, 1 hour classes, level 1 & 2 cert. classes are a small list of services the GNFAAC provides to our community and visiting tourists, not to mention the countless hours in the field for snow and avalanche assessments, accident reports, weather stations, etc. I am certain the important work of the GNFAAC has kept the backcountry of SW Montana a safer and more enjoyable place for all winter user groups. We thank them for their hard work and can only hope it continues.

Jeff Watt  
Ace Powder Guides

**Bozeman Women's Activity Groups (B.W.A.G.s)**  
**Bozeman, Montana**  
<http://www.bwags.org/>

Bozeman Women's Activity Groups (B.W.A.G.s)  
c/o Patti Steinmuller  
14665 Spanish Breaks Trail  
Gallatin Gateway, MT 59730

December 20, 2013

**Gallatin National Forest Avalanche Center**  
10 E Babcock Street  
Bozeman, MT 59715

Dear Gallatin National Forest Avalanche Center:

Enclosed is a check for \$50.00 as a donation to the Gallatin National Forest Avalanche Center from the Bozeman Women's Activity Groups (B.W.A.G.s). Thank you for your service to our community.

Sincerely,



Patti Steinmuller  
B.W.A.G.s Treasurer

Enclosure



## Citizens for Balanced Use

P.O. Box 606  
Gallatin Gateway, Mt. 59730  
[www.balanceduse.org](http://www.balanceduse.org)

Montana Dept. of Fish, Wildlife & Parks  
Recreational Trails Program  
Parks Division  
Attn: Beth Shumate  
P.O. Box 200701  
Helena, Montana 59620

Feb. 9, 2014

RE: Gallatin National Forest Avalanche Center

Dear Beth:

Citizens for Balanced Use is a grass roots organization with 4000 local members, 100,000 affiliates with over 70 cooperating organizations representing multiple use members and groups that include motorized recreationists, equestrian, mountain bike enthusiasts and a multitude of resource user groups. We cooperate with land managers to provide educational information, recreational opportunities, preserve resources and promote cooperation between user groups on public lands.

We would like to show our support for the Gallatin National Forest Avalanche Center's application for a RTP grant to help fund this important and necessary service. The GNFAC has proven to be a valuable asset to the area, providing avalanche awareness courses, field sessions as well as daily advisories, data information sharing and well researched and accurate warnings for backcountry enthusiasts. This group of experienced specialists are deserving of this grant for several reasons but at the top of the list is one overwhelming indisputable fact. THEY SAVE LIVES! Hard to imagine any group more deserving.

We strongly support the GNFAC's application for the RTP Grant to insure that all backcountry enthusiasts are well informed, well-educated and well prepared for their backcountry journeys.

Sincerely,

Brad Grein  
Executive Board  
Citizens for Balanced Use



203 Eaton Street – P.O. Box 1120 - Cooke City, MT 59020  
(406) 838-2231 - Fax (406) 838-2225 – [cokecitymotorsports.com](http://cokecitymotorsports.com)

3-28-14

In 2010 we purchased the Arctic Cat/ Yamaha snowmobile dealership in Cooke City, Montana. We were introduced to the members of the GNFA. The 10-11 season brought lots of snow and a stable snowpack.

The 11-12 snow season was not as much fun.

New Years Eve of 2012 we lost a customer and friend to an avalanche. The 11-12 seasons resulted in 3 deaths to avalanches in the Cooke City area.

The 13-14 season has been a wild one as well; we lost an 18 year old boy that was with a group that ignored the warnings. This group had no beacons, shovels or probes, the basic tools for backcountry adventures.

We had a burial this season the left a man several feet under the surface but was able to survive because his group was prepared. They found him with their beacons gave him CPR and he was able to ride out on his own. This group has spent time studying the GNFA warnings and rescue training.

This heightened our determination to educate our customers in avalanche awareness, safety and protection.

We quickly determined that the single, most essential tool to keeping our customers safe was the daily avalanche report emailed and faxed to local businesses by the Avalanche Center.

The daily report gives us the opportunity to discuss the conditions with our customers and warn them of dangerous situations before they encounter them. The majority of snow enthusiasts that come to Cooke City are on vacation and are eager to get to the snow. Many times, in their excitement, they forget or fail to realize how dangerous the conditions can be. When we have the daily avalanche report at 7am we are able to open a dialog with our customers that make them think about the conditions before they head out to the snow.

**We also have the “hands-on” guidance of the Avalanche Center. They consistently visit our area and ride, test and determine conditions. They are always willing to visit with riders, skiers and boarders about the conditions and the service they provide.**



The Avalanche Center has become a vital tool in our business. Without them riding in our area would be like flying thru the mountains in an airplane blindfolded. The Avalanche Centers subscribers will continue to grow with the use of smart phones and their app.

Their website, [www.mtavalanche.com](http://www.mtavalanche.com) provides incredible video, pictures and accounts of the snow conditions past, present and future.

We follow several agencies that provide the weather and conditions so that we can best determine the conditions and best areas for our customers. We have found that the GNFAC is consistently the most accurate in their reporting.

We will continue to support the GNFAC because of the stellar work they do and their true commitment to protecting snow enthusiasts. We encourage all businesses, individuals and government agencies to support the GNFAC in any capacity they can.

*Mona & Shannon Abelseth*  
Cooke City Motorsports

International Snowmobile Manufacturers Association  
1640 Haslett Road, Suite 170 \* Haslett, Mi 48840 \* (517) 339-7788 phone \* (517) 339-7798 fax

[www.snowmobile.org](http://www.snowmobile.org) \* [www.gosnowmobiling.org](http://www.gosnowmobiling.org)

---

April 14, 2014

Doug Chabot  
Director  
Gallatin National Forest Avalanche Center

*re: Thank You Letter for Avalanche Beacon Training at Snow Shoot Event*

Dear Doug,

On behalf of the snowmobile manufacturer members of ISMA (Arctic Cat, BRP, Polaris and Yamaha) I would like to thank you and the US Forest Service Avalanche Training Team for conducting the avalanche Beacon Training class at **the manufacturers' annual snow shoot event in West Yellowstone, Montana. The classes were very well received by** the snowmobile magazine editors and the manufacturers participating in the annual event. They appreciated the enthusiasm and thoroughness of the presentation.

The snow shoot is an annual event where the snowmobile manufacturers invite reporters from around the world to test ride the new model snowmobiles and report on the improvements and qualities of the new snowmobiles. This year we had attendees from virtually all of the national publications in the United States, Canada, Sweden, Finland, Norway, and Russia. Each of the editors and writers in attendance will publish a story highlighting the importance of Beacon familiarization and use training. We also believe the editors will encourage snowmobilers from around the world to take avalanche safety training and awareness classes annually.

The partnership between ISMA and the snowmobile avalanche awareness trainers affiliated with the US Forest Service is an important partnership and one that we hope will grow and expand in the future.

Thank you for your support and for creating interesting, informative classes to make snowmobile safety a top of mind awareness issue while riding in avalanche terrain. I look forward to seeing you soon.

Sincerely,

Ed Klim

Ed Klim  
President,  
International Snowmobile Manufacturers Association  
1640 Haslett Road, Suite 170  
Haslett, MI 48840  
Phone: 517-339-7788  
Fax: 517-339-7798  
[www.snowmobile.org](http://www.snowmobile.org)  
[www.gosnowmobiling.org](http://www.gosnowmobiling.org)  
[EKlim@aol.com](mailto:EKlim@aol.com)



**YELLOWSTONE CLUB  
COMMUNITY FOUNDATION**

December 9, 2013

*W-9 MAILED  
12/12/2013*

Friends of the Avalanche Center  
Doug Chabot  
PO Box 6799  
Bozeman, MT 59771

Dear Doug,

On behalf of the board of directors of the Yellowstone Club Community Foundation, I am honored to inform you that your grant request has been accepted and the board has voted to provide Friends of the Avalanche Center with a \$4,000.00 grant.

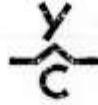
Please fill out and return the enclosed Grant Acknowledgement Form and W-9 to the address noted. You should receive your funding within 10 days after we receive this form.

If for some reason you do NOT receive the check within 2 weeks please contact me.

As you know, the YCCF is a modest Foundation that is fully funded by our membership and ownership with a clear focus on our mission to stay local and be realistic in our support. As you know the mission of the Foundation is to provide resources and build partnerships with local nonprofit organizations that promote education and conservation and community service. We believe your organization's work reflects these objectives.

Again, congratulations and thank you for all you do to make this part of Montana a special place to live and work, I look forward to following your continued success.

Casey Schwartz  
*Casey Schwartz*  
Executive Director

**YELLOWSTONE CLUB**

Gallatin National Forest Avalanche Center  
Doug Chabot, Director  
PO Box 130  
Bozeman, MT. 59771

April 9, 2014

Dear Doug,

I would like to congratulate you and your crew on a job well done this year. Now that the winter season is winding down I would like to thank you, Mark, and Eric for your first rate job of weather and avalanche forecasting. With this year's weather challenges of days of lift closing high winds, record snowfall in February and March, and spring thunder storms, it was extremely valuable to read, on your web site, your advisories and weather forecasts. Of course, the early morning discussions on days of heavy snow and wind were helpful in developing a safe and efficient control plan for the day.

Also, a belated thank you to Mark for conducting a day long avalanche course during our preseason Snow Safety Refresher. Feedback from the Ski Patrol indicated that the classroom time, as well as the field session, was a great way to prepare for the season.

Sincerely,

Tom Leonard  
Ski Patrol/Snow Safety Director  
Yellowstone Mountain Club

One Yellowstone Club Trail

P.O. Box 161097 • Big Sky, Montana • 59716 • Tel [888] 700-7748 • [406] 995-4900 • Fax [877] 443-5698

[www.yellowstoneclub.com](http://www.yellowstoneclub.com)



United States  
Department of  
Agriculture

Forest  
Service

National Avalanche  
Center

P.O. Box 130  
Bozeman, MT 59771  
(406) 587-6954

File Code: 2300

Date: 11 April 2014

Doug Chabot, Director  
Gallatin National Forest Avalanche Center

Dear Doug:

Congratulations to you, Mark, and Eric for finishing up your 24<sup>th</sup> season at the Gallatin National Forest Avalanche Center. It was a challenging avalanche season, with several troublesome weak layers and near-record snowfall. However, the avalanche center did a great job of providing valuable and timely avalanche warnings and a variety of other information to the public. The numbers of people utilizing the daily advisories, photos, and videos provided by the GNFAC continues to rise as backcountry use increases in southwest Montana. I often cite your avalanche center as a prime example of how much can be accomplished to improve public and employee safety when you combine a modest Forest Service contribution with an engaged and supportive community and Friends group.

Nationally, I would like to thank the GNFAC for taking the lead on creating new and updated avalanche safety brochures for skiers and snowmobilers, and for your work with the International Snowmobile Manufacturers Association to ensure their continuing support of snowmobile avalanche education at many of our avalanche centers. The GNFAC has also been a leader in utilizing new techniques of pushing avalanche information to the public using YouTube, Facebook, and Twitter, and has shared your experiences with our other avalanche centers.

Please pass on my thanks to all your volunteers, your partners, and especially the Friends of the GNFAC for all their efforts. Keep up the great work!

Sincerely,

Dr. Karl W. Birkeland  
Director





**MADISON COUNTY SEARCH AND RESCUE  
MADISON VALLEY UNIT**

P.O. Box 1042                      Ennis, MT. 59729  
Phone / Fax                        406-682-3811  
Email                                madsar\_2011@live.com



November 15, 2013

Friends of Avalanche Center  
PO Box 6799  
Bozeman, MT 59715

Greetings!

On behalf of the Madison County Search and Rescue, Madison Valley Unit, we would like to thank you for all your efforts to ensure safe winter time back country experiences and the enclosed donation is to assist in those endeavors.

Thank you!

A handwritten signature in cursive script that reads "Joe G. Husar".

Joe G. Husar, Sec'y/Treasurer



**International Snowmobile Manufacturers Association**

1640 Haslett Rd., Suite 170 • Haslett • Michigan 48840 • (517)339-7788 • Fax: (517)339-7798



Web: [www.snowmobile.org](http://www.snowmobile.org)

December 11, 2013

Jay Pape  
Friends of the Gallatin NF Avalanche Center  
PO Box 6799  
Bozeman, MT 59771

Dear Jay,

On behalf of the snowmobile manufacturer members of ISMA (Arctic Cat, BRP, Polaris, and Yamaha) I am pleased to send you the enclosed check for \$750.00 for the Friends of the Gallatin National Forest Avalanche Center. The snowmobile manufacturers and the snowmobile community are pleased to support all of your efforts in safeguarding our National Forests.

We are thankful for all of the work you are doing in supporting avalanche safety education and in particular the advancement of safety classes specifically designed for snowmobilers. Your avalanche safety training teams are recognized as leaders in their field.

We look forward to working with you, encouraging and welcoming visitors to enjoy our great National Forests.

Sincerely,

Ed Klim  
President, ISMA

enclosure



**OFFICE OF THE SHERIFF/CORONER**  
GALLATIN COUNTY, MONTANA

**Brian M. Gootkin**  
Sheriff

**Dan Springer**  
Undersheriff

**Warren Hiebert**  
Chaplain

615 South 16<sup>th</sup>  
Bozeman, Montana 59715  
(406) 582-2100  
FAX (406) 582-2126

April 8, 2014

Doug Chabot  
Director  
GNF Avalanche Center

Dear Mr. Chabot,

This Sheriff's Office is writing in support of the Gallatin Avalanche Center. Gallatin County has the distinction of having the most search and rescue calls in the state with an average of 100 calls per year. Because of that we spend a lot of time in avalanche country and other technical terrain.

The Deputies and Volunteers associated with SAR rely heavily on the expertise of the Avalanche Center not only in forecasting but during emergency response. The members of the Avalanche Center fill a vital role for us acting as field experts, assisting the incident commanders in risk assessment, investigation and technical issues. The group at the Avalanche Center has gone above and beyond in making themselves available at all times of day and night and have consistently made a difference in the safety of SAR volunteers and the success of rescue operations for our public.

The public outreach and education programs provided by the Avalanche Center have undoubtedly made countless, positive impacts on the community. We strongly support the Centers efforts in prevention and education and encourage anyone with questions about the importance of the Avalanche Center to contact me directly.

Sincerely

A handwritten signature in black ink, appearing to read "Jason Jarrett".

Lt. Jason Jarrett  
Sheriff's Office Search and Rescue Commander



To Whom It May Concern-

My Name is Chad Reichensperger and I am the owner of HiCountry Snowmobile Rentals in West Yellowstone MT. We operate the largest back country snowmobile fleet in West Yellowstone and HiCountry also has in house, Ace Powder Guides one of the longest serving guide services in West Yellowstone. Ace Powder Guides is the standard for back country guiding in West Yellowstone. Our guides were the first in the lower 48 states to be level 2 avalanche certified on a snowmobile.

I am writing this letter on behalf on myself, my employees, clients and company to show our support for Doug Chabot, Mark Staples, Eric Knoff and the Gallatin National Forest Avalanche Center for the endless work that they do on a daily basis. Because of them, our guides and customers have the daily input of knowledge of the changing conditions of the snow pack to help us all make better, safer and more educated decisions while we are out enjoying the back country.

In the 6 years that I have owned HiCountry Snowmobile Rentals, I have seen an unbelievable increase in the knowledge, understanding, respect, and willingness of clients and the general public to learn and seek out avalanche knowledge and training.

It is very important to our sport and that of skiers and hikers, that we have people like the GNFAC doing what they do, providing us with the knowledge and information to safely enjoy the sports that we love.

Thank you,

Chad Reichensperger, Owner

HiCountry Snowmobile Rentals

West Yellowstone, MT

PH: 406-646-7541

Info@hicountrysnowmobile.com



Doug Chabot, Director  
Gallatin National Forest Avalanche Center  
PO Box 130, Bozeman, MT 59715

April 14, 2014

Hi Doug,

On behalf of Recreational Equipment Inc. (REI) I would like to express my appreciation to the Gallatin National Forest Avalanche Center for another great year of partnership opportunities during the 2013-2014 season. The avalanche education classes hosted in the REI community room by Friends of GNFAC are recognized for their high quality and good attendance, and they have become one of our signature in-store classes.

Thank you to you and your staff of avalanche forecasters for all that you do for winter recreationists in the Bozeman area.

Best regards,

A handwritten signature in cursive script, appearing to read 'Teresa Larson'.

Teresa Larson  
Outdoor Programs & Outreach Market Coordinator  
REI Bozeman

cc: Jay Pape, Education Coordinator, Friends of GNFAC, jaypape@gmail.com





Summit Air Ambulance  
200 Gallatin Field Road  
Belgrade, MT 59714  
April 22, 2014

Doug Chabot  
Gallatin National Forest Avalanche Center  
PO Box 130  
Bozeman, MT 59771

Dear Doug:

Please accept our thanks and appreciation for your organization's efforts. We completely support our parallel missions, to keep people safe in the mountains. As an air ambulance organization in the region we understand the need for accurate and timely avalanche forecasting. We review your avalanche forecasts along with aviation weather during our planning for the day, and study avalanche accident information the Center publishes in an effort to be better informed of the current backcountry conditions. We have outfitted and educated our staff repeatedly with avalanche safety equipment for backcountry rescue readiness. We look forward to future snow seasons with your expertise and information.

Please let us know how we can support your mission. We could possibly bring our aircraft to facilitate your educational seminars. We currently support all the nearby search and rescue agencies. Our area of operation is completely within your forecast area.

Thank you again for such an informative and safe snow season.

Sincerely,

Jeff Myers RN  
Base Manager-Summit Air Ambulance  
Belgrade, MT  
406-570-3284

## *Support Emails*

Thank you for providing this service. I think its an awesome resource that grows each year with more awareness. As a safety professional and first time back country snowmobile enthusiast, i have learned so much from your group. I look forward to next year. Have a great summer... whenever it decides to come.

Jason

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Doug, Eric and Mark,

We may be the family that reads these reports from the greatest distance! (Although Amy is very local!) We always enjoy the reports and like to see the videos. Maybe we will even get to take one of your classes some day. Thank you for all that you do to help keep those in the backcountry aware and safe. We are proud to be one of your sponsors.

Have a great summer!

John, Gwen and Amy Stetson

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thanks for all your hard work and dedication!

Even folks outside of the advisory range benefit much from your reports!

cheers

dave

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Once again you have provided an outstanding service and I want to thank you for your hard work. I have learned everything I know about avalanches from your daily updates or classes you have provided. Good work!

Kathy

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We are dedicated readers of your reports and appreciate all your efforts. We have also taken 2 classes and continue to learn with every outing. MANY thanks for your advisories and we greatly respect the reports. **The GNFAC Index is amazing...we had no idea you reached out to so many people!** Wonderful!

Ann and Philip Ostroski

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You got it backwards, Doug, Thank You! You guys help keep people on top of the snow to ski another day. When you guys quit forecasting for the season, it's like when an old friend leaves town, you know they are still around somewhere, but you miss them.

Keep up the good work,

Jesse

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Thank you - love the season's end report! Your report is a first go to - a great informative service to all.

Teri Sinopoli

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Thanks for another great year. My wife and I with our kids and grand kids spent 8 days in early February in the Mtn's around Yellowstone. Your reports kept my boys and I out of trouble while boondocking in the mtn's. Looking forward to next season.

Dan



GNFAC Gents,

Thanks for all the hard work this season, I am a Red Lodge native and checked you guys out everyday for the past few years. It has definitely helped and am excited to see you guys grow and get the awareness out there! Have a great summer.

cheers,  
Ivan Kosorok

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Doug and Crew; thank you for another season of great advanced information. The professional presentation of avalanche awareness and warnings is highly "Valued Added" to those of us whom are users of back country recreational opportunities. I would honestly say that the information provided day after day is often taken for granted by some, but your efforts are greatly appreciated by so many others. Next season how about a "ride along"?! Thanks Guys!

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Since we moved to Bozeman and began to be involved with the snowmobiling in the area, we have used the information provided by the GNFAC Avalanche Center information on a daily basis during the snowmobiling season.

We take their classes each and every year, because each presentation causes you to re-think what you thought you already knew.

The information contained in their daily reports lets us know what to watch for, the wind conditions, the changing snow structure and what we can expect in the many different riding areas covered by the Avalanche Center. The possible temperatures in different locations is also a great tool to use when deciding where to go ride for the day.

The expertise these men have and share from their observations from how snow crystals form and why and where plus which layers are causing issues is invaluable to any rider headed to the back country that we enjoy.

We highly encourage the continued funding and support for this valuable service provided to our Gallatin Valley.

Janet Carlson Krob

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Guys,

**Thanks for all that you do "having our backs" during the season.** Next year is the 25<sup>th</sup>, we need to have a big party, eh.

Matthew Hirsch

Doug, Mark and Eric,

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Thanks guys for the incredible work you did during a very trying and active season. No telling how many lives you saved. You are appreciated more than you will ever know. Stay safe in your off season endeavors....we can't afford to lose you.

Brad

Hey guys,

Thanks to all of you SO MUCH for all your efforts and diligence to provide us with comprehensive, up-to-date info on our mountains & play areas. You've helped countless people stay safe & informed, and I often plan my day's activities with your observations & forecasts in hand. And, in my line of work, you've helped keep me from having to perform one of my least favorite activities -- funerals.

With thanks and gratitude to you all,

Pastor Don Taylor  
Mt. Republic Chapel of Peace  
Cooke City, MT

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Doug, Mark and Eric

Thanks guys. I use the film A Dozen More Turns in all my classes here at BYU Idaho with an emphasis on decision making. I also use your daily reports in my avalanche class I teach here. So thanks again.

Scott

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Fellas you have been doing an incredible job this season keeping us informed and reminding everyone of the conditions.

Wanted to say thank you.  
Dan Armstrong

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Avy Guys,

Thanks for all of your hard work. No doubt this year is a bit crazy. Just wanted to add one more thought. As we traveled around in December on our tour I read a lot of avy reports and saw how different regions operate. I want to thank you guys, the way you present the information humanizes it and I really believe this engages people and gives them a greater respect. It is one thing to read a report that is all numbers and very dry, but it can be intimidating as well as boring. The way you create a conversation humanizes the information and makes people feel engaged, and then they listen intently. So thanks again for the hard work.

Brad Van Wert

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Hey guys,

I just wanted to say thanks for being really on top of the avy situation recently, and that I like the more direct messaging in some of the current videos and such. Unfortunately, I think some people need to be beaten over the head with this stuff. I don't know if it's a conscious shift, but I do feel like this season you're offering some more pointed suggestions on common problem areas, and I hope it's effective.

Best, Drew



Mark,

Thank you so much again for letting me take that Av class with my daughter, Mahri. You all did a fabulous job. I did dread the freezing cold temps on Saturday but it was such a great lesson and wonderful instructor (Josh Olson) that the temps were actually kind of pleasant.

Thanks again for all your hard work and my daughter is telling all her friends to take it.

Happy Holidays,  
Annette Epple-Hafla

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