

# 2012-13 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 Aie Works  
Yellowstone Club Community Foundation  
Gallatin County Search and Rescue

REI  
Alpine Orthopedics  
95.1 KMMS  
Pinhead Classic  
Cliff Gullett Memorial Fund  
On Site Management  
Javaman  
Big Sky Ski Patrol  
Moonlight Basin Ski Patrol  
Gallatin Valley Snowmobile Association  
NRCS  
World Boards  
Madison River Brewing Company  
Bountiful Table  
406 Brewery  
Cold Smoke Awards  
Lone Peak Brewery  
Northern Lights Trading Company  
Ticket River  
International Snowmobile Manufacturers Association

Report by: Doug Chabot, Mark Staples, Eric Knoff

PO Box 130, Bozeman, MT 59771

[mtavalanche@gmail.com](mailto:mtavalanche@gmail.com)/406-587-6984



# 2012-13 Annual Report Gallatin National Forest Avalanche Center

APRIL 2013

## Season Summary



We just wrapped up our 23<sup>rd</sup> season at the Gallatin National Forest Avalanche Center, one of the best winters ever: lots of snow, many days of good stability, and no fatalities. It has **been nine years we've had this combination.**

Our first storm was on October 3<sup>rd</sup> when five inches of snow fell above 7,000'. **Unbelievably, people skied.** I did not click into my boards until October 28<sup>th</sup> when three skiers were caught, partially buried and injured in an avalanche in the northern Bridger Range. This was the starting pistol to the season which ended on April 7<sup>th</sup> with 136 avalanche advisories.

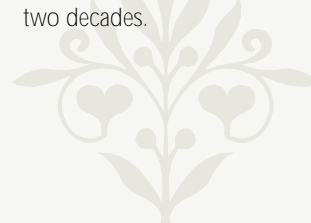
Folks reported 27 avalanche incidents involving 31 people this season. Remarkably, there were no fatalities. Luck was certainly a factor but so were

snowpack conditions. Avalanches tended to be smaller than in years past. We issued only one Avalanche Warning, a nice change of pace.

Our energies were concentrated on education, outreach, daily advisories and field days. Our essential mission is twofold: the first part is to get accurate and relevant information about the snowpack, the second is to clearly and succinctly communicate this information to all user groups. Avalanche education is the overarching umbrella of our work which we could not do effectively without

the hard work of the Friends of the Avalanche Center.

Mark, Eric and I would not be able to run a successful program without all of your help. The avalanche center relies heavily on volunteers and outside financial support. Approximately 40% of our annual budget comes from the Friends of the Avalanche Center and Montana Fish, Wildlife and Parks. We are indebted to the outdoor community and local businesses for supporting the Friends for the last two decades.



## GNFAC Index

- Average number of people getting our daily advisory: 4,491
- Number of avalanche classes and attendees: 67 and 3,473
- Percentage of the classes taught by the Friends: 70%
- Number of YouTube videos made this season and number of views: 53 and 62,456
- Number of views for all 274 of our videos: 795,000
- Total number of field days: 98
- Number of full-profile snowpits dug and stability tests performed this season: 129 and 377
- Miles driven on each Yamaha Nytro snowmobile this season: 1,200
- Number of times I had to remind Mark to not hog riding the Nytro TURBO: at least 5
- Last season without an avalanche fatality: 2003-04
- Number of folks reported caught, partially buried and injured in avalanches: 12, 5 and 2.

### Inside this issue:

<i>Advisories / Incidents</i>	4
<i>Education / Finances</i>	5
<i>Friends of Avalanche</i>	6
<i>Income / Expenses</i>	8
<i>Snowpack Summary</i>	10
<i>Graphs, Charts, Tables</i>	11
<i>Letters of Support</i>	14

## GNFAC Index Con't

- Record number of ridge hikes John Curry did for the King & Queen competition: 30
- Number of hikes Doug, Mark and Eric did: 0, 9 and 18
- If  $x = \text{lameness}$ , Doug's efforts expressed as a formula:  $2(x)$
- Daily average number of pageviews to mtavalanche.com: 3,603
- Number of Facebook "Likes" and Twitter "followers": 2,595 and 1,133
- Percentage of days with a LOW avalanche danger rating on some terrain: 40%
- A HIGH danger: 8%
- Time one of us walks into the office every morning: 0415

## Avalanche Advisories

This winter, on average, we reached 4,491 people a day. For reference, when the center opened in 1990 we reached 4,200 people *that entire season!*

There are more ways than ever before to access our daily avalanche advisories: the web, email, Facebook, or smartphone. Most people reach us via direct links or from Google, but there are a few avalanche apps that carry our advisory too as well as avalanche sites like [www.avalanche.org](http://www.avalanche.org).

This winter, on average, we reached 4,491 people a day. For reference, when the center opened in 1990 we reached

4,200 people *that entire season!* Most people get the advisories via email (3,402), while others get it directly from the Avalanche Advisory page (1,013), or phone lines (46) and fax (30). There was a modest 3% increase in usage this season. Not a huge jump, but still a better rate of return than a savings account!

This winter we added a slick color-coded danger ratings map to the homepage. We also updated our look and feel by changing the menus around and

adding new banners and pictures.

Our site had 199,677 visits, adding up to 490,000 unique pageviews, with folks averaging 2:18 minutes on the site.

Our website gets accessed by smartphones 30% of the time. Of these, 70% are on Apple devices and 30% on Android. Next season we will offer a cleaner website for mobile users as well as an app to quickly access the advisory.

## Avalanche Incidents

We are happy to report that there have been no avalanche fatalities this season, although there were a few close calls. Three incidents involved multiple people: three skiers caught and partially buried in October, four snowmobilers caught at Lionhead in February and two skiers caught up Hyalite in March.

All told, there were 27 incidents involving 31 people. Twelve

folks were caught in six separate avalanches resulting in five partial burials and two injuries.

In the last 10 years Montana ranked third in the US for avalanche fatalities and first for snowmobiler deaths. Locally, since 2008, Cooke City represents 27% of our avalanche incidents with the northern Madison area having 24% and the Bridger Range at 22%. Two graphs and

a chart on page 11 illustrate these trends.



Touring near Coke City.



## Avalanche Education

Our avalanche education program is multi-faceted. We work very closely with the Friends of the Avalanche Center to teach as many folks as possible. The bread and butter of our classes are the *1-hour Avalanche Awareness* lecture. These are designed for all ages and abilities. For someone new to backcountry travel this course is the first step towards recreating safely. These courses are stepping stones to more advanced courses, especially those offered by private companies.

For the 22nd year in a row we offered an *Avalanche Awareness Class with Field Session* through the Outdoor Recreation department at Montana State University and Bridger Bowl. This year over 250 students and public took advantage of this affordable course.

## Finances

The Gallatin National Forest provides the avalanche center with 55% of its funding. This amounts to \$110,293 which covers benefits, travel, vehicles, computers, office space and 64% of our overall salaries. We rely on community support to cover our budget shortfall with the rest of the monies coming from the following long-term supporters:

The Friends of the Avalanche Center: \$44,209

The Friends were formed in 1992 to financially support the avalanche center. They cover most of the avalanche education expense as well as administrative expenses, all the snowmobile costs, weather stations and web development.

In total, we taught 67 avalanche classes that reached 3,473 people. Nineteen of these were snowmobiler specific and we reached 658 riders.

Overall, the Friends taught 70% of all classes. Jay Pape, the Friends education coordinator, was instrumental in managing our programs.

This year we taught a new field course on *Companion Rescue*. We offered one for snowmobilers in Cooke City, one at Bridger Bowl and another in Big Sky. There will be many more next year since they were well received.

In March we put on our fourth Professional Development Workshop for avalanche professionals. The topic was "*Lessons Learned*", and we had nine lec-

MT Fish Wildlife & Parks: \$42,143

Through a Recreation Trails Grant, FW&P has supported us for the last 14 years. Their monies supplement ours salaries. We would be unable to operate at our current level without their continued support.

Gallatin County Search and Rescue: \$4,000

Gallatin County Search and Rescue (GCSAR) have been our partners since the inception of the avalanche center in 1990. They donate \$4,000 every year to our operation. We work closely with the Gallatin County Sheriff's department since they are the lead agency in charge of SAR

tures from folks around the western US. The lectures were filmed and posted on our YouTube channel for everyone to watch.

A table on page 12 lists all the courses we taught this year.



Digging pits during the MSU class

This season we taught 67 avalanche classes that reached 3,473 people.

operations. Lt. Jason Jarrett and Sheriff Brian Gootkin run an exceptional crew of dedicated and well-trained volunteers.



A rescue class at Bridger Bowl

## *Friends of the Avalanche Center*

The Friends of the Avalanche Center is a nonprofit 501(c)3 organization. They provide a means for individuals and organizations to financially support the work we do. In order to operate the GNFAC at our current level we receive 45% of our budget from outside sources.

The Friends were founded in 1992 and have donated over \$302,000 to the GNFAC since then. Most of the monies came from local business and individuals in southwest Montana.

The Board of Directors represents a varied slice of the com-

munity. They include: Jeannie Wall (President), Jay Pape (Treasurer), Greg Caracciolo, Laura Ryan, Dale Sexton, Ben Nobel, Ben Zavora, Adam Knoff and Dawn Brown.

## *Where the Friends money got spent:*

45% of our annual budget comes from the Friends of the Avalanche Center and Montana Fish, Wildlife and Parks.

Avalanche Education Program: \$28, 751

The costs associated with running avalanche education includes payroll, liability insurance, lodging, teacher supplies, beacon checkers and beacon parks.

GNFAC Support: \$15, 458

The Friends support falls into four categories:

1. General Support. They pay for things outside our normal operation. This year they purchased a new laptop for our education classes, three GPS units and

mapping software. Recurring expenses include avalanche safety brochures, software, beacons, office supplies, editing services, email subscription service and fees for professional workshops. This totaled: \$ 6,596

2. Snowmobiles. Cooke City Motorsports worked with Yamaha to secure the GNFAC two snowmobiles again this winter.

This season we rode 1,200 miles on each of the Nytro MTX four-stroke sleds, one of which was a Turbo. The Friends paid for maintenance, insurance and repairs which totaled \$2,312.

3. Weather Stations. The Friends pay for the repair, upkeep and installation of four weather stations: Hyalite, Taylor Fork, Lionhead and Cooke City. The costs added up to \$2,720 last year.

4. Website Development. Our website was upgraded this fall with a new look and navigation thanks to Jim Earl. All told, this cost \$3,830.

## *Where the money comes from:*

Powder Blast: \$27,467

The Friends held their 14th Powder Blast October 26th at the Emerson Cultural Center. The title sponsor was Montana Import Group with supporting sponsorships from Grizzly Outfitters Mystery Ranch.

Avalanche Classes: \$15,206

The Friends accept donations at all their classes. Online registration has made it easy to sign up and donate.

Yellowstone Club Community Foundation: \$7,000

Casey Schwartz at the YCCF supported us with two grants this year (\$4,000 + \$3,000).

King and Queen of the Ridge: \$12,670

Bridger Bowl held the 11th King and Queen of the Ridge. Individuals and teams hike for pledges. Montana Ale Works was by far, the largest fundraiser with over \$8,000 donated by their

team! Monies are earmarked for avalanche education and since the first event on 2003, Bridger Bowl helped raise \$105,000.

Montana Ale Works: \$3,000

Albert MacDonald, Dawn Brown and Chef Roth Jordan organized the fifth annual dinner and wine-pairing. 40 people attended the exquisite evening in which all ticket proceeds were donated.



### *Where the money comes from, con't:*

Donations to the Friends are usually earmarked for our education programs. This season they got additional support from:

- \$1,295 from **406 Brewery's** ski raffle.
- \$1,150 from a raffle at Grizzly Outfitters.
- \$1,000 from the Stetson Family in memory of Tyler Stetson.
- \$1,000 donation from Alan Crawford.
- \$1,000 from an anonymous donor.
- \$750 donation from International Snowmobile Manufacturers Association.
- \$500 from Moonlight Basin Ski Patrol.
- \$500 donation from Richard Siberell of Rix Haus.
- \$500 donation from Jack Tackle.
- \$500 donation from LeAnne Gullett of the Cliff Gullet Memorial Fund.
- \$300 from the **Gallatin Valley Snowmobile Association's** poker ride.
- \$300 from Montana Import Group.

Field  
Volunteers  
donated 70  
days to our  
program, the  
equivalent of  
one part-time  
position  
valued over  
\$12,000.

### *Donated Labor and Equipment*

It would be impossible for the GNFAC to operate at its current level without the local community donating time, expertise and equipment. When it's added up, their work totals \$42,500. These donations reflect a dollar estimate of what it would cost to hire people or buy/rent equipment.

#### Field Volunteers/Observers

Volunteers donated 70 field days to the GNFAC accompanying us in our pit digging endeavors. It's impossible for the three of us to only go out with each other, thus we rely on volunteers to come with us. These folks are our peers with many being professional snow workers. The standard is high and we can not emphasize enough how grateful we are for their work. We also count on folks emailing or calling us with their personal field observations. The ski areas also feed us valuable information about their avalanche control work and observations about the sidecountry.

Cooke City Motorsports and Yamaha

Snowmobiling is an integral part of our job and we're lucky to have support from Shannon and Mona Abelseth at Cooke City Motorsports. They worked with Craig Gagne of Yamaha to loan us two snowmobiles, which will continue next season. Their in-kind donation is valued at \$8,000!

Andrew the Intern

Andrew Kiefer of Prescott College interned with us for a month. He accompanied us in the field, assisted us in the office with our record keeping and helped the Friends teach a few classes. Andrew was a solid partner and we hope to see him working in the snow and avalanche world in the future.



## Income

### Income

#### Montana FW&P Rec Trails Program

◆ RTP 2012 \$42,143

Gallatin County Search and Rescue \$4,000

#### Friends of the Avalanche Center

◆ Avalanche Education Program \$28,751

◆ General Support \$6,596

◆ Snowmobile expenses \$2,312

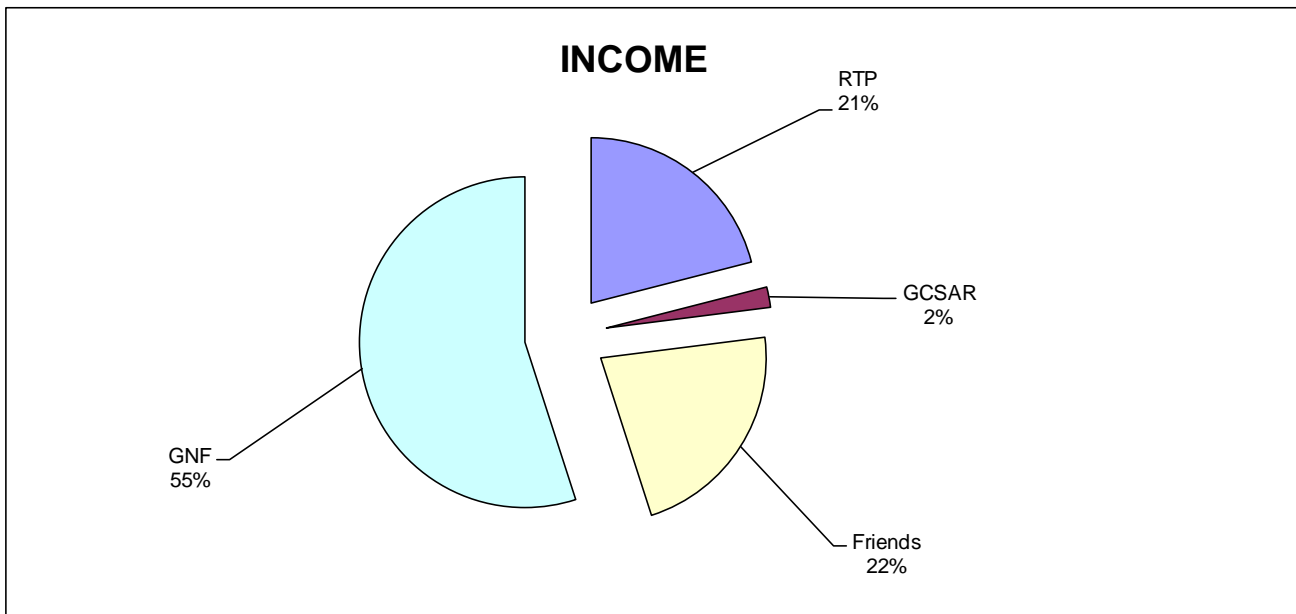
◆ Weather Stations \$2,720

◆ Website Development \$3,830

TOTAL OUTSIDE CONTRIBUTIONS (Non-Gov) \$90,352 (45%)

TOTAL GALLATIN NATIONAL FOREST CONTRIBUTION \$110,293 (55%)

TOTAL INCOME \$200,645(100%)





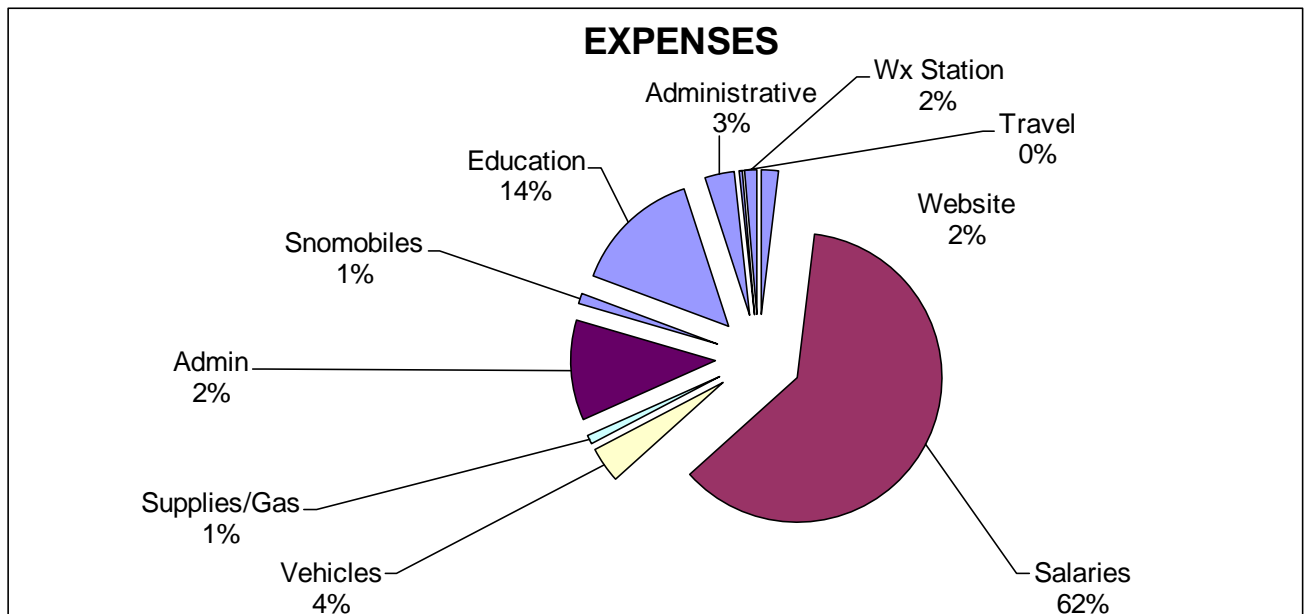


# Expenses

## Expenses

### Salaries/OT/Benefits

GNF	\$77,093
Outside sources	\$46,143
GNF Office	\$22,500
GNF Vehicles	\$8,000
GNF Travel	\$700
GNF Supplies/Gas	\$2,000
Friends: Snowmobiles equip/maintenance	\$2,312
Friends: Education	\$28,751
Friends: General support	\$6,596
Friends: Weather Stations	\$2,720
Friends: Website Development	\$3,830
<hr/>	
TOTAL EXPENSES	<\$200,645>



## *Snowpack and Weather Summary*

The 2012-2013 season started with plentiful early snow, drenching rain, and warm temperatures. This weather created a strong dense foundation to the snowpack for the rest of the season. Stability remained generally good because winds were light, and there were few big storms and many smaller snow storms. In contrast, the previous season (2011-2012) had minimal early season snow, six very big storms, frequent strong winds, and generally unstable conditions.

Snow began accumulating around October 20. About a week later the Bridger Range received 18 -24 inches of snow, and three skiers were caught in an avalanche. The following day, October 29, most areas received heavy rain that saturated the snowpack. By Halloween trick-or-treaters were strolling through Bozeman in warm sunshine. November brought colder weather that refroze the snowpack and created a thick layer of strong snow at the ground. Snowfall continued through November, and the snowpack tripled in snow water equivalent (SWE) throughout the advisory area.

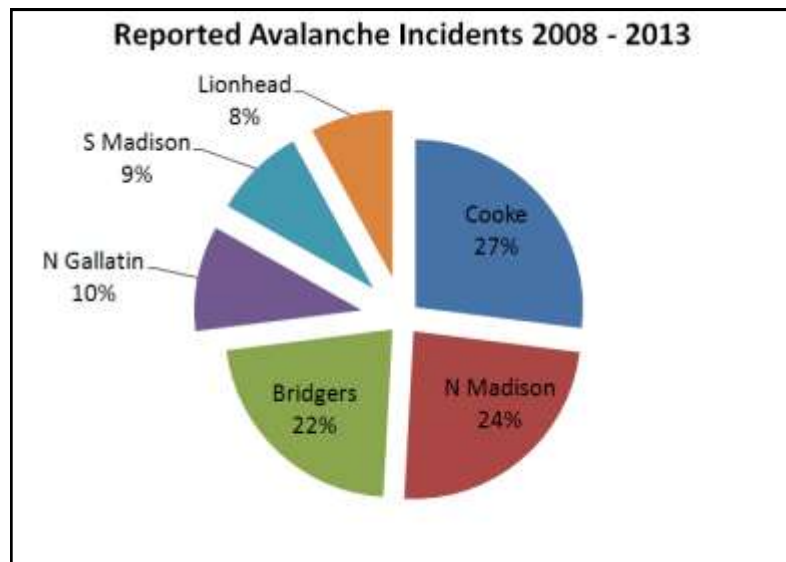
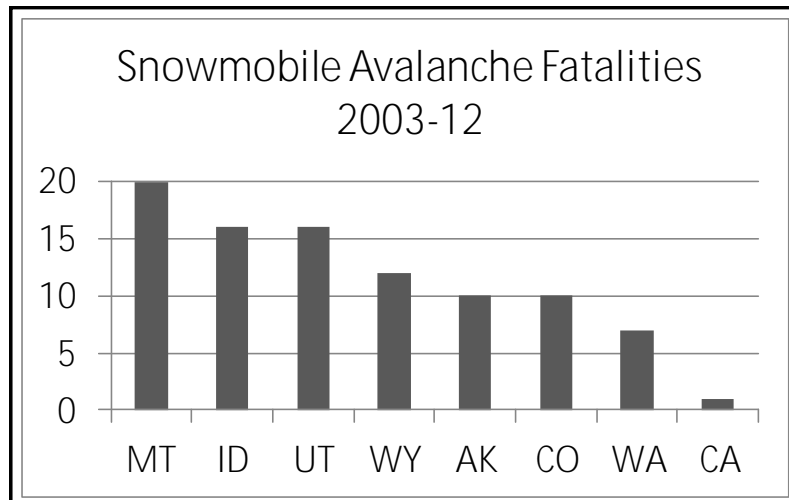
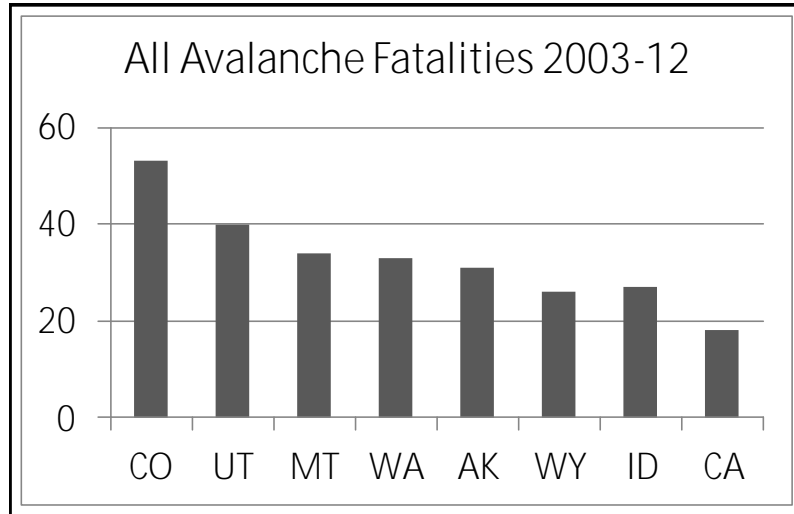
Snowfall really took off in the month of December with 4 inches of SWE falling in the mountains near Bozeman, 7 inches of SWE near West Yellowstone, and 10 inches of SWE near Cooke City. The snowpack easily supported this loading with surprisingly few avalanches. During this month the avalanche danger was HIGH only once, a stark contrast to most seasons. While the snowpack was strong on most slopes, some avalanches did occur in weaker areas where less snow had accumulated in earlier months. Places with weaker snow were lower elevations that had minimal snow in October and November. Other places were steep rocky areas where early snows did not accumulate as quickly and build a strong base.

Snowfall ended at the start of January and the danger quickly dropped to LOW. Most of January was dry and cold forming small facets at the snow surface and some depth hoar where the snowpack was thin. One exception was the second week of January which had a large storm and a short lived Avalanche Warning and HIGH danger near West Yellowstone. Snowfall returned more consistently at the end of the month building a slab on top of a variety of weak layers. With these weak layers lurking on most slopes the danger remained elevated during February but never spiked too high as there were no major storms or wind events to overload these layers. Dry snow avalanche activity limped along until mid-March when conditions warmed well above freezing for about three days. During this time both wet loose and wet slab natural avalanches occurred.

By March 17 the snowpack refroze and stability quickly improved. More wet avalanches occurred when temperatures warmed again at the end of March. By the last advisory on April 7, cold temperatures returned and refroze the snowpack. New snow fell and bonded well to the underlying ice crust creating stable conditions and good riding.



### Incident Graphs



*Avalanche Education*

<b>Date</b>	<b>Instructor</b>	<b>Group/Topic</b>	<b>Total</b>
10/20/2012	Gullett	Thunderstruck Premier, Lewistown, Awareness	39
11/1/2012	Pape/Greeno	Sleeping Giant Middle School, Livingston, Awareness	214
11/8/2012	Pape	Aerie WEMT, Rescue	15
11/11/2012	Chabot	GCSAR/Recap of last winter	25
11/9/2012	Chabot	Ski Patrols/ Stability tests	75
11/9/2012	Staples	Montana Import Group, Bozeman, Decision Making	30
11/9/2012	Knoff	Avalaunch - Bozeman Library, Awareness	30
11/12/2012	Greeno	Chief Joseph Middle School, Bozeman, Awareness	200
11/14/2012	Pape/Greeno	Northwest Energy, Helena, Awareness	75
11/14/2012	Pape	Grizzly Outfitters, Big Sky, Awareness	42
11/14/2012	Marienthal	The Basecamp, Billings, Awareness	15
11/15/2012	Marienthal	The Basecamp, Helena, Awareness	27
11/20/2012	Pape	Ski Fest, West Yellowstone, Fine Line Movie	32
11/28/2012	Birkeland/Staples	ASMSU, Intro to Avalanches, Lecture 1	164
11/29/2012	Pape/Chabot	ASMSU, Intro to Avalanches, Lecture 2	148
11/30/2012	Knoff	Moonlight Patrol - Cooke City Incident 12-31-11	30
12/1/2012	Misc	ASMSU, Intro to Avalanches, Field Day	129
12/1/2012	Gullett	Boondockers Premier, Rigby, ID, Awareness	125
12/1/2012	Schmidt	Intro to Avalanches, Baineville, MT	37
12/3/2012	Marienthal	Northern Lights Trading Co, Bozeman, Awareness	17
12/6/2012	Pape	Boy Scout Round Table, Bozeman, Awareness	83
12/6/2012	Staples	Yellowstone Club Ski Patrol - Recent Accidents	35
12/7/2012	Chabot	Ice Fest, Bozeman, Current conditions	200
12/8/2012	Gullett	Greenup Performance, Great Falls, Awareness	68
12/12/2012	Pape	REI, Bozeman, Awareness	41
12/20/2012	Knoff/Schmidt	Basic Avalanche Awareness for Snowmobilers	27
12/21/2012	Knoff/Schmidt	Basic Avalanche Awareness for Snowmobilers/Lectures	27
12/23/2012	Knoff	Bridger Bowl, Bozeman, Awareness	30
1/2/2013	Campbell	USFS Snow Ranger Trainings	17
1/3/2013	Knoff	406 Brewery, Bozeman, Awareness	30
1/9/2013	Pape	REI, Bozeman, Awareness	38
1/10/2013	Pape	REI, Bozeman, Companion Rescue, pt1	18
1/12/2013	Pape/Greeno	REI, Bozeman, Companion Rescue, pt2	14
1/12/2013	Schmidt/Gullett	Bozeman, Snowmobile Intro to Avalanches	8
1/13/2013	Schmidt/Gullett	Bozeman, Snowmobile Intro to Avalanches, Field	5
1/16/2013	Pape/Marienthal	AMSU, Side country IS Back country	40
1/19/2013	Schmidt, et al	Cooke City, Companion Rescue for Snowbiles	19
1/19/2013	Schmidt, et al	Cooke City, Snowmobile Intro to Avalanche Field Session	20
1/19/2013	Fredlund	Cooke City, Awareness	12

Table continued on next page.



## *Avalanche Education, Continued*

1/21/2013	Pape	GCSAR Posse Rescue Workshop	54
1/22/2013	Marienthal	UMW, Dillon, Awareness	23
1/23/2013	Pape/Staples	ASMSU, Intro to Avalanches, Lecture 1	98
1/24/2013	Pape/Knoff	ASMSU, Intro to Avalanches, Lecture 2	96
1/25/2013	Campbell	West Yellowstone, Awareness	8
1/26/2013	Misc	ASMSU, Intro to Avalanches, Field Day	88
1/30/2013	Birkeland/Staples	ASMSU, Advanced Avalanches, Lecture 1	30
1/31/2013	Birkeland/Staples	ASMSU, Advanced Avalanches, Lecture 2	30
1/31/2012	Pape	Exploration Works, Helena, Awareness	33
2/2/2013	Staples, et al	ASMSU, Advanced Avalanches, Field	30
2/6/2013	Hahn-Knoff	REI, Bozeman, Womens Awareness	32
2/8/2013	Pape	Grizzly Outfitters, Big Sky CRC Lecture	9
2/8/2013	Campbell	West Yellowstone, Awareness	15
2/9/2013	Pape, Corey	Grizzly Outfitters, Big Sky CRC Field	7
2/10/2013	Pape	Big Brothers/Sisters, Bozeman, Pits & Beacons	12
2/12/2013	Pape	Livingston HS, Awareness	25
2/13/2013	Hahn-Knoff	Girl Scout Explorers, Bozeman, Awareness	12
2/15/2013	Campbell	West Yellowstone, Awareness	60
2/18/2013	Fredlund	Cooke City, Awareness	8
2/19/2013	Hahn-Knoff	Mountain Belles, Bozeman, Women's Awareness	16
2/26/2013	Pape	Snow Shoot, West Yellowstone, Awareness & Beacons	58
3/1/2013	Greeno/Kiefer	Sacajawea MS, Bozeman, Awareness Snow Fest	200
3/1/2013	Campbell	West Yellowstone, Awareness	11
3/3/2013	Gullett	Snow Shoot, West Yellowstone, Awareness & Beacons	45
3/5/2013	Pape	Bozeman Area Safety & Health, Bozeman, Awareness	11
3/6/2013	Misc	Pro Development Seminar, Bozeman	49
3/6/2013	Marienthal	REI, Bozeman, Side Country IS Back Country	12
3/8/2013	Greeno/Kiefer	Sacajawea Middle School, Bozeman, Awareness	200

TOTAL = 67 classes/seminars/field sessions for 3, 473 people

## Letters of Support



203 EATON STREET – P.O. Box 1120 - COOKE CITY, MT 59020  
(406) 838-2231 - FAX (406) 838-2225 – [COOKECITYMOTORSPORTS.COM](http://COOKECITYMOTORSPORTS.COM)

In 2010 we purchased the Arctic Cat/ Yamaha snowmobile dealership in Cooke City, Montana. We were introduced to the members of the GNFA. We learned a lot from them and they continue to teach us. 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 season resulted in 3 deaths to avalanches in the Cooke City area.

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 future in safety bulletins will only continue to grow in our industry.

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

GNFA protects snow enthusiasts and allows them to enjoy the extreme conditions and access the back country in a safe manner. The work that they do is greatly appreciated by the Cooke City area and the snow enthusiasts that come from all over the world to experience this area.



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 GNFA is consistently the most accurate in their reporting.

We will continue to support the GNFA because of the stellar work they do and their true commitment to protecting snow enthusiasts. We encourage all businesses and individuals that love snow and the outdoors to support the GNFA in any capacity they can.

**Mona & Shannon Abelseh**  
Cooke City Motorsports



**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, 2013

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 blue ink, appearing to read "Jason Jarrett".

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





April 10, 2013

Clare Cawthon

Montana Import Group

31910 East Frontage Road

Bozeman, MT 59715

To whom it may concern:

At Montana Import Group, we know that being located in Bozeman means recreation year round. Many of our customers and employees are skiers or snowmobilers, and they understand that being safe is crucial in order to avoid injury or even death. Mountain activities can be extremely dangerous if you go into them uninformed or ill prepared, which is why Montana Import Group has partnered with the Avalanche Center. They provide valuable daily avalanche advisories and weather reports in the winter, covering an area of about 10,000 square kilometers in southwest Montana. They conduct many in depth avalanche safety workshops, and even rescue courses specific to skiers/boarders and snowmobilers. Their workshops teach people the importance of decision making when participating in these activities and to recognize dangerous or hazardous terrain. The Avalanche Center has saved many lives. Whether you snowmobile once a year or ski every day of the season, having the basic knowledge one of their avalanche classes can teach you could help you save a life. At Montana Import Group we strongly believe that the Avalanche Center is a critical resource for the safety of the citizens of Gallatin Valley and the rest of southwest Montana. We cannot express enough the importance of supporting this organization.

Clare Cawthon

Community and Environmental Affairs Coordinator

**YELLOWSTONE CLUB**

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

April 8, 2013

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. Although the season has only been a moderately snowy winter there were certainly challenges such as the persistent mid winter buried surface hoar and NSF issues. It was extremely valuable to read, on your web page, your advisories and weather forecasts and to have up to the minute avalanche pictures, snow pits, and stability videos available.

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 and Guides 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

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)



**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)

January 9, 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



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 we also in house, have Ace Powder Guides one of the longest serving guide services in West Yellowstone and the only true legal back country guide service.

We are writing this letter to show our support for all that Doug Chabot and the Avalanche Center have done and continues to do.

Because of them our guides where able to become the first in the country to be level 2 certified for snowmobiling. Along with that they help provide information on a daily basis to not only us, but to a vast majority of the riders we have here in the area and in the Cook City Area.

In the 5 years that I have owned HiCountry, I have seen an unbelievable increase in the knowledge, understanding and willingness of clients and the general public on Avalanche Awareness. It is important to our sport to make sure that the information that is provided by the Avalanche Center and continues to be provided, for the enjoyment and safety of our sport.

Thank you

Chad Reichensperger, Owner  
HiCountry Snowmobile Rentals  
406-551-0796  
[info@hicountrysnowmobilerentals.com](mailto:info@hicountrysnowmobilerentals.com)



**National Outdoor Leadership School**

*Teton Valley*

1690 East 2000 South

Driggs, ID 83422

(208) 354-8443 Fax: (208) 354-8084

[www.nols.edu](http://www.nols.edu)

*The Leader In Wilderness Education*

April 2, 2013

Dear Eric and Doug,

I am writing on behalf of NOLS Teton Valley and all of the participants of the level two avalanche course in which you were a guest instructor. We all want to thank you Eric, and the Gallatin National Forest Avalanche Center for making the time to join us. As an educational organization teaching avalanche curriculum from novices up to professionals, it is very valuable for us to have someone like you as a guest instructor. We strive to remain current in our avalanche education here at NOLS and guest instructors like you Eric are crucial to this process. The expertise as a forecaster you bring, the work you are contributing industry-wide, and your experience as an avalanche educator greatly enhanced the learning experience. All the participants of the course felt it was a highlight to have an avalanche forecaster join the course.

Kind Regards,

Dan Verbeten  
Assistant Director  
NOLS Teton Valley

**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 8, 2013

Doug Chabot  
Director  
Gallatin National Forest Avalanche Center

***re: Thank You Letter for Avalanche 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 awareness instruction 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.

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. We believe each of the editors in attendance will publish stories highlighting the avalanche awareness class that your presenters made. 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@psl.com](mailto:EKlim@psl.com)



To whom it may concern,

My Name is Taylor DeTienne, I am the head guide for Ace Powder Guides located in West Yellowstone, Montana. Our guide service specializes in backcountry snowmobile trips in the Gallatin National Forest. This last season I did a total of 70 guided snowmobile trips and the Gallatin National Avalanche Center is a vital resource to our service. Each morning before the trip even begins I am sure to call the daily avalanche advisory hotline. We at Ace Powder Guides are level two avalanche certified, thanks also to the GNFAC. However, we cannot possibly keep up on changing avalanche conditions as expertly and consistently as Doug Chabot and the rest of the GNFAC crew does. Their knowledge, proficiency, and commitment to avalanche study on a daily basis is vital to the safety of our clients.

In addition, the level one class and free avalanche courses offered by the GNFAC here in West Yellowstone are very important to our community and the tourists that visit us each winter. Knowledge and training are essential in safely traveling the backcountry on snowmobiles. These classes have informed many locals and visitors alike. I am certain the important work of the Gallatin National Avalanche Center has kept more snowmobilers in West Yellowstone safer. We thank them for their hard work.

Taylor DeTienne

April 15, 2013

To Whom it May Concern,

This letter is in support of the Gallatin National Forest Avalanche Center (GNFAC).

As the Snow Safety Director of the **Moonlight Basin Ski Area Snow Safety Department**, I have found the GNFAC to be an invaluable asset to our information system. Below I have listed just a few of the critical points that the GNFAC offers to our snow safety program:

- 1) We utilize the GNFAC daily backcountry avalanche forecasts in our daily operational forecast on the ski hill, and we report our daily observations to the GNFAC.
- 2) We link our weather stations to the GNFAC website, and this information is critical in our remote weather and avalanche forecasts prior to any operational day.
- 3) The GNFAC has been integral in continuing education practices for our professional forecasters and ski patrollers through seminars and other educational events.
- 4) During high hazard events with weather, snowpack, or avalanche activity, the GNFAC is a very important resource for problem solving and ideas. I am able to contact the GNFAC forecasters anytime via email or telephone with questions.

The Moonlight Basin Snow Safety Department fully supports and appreciates all of the operations of the Gallatin National Forest Avalanche Center now and in the future.

If any further clarification is needed please contact me.

Sincerely,

Brad Carpenter

Moonlight Basin Snow Safety Director

(406) 551-5194

[bcarpenter@moonlightbasin.com](mailto:bcarpenter@moonlightbasin.com)





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

April 10, 2013

Hi Doug,

Please accept my appreciation on behalf of REI for the opportunity to partner with the Gallatin National Forest Avalanche Center on avalanche education and awareness in Bozeman. It has been rewarding to see the partnership grow steadily during the three years the REI store has been open.

Jay Pape, the education coordinator for the Friends of GNFAC, and I have worked closely during the 2012-2013 season to bring exceptional avalanche education to the public. Our small REI Community Room hosted approximately 100 class attendees this year. The total number was a bit less than last year, but our approach this season focused less on the broad topic of avalanche awareness and more on backcountry behaviors, decision-making, and companion rescue. For the second year, we hosted a women's avalanche awareness class that was full to capacity.

The Friends' inaugural Companion Rescue Clinic, a 6-hour free class, was launched at REI on January 10, 2013. The classroom session held at the store was attended by 18 students who learned about avalanche fundamentals and how to properly use their own avalanche rescue gear. The outdoor session was held two days later, and 13 hardy souls braved the -5° temperatures for the mock companion recovery, including single and multiple burial searches. The feedback we received on this hands-on training opportunity was extremely positive. In the future we hope to be able to facilitate paid classes through the REI website to provide a modest revenue stream to the Friends.

You and your staff are professional, experienced, and passionate about what you do, but the fact that you are out there *every day* is simply astounding. Thank you for all that you do for winter recreationists in the Bozeman area.

Best regards,

Teresa Larson  
Outdoor Programs & Outreach Market Coordinator  
REI Bozeman

cc: Jay Pape, Education Coordinator, Friends of GNFAC



TO GNFAC FOLKS!

\* \* \*  
 Your presentation was my favorite. Great job and thank so much. I hope to work with you guys in the future.  
 Safa Williams

THANKS FOR SPENDING TIME WITH OUR EMT COURSE! - ELLIE

Never thought probing could be so much fun!!! Thanks Britt

Thank you so much from a desert dweller!  
 -Bertie Lou  
 Definitely taught me way more than I knew before.  
 Thanks, Adam

Thanks so much for the opportunity to work and learn with you! Have a great holiday season!  
 -John

Thanks for the Great info! Jenie

Thank you for all the success  
 Britt

THANKYOU!  
 -HAILEY LEONARDSON;  
 Muchas Gracias!  
 Renee Freeman

What a fantastic class. Keep it safe!  
 -Jesse

Thanks for the great talk!  
 -Sue

What I will remember most is you don't get out anything thanks for everything it was a great presentation for L Olson

FROM AERIE BACKCOUNTRY MEDICINE W-EMT CLASS

Thank you so much for all the good information and for the reminder that safe practices lead to more play!



2/18/13

Dear Friends at the Gallatin National  
Forest Avalanche Center,

Enclosed please find a check  
for \$100... we pledged \$5 per lap  
for our son, Reed Watson. He  
informs us he reached his  
goal of 20 laps in the "King and  
Queen of the Ridge!"

Thank you for all you do  
to keep our son and daughter-in-law  
and others safe! We appreciate  
You!!

Reed Sr and Susan Watson

## *Support Emails*

Every winter you provide us with a useful tool in our toolbox for making decisions at Bridger Bowl, this year was certainly no exception. Thank you so much for the information you provide, the education our public needs, and just knowing we can call anytime and discuss conditions.

Pete Maleski  
Bridger Bowl Snow Safety Dir.

---

Hi folks,

Just wanted to say that I've enjoyed and appreciated your reports all winter! Thanks for all your efforts and detailed analysis. It is the topic of discussion in our household on a daily basis and now that it's winding down, I will miss it!

Until next season,  
Gratefully,  
Ann O.

Ps...loved your April Fools report! You had me believin' !  
Btw...we are the NH residents that come to MT each winter, take your class, and support your events while we're in town.

---

Good Morning!

I just wanted to say THANK YOU for all you do! You guys and this email are the reason we keep av safety at the forefront of our minds in the backcountry. I especially liked the humor in this last season, and in the last couple of days.

Thanks again!

---

I just wanted to take a moment of your time to say "THANKS" for keeping everyone safe throughout the season. I'm from Wisconsin but I do frequent the Gallatin area many times during snow season. Your daily advisories are highly professional and many times comical but deliver the needed information clearly and honestly. You folks are true professionals and are to be commended!

Regards;

Mark Larsen

---

Thanks, guys, for the best mountain weather and snow conditions reports around! I'm old (yeah) and mostly skiing well below runout zones, but it's still nice to know what to expect. Keep up the good work (but enjoy the off-season, too).

Anne Bank

---



Mark, Doug & Eric,

Thank you all for your time and the great efforts that you have all put into this wonderful site!  
Have a wonderful spring and summer!

Louise Austin

---

Doug, Eric and Mark:

Good season. I don't know how all the human factors play into this first fatality-free winter, but I'm sure that your communication skills played a large part in this.  
Thanks,

Don

---

Thanks gentlemen for another lovely season of e-mails. Good work. I look forward to next season, which will feel something like....today, in our snowy State.

AJS

---

Thanks for another year of good reporting. this being the first year in 12, that the sleds stayed in the trailer. Work, economy, whatever. It was good to live through your reports. Looking forward to next season, thanks again for the hard work.

Dan