
Sawtooth Avalanche Center

Annual Report 2014 - 2015



Photo: Jennifer Hulme



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Acknowledgements

The Avalanche Center could not operate in its current capacity without the generous support of our community. We receive half of our funding from the Friends of the SNFAC, who raise money through sponsorships, donations, and events. For a list of recent private donors, please visit:

<http://www.sawtoothavalanche.com/docs/2013SNFACNewsletter.pdf>

Advisory Sponsors:

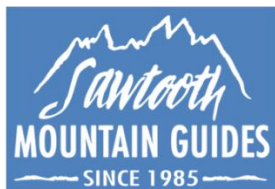


Dr. Glen Shapiro

Fundraising and support generously provided by:



The following organizations provided hundreds of observations to our professional observations database this season. Many thanks to:



From the Director

The mission of the Sawtooth Avalanche Center is to provide actionable weather and avalanche information and education to people recreating, working, and/or travelling in the mountains of south central Idaho. This year was marked by two new staff members, the warmest winter on record, building a new office, launching a Google Maps weather product, and expanded motorized and youth education efforts. I want to thank Brad and Lisa for keeping up with the workload; we accomplished a lot while learning new jobs. I also want to thank all of the individuals, businesses, and agencies that help the avalanche center provide valuable public safety information. The SAC wouldn't be what it is without the amazing community support we receive. I am already looking forward to next year and the challenges, powder snow, and avalanches to come.

Sincerely,

Scott Savage
Director, Sawtooth Avalanche Center

Season Highlights

- This winter was the warmest ever recorded in the Wood River Valley since record keeping began in 1938. For the December through February winter season, the average daily temperature was 27.4 degrees F. Normal is 19.1 degrees F. March temperatures averaged 38.8 degrees F, well above the longterm average of 27.9 degrees F.
- We issued our first General Snow and Weather Information product on November 13th. Daily Avalanche Advisories began on December 13th and continued through April 5th. In total, we produced 115 avalanche advisories this winter in addition to 10 General Snow and Weather Information updates.
- We issued 2 Avalanche Warnings and had 5 days with HIGH avalanche danger (compared to 8 Warnings and 14 days of HIGH danger last year).
- Out of 128 days in the field, we used skis 70% of the time, snowmobiles 20%, and hiked or used binoculars from the highway 10%. Local professional groups contributed ~250 observations while observations from the public totaled ~50.
- Staff gave 26 interviews to local, regional, and national news organizations.
- Volunteers' worked over 400 hours on SAC operations and Friends' of the SAC fundraising events.
- Working with Scott Havens of Snowbound Solutions, we created a new Google Maps based weather page that provides clean weather information and "one stop shopping" for our users accessing remote weather station data.
- Our advisory received over 160,000 views via the web and email subscription. Advisories were accessed an average of over 1350 times each day – a 3% jump over last season.
- Public outreach continues to be very successful through the local newspaper, radio, and social media. Our "Likes" on Facebook increased from 1529 to 1733 and we saw over 55,000 reads this season.
- Avalanche Center staff gave 34 educational presentations, evenly split between recreational and professional audiences. Our educational programs reached over 1800 individuals this season.
- The US Forest Service increased its annual funding to the SAC once again, demonstrating it's commitment to providing quality avalanche information and education.
- The Friends of the Avalanche Center provided funding for 2 of 3 staff positions, discretionary spending. The Avalanche Center would not exist without the Friends!!!



Staff

The Sawtooth Avalanche Center employs three full time employees during the winter season:

1. Avalanche Center Director: Permanent Federal Position, supported by the US Forest Service
2. Lead Forecaster: Permanent Federal Position; supported by the Friends of SAC and USFS
3. Forecaster: Seasonal Federal Position; supported by the Friends of SAC



Scott Savage returned for his third season at the avalanche center and first year as the Director. Prior to coming to the Sawtooth in 2012, Scott spent the better part of two decades as an avalanche forecaster and snow safety director at Big Sky Resort. He has frequently contributed articles to The Avalanche Review, written columns for regional Montana newspapers, presented at international conferences and regional professional development seminars, and is currently the secretary of the American Avalanche Association.



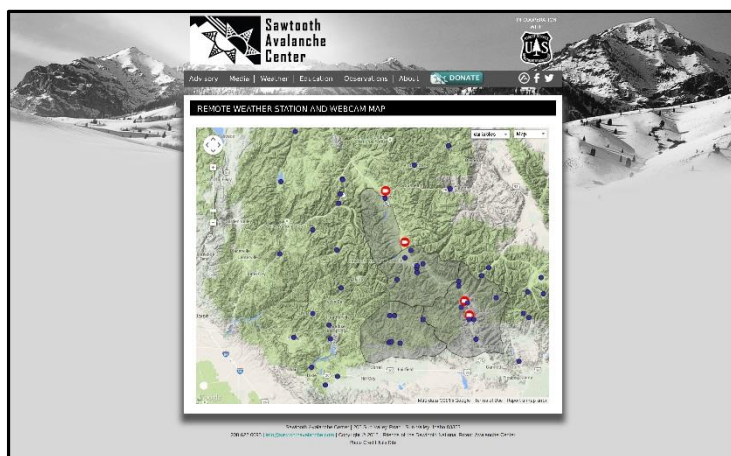
Brad Carpenter was hired as one of two new forecasters this year. Prior to coming to the Sawtooth, Brad patrolled at Moonlight Basin Ski Area where he eventually became the Snow Safety Director. He also spent the past 8 "summers" working in the Southern Hemisphere in New Zealand at Porters Ski Area. Brad served as their Snow Safety Director and also moonlights as a Public Avalanche Forecaster for the New Zealand Mountain Safety Council.



Lisa Portune was the other new forecaster this year. Prior to coming to the Sawtooth, Lisa worked as an avalanche forecaster and educator for the Chugach National Forest Avalanche Information Center in Girdwood, Alaska from 2005-2011. She also guided rock and glacier mountaineering in southcentral Alaska for several years and is a professional member of the American Avalanche Association.

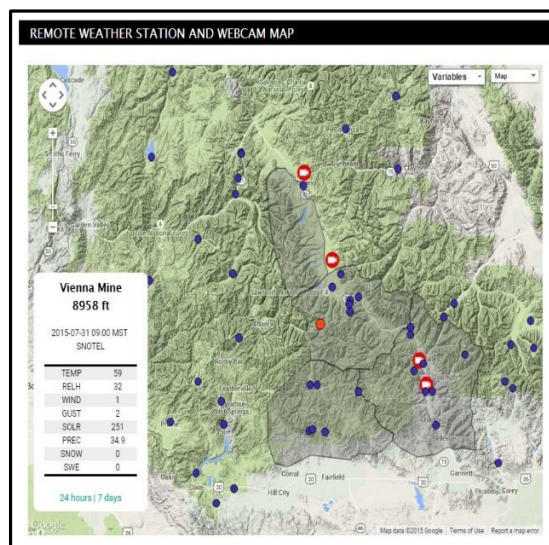
Innovation and Accomplishment

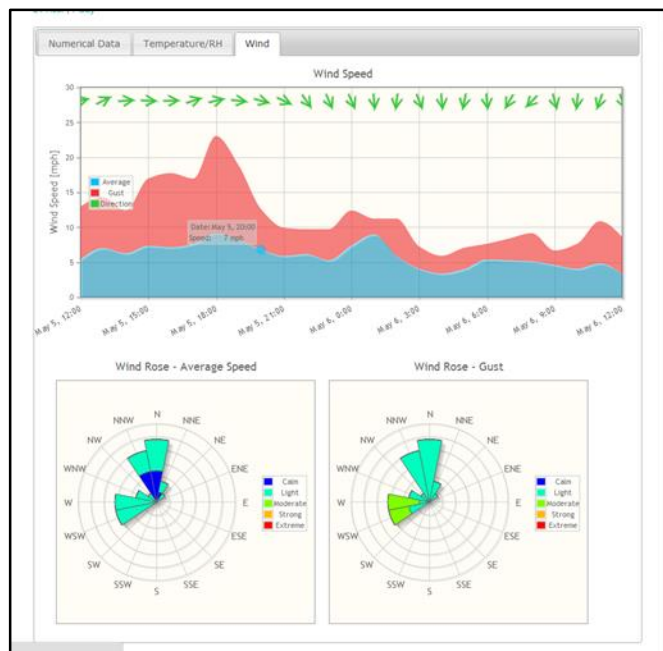
Public safety is the root of our mission at the avalanche center. We achieve this through daily avalanche advisories and weather products, time in the field, and education and outreach. We take pride in seeking out new, better, or more efficient ways to give backcountry recreationists better information to make good decisions in the mountains.



Working with Snowbound Solutions, we created a new Google Maps based interface that allows users to easily access remote weather station information.

Hovering over an individual weather station gives users a snapshot of pertinent weather data.





Clicking on stations gives users the option of viewing numerical data or clean, elegant graphs created by Scott Havens of Snowbound Solutions.

In addition to working on our website, the avalanche center:

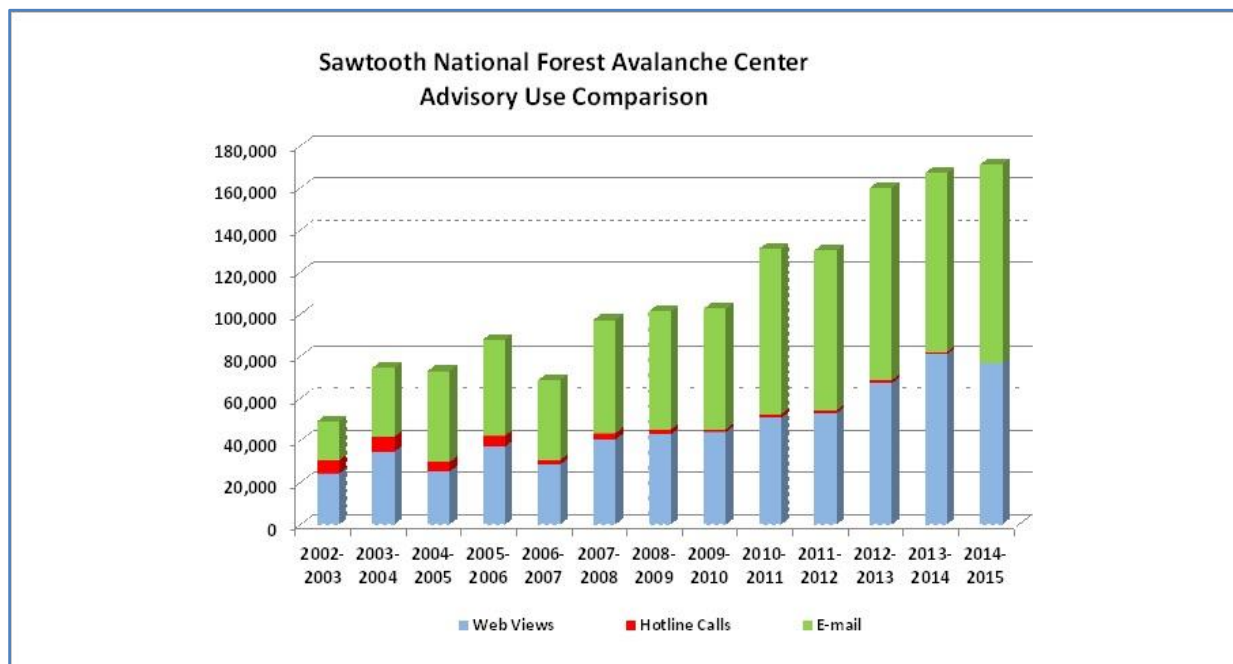
- Was awarded the Sawtooth National Forest's group safety award.
- Held Idaho's first motorized Level 1 Avalanche Course using the American Avalanche Association's guidelines.
- Pursued a partnership with ID Dept of Parks and Recreation, Boise State University, and Smiley Creek Lodge to build and maintain a hydrologic monitoring station in the Salmon River Headwaters. Data will be directly applicable to avalanche forecasting and applied snow and avalanche research.
- Partnered with Sun Valley to educate Sun Valley Ski Education Foundation youth athletes at Baldy.
- Constructed a new office space at the Sawtooth NF work center on Lewis Street in Ketchum.

Web Site and Advisory Use

We issued our first general snow and avalanche update on November 13 and began daily advisories on December 13, issuing 115 advisories this season (compared to 118 last season, and 135 two seasons ago).

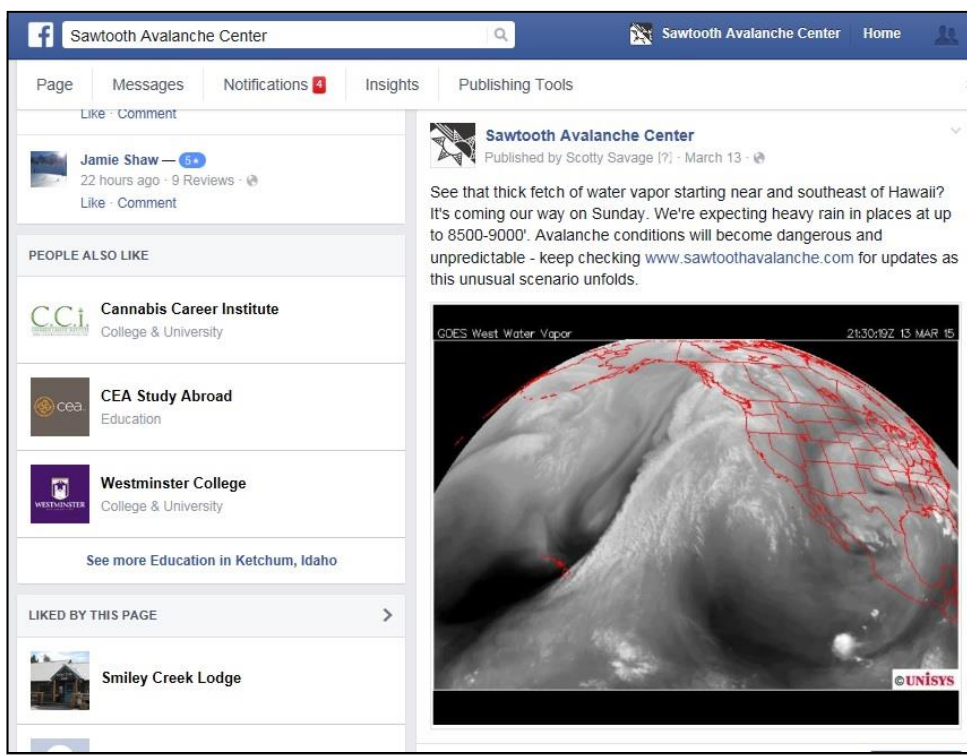
Despite the warm weather and less than stellar backcountry conditions for much of the year, total advisory usage is up 3% from last season.

The number of email advisory subscribers increased from 667 last year to 748 this season.



Social Media & Outreach

We continued to use web-based social media to communicate avalanche conditions and event information. We now have 1735 followers on Facebook (up 13% from last year) and our posts were read more than 55,000 times this year.



Facebook proves to be a successful way to communicate avalanche information. This year we continued to strategically use Facebook as a means to rapidly inform the public of changing conditions. Our posts received more than 55,000 reads. Next year we plan to explore the use of Twitter and Instagram to expand our social media outreach.



YouTube continues to be a successful educational tool; this season we posted 13 videos that were viewed 2,118 times. Our videos have been viewed 57,000 times since 2007.

Thanks to the generous support of local Dr. Glen Shapiro, KECH and KDPI Radio once again broadcast conditions during periods of heightened avalanche danger and provided daily 60 second spots during the morning commute hour. This year we issued over 100 morning avalanche forecasts.



Operations

Winter began on schedule, bringing good early season conditions through Christmas. With new staff and steady snowfall, getting weather stations up and running, a steady stream of education events, and framing/taping/drywalling/painting/wiring the new office space, things were hopping at the center.



We logged 128 days in the field; 70% of the time was spent on skis, 20% on snowmobiles, and 10% either hiking or with binoculars on the highway. We received just over 300 total observations; approximately 5% of these were from motorized users, a slight increase over past years. Local ski guides and snow safety workers contributed 250 observations to our professional observations database. A big thank-you to the guides at Sawtooth Mountain Guides, Sun Valley Heli Ski, and Sun Valley Trekking, and the ski patrols at Sun Valley - Bald Mountain and Soldier Mountain ski areas.

Educational Programs

Our staff conducted 34 education presentations, evenly split between professional and recreational audiences.

We held two Avalanche Awareness and Basics classes in December and January; 82 people attended the classroom sessions and 43 attended the field sessions. We hosted several Basic Beacon and Rescue clinics at the Baker Creek Rescue Training Park and at the Smiley Creek Lodge.

We also hosted a Professional Development Seminar on “Lessons Learned” in April; the evening session at the SVSEF locker room in Warm Springs was well-attended by approximately 50 local avalanche professionals. Our keynote speakers included Bill Williamson (Mountain Manager at Schweitzer Mountain Resort and decades of experience in active mitigation work throughout the western US), Liam Fitzgerald (40 year career in ski area and highway forecasting at Squaw Valley, Snowbird, and Utah DOT), Butch Harper (longtime USFS Snow Ranger in Ketchum and the driving force behind what is now the Sawtooth Avalanche Center), Kirk Bachman (founder of Sawtooth Mountain Guides with over 30 years experience guiding and educating), Mark Baumgardner (longtime owner and 30 years guiding at Sun Valley Heli Ski). Simon Trautman (former SAC Forecaster and Director) delivered a talk on the grey area between work and play.

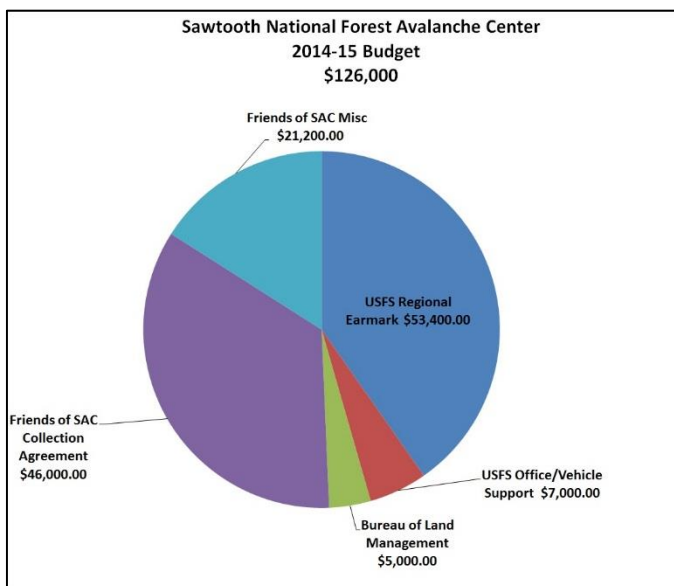
SAC staff instructed at Level 2, Level 3, and Instructor training avalanche courses. Scott presented at the International Snow Science Workshop (ISSW) in Banff this fall as well as the Utah Snow and Avalanche Workshop (USAW), reaching over 1300 people at these events.

All told, our education program reached over 1800 people this season.

Funding & Partnerships

The Avalanche Center relies on a variety of partnerships to fund its operation. Approximately half of the Center's budget comes from the Forest Service. Despite shrinking federal budgets, Region 4 (of the USFS) continues to increase our funding; a sign of their continuing commitment to public safety. The Ketchum Ranger District provides vehicles, office support, and maintenance facilities.

The Bureau of Land Management contributes \$5000 annually.



The Sawtooth Avalanche Center is an example of a successful public-private partnership.

The Friends of the Sawtooth Avalanche Center (501c3) are a critical partner in our mission; the center would not exist without their support. The Friends contribution covers salaries for 2 of our 3 forecasting positions and provides discretionary funds that can be used for safety equipment, field equipment, website updates, educational supplies, etc. Over half of our budget this season came from the Friends.

The Friends of the Sawtooth Avalanche Center raise funds through sponsorship, private donations, grants and fundraising events. The Friends success is indicative of strong community buy-in and support of the Avalanche Center mission.

Snowpack Summary

As in most of the western US this winter, central Idaho was exceptionally warm. Luckily for us, we started the season strong with consistent snowfall through the end of December. The generally warm temperatures prevented the growth of facets. We issued our first avalanche warning of the season on December 21st when 1-4 feet of new snow fell throughout the advisory area.

January was generally characterized by consistent small storms and abnormally warm temperatures. With the continued lack of widespread persistent weak layers, wind slabs and wet loose avalanches were the month's primary concerns. We typically see over 50 days a year with persistent slab avalanche concerns – our advisories listed this avalanche problem only 12 times all year. In fact, January 5th was the last day "Persistent Slab" was used as an avalanche problem in our advisories. Very unusual for these mountains! "Wet Loose" was actually used as a primary or secondary avalanche problem 15 days of the month. We had a decent avalanche cycle in the Sawtooths the third week of January when rain fell to 8500' and over 2" SWE fell in 48 hours. Over 30 large natural avalanches were observed in the alpine, some with crowns spanning hundreds of feet.

A series of back-to-back storms the first 10 days of February delivered 4-5 feet of snow to the Sawtooths and western Smokys and 2-3 feet to the southern zones. The party peaked on February 7th when we issued our second and last avalanche warning of the season for the Sawtooths, Smoky/Boulders, and Soldiers. Gale force winds, horizontal rain at the lower elevations, and heavy snow up high felt more like coastal Alaska than central Idaho. Ketchum received 1.3 inches of rain that day, flooding downtown and causing several wet slides that covered half of Warm Springs Road. The Boulder Mountain Tour Nordic race was cancelled for the first time in the event's history due to the wild weather. There was one close call that day as a group of snowmobilers triggered several avalanches in the Baker Creek drainage of the Smoky Mountains.



The hose pretty much turned off for the rest of February and all of March. Although we had only seven days of measurable snowfall during that time, unusually warm and dry weather created an amazing mid-winter run of low to moderate avalanche danger, corn skiing on solar aspects, and dry recycled powder on north-facing slopes. Our biggest concern, once again, was wet loose avalanches.

For the season, total snowfall ranged from slightly below average in western, upper elevation locations to below 50% of average at lower elevations.

Next Season's Goals

- Construct new remote weather stations in the Sawtooth and Smoky Mountains.
- Continue to make inroads with, and increase outreach to, the motorized community.
- Double the amount of observations we receive from the public by improving our public observation platform and database.
- Continue working with the SVSEF program to educate athletes and parents.
- Continue to partner with Boise State University to advance research in applied snow and avalanche science.



Concentrate on education and outreach to motorized users. We'll continue running motorized Level 1 course in the future and working on our riding skills!