



In Partnership with the US Forest Service
SierraAvalancheCenter.org

2015-2016 Annual Report

The winter of 2015 – 2016 marked another successful operating season. The Sierra Avalanche Center continues to function as a partnership between the Tahoe National Forest and a volunteer Board of Directors with 501(c)(3) not for profit organization status. This relationship continues to strengthen both operationally and financially while continuing to gain community support.

Some of the accomplishments from this past season include:

- The Board of Directors successfully raised \$301,316 to support the Sierra Avalanche Center's operating budget.
- The Tahoe National Forest provided \$6,847 in infrastructure support.
- The USDA Forest Service provided \$25,500 for forecaster salaries in the form of \$17,000 from Region 5 and \$8,500 from Region 4.
- The SAC website was accessed over 726,510 times by over 144,872 unique visitors from November 1st through April 17th. Website traffic increased in page views by 151% and unique visitors by 127%.
- The SAC website mobile view was further improved.
- The Sierra Avalanche Center issued 121 daily avalanche advisories and 1 early season snow condition report.
- The forecasters continued to strengthen their working relationship with the National Weather Service in Reno, local ski patrols, and other professional organizations.
- The Board of Directors put on a fifth very successful and well attended Professional Development Seminar in memory of Bill Foster.
- SAC continued Winter OHV Snowmobile avalanche education courses providing motorized users with classroom and field course education.

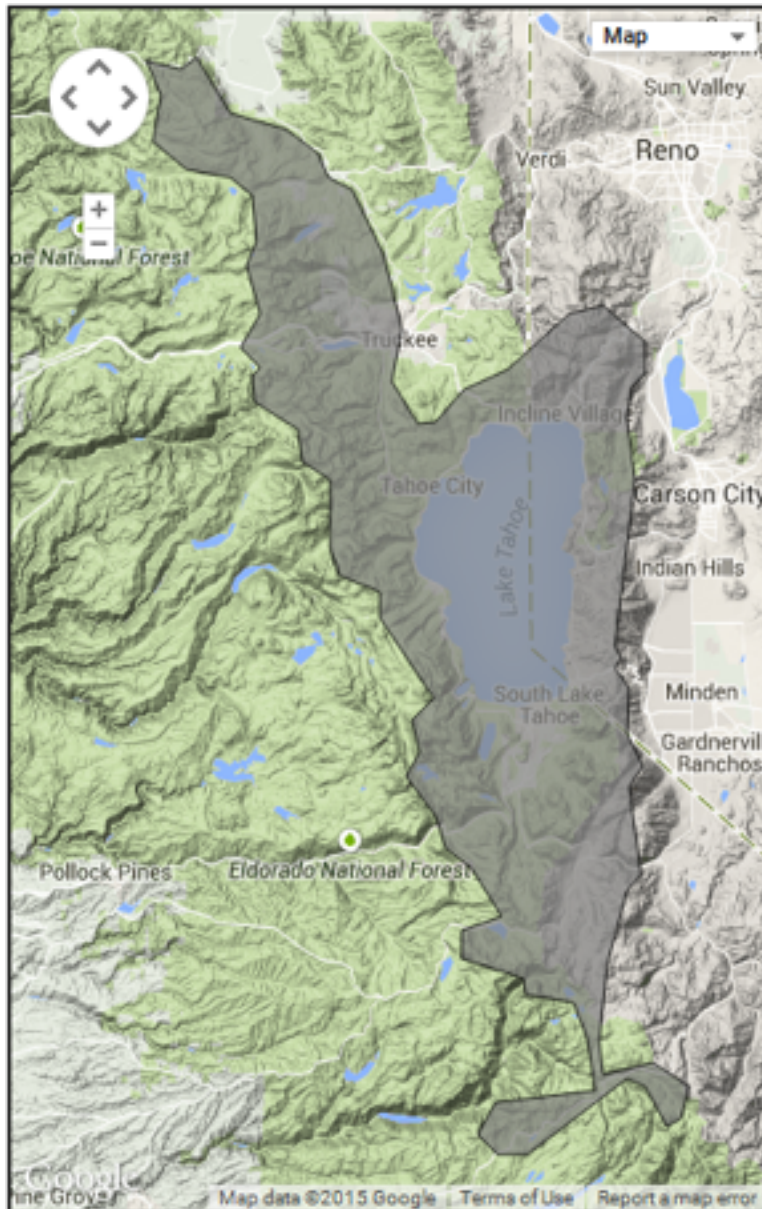
We would like to extend our gratitude to everyone who has put forth time and effort to support the Sierra Avalanche Center.

Brandon Schwartz, Andy Anderson, Steve Reynaud
Forecasters
Sierra Avalanche Center
Tahoe National Forest

Advisory Area

The advisory area of the Sierra Avalanche Center covers approximately 1,500 square miles of the Central Sierra Nevada Mountains of California and Nevada. The advisory area is bound by Hwy 49, Yuba Pass, on the north and Hwy 4, Ebbetts Pass, on the south. The advisory covers the avalanche terrain along the Sierra Crest and extends to the eastern slope of the Sierra Nevada. Two inroads to the west side of the Sierra Crest exist within the advisory area at Carson Pass and at Ebbetts Pass, in order to include the backcountry terrain surrounding the established boundaries of the Kirkwood and Bear Valley ski areas.

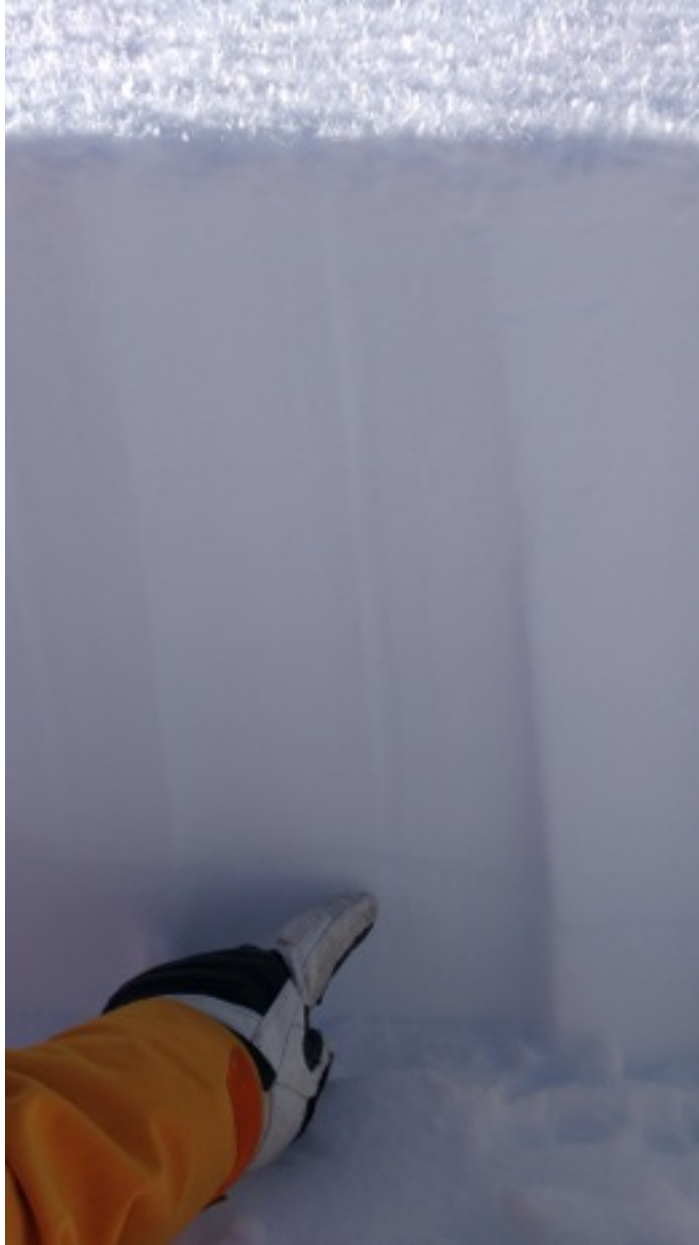
Map of the Sierra Avalanche Center forecast area.



Advisories

From November 14th through April 17th, the Sierra Avalanche Center issued 121 daily avalanche advisories. The number of advisories issued for each danger level was: 29 Low, 72 Moderate, 19 Considerable, 1 High, and 0 Extreme. Additionally, one early season snow condition reports was posted during early November.

Advisories were available 24 hours a day, 7 seven days per week on the internet and by phone. The website experienced over 726,510 page loads from 144,872 users this winter. During the forecasting season from November 14th to April 17th, the website was viewed an average of 2,350 times per day. Website traffic compared to the same time period last season increased in page views by 151% and unique visitors by 127%. An online archive of advisories can be found at: <http://www.sierraavalanchecenter.org/archive>.



Buried facets Jan. 8, 2016

Field Observations

The avalanche center's formal program of avalanche, snowpack, and weather information experienced exciting personnel additions this season. Steve Reynaud was hired as a third Tahoe National Forest/SAC forecaster. David Reichel was hired as a second professional field observer for the southern portion of the forecast area. The SAC website continued to allow public and professional users to include video, photos, and maps in their observations

Professional Guide services Alpenglow guides, Alpine Skills International, Donner Summit Avalanche Seminars, Mountain Adventures Seminars, and Tahoe Mountain School shared their field observations with the avalanche center. The Central Sierra Snow Laboratory, Kirkwood, Mt. Rose, Squaw Valley, and Sugar Bowl also submitted observations to the avalanche center. This information, combined with observations submitted by the general public, was an important supplement to the information gathered by USFS forecasters Brandon Schwartz, Andy Anderson, and Steve Reynaud, as well as SAC professional observers Travis Feist and David Reichel.

The total number of backcountry snowpack and avalanche observations collected by the TNF/SAC forecasters and pro observers totaled 285 this past season. These were supplemented by an additional 57 backcountry snowpack and avalanche observations submitted by the local guide services and 92 observations from the general public.

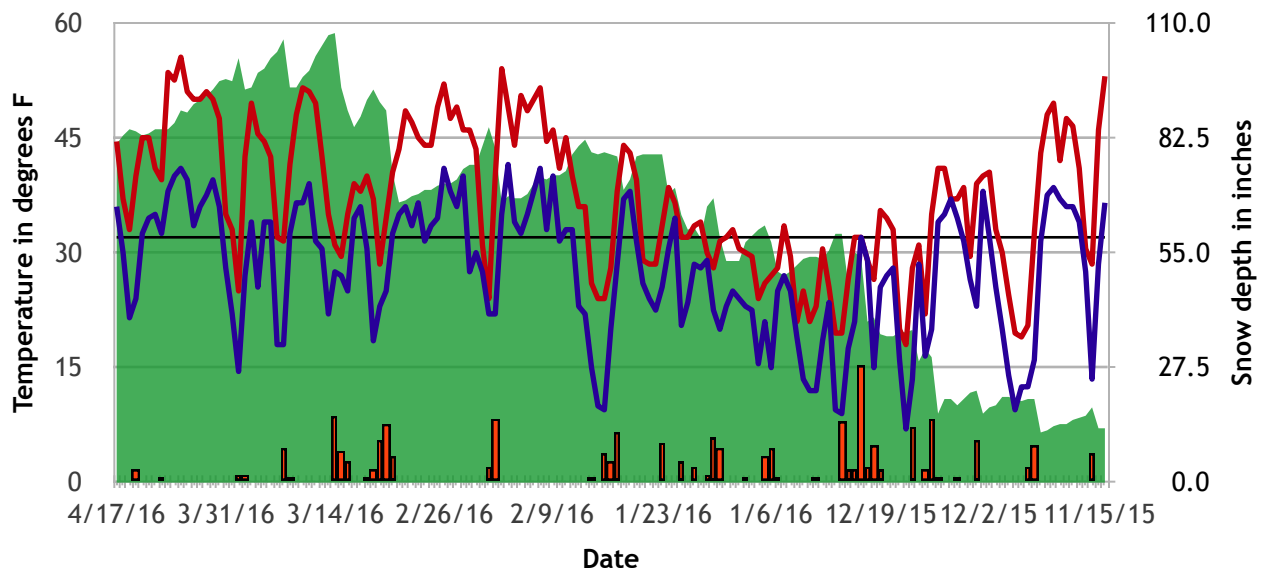


Bear Valley area backcountry avalanche Jan. 13, 2016

Winter Snowpack Summary 2015/2016

The snowpack started accumulating in November with a few cold light storms. An early season wind slab cycle caught a backcountry traveler on 11/11. Moving into December the weather stayed cold and brought numerous storms and over 100 inches of cold snow across the region. It also started a trend for the winter and during one of the cold storms a layer of surface hoar was buried. This layer remained reactive during that storm but was wiped from the forecast area by the end of the storm. The next storm represented the largest storm of the season and brought more than 60 inches of new snow to the region between 12/18 and 12/26. Cold weather persisted into January and more surface hoar layers formed. Many of January's storms came in cold and without much wind or accumulation and slowly buried 3 more surface hoar layers. These layers contributed to 7 of the 14 avalanche incidents of the winter as backcountry users tried to manage persistent surface hoar weaknesses that are not common in the Sierra. Finally in the later part of January after these persistent weak layers had either failed and resulted in avalanches or had assimilated into the snowpack, a warming trend started to help the snowpack transition toward a regime more common to the Sierra. A large loose wet avalanche cycle occurred at the beginning of February as temperatures spiked after a cold snow storm that bridged the last days of January and first days of February. This warming trend heralded a dry month with only 2 more storms and a meager 28 inches of snow. Most of this snowfall occurred during a mid-month storm and several wind slab and storm slab avalanches including a wind slab that hit the Alpine Meadows Road occurred during that storm. March brought a return to snowier weather with warmer sunny days between the storms. This pattern led to wind slabs and loose wet avalanches galore. By April spring weather had a firm grip on the region with most of the storms coming in warm with rain up to higher elevations and loose wet avalanches representing the most prominent problems. Overall on April 1st the snowpack was at 88% of average with the northern end of the forecast area slightly above that and the southern end of the forecast area below that. By April 18th the snowpack had already dropped to 69% of average. In addition most of the remote sensors above 7500 ft. reported snowpack percentages above average while those below 7500 ft. reported percentages below average. This is despite the overall above average precipitation for the winter, indicating that more of this precipitation fell as rain at lower elevations.

Average Weather Observations from along the Sierra Crest
between 8200 ft. and 8800 ft.



■ Total Snow Depth ■ 24 hr Snow Accumulation — 6am Temperature
— 24 hr Maximum Temperature — 32 Degrees F.

Summary of snowfall data 2015/2016

Total Snowfall	Number of Storms (consecutive days of snow With more than 1 inch)	Dates of Storms	Storm Snowfall	Dates of Avalanche Cycles	Reported People Caught
November					
20.1"	2			11/11/2016 (Wind Slab)	1
		11/16	7		
		11/26-11/28	13		
December					
Total Snowfall	Number of Storms	Dates of Storms	Storm Snowfall	Dates of Avalanche Cycles	Reported burials
110.4"	6	12/4	10.0		
		12/6-12/7	1.1		
		12/10-12/12	19.5		
		12/13-12/15	14.1	12/13-12/15 (Wind Slab, Persistent Slab)	0
		12/18-12/26	64.2	12/20-12/26 (Wind Slab)	0
		12/28-12/29	1.5		
January					
Total Snowfall	Number of Storms	Dates of Storms	Storm Snowfall	Dates of Avalanche Cycles	Reported burials
75.9"	6	1/5-1/7	16.0	12/31-1/4 (Wind Slab, Persistent Slab)	2
		1/8-1/11	1.6	1/5-1/18 (Wind Slab, Persistent Slab)	7
		1/13-1/16	21.5		
		1/17-1/18	4.5	1/19 (Wind Slab, Persistent)	0
		1/20	5.0		
		1/22-1/25	10.2	1/23-1/26 (Wind Slab)	0
February					
Total Snowfall	Number of Storms	Dates of Storms	Storm Snowfall	Dates of Avalanche Cycles	Reported burials
27.5"	3	1/30-2/1	24.0	1/29-2/3 (Wind Slab, Loose)	0
		2/3-2/4	1.5	2/6 (Loose Wet, Cornice)	0
		2/18-2/20	19.0	2/18-2/19 (Wind Slab, Storm)	2
March					
Total Snowfall	Number of Storms	Dates of Storms	Storm Snowfall	Dates of Avalanche Cycles	Reported burials
77.3"	4	3/5-3/10	34.1	3/5-3/7 (Storm Slab, Wind Slab, Loose Wet)	0
		3/11-3/14	29.0	3/12-3/17 (Wind Slab, Loose Wet)	2
		3/21-3/23	9.6	3/22-3/23 (Wind Slab)	0
		3/28-3/31	4.6	3/27-3/31 (Loose Wet)	0
April					
Total Snowfall	Number of Storms	Dates of Storms	Storm Snowfall	Dates of Avalanche Cycles	Reported burials
5.5"	2			4/3-4/4 (Loose Wet)	0
		4/10-4/12	2.0	4/9-4/11 (Loose Wet, Wet)	0
		4/14-4/15	3.5	4/15 (Loose Wet)	0
# of days with lows above 32		68	44%	Total Burials	13
Total Snowfall		316.7			
# of snowy days		73	47%		
Average amount of snow / day			4.3		

Sierra Avalanche Center Non Profit Organization

Avalanche Awareness and Education

The non profit arm of SAC continued it's focus on public outreach and avalanche education during the winter of 2016 by focusing it's effort on the Know Before You Go platform of avalanche awareness. 63 presentations were made to 4,256 ppl focusing on ski teams, middle and high schools, coaches of Far West, parents and the general public through outdoor shops and ski clubs. This program more than doubled in size this season and has been widely received with enthusiasm across the region as interest in backcountry access and winter sports continues to rise. An increase of 129% in viewers this season with 39% being first time visitors insures that SAC will continue to expand this program of basic avalanche safety to bring these users into the fold and educate them on the need for skills, equipment and the daily forecast before entering the backcountry. SAC continued to target the winter OHV market with Know Before You Go messaging in retail shops, online and with radio and TV Public Service Announcements. Presentations were made at OHV dealerships across the region and two avalanche awareness education courses specific to OHV users were taught with a classroom session and field day to bring much needed information and skills to the motorized community.

Forecast Team Expansion

2016 was the season that SAC funded the expansion of the forecast team with the Tahoe National Forest (TNF) hiring Steve Reynaud as a third full time forecaster. This has been a goal for many years and with lots of hard work and cooperation with our partner the TNF was able to bring in another employee to share the 7 day a week forecast responsibility and improve internal operations to meet the demands of field observations, travel logistics and balance of the work load over our 1500 square miles of forecast area.

Board of Directors ~ Executive Committee

Holly Yocum ~ President , Mark Bunge ~ Vice President, Dustin Evans ~ Treasurer, Bob Moore ~ Secretary

Directors ~ Randall Osterhuber, Jonathon Laine, Eric Petlock, Dave Fiore, Todd Offenbacher, Jason Oelkers, Zach Tolby, James Brown, David Bunker

Advisory Board ~ Larry Heywood, Cameron Bordner (legal Advisor), John Swanson, Debbi Brobak, Jeremy Jacobson, Justin Broglio

Staff ~ Forecasters - Andy Anderson, Brandon Schwartz, and Steve Reynaud

Professional Observers - Travis Feist and David Reichel

Executive Director - Don Triplat

Volunteer Intern - Dylan Hagan, Sierra Nevada College

Special Thanks

To all the volunteer board members and advisory board members who put their personal time into managing and shaping the center and directing the activities to keep the avalanche center going. Without their help and time this organization would not exist. Our members and sponsors have all provided financial support that is the backbone maintaining the existence of SAC. Our annual operations are funded heavily by these people and organizations and a special note of thanks is due to them for making it possible for us to continue daily operations and to expand our forecast team and educational programs to reach the folks that need it.

Please support these companies and if you have donated to SAC take a moment to reflect on the importance of your contribution and how it impacts your community of winter recreation enthusiasts.

Don Triplat ~ Executive Director

Sponsors

SAC values all of the partnerships we have and send out a heart felt 'Thank You' to everyone who has helped us to continue providing top notch information through our daily forecasts and supported the growth and development of the center over the last 10 years. It's with the support of these companies that we are able to provide top notch mountain weather and snow advisory information.

Summit - Sponsors who donated more than \$10,000 to SAC



Extreme - Sponsors who donated more than \$3000-\$9,999 to SAC



High - Sponsors who donated between \$1000 and \$2999 to SAC



Considerable - Sponsors who donated between \$500 and \$999 to SAC



Moderate - Sponsors who donated between \$250 and \$499 to SAC

Travel Ticker



FOR THE PLANET

