



## 2007-2008 Annual Report

The winter of 2007 – 2008 marked another year of growth and success. The Sierra Avalanche Center continues to function as a 501(c)(3) not for profit organization. It is a partnership between the Tahoe National Forest and a volunteer Board of Directors. From December through April, the avalanche center issued daily avalanche advisories for a season that included one of the wettest Januarys and one of the driest Marches on record.

Some of the accomplishments from the past season include:

- The Board of Directors successfully raised \$67,315 to support the Sierra Avalanche Center's operating budget.
- The Tahoe National Forest provided \$12,575 in infrastructure support.
- The advisory web page was accessed 137,179 times from September 1<sup>st</sup> through April 21<sup>st</sup>.
- The Sierra Avalanche Center issued 123 avalanche advisories and 4 early season condition reports.
- The size of the forecast area was reduced and a new and improved map was posted on the website's home page.
- The Sierra Avalanche Center provided outreach education to the North Tahoe Snow Travelers and at the Steep and Deep Avalanche Awareness clinic at Squaw Valley.
- The forecasters continued to strengthen their working relationship with the National Weather Service in Reno, NV in order to provide better mountain weather information for the creation of the avalanche advisories.
- The Board of Directors obtained sponsorship for the Sierra Avalanche Center from Thin Air Motorsports and Bombardier Recreational Products.

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

Brandon Schwartz and Andy Anderson  
Forecasters  
Sierra Avalanche Center  
Tahoe National Forest

## Board of Directors

The Sierra Avalanche Center operates as a partnership between the Tahoe National Forest and a Board of Directors with 501(3)(c) not-for-profit status. The mission of the Sierra Avalanche Center includes disseminating current snowpack stability information to the general public; providing educational information, knowledge, and understanding of avalanches to recreational users and groups; and facilitating communication in the region to reduce the impact of avalanches on recreation, industry, and transportation.

The Board of Directors includes Larry Heywood (CEO), Justin Broglio (Secretary), Randall Osterhuber (CFO), Dave Beck, Cameron Bordner, Jeremy Jacobson, Chip Morill, Dave Paradysz, John Swanson, and Don Triplat. The Advisory Committee to the Board of Directors includes: Debby Broback, Phil Caterino, Hank Hennessy, Jen Lees, and Jason Oelkers.

The Board of Directors is the financial backbone of the Sierra Avalanche Center. Through soliciting donations from the public and organizing/marketing fund raising events, they are the major source of funding for the Sierra Avalanche Center. Money raised by the Board of Directors covers approximately 84% of the operational costs for the Avalanche Center. Through a collection agreement with the Tahoe National Forest, these funds pay for forecaster salaries and the costs of professional level continuing education. Additionally, the Board of Directors provides compensation for contracted professional observers and some equipment needs for the forecasters.

For a more detailed summary of the financial numbers from this season, please see the financial summary section of this document.



Secretary Justin Broglio examining a SAC sponsorship snowmobile for factory defects.

## **Sierra Avalanche Center –Financial Summary**

The Board of Directors successfully raised approximately 84% of this season's operating funds from the local community. The remaining 16% of this year's operating funds came from the Tahoe National Forest in the form of infrastructure support.

The Board of Directors of the Sierra Avalanche Center raised funds for the season through several different avenues including private donations, online donations, resort donations for the SAC Ski/Ride Days, and advertising.

The "Ski Days" serve as primary fund raising events for the Sierra Avalanche Center. The Board of Directors used their connections in the Tahoe ski industry to partner with seven ski resorts for these Ski Days. Each resort donated between 250 and 500 lift tickets for a specific day. The Sierra Avalanche Center set a fixed public donation amount necessary to receive a lift ticket for the Ski Day as a thank you gift.

To facilitate the distribution of these tickets to the donors, SnowBomb.com donated its services as an e-lift-ticket provider. The public simply donated to the Sierra Avalanche Center by selecting the specific ski day that he/she wanted to attend by clicking the appropriate icon on the SnowBomb.com website. After the transaction was confirmed, he/she was able to print an e-lift-ticket from the website. The Sierra Avalanche Center kept 95% of the donations. 5% was kept by SnowBomb.com to cover their credit card processing fees.

The "Support the SAC: Ski/ Ride Day" at each resort featured Question & Answer sessions with professional avalanche forecasters and a Meet & Greet of the volunteer SAC Board of Directors. Skiers and snowboarders could inquire about avalanche conditions and anything else related to backcountry travel and recreation.

Backcountry ski gear was donated by several companies and used as raffle prizes at each SAC Ski/Ride Day throughout the season. SAC sold raffle tickets for \$2 each throughout the day. All of the proceeds from the raffles went directly to support the Sierra Avalanche Center. In the afternoon, skiers and snowboarders gathered around anxiously as the lucky raffle winners claimed new backcountry gear.

Several local clubs, organizations, and foundations made cash donations to the avalanche center. Mountain Adventure Seminars, North Tahoe Snow Travelers, Stanford Alpine Club, and Tahoe Nordic Search and Rescue were significant contributors. Cash donations from these groups totaled \$1,550.

The SAC encouraged donations from the general public via the website, by mail, or in person. The SAC accepted cash, checks, and donations via credit card or electronic transfers through a PayPal donation link on our website. Through these avenues, the SAC received 83 individual donations from the general public that totaled over \$7000. The average donation amount was \$83.93.

On a smaller scale, the SAC raised awareness for each of the SAC Ski/Ride Days and the possibility of online donations through donated advertising received from local newspaper stories, radio and TV public service announcements, local utility bill mailers, and through several online communities (i.e. – forums and discount websites).

## **Ski Resorts – SAC Ski/Ride Days Fundraisers – Details**

- Alpine Meadows Ski Resort
  - Donated 250 adult all day lift tickets to be used by the Sierra Avalanche Center as fundraising incentives.
  - Funds raised - \$8,246.00
- Heavenly Mountain Resort
  - Donated 200 adult all day lift tickets to be used by the Sierra Avalanche Center as fundraising incentives.
  - Funds raised - \$7,823.25
- Kirkwood Mountain Resort
  - Donated 300 adult all day lift tickets to be used by the Sierra Avalanche Center as fundraising incentives.
  - Funds raised - \$7,089.60
- Homewood Mountain Resort
  - Donated 250 adult all day lift tickets to be used by the Sierra Avalanche Center as fundraising incentives.
  - Funds raised - \$6,783.00
- Northstar-at-Tahoe
  - Donated 300 adult all day lift tickets to be used by the Sierra Avalanche Center as fundraising incentives.
  - Funds raised - \$11,136.00
- Mt. Rose–Ski Tahoe
  - Donated 500 adult all day lift tickets to be used by the Sierra Avalanche Center as fundraising incentives.
  - Funds raised - \$883.50
- Sugar Bowl Resort
  - Donated 500 adult all day lift tickets to be used by the Sierra Avalanche Center as fundraising incentives.
  - Funds raised - \$9,642.50

## **Fundraising partners and the services they provided:**

### **SnowBomb.com**

- Primary e-ticketing partner. Donated their service to facilitate online lift ticket distribution for the SAC Ski/Ride Days. Through these services the Sierra Avalanche Center raised \$51,603.85

### **Heavenly Professional Ski Patrol**

- Cash donation totaling \$3,000 from their annual fundraising party.

### **Panoptx**

- Primary eyewear sponsor of the Sierra Avalanche Center. Provided \$3,000 worth of product use by the avalanche center and for giveaway during SAC Ski/Ride Day fundraisers. Also has a link to their website on the SAC website. If the public purchases sunglasses from Panoptx through this link, Panoptx donates 50% of the purchase price to SAC.

### **Porters Tahoe**

- Cash donation of \$2,000. Product donation of \$1,000 for giveaway during SAC Ski/Ride Day fundraisers.

#### Thin Air Motorsports and Bombardier Recreational Products

- Full season loan of two Ski-Doo Summit Everest 800R 154” snowmobiles. Donated all cost of service labor incurred during operating season. Estimated product and services value \$22,000.

#### Truckee Community Foundation

- Cash donation totaling \$2,000.

#### Truckee Rotary Foundation

- Cash donation totaling \$1,000.

#### Backcountry Access

- Product sponsorship. Donated product for giveaway during SAC Ski/Ride Day fundraisers. Estimated product value \$1,250

#### Black Diamond

- Product sponsorship. Donated product for giveaway during SAC Ski/Ride Day fundraisers. Estimated product value \$500

#### The Real Graphic Source

- Product sponsorship. Donated printing services to advertise SAC Ski/Ride Day fundraisers. Estimated product value \$500

#### Pacific Crest Snowcats

- Product sponsorship. Donated product for giveaway during SAC Ski/Ride Day fundraisers. Estimated product value \$600

#### Patagonia

- Product sponsorship. Donated product for giveaway during SAC Ski/Ride Day fundraisers. Estimated product value \$500

#### Voile-USA

- Product sponsorship. Donated product for giveaway during SAC Ski/Ride Day fundraisers. Estimated product value \$725



Forecaster Andy Anderson observes his remote trigger handy work. Mt. Judah, CA

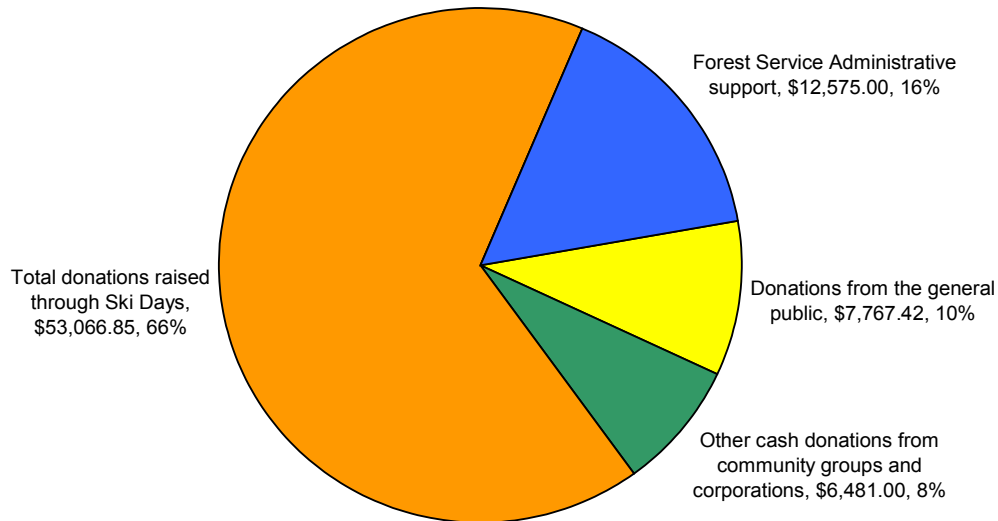
**Sierra Avalanche Center Total Income for the 2007-2008 winter season**

		% of total
Forest Service Admin Support	<b>\$12,575.00</b>	15.74%
Private donations via mail	\$1,547.00	1.94%
Private donations via PayPal	\$6,220.42	7.79%
Mt Rose	\$883.50	1.11%
Kirkwood Ski Day	\$7,089.60	8.87%
Homewood Ski Day	\$6,783.00	8.49%
Sugarbowl Ski Day	\$9,642.50	12.07%
Alpine Ski Day	\$8,246.00	10.32%
Northstar	\$11,136.00	13.94%
Heavenly Ski Day	\$7,823.25	9.79%
Ski Day raffles	\$1,463.00	1.83%
Truckee Rotary	\$1,500.00	1.88%
Truckee Community Foundation	\$2,000.00	2.50%
Porters Tahoe	\$2,000.00	2.50%
Heavenly Pro Patrol Fund Raiser	\$3,000.00	3.76%

	\$79,890.	
<b>Total amount received for the 2007-2008 season</b>	27	
Donations from the general public	\$7,767.42	9.72%
Other cash donations from community groups and corporations	\$6,481.00	8.11%
Total donations raised through Ski Days	\$53,066.85	66.42%
Forest Service Administrative support	\$12,575.00	15.74%
<b>Total</b>	<b>\$79,890.27</b>	<b>100.00%</b>

Total amount raised by SAC Board: \$67,315.27

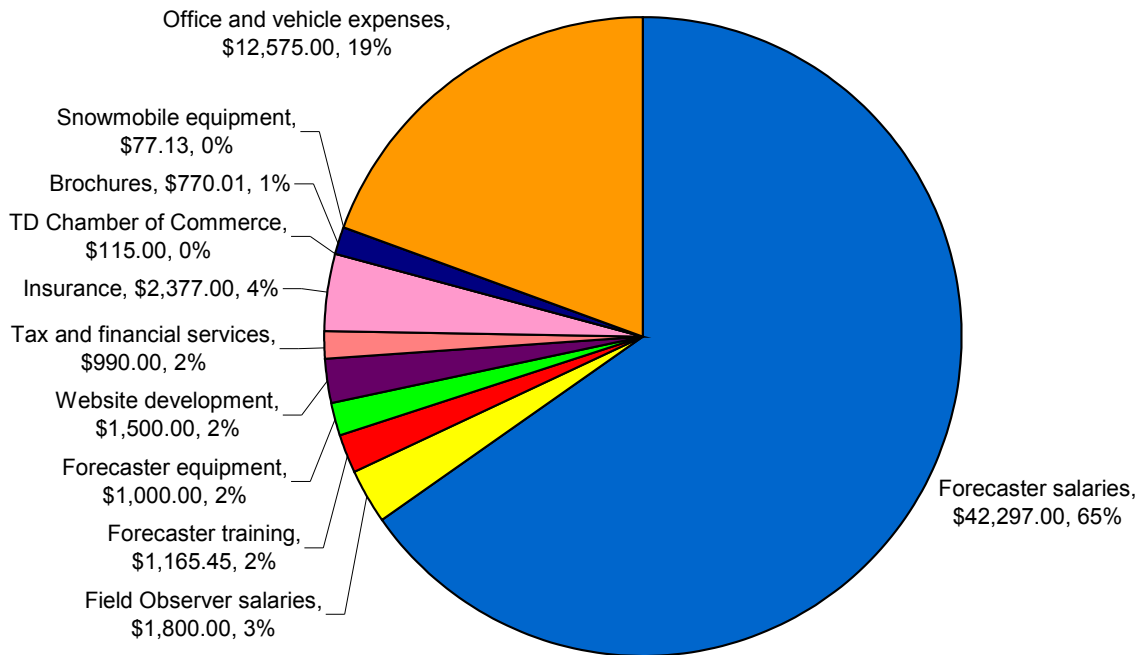
**Sierra Avalanche Center Funding and Support Sources 2007/2008**



**Sierra Avalanche Center Expenses**

		% of total	
Forecaster salaries	\$42,297.00	65.41%	
Field Observer salaries	\$1,800.00	2.78%	
Forecaster Training	\$1,165.45	1.80%	
Forecaster Equipment	\$1,000.00	1.55%	
Website Development	\$1,500.00	2.32%	
Tax and financial services	\$990.00	1.53%	
Insurance	\$2,377.00	3.68%	
TD Chamber of Commerce	\$115.00	0.18%	
Brochures	\$770.01	1.19%	Cash expenditure total \$52,092
Snowmobile equipment	\$77.13	0.12%	
Office and vehicle expenses	\$12,575.00	19.45%	
<b>Total</b>	<b>\$64,666.59</b>	<b>100.00%</b>	

**2007-2008 Sierra Avalanche Center expenses**



# Sierra Avalanche Center Sponsors 2007 – 2008

Truckee Ranger Station  
Tahoe National Forest  
9646 Donner Pass Road  
Truckee, CA 96161-2949  
(530) 587-3558 (voice)  
(530) 587-6907 (tdd)  
*Avalanche Hotline: (530) 587-2158*



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Glad that you asked! This entire site is made possible only by the generous contributions of our sponsors. Our corporate sponsors really make it happen for us. Please actively demonstrate your support for this site! Please visit our sponsors by clicking on the links below. If you are interested in becoming a SAC sponsor, either click on the Payapl link above and donate, or you can also contact us for more information. Remember, no donation is too small! SAC thanks you!

### SAC Sponsors 2007 - 2008

#### EXTREME (\$3,000+)



#### HIGH (\$1,000 - \$2,999)

Truckee Rotary Foundation

#### CONSIDERABLE (\$500 - \$999)



[Tahoe Nordic SAR](#)

#### MODERATE (\$100 - \$499)

Matthew Beller	Howard Child	Scott Clark	Robert Mohan
Jacqueline Schwartz	Stanford Alpine Club	Richard Winfield	John Swanson
David Reichel	Phillip Schlenker	Tyler Simonton	John Ellis
Mark Baier	Dave Soldavini	Jason Kuchnicki	Laning Andrews
Tim Maly	Annemarie Huisman	Booker Bense	Joe Maher & Candy McNulty
Rod Georgiu	Cathy Jo Johnson	David Reiss	Rod Beaton
Harry Richardson	Vernon Ausherman	Doug Erwin	Shannon Patterson
Mitch Casteel	Darren Maupin	Julin Maloof	North Tahoe Snow Travellers
Louie Fielding	Dong Liu	Michael Chapman	Anna Sherwood
Mike Gilmore	Matthew Wetter	Colin Little	Thomas Merchant
Richard Judd	Tzvetina Erohina		

#### LOW (\$20 - \$99)

Ben Carver	Bradford Cooper	Matt Eccles	Charles Harnden
Makin It Happen, LLC	Greg Juhl	Kathleen Roide	Adriana Sulak
Kevin Verlander	Wasatch Touring	Colin Wood	Michael Turner
Greg Fine	Kristie Connolly	David Erskine	Christopher Biow
Andrew Thompson	Dan Green	Christopher LaPierre	Marc Ryan
Don Cross	Carter Busse	Cameron Stewart	Jennie Markoff
Perry Norris	Doug Johnson	Jay Oshiro	John Hanscom
T William Macaulay	Mark Hamilton	Christopher Crossen	Martin Burger
Kevin Starr	Thomas Scarvie	Ray Fields	Zack Lannoy
Tim Molinare	Alex Herrera	Debbie Thomas	Alex West
Konrad Motzek	Craig Christian	Abe Shields	Andrea Sexton



## Advisory Area

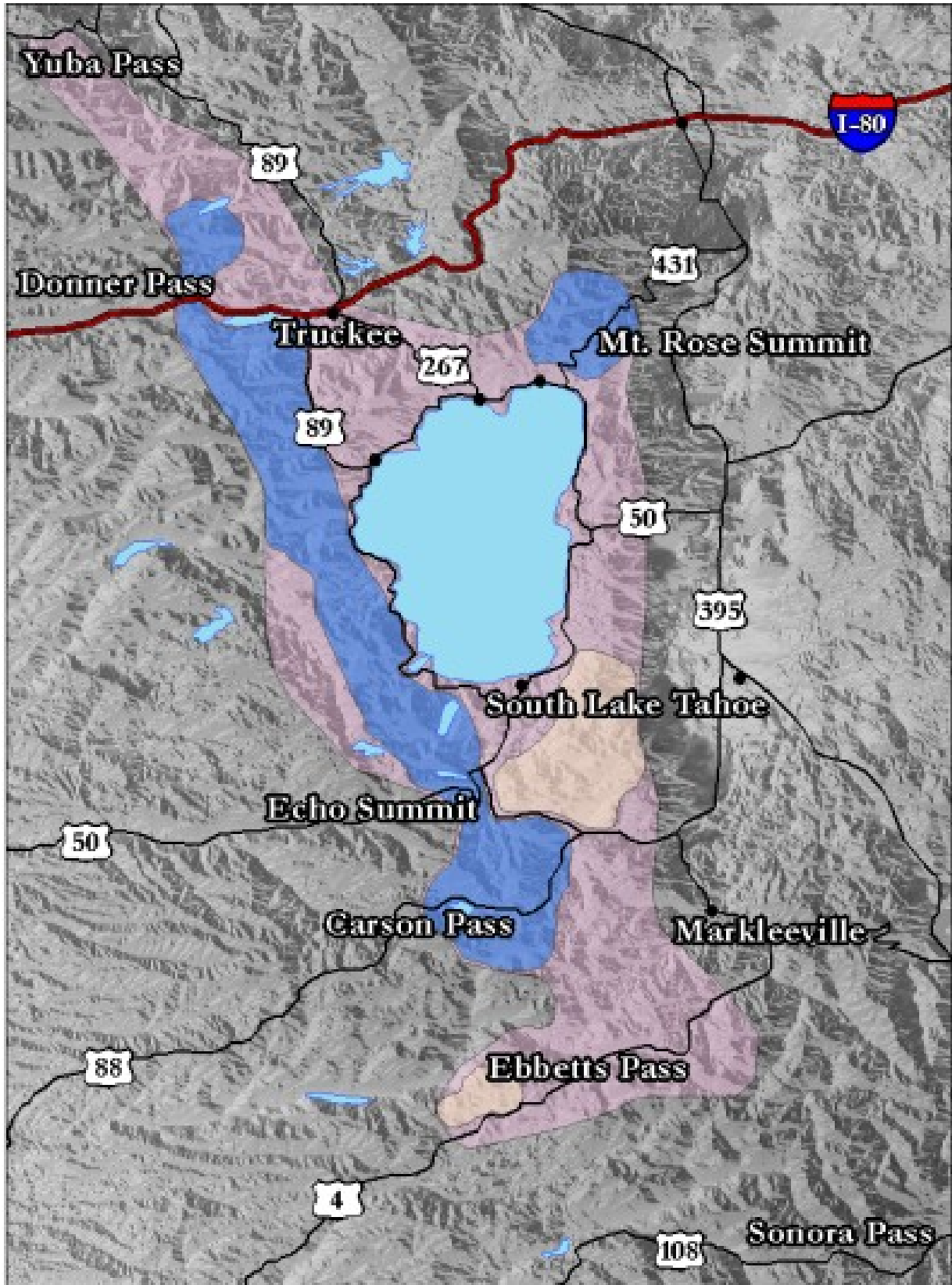
In March, the decision to reduce the overall size of the forecast area was made. In the past, difficulty in coverage was faced for the far southern portion of the forecast area. The Sonora Pass zone is a two and a half hour drive to the trailhead and then snowmobiles are needed to access the main avalanche terrain about 14 miles from the end of the plowed road. This presented a field observation challenge that was not easily accomplished in the time constraint of a single day. Working with the Eastern Sierra Avalanche Center, both avalanche centers agreed that the local snowpack conditions in this region are most closely associated with the ESAC advisory area and could be covered more accurately from their office. Coverage of the Sonora Pass zone was transferred to the Eastern Sierra Avalanche Center. The Sierra Avalanche Center moved its southern boundary one highway pass to the north. This change allows for easy coverage of any single zone of the forecast area in a day trip from the forecaster's Truckee, CA office.

The advisory area of the Sierra Avalanche Center now 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 in the advisory area at Carson Pass and at Ebbetts Pass, in order to include the backcountry terrain surrounding the established boundaries of Kirkwood and Bear Valley ski areas.



Early season facets serve as a failure layer for avalanches in CA and NV. Tamarack Peak, NV.

The revised Sierra Avalanche Center forecast area.



## 2007-2008 Season storm and snowpack summary

The 2007-2008 winter started slowly. November stayed warm, sunny, and dry. A scant 3 inches of snowfall accumulated over the entire month. The first storm of the year dropped 20 to 25 inches of snow during the first week of December. A period of cold, clear weather followed this storm forming crusts, facets, and surface hoar layers in a shallow snowpack. By the time another storm reached the forecast area in the third week of December several skier triggered avalanches occurred due to failure of these weak layers. By the end of December, there was still only 31 inches of snow on the ground with rocks and bare ground showing in many areas. Memories of the 06-07 winter lurked in the shadows, and many people started looking for jobs in Canada.

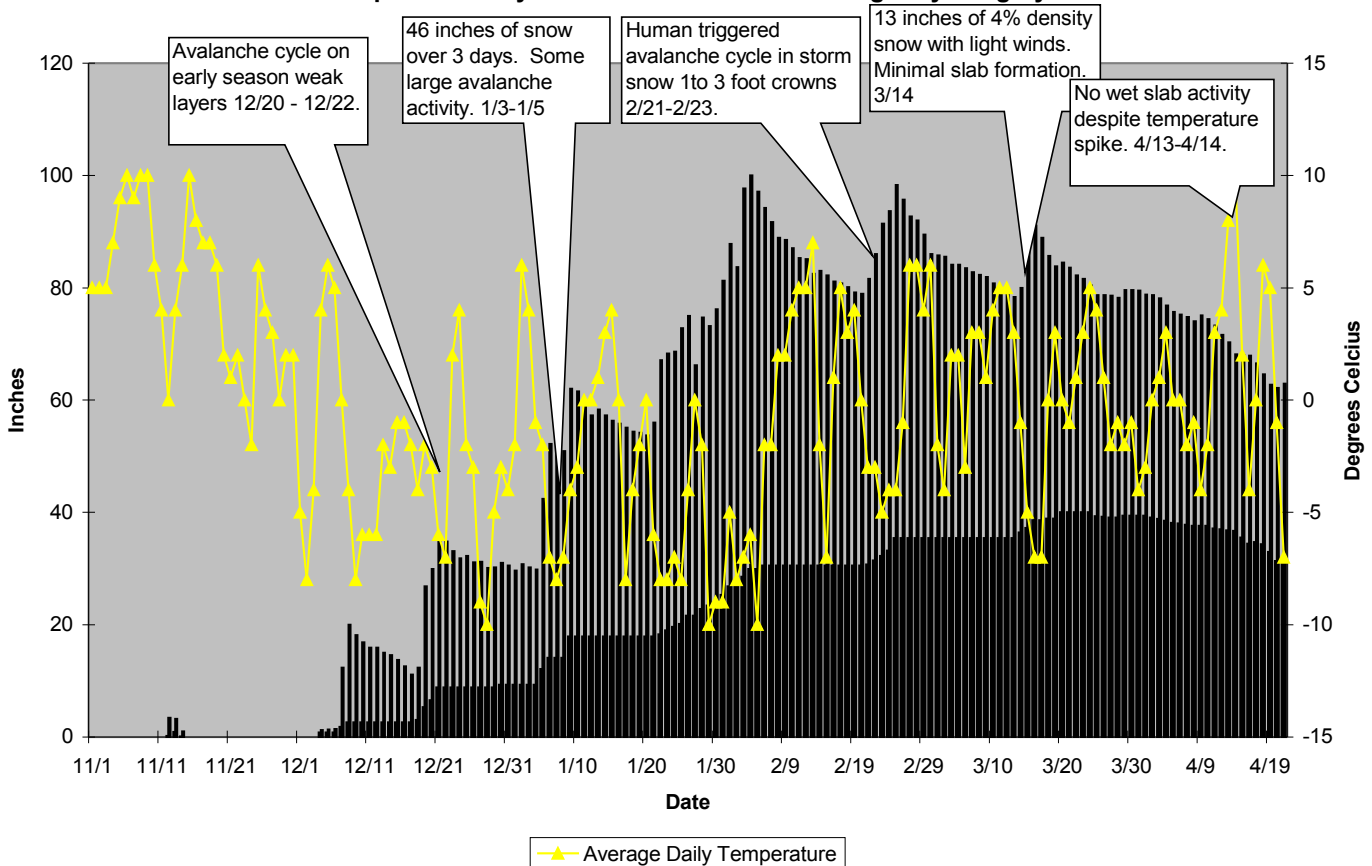
The weather finally started to look like winter in the first week of January as the “storm of the century” approached the forecast area. Weather forecasters called for 6 to 9 inches of snow per hour for 10 hours. Winds over 100mph were supposed to accompany this massive snow storm. The news made this storm sound like the Armageddon, and with assurances from the NWS that the hype was real, the avalanche center issued an Extreme Avalanche Danger Rating. Unfortunately this storm did not turn out to be the “storm of the century” only 50 to 60 inches of snow fell over the course of 3 days. The winds that accompanied this storm did live up to expectations and remained above 50 mph with gusts to reaching above 165 mph. A few large avalanches occurred during this storm cycle with crowns of 6 to 8 ft. A period of 6 weeks of cold, wet weather started with this storm. In January it snowed on over 15 days and Alpine Meadows and Heavenly ski areas reported 135 and 167 inches of snowfall at their base areas respectively. It was one of the snowiest Januarys on record. Two more storms with around 20 inches of snowfall occurred, but most of the storms dropped only moderate amounts (3 to 8 inches) of low density snow at any one time. The snowpack absorbed and adjusted to the new loading relatively well leading to a consistent avalanche hazard of Moderate to Considerable for most of the month with only 2 days when the danger was above Considerable. The frequency of stormy days kept the east winds at bay and allowed the snow that fell to actually accumulate this year. By the end of January, Snotel sensors across the forecast area reported a total snow depth of between 80 and 90 inches. The frequency of storms, low density cold snow, and amount of snow in January made the Tahoe area feel like the best possible combination of Washington and Utah.

As winter moved into February, longer periods of clear weather started occurring between the storm cycles. A storm in the first week of February left another 15 to 20 inches of more Tahoesque 10 to 15 % density snow bringing the snow depth at many Snotel sensors up over 100 inches. The first strong east winds of the season followed this storm due to a large high pressure ridge moving into the forecast area. This high pressure ushered in a two week period when day time temperatures regularly crested into the high 30's and low 40's above 8000'. Most of the nights were below freezing. The low February sun angles and lack of intense solar radiation made this melt/freeze cycle the perfect recipe for promoting snowpack stability; gradual consistent warming followed by strong refreezes every night. Any old weaknesses consolidated and the snowpack became much more homogeneous throughout its depth. One more serious winter storm ended this mid winter spring. Between February 20<sup>th</sup> and the 24<sup>th</sup>, 30 to 40 inches of snow fell across the forecast area. This storm came as several waves each one starting warm and ending cold. Several new snow weaknesses reacted to skier triggering during this storm and produced several avalanches ranging from small R1-D1 slides to larger, more destructive R3-D3 soft slabs. After this storm the SWE peaked for the winter on February 29<sup>th</sup>. This storm also marked the end of winter and the beginning of a seemingly endless, very dry spring.

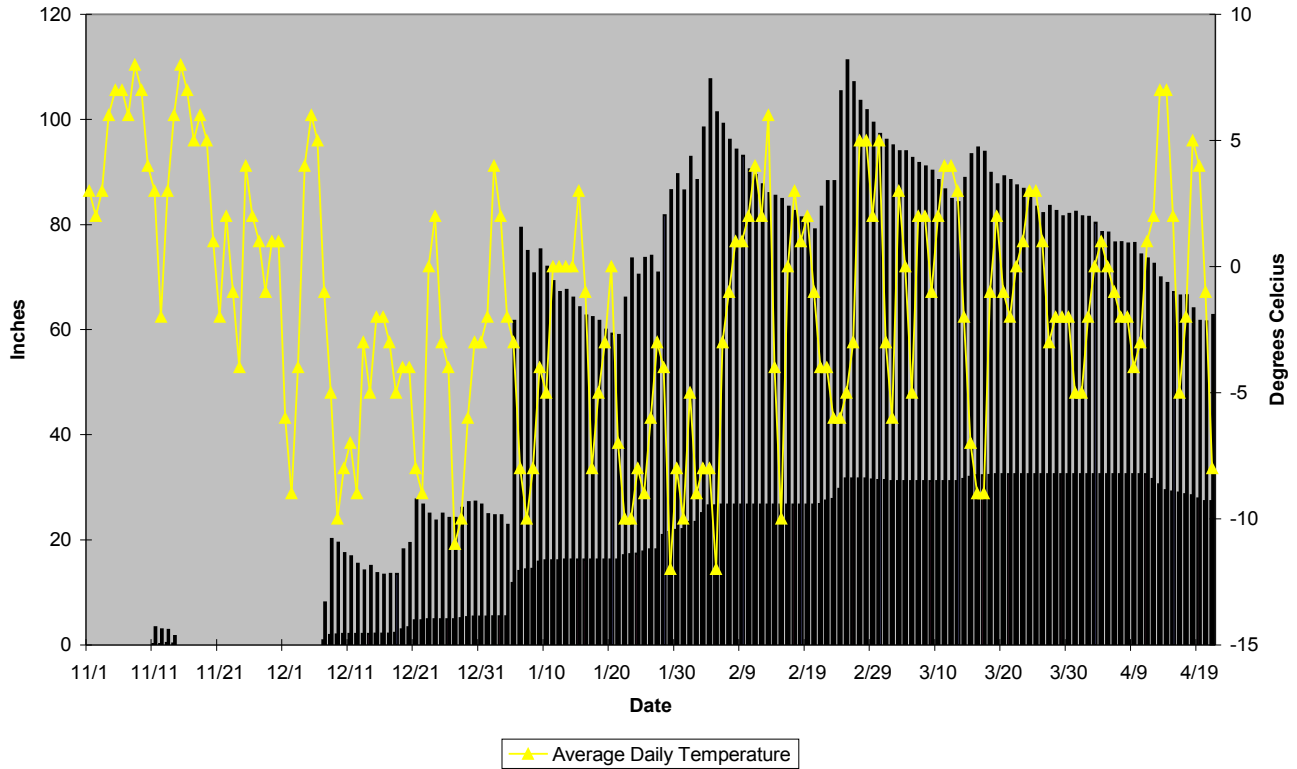
The mild high pressure that followed this last storm allowed March to come in like a lamb. Unfortunately March also went out like a lamb and infected April with the same warm, dry weather patterns. A pattern where 3 to 5 days of warm, sunny, dry days and cool, clear nights followed by 2 to 3 days of windy, cold, cloudy, dry days dominated the months of March and April. Snow conditions oscillated between great springtime corn and hard refrozen surface crust that never melted. Starting on March 14<sup>th</sup> this pattern broke for three days. Winter returned with 25 to 35 inches of 4% density snow. By the 18<sup>th</sup> of March the east winds started to blow and move all of this snow onto sun exposed SW and W slopes where it quickly melted. The melt/freeze cycle and the endless spring returned. The trend in the snowpack still leaned toward more homogeneity and stability as the melting and refreezing continued. By the time the first really warm days occurred on April 13<sup>th</sup> and 14<sup>th</sup> where temperatures above 8000' reached into the low 60's, the snowpack had undergone so much melting, refreezing, and consolidation that melt-water drainage channels were so well established and the layer differences in the snowpack were almost annihilated. The snowpack was able to deal with the large amounts of free water being produced and no large wet slab activity occurred. A cold snap followed these two days of hot weather and quickly refroze everything.

When the avalanche center closed its doors on April 20<sup>th</sup>, the overall snowpack for the Tahoe area had dropped to 70 to 80 % of normal for the year after being between 110% and 130% at the end of February.

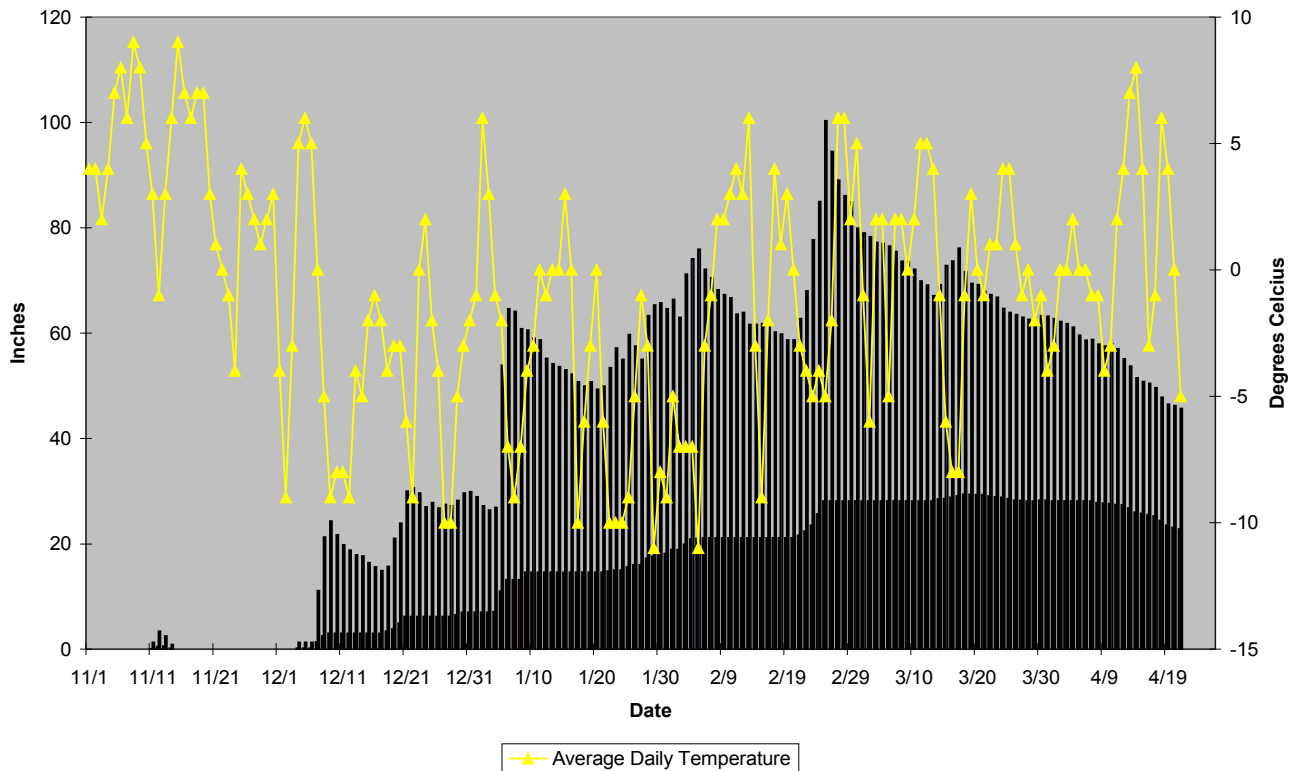
**Daily SWE, snow height, and average temperature at the 8200' Snotel sensor at Squaw Valley.**  
**SWE is represented by the black area and snow height by the grey area.**



**Daily SWE, snow height, and average temperature at the 8801' Snotel sensor at Mt Rose Ski Area. SWE is represented by the black area and snow height by the grey area.**



**Daily SWE, snow height, and average temperature at the 8765' Snotel sensor near Ebbetts Pass. SWE is represented by the black area and snow height by the grey area.**



## Field Observations

The avalanche center's formal program of avalanche, snowpack, and weather information gathering improved this season by adding a public online submittal form to the website. This form led to a 25% increase in observations gained from the general public. Alpine Meadows, Central Sierra Snow Laboratory, Heavenly, Kirkwood, Mt. Rose, Squaw Valley, and Sugar Bowl submitted observations to the avalanche center on storm mornings with afternoon updates often submitted. Mountain Adventures Seminars, a guide service in Bear Valley, CA shared its field observations with the avalanche center. This information, combined with observations submitted by the public, was an important supplement to the information gathered by forecasters Brandon Schwartz and Andy Anderson, as well as professional observers Steve Reynaud and Bill Jaskar.

Our Board of Directors worked with Thin Air Motorsports to establish sponsorship of the avalanche center by Bombardier Recreational Products. Two brand new Ski-Doo Summit Everest 800R 154 snowmobiles were loaned to the avalanche center for the entire operating season. With these snowmobiles, the forecasters were able to make observations in high use portions of the forecast area that they did not have previous access to. Additionally, the forecasters were able to establish a cross country route between Carson Pass and Ebbetts Pass, allowing them to make field observations in both areas in a single day.



Forecaster Brandon Schwartz performing layer bonding tests in the pit. Mt. Tallac, CA

## Advisories

Between December 7<sup>th</sup> and April 19<sup>th</sup>, the Sierra Avalanche Center issued 123 daily avalanche advisories and 4 early season condition reports. The number of advisories issued for each danger level was 61 Low, 45 Moderate, 14 Considerable, 2 High, and 1 Extreme. After the snow started falling, 2 persistent patterns dominated the forecast area: 6 weeks of cold, wet weather starting in January and a seemingly endless, dry spring starting in mid February. During the cold, wet weeks avalanche activity was persistent and at times large with the danger rating rarely dropping below Moderate. The long dry melt-freeze cycle that followed ushered in 2 months where the avalanche danger only went above Moderate for one day.

Advisories were available 24 hours a day, 7 seven days per week on the web and by phone. The advisory web page was loaded 137,179 times this past winter. This is an average of 1001 times per day with the single day maximum of 3,980 page loads occurring on January 5<sup>th</sup>. The recorded phone message was called over 2,000 times. The total number of page loads increased by approximately 10,000 compared to last winter. An online archive of this season's advisories can be found at:

<http://www.sierraavalanchecenter.org/phpBB2/>.



Crown of a skier triggered avalanche in the Munchkins area. Alpine Meadow backcountry, CA

Truckee Ranger Station  
Tahoe National Forest  
9646 Donner Pass Road  
Truckee, CA 96161-2949  
(530) 587-3558 (voice)  
(530) 587-6907 (tdd)  
**Avalanche Hotline: (530) 587-2158**



Sierra Avalanche Center  
S.A.C.  
Tahoe National Forest  
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This advisory was posted on **December 20, 2007 7:00 AM** and covers the Central Sierra Nevada Mountains between Yuba Pass on the north and Sonora Pass on the south. This advisory applies only to backcountry areas outside established ski area boundaries. This advisory describes general avalanche conditions and local variations always occur. The information in this advisory is provided by the USDA Forest Service who is solely responsible for its content.  
[Click here for a detailed map of the SAC forecast area](#)

### Today's Advisory:

**Near and above treeline, avalanche danger is CONSIDERABLE on wind loaded NW-N-NE-E-SE aspects, 35 degrees and steeper. Below treeline, avalanche danger is MODERATE in protected open areas, 35 degrees and steeper.**

Today's Avalanche Hazard Rating



**CONSIDERABLE**

LOW	MODERATE	CONSIDERABLE	HIGH	EXTREME
SOME RISK: RECREATIONAL USE		DANGEROUS: EXPERT EVALUATION SKILLS NEEDED	VERY DANGEROUS: TRAVELING IN AND AROUND AVALANCHE TERRAIN NOT RECOMMENDED	

The current storm system began affecting the forecast area yesterday afternoon. New snowfall amounts of 8 to 16 inches have occurred overnight throughout the forecast area. Heavy snowfall is continuing this morning with another 10 to 16 inches expected. Southwest ridgetop winds have remained moderate to strong for the past several days. Air temperatures at the upper elevations have remained in the upper teens and low 20s during that time. Ridgetop winds are expected to remain strong through this morning before decreasing and shifting to west and then north this afternoon and evening. Snowfall is expected to taper to showers this afternoon.

Avalanche start zones on N-NE-E aspects have filled in with new snow over the past two days. The snowpack in areas above 7,000' now ranges from 2 to 5 feet deep. Snow that fell last night is less subject to the influence of anchors as the snowpack becomes deeper and objects such as rocks, down trees, and stumps become increasingly buried.

The combination of southwest ridgetop winds and significant new snowfall has created areas of instability on wind loaded N-NE-E aspects as well as on cross loaded NW and SE aspects. Recently formed wind slabs in these areas began to show some sensitivity to human triggering yesterday in both the Castle Peak (Donner Summit) and Mount Rose areas. This was observed as infrequent test slope failure, with one very small human triggered avalanche reported yesterday from the Mount Rose area. A skier triggered a small slab on a north aspect, 40 degree gully feature in the area between Incline Lake and Relay Peak. The avalanche had a 1 foot crown, measured 25 feet across and ran 15 feet down slope. With the addition of more snow overnight, wind loaded areas near and above treeline are expected to show significantly more sensitivity to human triggering today with natural avalanche activity possible.

Below treeline, two significant weak layers have been identified within the snowpack. In the Castle Peak area and at ski area snow study plots along the Sierra Crest to the south, easy to moderate force shears and compression failure was noted in the top 10 to 15cm of the snowpack yesterday. This layer of new snow crystals is now buried under additional new snow that fell last night and is below the depth of ski, snowboard, or snowmobile penetration into the snowpack. A layer of buried surface hoar exists in many areas around Carson Pass, Mt. Judah (Donner Summit) and Mount Rose. Clean and easy shears as well as some small cracking without fracture propagation was reported yesterday on a NNW aspect just below treeline on Tamarack Peak (Mount Rose area). New snow load on these layers has increased overnight and so has the likelihood of human triggered avalanches in steep open areas below treeline. The only way to safely verify the presence or absence of these layers in your location is by digging.

The bottom line: Near and above treeline, avalanche danger is CONSIDERABLE on wind loaded NW-N-NE-E-SE aspects, 35 degrees and steeper. Below treeline, avalanche danger is MODERATE in protected open areas, 35 degrees and steeper.

Please send us your snow, weather, and avalanche observations by clicking the submit observations link on our contact page.

Brandon Schwartz, Avalanche Forecaster



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### Today's Central Sierra Weather Observations:

0600 temperature at Sierra Crest (8,700 feet):	22 deg. F
Max. temperature at Sierra Crest past 24 hours:	25 deg. F
Average wind direction at Sierra Crest past 24 hours:	Southwest
Average wind speed at Sierra Crest past 24 hours:	60 mph
Maximum wind gust at Sierra Crest past 24 hours:	95 mph
New snow fall at 8,200 feet past 24 hours:	12 to 16 inches
Total snow depth at 8,200 feet:	37 inches

### Mountain Weather Forecast For Today:

Cloudy with heavy snowfall in the morning, decreasing to snow showers in the afternoon.

Temperature forecast for 8,000 to 9,000 feet: 16 to 23 deg. F

Ridgetop winds forecast for the Sierra Crest: Southwest at 45 to 55 mph with gusts to 100 mph. Shifting to west and decreasing in the afternoon.

Snowfall expected in the next 24 hours: 10-16 inches

### 2 Day Mountain Weather Forecast:

#### 7000 to 8000 Feet:

Today, cloudy with heavy snowfall before 10 am, tapering to showers in the afternoon. Snow accumulation 4 to 8 inches in the morning with up to 2 additional inches in the afternoon. Daytime highs 23 to 28 deg. F. Southwest winds at 20 to 30 mph with gusts to 45 mph. Winds expected to shift to west at 15 to 20 mph in the afternoon.

Tonight, mostly cloudy in the evening then clearing. Scattered snow showers with snow accumulation up to 1 inch. Overnight lows 7 to 13 deg. F. Northwest winds at 10 to 15 mph, shifting to north at 10 mph after midnight.

For Friday, partly cloudy in the morning with increasing clouds during the day. Daytime highs 23 to 28 deg. F. East winds at 10 to 15 mph with gusts to 25 mph are expected.

#### Above 8000 Feet:

Today, cloudy with heavy snowfall before 10 am, tapering to showers in the afternoon. Snow accumulation 6 to 10 inches in the morning with 2 to 4 additional inches in the afternoon. Daytime highs 16 to 23 deg. F. Southwest winds at 45 to 55 mph with gusts 80 to 100 mph. Winds expected to shift to west at 25 to 35 mph with gusts to 55 mph in the afternoon.

Tonight, mostly cloudy in the evening then clearing. Scattered snow showers with snow accumulation up to 2 inches. Overnight lows around 11 deg. F. North winds at 20 to 30 mph with gust to 50 mph.

For Friday, partly cloudy in the morning with increasing clouds during the day. Daytime highs 21 to 26 deg. F. Northeast winds at 20 to 30 mph with gusts to 55 mph, decreasing to 40 mph in the afternoon are expected.

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The Sierra Avalanche Center is a 501(3)(c) not-for-profit organization working in partnership with the Tahoe National Forest to provide avalanche advisories. The vast majority of our funding comes from private donations and our fund raising events. Our continued operation is dependent on this fundraising. If you use this service with any regularity, please consider making a tax deductible donation to the Sierra Avalanche Center. Just click the button to donate via Paypal. It is fast, safe and secure! Thank you!



## Media Articles

The Sierra Avalanche Center was featured in several newspaper articles, TV interviews, and Radio shows from around the region this winter. In the Reno area, Brandon Schwartz provided a January pre storm interview on Channel 2 KTVN about general avalanche characteristics and awareness. Andy Anderson provided a radio interview with KGO AM 810 in the San Francisco Bay area. A few other media outlets from the San Francisco Bay area, Reno area, and Tahoe area contacted the Avalanche Center for interviews or appearances.

The bulk of media coverage received came from newspapers around the region. Articles about the Sierra Avalanche Center appeared in *Moonshine Ink*, *North Tahoe Bonanza*, *Sierra Sun*, *Tahoe Daily Tribune*, *Tahoe Weekly*, *Reno Gazette Journal*, and *Sacramento Bee*. Some of these articles are available on the Internet.

<http://localsearch.rgj.com/sp?aff=1100&skin=100&keywords=sierra+avalanche+center&x=0&y=0>

<http://news.rgj.com/apps/pbcs.dll/article?AID=/20080130/NEWS16/801300437/1002>

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<http://www.sacbee.com/384/story/672737.html>

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<http://www.sierrasun.com/article/20080107/NEWS/883888774>

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