Greetings from the Utah Avalanche Center:

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November 2018

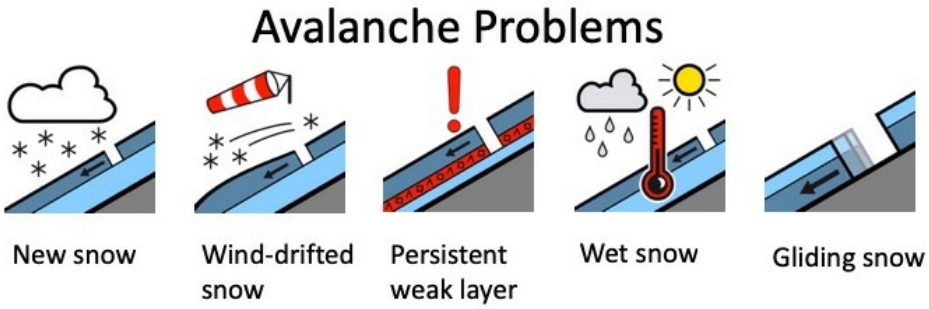
What's New

New UAC Website

By now you have most likely had the chance to check out the updated UAC website. We hope that you enjoy it. Our goals in redesigning the website were to make it easier to find the information you need, make it work better on mobile devices, and update the overall look and feel of the site. We would love to get your feedback.

A couple of the significant changes to the site include:

1. Changing from "Advisory" to "Forecast". Other avalanche centers in the US already use the term "forecast" so this helps us be consistent with other centers.
2. Adoption of the European Avalanche Problems. This will help us simplify and clarify our forecasts with a reduction in the number of problems. You can read detailed descriptions of the new problems here. The problems are:



You can learn more about the new forecast format and avalanche problems in this blog post.

Avalanche Skills eLearning Program

The most effective way to have fun and stay safe in the winter backcountry is to learn about avalanche safety. The backcountry doesn't need to be scary or dangerous and you can go out in any conditions when you know about how avalanches work and how to avoid them.

We have created a set of interactive online avalanche eLearning courses based on the 5 Know Before You Go Points: Get the Gear, Get the Training, Get the Forecast, Get the Picture, and Get Out of Harm's Way. These free courses, available at kbyg.org/learn, are for anyone who wants to learn more avalanche safety skills after seeing the Know Before You Go (KBYG) awareness program, can't take an on-snow avalanche class, or want to refresh and sharpen their avalanche skills. The eLearning courses are ideal for use as pre-class material before taking a Backcountry 101, Avalanche Rescue, or Level 1 class, to be better prepared and ready to spend more time practicing skills. The course content is a mix of text, images, animations, videos, links to additional content, and interactive exercises embedded in a website that you can access from any online device. Each course takes 15 to 60 minutes to complete.

We hope that everyone going into the Utah backcountry this winter checks out this program and uses what they learn to get out, have fun, and come home safe.

Meet the Forecaster

Evelyn Lees

What was your significant learning moment about avalanches and what was it?

In a missing person search in the early ’90s, Peter Lev, Tom Kimbrough and I were tasked with searching the backcountry from Alta to Brighton. Descending from Catherine’s Pass, we stopped at the top of a small knoll, and a three-foot-deep avalanche popped out at our feet. Any lingering doubts as to the danger were gone, and we went into full defensive mode. A brief clearing showed deep crown faces on Seagull and other surrounding slopes. We had been given two hand charges for a small, but steep slope we knew we couldn’t avoid. Reaching the slope, we threw both, and nothing happened. Peter skied first, making the one mandatory on slope turn and getting over safely to the side. I went second, spooning his tracks, and the slope fractured 3 to 4 feet deep behind me. Luckily, I was on the right trajectory to get over to the side and reached Peter without getting caught. Snow doesn’t always behave “logically” and can always surprise you.

What’s a piece of advice you have about avalanches?

Sometimes even if you can’t identify the exact way the snow will react or avalanches occur, just identifying that conditions are unusual or dangerous can be enough to make you take that extra step back and be safe. Learning about snow and avalanche is life long - it never gets boring, as no two snowpacks are exactly the same and there’s always something new.

What is your personal background? How did you get into avalanche forecasting? How did you start working at the UAC?

I started mountaineering and backcountry skiing in the northwest while getting degrees in Dirt and Rocks (Soils and Geology). When I moved to Utah in 1982, I really didn’t work much in the winters most years, sometimes touring 6 days a week for months. I spent a lot of time in the backcountry with my husband, Rick Wyatt, who was working for UDOT. Digging pits, touring all over and being immersed in snow and avalanches while we lived at the Spruces and Alta for 10 years.

Five of the winters I worked part time as a meteorology technician for cloud seeding research projects, including time in the Tushars and on the Skyline Plateau. I also continued climbing in snowy mountains, including trips to Pakistan, Tibet, Alaska, and South America. When the UAC had openings, I would apply and was eventually hired in1991.

What do you like doing besides playing in the snow?
When I’m not working I spend time in the mountains and desert with family and friends.

Education

USAW 2018

The 11th annual Utah Snow and Avalanche Workshop (USAW) was a great success with nearly 1,000 avalanche professionals, recreationists, and snowmobilers attending the two-day event. USAW attendance grows each year and part of its continued success is offering separate sessions, focusing on user-specific needs. The format is pretty straight-forward, presentations follow an ISSW style delivery of 15 minutes with 5 minutes for Q&A. A new feature this year was the "speakers corner" where people could visit with speakers to ask additional questions.

The two-day workshop addressed both professional and recreation communities. The professional session on Friday was dedicated to topics including explosive issues, workplace safety, and risk management. The recreation session on Saturday offered topics focused on lessons learned from recent accidents and decision making. Sharing these stories provided a powerful learning opportunity and also helps build a community in which there is no shame in recounting an avalanche accident. One especially well-received portion of the recreation session was a women's panel that discussed female decision making in the backcountry.

In addition, for the second consecutive year, we offered a two-hour motorized specific session. The timing and location were brilliant, with this segment wrapping up just before the doors opened in the adjacent room where the Intermountain Snowmobile Show was occurring. Some of the topics focused on human factors, decision making, and personal stories from people who have been involved in or impacted by accidents. Grouping our talks into themes have helped our attendees better understand the goal of the messaging.

We returned to the Mountain American Exposition Center in Sandy this year so we had ample space for the workshop attendees and sponsors in the hall. As always, the wonderful sponsorship and support of the Utah ski resorts and outdoor industry helped us put on a great workshop.

Tech Tips

Why is Slope Angle Important and How Do You Measure It?

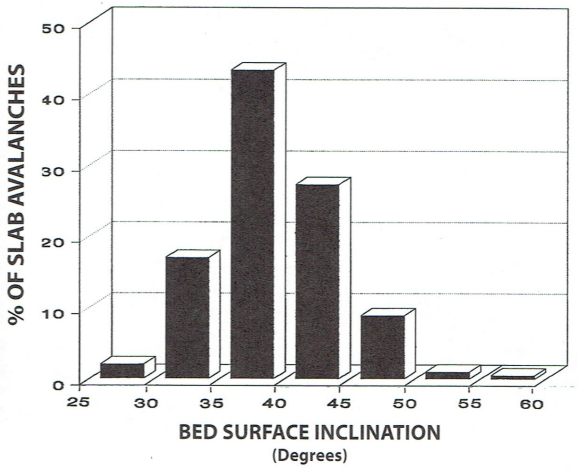
In the backcountry, there are numerous clues we're given to puzzle out what might be going on with a snowpack. These include visual clues (like recent avalanche activity and the shapes of snow crystals), audible clues (like whoomphing sounds), and sensory clues (like the feel of layers in the snowpack as you punch your ski pole through them).

While these clues are loaded with important information, knowing how to interpret them to keep yourself safe is not always straightforward. These variables all interact with each other and impact each other, and need to be evaluated accordingly.

Slope angle data, however, is both consistent and reliable in terms of what it means for avalanche hazard.

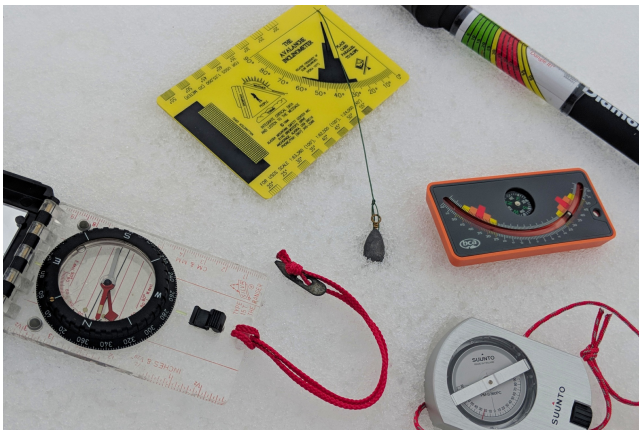
Generally speaking, if you're on or below a slope that's less than 25 degrees, you're in a safe zone. Conversely, if you're on or below a slope that's 37 or 38 degrees, you're in an area that's especially prone to avalanches.

This graph featured in the book Snow Sense (used with permission) shows the frequency with which avalanches occur depending on the slope angle.



This chart shows that of 194 slabs measured, 87% occurred on slopes with angles ranging between 30° and 45°. Of these, 43% released on slope angles of 35°-40° and 27% on 40°-45° slopes. Note that only 2% of the avalanches fractured on 25°-30° slopes. Critical slope angles are dependent upon conditions and are strongly influenced by regional snow climate. (Source: Perla, 1977, Slab Avalanche Measurements, Canadian Geotechnical Journal, Volume 14, No. 2, National Research Council, Canada.)

An inclinometer is a device that measures slope angle. There are several inclinometer models available, there are phone app inclinometers, and many compasses include an inclinometer function as well. Some inclinometers allow you to sight a slope angle reading from the side; some allow you to sight a measurement from above or below a slope; some can be used to measure the angle of the slope right at your feet. A few are equipped to take measurements in all 3 of these basic use modes.



In addition to being potentially life-saving, taking frequent slope angle measurements while out in the backcountry makes for a great game. Practice guessing angles with your backcountry buddies, with the person who gets the closest to the actual reading earning first tracks!

This piece was guest written by Amy Hatch from Garage Grown Gear and Grayson King from SnoWander. Watch this video to learn more about using the SnoWander PoleClinometer.

Giving Back to the UAC

How is the UAC Funded?

The UAC is funded by a combination of individual and business contributions, event and product proceeds, and philanthropic and government grants. What you may not know is just how important your contribution is. Individual contributions make up over a quarter of the UAC revenue and two-thirds of our total program support comes from non-government sources. What does this mean for you? It means that you are the UAC's lifeblood and your contributions to the UAC allows us to publish the daily avalanche forecasts and create and maintain the awareness and education programs that help you stay safe in the backcountry.

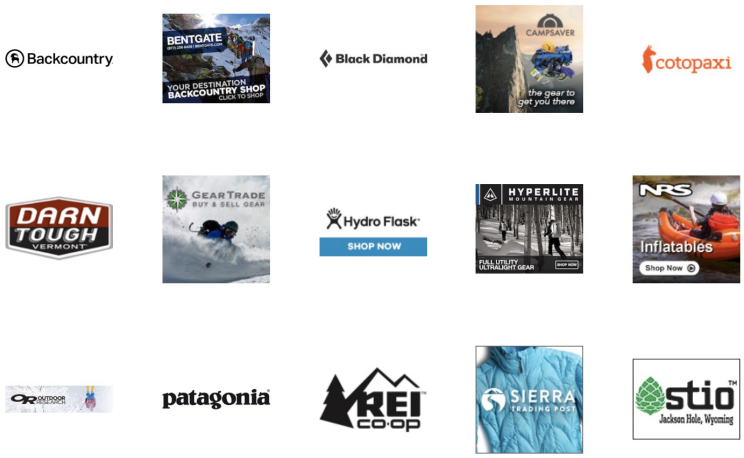
What can you do to help? Consider a monthly recurring donation to the UAC. This can be done through the UAC website donation page. Alternatively, many employers offer workplace giving plans. You can sign up through your workplace and your donation is automatically deducted from your paycheck. An added bonus is that many workplace giving plans have an employer match so your donation can go even further.

If you have any questions about how you can support the UAC, please reach out to us.

Support the UAC with Your Holiday Skiing and Shopping

Due to the generous support of Utah Ski Resorts and Backcountry, we have discount lift tickets for sale. The UAC receives 100% of the proceeds from these lift ticket sales. Visit the UAC Discount Lift Ticket page for links to purchase your tickets.

The UAC has many affiliate sales partners. Through the affiliate sales program, a percentage of all of your purchases are given back to the UAC. Visit the UAC Affiliate Sales page and click on click on the links of companies you want to shop at and you will be redirected to the company website and the UAC will benefit when you check out.



The Details

Upcoming Classes

For a full list of classes and Know Before You Go presentations, see the UAC Education Page

- Dec 4/6: Backcountry 101, Salt Lake City
- Dec 5: Know Before You Go - REI Ladies Night, Salt Lake City
- Dec 7: Introduction to Companion Rescue, Salt Lake City
- Dec 8: AIARE Avalanche Rescue Class, Salt Lake City
- Dec 10: Women's Beacon Clinic, Alta
- Dec 13/15: Backcountry 101, Salt Lake City
- Dec 14-16: AIARE Recreation Level 1, Salt Lake City
- Dec 14: Introduction to Companion Rescue, Salt Lake City
- Dec 20/22: Backcountry 101, Salt Lake City
- Jan 3/5: Backcountry 101, Salt Lake City
- Jan 4-6: AIARE Recreation Level 1, Salt Lake City
- Jan 10/12: Backcountry 101, Salt Lake City
- Jan 10/12: Women's Backcountry 101, Salt Lake City
- Jan 10/12: Motorized Backcountry 101, Uintas
- Jan 12: AIARE Avalanche Rescue Class, Salt Lake City
- Jan 18: Introduction to Companion Rescue, Salt Lake City
- Feb 1-3: AIARE Recreation Level 2, Salt Lake City
- Feb 7/9: Motorized Backcountry 101, Uintas
- Feb 8: Introduction to Companion Rescue, Salt Lake City
- Feb 8/9: Backcountry 101, Moab

Upcoming Events

For a full list of events, see the UAC Event Page

- Dec 5: 15th Annual Logan Pray for Snow Party, The Cache Venue, Logan
- Dec 5: Recreating in a New Zone Presentation/Discussion, Rocksteady Bodyworks, Holladay
- Dec 6: The Slide Show by Ascent Backcountry Snow Journal (Fundraiser for the UAC), Park City Library, Park City

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Update Your Information

We are working to update our contact database. Please use this link to update your UAC profile.

Stay Connected

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Our mailing address is:

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The Utah Avalanche Center is a cooperative effort between the Forest Service Utah Avalanche Center and the non-profit Utah Avalanche Center