

21 | 22 Annual Report
UTAH AVALANCHE CENTER



**FORECASTING
EDUCATION
& AWARENESS**

Writing | UAC Staff
Composition | Andrew Nassetta

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DIRECTORS' MESSAGE

What a year -- Winter started early in much of the state with storms in early October. The spigot then turned off until the end of December. The period from Christmas to the first week of January brought us a series of storms and some of the best riding of the year. **To keep us on our toes we found ourselves in an unprecedented drought through January and February all while the COVID-19 pandemic made a comeback.**

Luckily, winter returned in March and April. This left us with some dangerous avalanche conditions. **See the Season Recap on page 09 for details on the impact this had on our snowpack.**

While we were faced with numerous challenges this year, **we are also very excited to have had zero avalanche fatalities. This is the third time in five years with no fatalities.** This is a sign that the community is making avalanche safety a priority and benefiting from avalanche education and forecasting services offered across the state.

The UAC's Know Before You Go Program has become the North American standard for teaching avalanche awareness. **In January 2021, we kicked off a project in partnership with CAIC, NWAC, NAC, and Av Can to rebuild the entire program and we are on track to launch this October, more details on page 16.**

The UAC continues to grow our awareness and education programs reaching more people each year. **This year we were excited to introduce two new programs, community transceiver practice and the Backcountry 201 course. You can learn more about these 2 programs on page 12-14.**

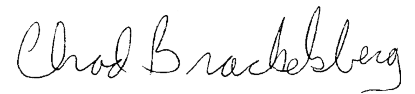
The UAC is here to serve all users in the backcountry and we could not exist without this amazing community. We would like to thank everyone for their generous support in making the UAC one of the best avalanche centers in the world.

We look forward to a long list of summer projects to meet the challenges of next winter and help everyone stay on top of The Greatest Snow on Earth.®



MARK STAPLES

DIRECTOR
Forest Service UAC



CHAD BRACKELSBERG

EXECUTIVE DIRECTOR
Non-Profit UAC



POINTS OF INTEREST

ZERO FATALITIES

In spite of a challenging season and snowpack, we had zero avalanche fatalities in Utah for the 2021/2022 season.

CLOSE CALLS & GOOD OUTCOMES

The public is more prepared than ever heading into the backcountry, and in all the close calls this season, everyone got home safe.

UNPRECEDENTED JANUARY & FEBRUARY DROUGHT

We had a six-week period with no significant snowfall, the worst to be recorded across the state in those months.

SPRING PERSISTENT WEAK LAYER

The January-February drought led to a mid-winter like PWL in March and April.

WE HAVE A NEW HOME

The UAC moved into our new office with space for the staff as well as classes and events.

EXPANDED AWARENESS & EDUCATION

New programs and courses that totaled 157 awareness and education events reaching >10,400 people.

A RETURN TO IN-PERSON EVENTS

We were excited to return to in-person events the last half of 2021.

**PROUD OF
OUR TEAM
& COMMUNITY**

WHO WE ARE



FORECASTING

In the mid 1970s, avalanche information was recorded on a phone line in the Salt Lake District Office of the Wasatch National Forest.

The UAC officially started nearly 42 years ago in 1980 when the Forest Service and the National Weather Service (NWS) signed an agreement to formally establish the Utah Avalanche Forecast Center at the NWS office in Salt Lake City with three basic charters - to issue avalanche forecasts, provide avalanche education, and issue mountain weather forecasts.

32 years ago, in 1990, the nonprofit Friends of the UAC was formed to bridge the gap between the available funding and the actual expenses of running the avalanche center and assure long-term sustainability.

The collaborative partnership between the Forest Service and the non-profit, collectively known as the **Utah Avalanche Center**, has grown to a staff of 18, working across 8 regions of Utah delivering avalanche forecasts, awareness, and education.

Backcountry observations from our community and users are vital to our daily product. Forecasters, pro observers, and the public published 1,350 field reports that were viewed 981,995 times. These observations include details about what people are seeing out in the backcountry and are the second most used source of avalanche information on our website. These field reports are a crucial source of information used by the forecasters to create the daily avalanche forecast.

FORECASTING EDUCATION & AWARENESS





FORECASTING EDUCATION & AWARENESS

EDUCATION The UAC's on-snow avalanche education program focuses on providing backcountry users with introductory level and refresher classes. A basic avalanche education is the foundation of providing people with the tools they need to make good decisions in the backcountry and come home safely each day.

The goal of avalanche awareness is to inform people of the dangers of avalanches and what they can do to decrease their risk. We accomplish this through in-person and virtual presentations and by meeting with backcountry users where they access the mountains.

Our core courses include Introduction to Avalanche Rescue, Introduction to Avalanches (Backcountry 101, Motorized 101), and the Backcountry 201. In addition, we provide Recreation Level 1 and 2 and Avalanche Rescue classes as needed to fill community demand.

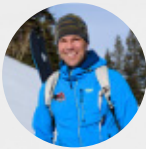
We offer KBYG and custom awareness presentations on a variety of topics ranging from the science of avalanches to terrain management to snowpack updates. We also have our trailhead avalanche awareness program where we meet with backcountry users to discuss avalanche conditions at trailheads across the state.

AWARENESS

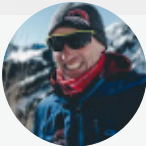


MEET OUR TEAM

UAC STAFF



MARK STAPLES
DIRECTOR
Forest Service UAC



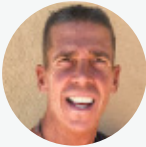
CHAD BRACKELSBERG
EXECUTIVE DIRECTOR
Non-Profit UAC



ANDREW NASSETTA
PROGRAM MANAGER
UAC | SLC · Uinta



BRETT KOBERNIK
FORECASTER
UAC | Skyline · Southwest



CRAIG GORDON
FORECASTER
UAC | Uinta



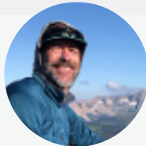
CHRISTIAN RAGUSE
SOCIAL MEDIA COORDINATOR
UAC | SLC



DAVE COYNE
PROGRAM COORDINATOR
UAC | SLC · Provo



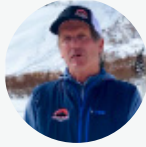
DREW HARDESTY
FORECASTER
UAC | Ogden · SLC · Provo



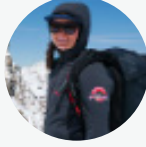
ERIC TREANBEATH
FORECASTER
UAC | Moab · Abajos



FRANCINE MULLEN
OPERATIONS COORDINATOR
UAC | SLC



GREG GAGNE
FORECASTER
UAC | Ogden · SLC · Provo



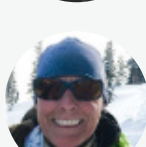
HANNAH WHITNEY
DEVELOPMENT DIRECTOR
UAC | SLC



MCKINLEY TALTY
PROGRAM COORDINATOR
UAC | SLC



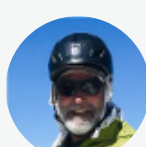
NIKKI CHAMPION
FORECASTER
UAC | Ogden · SLC · Provo



PAIGE PAGNUCCO
FORECASTER & PROGRAM MANAGER
UAC | Logan · Ogden



PAUL DIEGEL
SPECIAL PROJECTS
UAC | SLC



TOBY WEED
FORECASTER
UAC | Logan · Ogden



TRENT MEISENHEIMER
FORECASTER
UAC | Ogden · SLC · Provo

- Alan Richards
- Caitlin Hansen
- Christian Schauf
- Dara Cohen
- Eric Quilter
- Jacob Splan
- Kate Bowman
- Kim Reid
- Sara Gibbs
- Sarah Moles
- Ted Roxbury
- TJ Kolanko
- Tyler Hansen

- President | Nicole Sumner
- Vice President | Rich Mrazik
- Treasurer | Michael Brill
- Secretary | Michael Shea

BOARD OF DIRECTORS

UAC & THE COMMUNITY

The UAC is a keystone in the backcountry community facilitating a two-way flow of information and constant dialogue among the community. Maintaining the trust of the backcountry community allows us to work as an effective public safety organization.



It is the backcountry community that defines us and this winter allowed us to get back in person with the community we serve.

It was an honor to interact with people once again at parties, fundraisers, movies, trailheads, classes, and more.



WORDS FROM OUR COMMUNITY



"There is no doubt in my mind that over the years someone's life has been saved from the information we get from the UAC."

Sid Tensor | Logan | 2022

"I couldn't imagine the La Sal range without the UAC here."

Dave Garcia | Moab | 2022

"We check the forecast every day before we go riding, it's a huge asset to have a full-time forecaster for the Skyline area I don't know what we would do without it."

Cade Beck | Skyline | 2022

"The UAC forecast is a core component to my backcountry planning and decision making process. Having the forecast show up in my inbox every morning makes it easy to incorporate into my morning routine whether I am traveling into the backcountry or not."

Greg Davis | Logan | 2022

We have a strong community of backcountry enthusiasts who are dedicated, just as we are, to keeping everyone including themselves safe from avalanches – They faithfully read our forecasts, take our classes, and support our fundraising efforts.

From Logan to Moab, we are constantly amazed and humbled by the generosity of our users and their unwavering willingness to help us fulfill our mission of saving lives – we are grateful for the support.



AVALANCHE FORECASTING

Avalanche forecasts are published daily and contain life-saving information about current avalanche and mountain weather conditions.

Regional forecasters create avalanche forecasts by gathering data from a multitude of sources - fieldwork, public observations, professional observations, the weather forecast, recent avalanche activity, and snowpack information.

1.1K

**FORECASTS
ISSUED**

700K

**FORECAST
VIEWS**

444

**FORECASTER
FIELD-DAYS**

1.3K

**SUBMITTED
PUBLIC
OBSERVATIONS**



SEASON IN REVIEW

IN THE BEGINNING

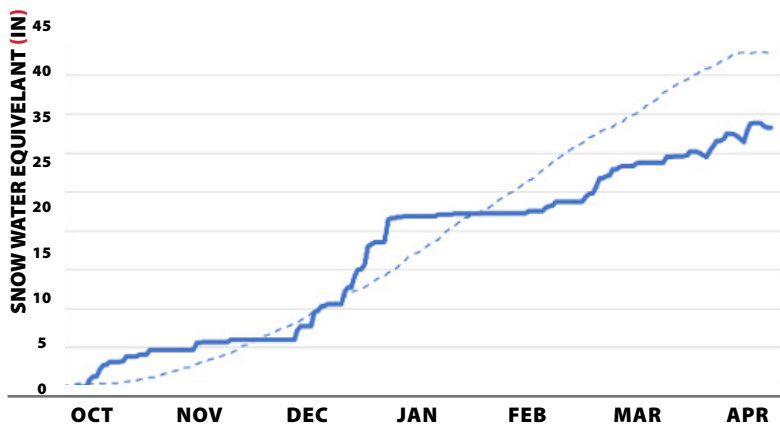
No two winters ever have the same weather and avalanche patterns, but the winter of 21-22 was unlike any other. **The short summary of the season is: above average snowfall in October, almost no snow in November, above-average snow in December, a prolonged dry period during most of January and February, and snowfall in March, April, and May.**

Unfortunately, snowfall in those last three months wasn't enough to bring the snowpack back to average. Major dry snow avalanche cycles occurred during the heavy December snowfall and with early March snowfall. A major wet snow avalanche cycle occurred in late March.

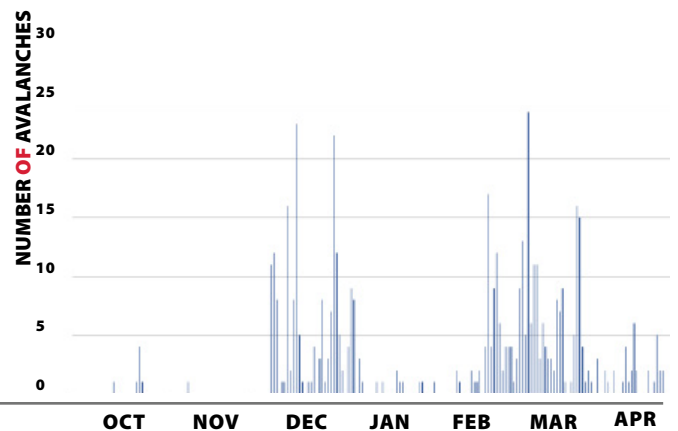
The season started with early snowfall in the later half of October that pushed the snowpack above normal, and then it basically didn't snow during all of November and the first week of December. Predictably, the October snow became weak and faceted on northerly facing slopes, while it melted away on southerly facing slopes. The October snow became the weak layer on which many avalanches happened in December and January.

In most areas, snowfall returned around December 8th and didn't stop for the next month until the first week of January. Many of these storms came from the south with strong southerly winds that loaded northerly facing

PRECIPITAION | SNOWBIRD SNOTEL | ELEVATION 9,777'



REPORTED AVALANCHES (NATURAL & HUMAN TRIGGERED)





SEASON IN REVIEW

21/22
ZERO
FATALITIES

HISTORICAL DROUGHT

slopes where the faceted October snow existed. As we see in many winters, as snowfall continued, the snowpack became deeper and avalanches breaking on the October snow near the ground became deeper, wider, and more destructive.

When the storms stopped after the first week of January, avalanche activity began to subside. By the second week of January, many slopes had either already avalanched or the weak layer was buried so deeply that it was no longer a concern. By January 17th, the avalanche danger throughout the state had dropped to LOW on all aspects and elevations. No snow fell across nearly all of Utah during a six week period from about January 9 to February 16. Mid-winter dry spells are not uncommon, but what was remarkable was such a prolonged period with zero snowfall. Graphs of precipitation across the state were dead flat during this time.

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In many parts of the state during this dry period, riding conditions on northerly facing slopes remained good where winds hadn't destroyed the powder. As dry weather continued, warm sunny days and clear cold nights caused the snow surface to weaken and facet, creating "loud powder" or recrystallized snow. Eventually, the combination of old tracks, wind effects, and warm weather that created melt-freeze ice crusts made soft powder very very hard to find. One area that maintained decent snow conditions for the longest period of time was the Manti-Skyline where there had been less wind and more faceting of the snow surface.

Between February 16th and 23rd, all parts of the state began receiving small amounts of snow. As more snow accumulated and bigger storms began arriving, a growing slab of new snow sitting on top of the old, faceted snow surface began producing more and more avalanches. They grew larger with each storm.

In northern Utah, the avalanche danger spiked near the end of the first week of March. Between Feb 19th and March 19th in the Central Wasatch, there were 47 avalanches reported. What was interesting is that the majority of these slides occurred on mid-elevation slopes. The weak layer at upper elevations was less widespread because it had been destroyed by winds while mid-elevations generally have more wind-sheltered slopes where the weak layer was preserved.

CAUSE & EFFECT

THE END OF AN INTERESTING SEASON

Also of note was that many of the people who triggered these slides, including some who were caught, were people that anecdotally seemed to be more experienced. There were several close calls. Most notable was a guide who was buried six feet deep for 23 minutes and survived.

In Central Utah, on the Manti-Skyline, the weak layer was much more widespread. During the same time period, there were 32 avalanches; an unprecedented avalanche cycle for this area. Further south near Moab, the avalanche activity and the avalanche danger had two notable spikes following snowfall around February 21st and March 4th.

Throughout the winter there were periods of warm weather that created wet avalanches; however, the last weekend of March stands out as the peak of wet avalanche activity with many wet slabs occurring on the Jan/Feb faceted layer.

Spring didn't go down without a fight with several storms through April and May including one over Memorial Day weekend that provided great powder riding. Most importantly, the season ended with zero avalanche fatalities.

Despite several avalanche cycles mostly during storms around Christmas and early May, we want to believe the close calls that did occur had happy endings because the people involved seemed to be prepared, were generally knowledgeable about avalanche conditions, and had a little bit of luck on their side.

21/22 ZERO FATALITIES



SEASON IN REVIEW

HUMAN TRIGGERED AVALANCHES 219

UNINTENTIONALLY TRIGGERED AVALANCHES 38

PEOPLE CAUGHT 42

PARTIALLY BURIED 10

FULLY BURIED 3

FATALITIES 0

AVALANCHE EDUCATION

The Utah Avalanche Center Avalanche Education Programs mission:

Provide quality entry-level avalanche education to motorized and non-motorized users focusing on foundational skills to provide a solid starting point for the lifelong pursuit of avalanche education.

60

**AVALANCHE
CLASSES**

600

**STUDENTS
TAUGHT**

30

**UAC
INSTRUCTORS**

4K

**HOURS OF
INSTRUCTION**

PROGRAM TOTALS

We were able to deliver 60+ classes to over 600 students with 6 different courses, catering to all modes of transportation.

NEW UAC TRAINING HUB

We were stoked to get back in-person this year, and use our new training hub in SLC.

SLOW START TO WINTER

Our instructors and students battled early season conditions until January, and made the best of it.

BACKCOUNTRY 201

We created and launched the BC 201 this season, the then next step for continuing your education and preparing for a life of safe riding.

NEAR PERFECT SAFETY RECORD

Our rockstar instructors got everyone home safe everyday, and ended the year with one minor injury and no accidents.

CURRICULA REVAMP

We reviewed and updated all of our courses and learning material to continue to exceed industry standards.

ONLINE LEARNING

We converted and launched all our pre-course work on a virtual, interactive platform that is utilized in all of our courses.

EDUCATION HIGHLIGHTS



AVALANCHE AWARENESS

The Utah Avalanche Center Awareness Program mission:

Focus on bringing awareness to avalanche information, education and forecasting products to the general public.

500

**AWARENESS
VIDEOS**

20

**UAC
AMBASSADORS**

1K

**TRAILHEAD
AWARENESS
INTERACTIONS**

50

**STATEWIDE
COMMUNITY
EVENTS**



AWARENESS VIDEOS

Produced 500 videos receiving over 2.6M views this season. These videos were mostly short updates about current avalanche conditions accidents, events, the UAC and educational topics.

AMBASSADOR PROGRAM

Implemented an official Ambassador Program. We enlisted the help of 20+ UAC supporters and avalanche enthusiasts to represent the UAC at community awareness events.

COMMUNITY AVY RESCUE

Held four free community avalanche rescue practices. This is designed to help users practice in a non-stressful environment held close to where people live at community parks.

TRAILHEAD AWARENESS

Set-up at 12 trailheads across the state during the season and reached over 1,000 people. Our Trailhead Avalanche Awareness Program entails staff and ambassadors talking to users about all things snow and avalanche.

14TH ANNUAL USAW

Hosted the 14th Utah Snow & Avalanche Workshop with over 3,000 pros & recreationalists. This year was the first offering of the Professional Ski Patrol Snow and Avalanche Workshop (PROSAW), an all-day virtual event for professional patrollers.

AWARENESS HIGHLIGHTS

KNOW BEFORE YOU GO

The Know Before You Go mission:

Provide free avalanche awareness to anyone who lives or recreates in snow-covered mountains.

83

**KBYG
TALKS**

10K

**VIRTUAL
ATTENDEES**

3K

**E-LEARNING
STUDENTS**

5.5K

**IN-PERSON
ATTENDEES**

THE PROGRAM The UAC released the Know Before You Go Avalanche Awareness Program in 2004 after the tragic death of three teenagers at Aspen Grove on December 26, 2003. KBYG is now globally recognized as the standard for avalanche awareness, has been translated into 12 languages, and is being used in over 35 countries.

The UAC offers this program free of charge to schools, youth groups, and community organizations. The UAC also provides public avalanche safety information and presentations at community events and in retail shops.

Big changes are on the horizon for KBYG as it is undergoing a full rebuild. Dubbed **KBYG 3.0**, this is the third major rebuild of the program. This rebuild includes all-new presentation content, videos, online learning, and a new website. This is the largest avalanche education project ever undertaken in the U.S.

The UAC is leading the project and we are partnering with the National Avalanche Center, Colorado Avalanche Information Center, Northwest Avalanche Center and Avalanche Canada. Mammut, Backcountry, KUHL and numerous public and private foundation partners are also helping to make this project possible.

- KBYG 3.0**
- ◆ Get the Forecast
 - ◆ Get the Gear
 - ◆ Get the Training
 - ◆ Get the Picture

KNOW BEFORE YOU GO

PROJECT HIGHLIGHTS | KBYG 3.0

- ◆ Simplification of the program to increase knowledge retention
- ◆ A reduction from five to four key points
- ◆ A focus on making the program more interactive and engaging
- ◆ Partnering with Sherpas Cinema on video creation

4

LEARNING
POINTS

500K

PROJECT
COST

LARGEST
AVY EDU
PROJECT
IN THE U.S.



KBYG 3.0
ON THE WAY

KBYG.ORG

UAC OUTREACH & MESSAGING

Different means of messaging specific information about individual avalanche problems, recent avalanches, travel advice, danger ratings, and mountain weather.

This helps to inform the public and prepare them for possible hazards before they head in to the backcountry.

3.6M

**OVERALL
CONTACTS**

100K

**SOCIAL
MEDIA
FOLLOWERS**

11M

INTERACTIONS

2.4M

**PAGE
VIEWS**

E-MAIL & MOBILE APP



The following numbers represent how the UAC provides information to the public by medium throughout our season.

In addition, the UAC regularly broadcasts forecasts by daily call-ins to KPCW radio and distributes avalanche-related news and education via weekly Fox 13 news appearances.

3.6M CONTACTS

294K USERS | 2.5 PAGES/SESSION **2.4M**
3.21 SESSIONS / USER **PAGE VIEWS**

58% OPEN RATE | 9K RECIPIENTS **1.1M**
638K OPENED EMAILS **EMAILS SENT**

150K SESSIONS | 3K INSTALLS **150K**
2K ACTIVE USERS **APP USES**

SOCIAL MEDIA



74K FOLLOWERS | 644 POSTS
9M IMPRESSIONS



20K FOLLOWERS | 140 POSTS
950K REACHES



17K FOLLOWERS | 45 TWEETS
750K IMPRESSIONS



9.5K SUBSCRIBERS | 215 VIDEOS
455K VIEWS

13K

IMPRESSIONS
PER POST

Social media is critical to the UAC in order to help deliver avalanche information and educational content to our community in Utah.

UAC SOCIAL MEDIA HANDLES

OGDEN, SLC, PROVO | @UTAVY
LOGAN | @UTAVY LOGAN
UINTAS | @UTAVY UINTAS
SKYLINE & SW | @SKYLINE AVALANCHE
MOAB & ABAJOS | @UTAVY MOAB

@UTAH AVALANCHE CENTER

@UACWASATCH | @UTAVY



#UTAVY

FINANCIAL SUMMARY

The non-profit UAC raises 80% of the total cost to run the programs of the UAC with the remaining 20% coming from government sources.

1.6M

OPERATING
BUDGET

92%

SPENT ON
PROGRAMMING

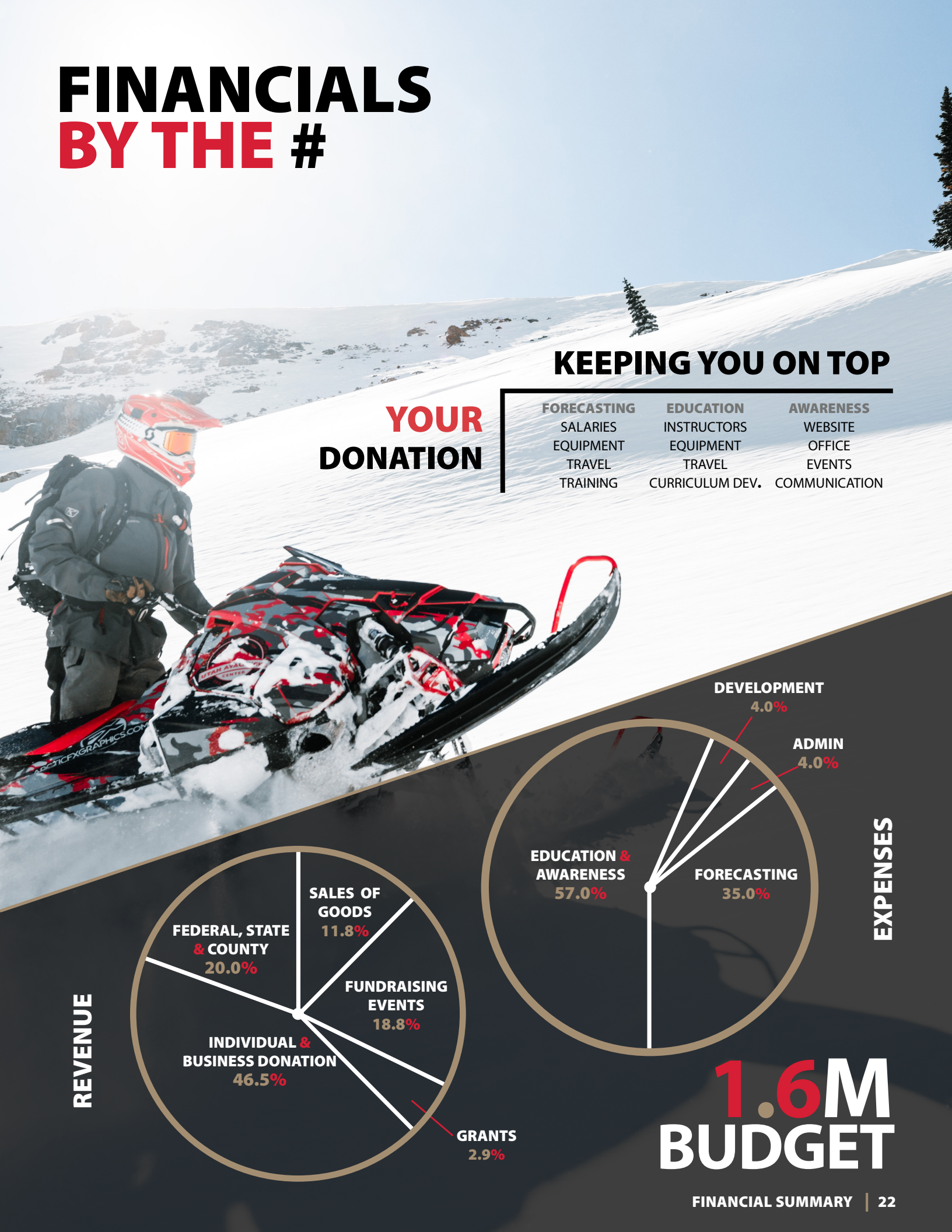
230K

FUNDRAISED
FOR
FORECASTING

1.6K

TOTAL
DONORS

FINANCIALS BY THE

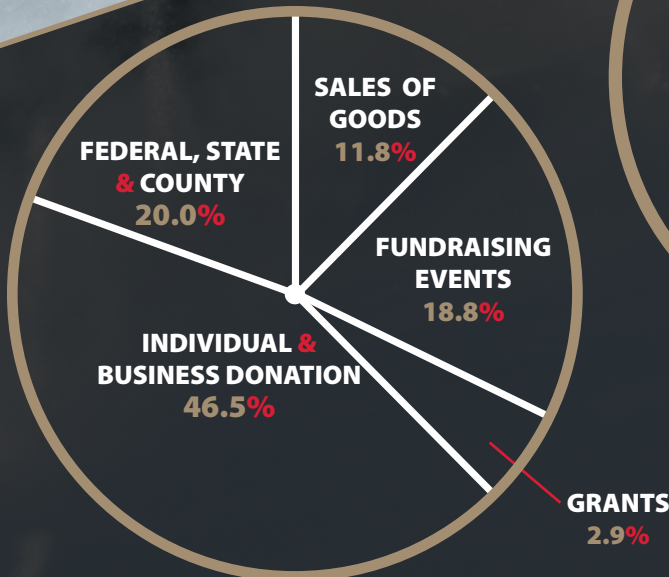


KEEPING YOU ON TOP

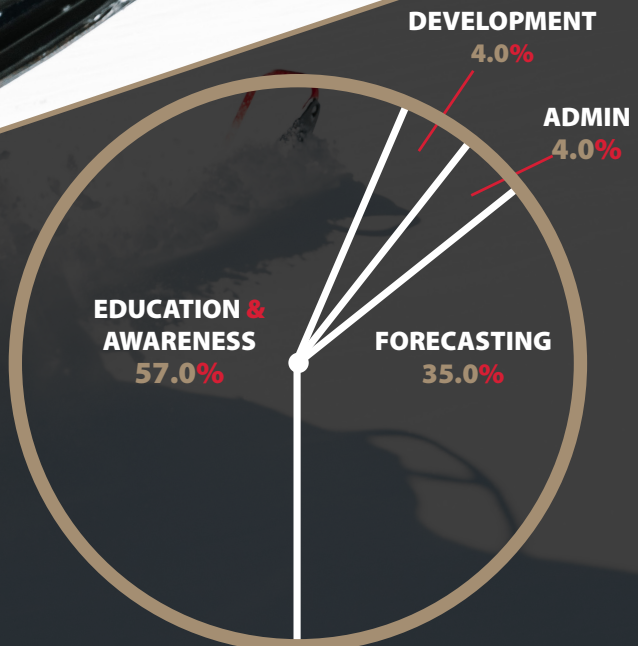
YOUR DONATION

FORECASTING	EDUCATION	AWARENESS
SALARIES	INSTRUCTORS	WEBSITE
EQUIPMENT	EQUIPMENT	OFFICE
TRAVEL	TRAVEL	EVENTS
TRAINING	CURRICULUM DEV.	COMMUNICATION

REVENUE



EXPENSES



1.6M BUDGET

THANK YOU TO ALL SUPPORTERS

The Utah Avalanche Center truly is a team effort, from every individual donor, to local business, and large sponsors -- every community member plays a vital role of helping us Keep You on Top[®].

Thank you to each donor, business, sponsor and supporter who has helped to **make our work possible for 41 years.**

PARTNERSHIPS & DONORS

MOTORIZED

Young Powersports in Centerville and Polaris donated two 2021 Pro RMK's for the season. ADS Motorsports and Ski-Doo donated two 2021 Summits. Northstar of Logan and Polaris donated two 2022 Pro RMK's.

We use these machines to monitor the snowpack across the state of Utah. We also use these machines to teach life-saving classes.



RESORTS

Utah ski resorts once again graciously donated lift tickets to the UAC. We continue to enjoy a great relationship with the Utah resorts, communicating regularly on snow conditions and cooperating on avalanche education for professionals and the public.

Participants include -- Alta, Beaver Mountain, Brighton, Deer Valley, Park City Mountain Resort, Powder Mountain, Snowbasin, Solitude, and Snowbird.

FOUNDATION SUPPORT

- George S. and Dolores Dore Eccles Foundation
- Chris and Ellen Rossi Charitable Fund
- Jennifer P. Speers Family Trust
- JoAnne L. Shrontz Family Foundation
- Park City Community Foundation
- Rocky Mountain Power Foundation
- Steiner Foundation
- Steven B. Achelis Foundation
- W.L. Eccles Foundation



Writing | UAC Staff
Composition | Andrew Nassetta

THANK YOU SPONSORS

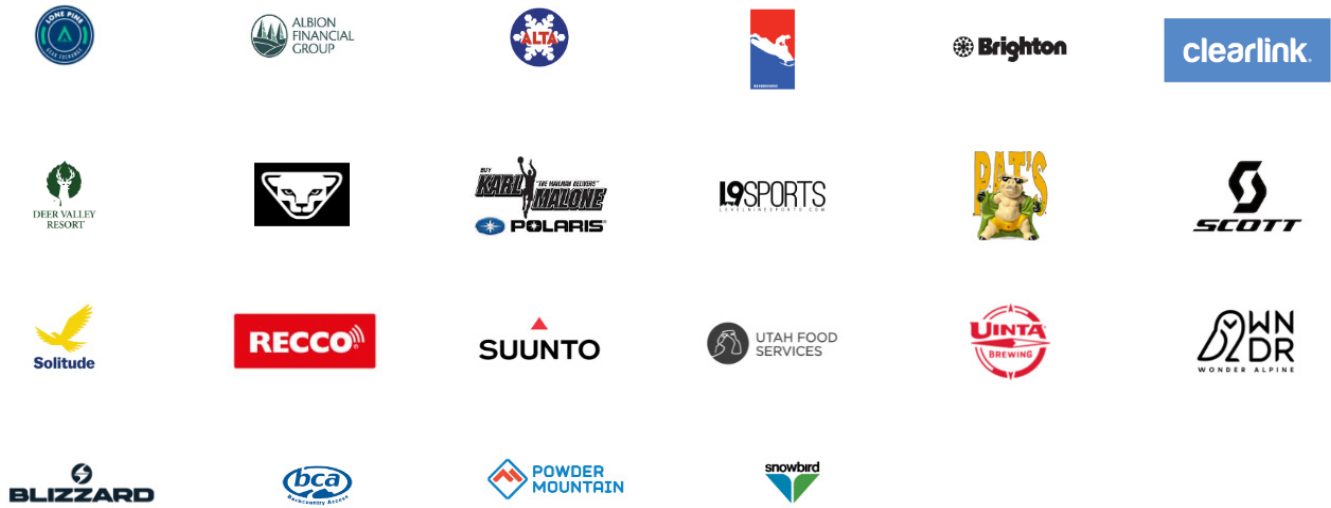
EXTREME



HIGH



CONSIDERABLE



MODERATE



LOW

