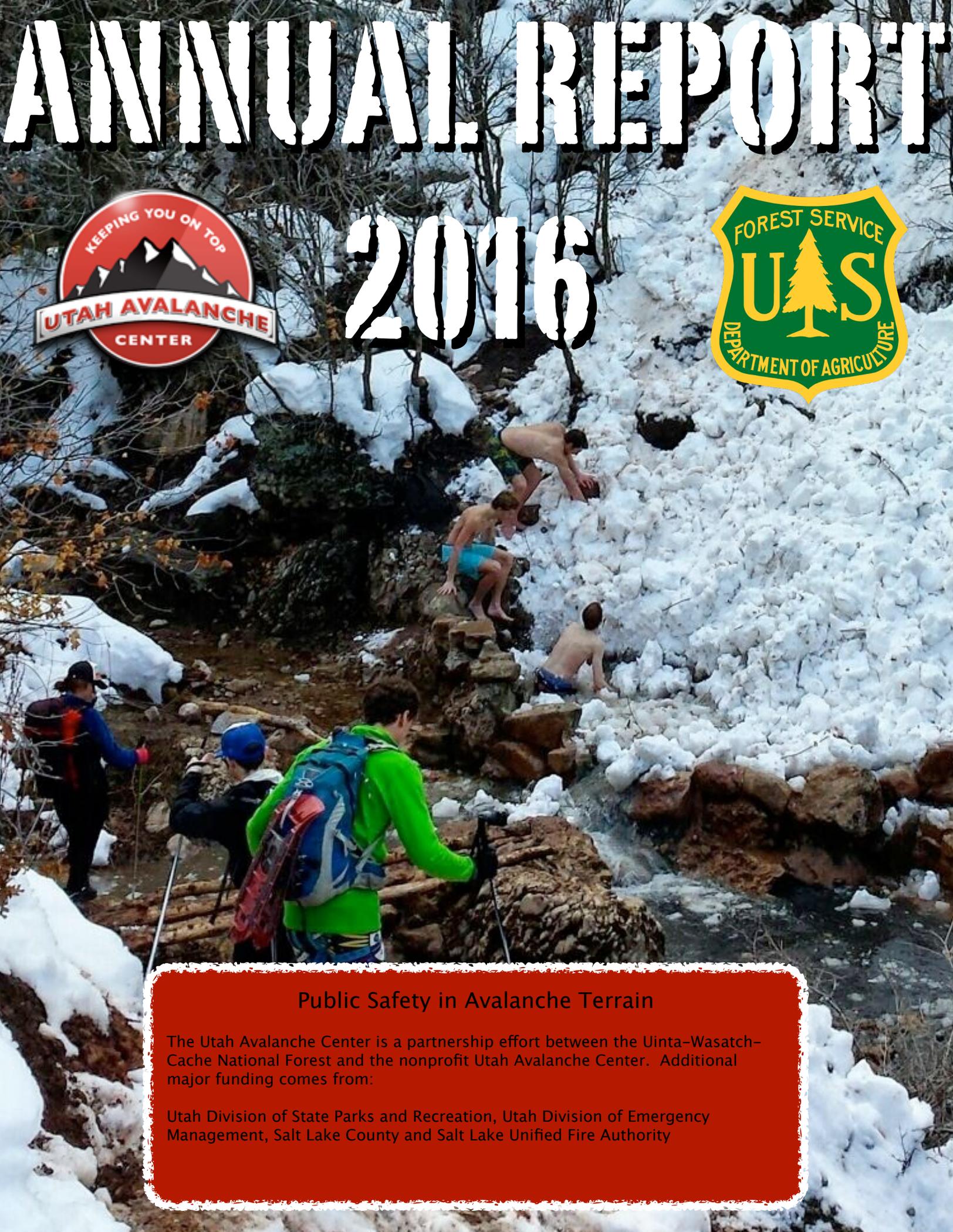


ANNUAL REPORT

2016



Public Safety in Avalanche Terrain

The Utah Avalanche Center is a partnership effort between the Uinta-Wasatch-Cache National Forest and the nonprofit Utah Avalanche Center. Additional major funding comes from:

Utah Division of State Parks and Recreation, Utah Division of Emergency Management, Salt Lake County and Salt Lake Unified Fire Authority

THE UTAH AVALANCHE CENTER

Providing avalanche information and education to the State of Utah

Avalanche Advisories: Our advisories inform the public of what the current and near-term future avalanche hazard level is, the relative safety of different terrain, and what they need to be aware of to stay safe when they venture into avalanche terrain. The advisories are the most widely used UAC product. We issued 1,077 advisories this winter for eight specific areas in Utah which were viewed 478,000 times on our webpage. The public accesses these advisories in the following ways:

- UAC Webpage
- UAC iPhone App
- Recorded telephone message updated each day at 7:30 a.m.
- Early morning “Dawn Patrol” advisory updated each day at 5 a.m.
- Live interview on KPCW public radio each morning at 8:06 a.m.
- E-Mail

Backcountry Observations:

Forecasters, pro-observers and the public published 1,300 field reports that were viewed 649,000 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.

Avalanche Education: The UAC taught 167 classes including Know Before You Go presentations to 8,070 people. The Know Before You Go presentations give an overview of the avalanche problem and basic avalanche awareness skills.

A LOOK UNDER THE HOOD

UAC staff operated in five regions and provided specific avalanche information for 8 distinct areas:

Logan area Mountains (Wellsville and Bear River Ranges): Toby Weed and Paige Pagnucco

Wasatch Mountains (Ogden, Salt Lake, Park City and Provo area mountains): Mark Staples, Evelyn Lees, Drew Hardesty, Brett Kobernik and Greg Gagne

Western Uinta Mountains (Mirror Lake Highway, Weber Canyon, Evanston WY, Daniel’s Summit): Craig Gordon, Trent Miesenheimer

Manti Skyline (Fairview Canyon, Wasatch Plateau): Brett Kobernik

La Sal Mountains (near Moab): Eric Trenbeath



The Utah Avalanche Center is a collaborative effort between the Forest Service program under the Uinta Wasatch-Cache National Forest and the Manti-La Sal National Forest, in partnership with Utah State Parks and Recreation, the State of Utah Department of Public Safety, Division of Emergency Management, Salt Lake County, the National Weather Service and private contributions through the non-profit Utah Avalanche Center.

The non-profit UAC is a remarkable partner to the USFS UAC in every way; managing and supporting avalanche education, producing videos, organizing USAW, assisting with forecasting and overseeing the observers program. A strong board is what makes it all happen.



Left to Right Craig Gordon, Trent Meisenheimer, Bo Torrey, Paige Pagnucco, Mark Staples, Toby Weed: Paul Diegel, Eric Trenbeath, Drew Hardesty, Evelyn Lees, Brett Kobernik (Not pictured: Greg Gagne)

2015-2016 POINTS OF INTEREST

With the best snowfall in several winters, backcountry recreational users safely logged thousands of excellent powder days. The UAC made a huge push to provide avalanche information and education to as many of Utah's mountainous regions as possible, resulting in increased forecasting and education throughout the state.

New UAC Director - Mark Staples

From Bozeman, Montana, Mark is a sledder and skier, with experience as a backcountry forecaster and ski patroller. He also holds a MS degree in Snow Science. His broad background is great match for Utah's diverse winter recreation and avalanche issues.

KBYG Program

A totally new video, slide deck and web site was rolled out in the fall. Though KBYG was spearheaded and produced by the Utah Avalanche Center, it was a cooperative project between Canadian and US avalanche centers. The KBYG video is nearing half a million views and is becoming the standard for general avalanche awareness curriculae.

Knowledge, Awareness and Wisdom

Drew Hardesty teamed up with Trent Meisenheimer to produce a video focusing on developing a culture around "backcountry responsibility."

#utavy

We continued to expand our social media reach using Twitter and Instagram for breaking, real-time avalanche news. Our social media audience increased with over 12,100 followers on Instagram, 6,200 on Twitter and 10,700 on Facebook. The iPhone app continued to gain in popularity as an information source of choice for many.

Logan

The Logan area mountains had an amazing number of close calls, including one very lucky fisherman. We added an observation and information page for SE Idaho. We completed a Level One class for snowmobilers. We made major social media gains with Instagram, Twitter, Facebook as well as videos.

Uintas

Forecasters Craig Gordon and Trent Meisenheimer cranked out almost daily forecasts all winter long and kept a fleet of weather stations running. Partner Park City Powder Cats and observer Tedd Scroggins kept snowpack observations flowing. The first motorized companion rescue class was held in Kamas.

Salt Lake, Park City, Ogden and Provo

Excellent days of powder were punctuated by several widespread avalanche cycles, sadly resulting in two avalanche fatalities in January – on Gobblers Knob and near Pointy Peak on the Park City ridgeline. As the winter became intensely busy, forecasters Mark Staples, Evelyn Lees, Drew Hardesty and Brett Kobernik were joined by long time observer Greg Gagne, who slipped right into the forecasting routine, while Mark White kept up his high-quality field observations.

Manti Skyline

Brett Kobernik headed south and set up shop in the Sanpete Valley. He doubled the number of weekend advisories, added 100 mid-week short advisories and set up area specific social media. He also provided a mix of avalanche talks and field sessions, including several for county Search And Rescue groups.

Moab

Storms produced an above average snowpack in the La Sals, attracting heavy backcountry use and keeping solo forecaster Eric Trenbeath busy. Advisory use was up 75% and Eric issued separate forecasts for the Abajo mountains. He expanded education opportunities including offering the first ever Avalanche 101 class for snowbikers.

SW Utah

We reached our goal of providing online information for the SW backcountry community for the first time. Observer Todd Leeds organized the effort and provided excellent local outreach and observations.

SNOW AND AVALANCHES

Be careful what you wish for. Last season had most everyone packing up their skis and sleds early after enduring disappointingly low snowfall amounts. But this season was a whole different ballgame. The snow arrived early and kept steady well into spring. Most of Utah enjoyed a fairly “normal” winter with a few weeks of cold but otherwise seasonal temperatures.

With snowfall near normal to barely above average and interest in backcountry recreation high, forecasters throughout the state made a huge push to provide current avalanche information to as many of the mountainous regions as possible. As of April 18, 2016 total SWE on the stakes ranged from 60–80% in the middle parts of the state to 90–100% in the far north and far southwest corners.

As in many past winters, an early season faceted weak layer persisted and produced widespread avalanche cycles mid-winter as well as a few isolated slides into April. Amid the many days of excellent powder, there were sadly two fatalities in January.

Avalanches caught and injured numerous avalanche professionals as well. The snowpack was tricky for a while and even the best learned some hard lessons.

Amidst the chaos of the season, the Salt Lake forecast team welcomed long-time observer Greg Gagne as a part-time but completely invaluable interim forecaster to help balance out the load following Brett Kobernik’s season ending knee injury.

Central Utah

The Utah Avalanche Center expanded operations into central Utah with Brett Kobernik moving to the Sanpete Valley and tackling forecasting and education responsibilities on the Manti Skyline. He doubled the number of weekend advisories and added 100 mid-week as well. Brett gave a number of avalanche talks, performed field education sessions and



SEASON SUMMARY



Top - Huge natural avalanche caught on film by Provo morning commuters

Middle - Snowboarding in the Utah backcountry

Bottom - Late season avalanche above the town of Alta

Left - Massive avalanche in the Logan Mtns

focused on connecting with regional SAR teams. Support from Big Pine Sports and Arctic Cat played a big role.

Moab

The La Sal Mountains had a banner year; significant snowfall, an increase in use and a full education schedule kept lone forecaster Eric Trenbeath hopping. Due to the frequent and continual storms,



Trenbeath posted an average of 4 advisories a week, totaling over 100 for the season. He also posted weekend advisories for the Abajo Mountains 50 miles to the south.

Snowfall started the first week of November and didn't let up until the first week of February, when the snowpack totaled 180% of normal. Two large, natural avalanche cycles occurred, including one on December 26 that produced widespread activity on all aspects with fractures four to seven feet deep.

Logan

The Logan satellite office, staffed by forecaster Toby

Weed and outreach and education specialist Paige Pagnucco, dealt with avalanches right from the get go. Remote-triggered avalanches were fairly common in the early season and an experienced and educated local snowboarder got caught, carried and buried suffering moderate injuries. Hard-slab avalanches buried one lucky rider who was rescued and sustained only minor injuries as well as another rider near Logan Peak. A February wet cycle made life exciting as loose wet



avalanches slammed Hwy. 89 and the Logan River Trail. A local fisherman reported being way too close to a large, natural wet avalanche while looking for trout. March had a few close calls involving multiple riders and airbag deployments.

The Logan team used advisories and social media to spread the avalanche word to an ever-increasing audience. Non-avalanche related highlights



include securing an Arctic Cat M8000 for field use from Northstar's Ultimate Outdoors in Preston, ID and Arctic Cat, adding a SE Idaho observation page to the website and teaching an intensive Level One class on snowmobiles for members of Cache County Search and Rescue.

Uintas

The Uinta satellite office, staffed by forecaster Craig Gordon with help from Trent Meisenheimer, seemed to cruise through the season with only one significant avalanche accident. At the end of January, one snowmobiler triggered and was caught, carried and buried four feet deep by a large hard slab avalanche in the vicinity of Currant Creek. Lucky for him his brother managed to clear his head in under 3 minutes and he amazingly suffered no injuries.

Partnerships were key to the western Uinta advisory program and both the Heber-Kamas and Evanston USFS Ranger Districts were instrumental in supplying field partners and in-kind support to the avalanche center. Park City Powder Cats, Tri-City Performance, Polaris, Weller's Recreation and BRP/Ski-doo were invaluable with their generous donations of high-end, state-of-the-art sleds that allowed forecasters to visit more terrain and issue more accurate advisories. Big Pine Sports and Arctic Cat donated a new enclosed sled trailer.

AVALANCHE AWARENESS, EDUCATION AND OUTREACH

KNOW BEFORE YOU GO

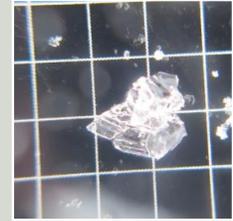
Know Before You Go

The Utah Avalanche Center led a team consisting of representatives from the Colorado Avalanche Information Center, Avalanche Canada, AIARE, the National Avalanche Center, and others to develop new KBYG content to:

- Fit into the framework of Get The Gear, Training, Forecast, Picture and Out of Harm's Way.
- Feature iconic terrain and current pro athletes from around North America.
- Include current music.
- Include recent high-definition video images to build excitement and illustrate key points.

The introductory video and supporting presentation slide show underwent a complete re-production. A new website, www.kbyg.org, was created to host the KBYG program and other introductory awareness tools and products. Other avalanche centers and the featured pro athletes were recruited to help distribute the new content across North America using social and conventional video. A facebook page, www.facebook.com/KBYGavalanchesafety, was created to help build virality. By May, the video had been watched online over 463,000 times and the KBYG facebook page had 4,620 likes. The content was distributed to 150 instructors in 19 states and 15 countries and has been widely accepted as the standard for building introductory avalanche awareness. Craig Gordon and Paul Diegel travelled to Bear Valley, CA in December to kick off the KBYG program in that area and attend a meeting of parents who have recently lost sons in avalanches.

UAC staff, interns and contractors gave 167 presentations to 8,060 people in Utah during the winter of which about 15% took place on the Wasatch Back. Similar results were achieved in neighboring Colorado. The KBYG numbers were down significantly this year compared to 2013-14, likely due to increased support from the State board of Education.



Highlights and new classes

- A one day 101 class aimed at snowbikers was held in Moab with 6 participants, the first of its kind anywhere that that we are aware of.
- The first ever Moab 101 class was held with 18 participants.
- A motorized 1 day 101 class was held for the first time for a group of Wolf Creek Ranch homeowners in the Uintas.
- The Companion Rescue classes proved successful. Twenty two people attended our first class aimed specifically at motorized users in Kamas.
- The 8th annual Utah Snow and Avalanche Workshop brought about 600 professionals and backcountry users for a day of continuing avalanche education at the Southtowne Expo Center on October 31st.
- A Snowbasin women's 101 class and a Logan motorized 101 class in February were cancelled due to lack of sign ups.
- Sign ups were strong for the Powerkeg clinics, suggesting that event is finally getting good traction. Unfortunately, extreme weather and high avalanche danger led us to cancel all but 1 of the Sunday clinics
- A motorized Level 1 class was taught in Logan for Cache County Search and Rescue with 11 participants.

FATAL ACCIDENTS



Left: Skier triggered avalanche on Gobblers Knob.

Lower Left: Snow Profile from Pointy Peak avalanche fatality

Lower Right: Debris of Gobblers Knob avalanche



GOBBLERS KNOB, BIG COTTONWOOD CANYON, JANUARY 21ST, 2016

Two backcountry skiers triggered and were caught in an avalanche, with one carried over 1000' vertical, fully buried and killed. The slide released on a thin layer of facets that developed below a crust over the previous 2 weeks. An avalanche warning was in effect at the time.

A complete accident report is available here: <https://utahavalanchecenter.org/avalanches/26182>

PARK CITY RIDGELINE, NEAR POINTY PEAK, JANUARY 31ST, 2016

The second fatality of the season occurred when a solo, out-of-bounds skier triggered a slide failing on the basal facets in a shallower snowpack area. He was completely buried and, without a witness, search and rescue operations were prolonged.

A complete accident report is available here: <https://utahavalanchecenter.org/avalanches/26533>

UNINTENTIONAL HUMAN TRIGGERED AVALANCHES	TRIGGERED	CAUGHT	INJURED	KILLED
	82	51	6	2

PROGRAMS AND PARTNERSHIPS

Are You Beeping signs: The UAC continued replacing old text-heavy "Are You Beeping?" awareness signs at popular trailheads and resort exit gates, some incorporating transceiver checkers.

The Avalanche Project: Formerly Project Zero, a coalition of avalanche centers from Utah, Colorado and Washington along with AIARE and Avalanche Canada joined forces to provide an avalanche resource to the snowsports industry and continued efforts to impact user behavior. The UAC maintains a position on the marketing subcommittee.

Partnership with other avalanche nonprofits: The UAC was in regular contact with other Friends groups, primarily from the Northwest, Colorado and Sierras, to share ideas and resources. The groups met face-to-face at the Outdoor Retailer Winter Market in January.

Backcountry Responsibility Project: Spearheaded by Drew Hardesty, the UAC continued work on what is called the "Backcountry Responsibility Objective", which highlights our responsibility to each other in the backcountry. An introductory video was released, several presentations on the subject were given at snow and avalanche workshops and Black Diamond events around the country. Discussion began regarding the need for a backcountry ambassador position in the Wasatch to address user conflicts and public safety issues.

Utah Adventure Journal Speaker Series: The Utah Adventure Journal – Snowbird Speaker Series returned this year with six events, raising \$5,423 and giving Snowbird guests exposure to the UAC.

Lift Ticket Partnership: The ski resorts donate lift tickets which are in turn sold at a discount by the Utah Avalanche Center through Backcountry.com. Vail Resorts tickets were sold by the Park City Sports rental shop which sold out very quickly. We collected \$46,189 this year, a new record driven by higher ticket prices and nearly selling out of tickets. 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 included: Alta, Brighton, Vail Resorts (Canyons/Park City), Deer Valley, Nordic Valley, Powder Mountain, Snowbasin, Solitude, Sundance and Snowbird.

Observer Program: About 40 observers from around the state submitted about 700 observations this year.

Snowmobile Partnerships: Tri-City Performance and Polaris donated a 2016 Pro-RMK for the season. We taught a Level I avalanche class for Polaris riders and developed snowmobile avalanche curriculum as well as begin to develop a program to educate snowbike riders.

The Logan office developed a new partnership with Northstar's Ultimate Outdoors in Preston and Arctic Cat leading to the donated use of a 2014 M8000 sled to Paige for the season. Big Pine Sports and Arctic Cat also provided a machine for use on the Manti Skyline

Weller Recreation and Ski-Doo donated a 2016 Summit XM for the season and continue to provide support for and help to promote avalanche classes for snowmobilers.



2015/2016 UTAH ADVENTURE JOURNAL
SPEAKER SERIES
 PRESENTED BY SCARPA
 THURSDAYS at 6:00pm • FREE • 21+
 WILDFLOWER LOUNGE at the IRON BLOSSOM LODGE • SNOWBIRD
Only guests 21+ years are permitted into the Wildflower Lounge

2/4 BRODY LEVEN
Seasick: Climbing and Skiing the World's Northernmost Active Volcano
 Adventure skier Brody Leven had his seven-week Icelandic trip interrupted by an invitation to sail to an island he didn't know existed. He departed Iceland on what would slowly become an 85-hour sailboat of misery. After battling 20-foot waves in endless daylight, the Aurora Arktika, an Icelandic expedition boat, finally anchored outside of the Norwegian island of Jan Mayen, at 71 degrees north. Beneath the 24-hour sunshine of the arctic summer solstice, Brody climbed and skied the northernmost active volcano on earth, 7,470-foot Beerenberg, in a 36-hour push from his sea level base camp. Without any permanent island residents, no one knows how many other people have done the same. Then he had to sail back.

ADMISSION IS FREE
 A \$5 donation to the Utah Avalanche Center gets you 3 tickets to a drawing with great prizes from our sponsors.



INFORMATION RESOURCES

The following figures provide a summary of how the UAC provides information to the public by medium and how that has changed over the years. In addition, the UAC regularly broadcasted advisories by daily call ins to KPCW radio and distributed avalanche-related news and education via weekly Fox news appearances.



Facebook:
10,642 Likes ↑



Regional Email Advisories:
3,608 Subscribers ↑
533,165 delivered emails ↑
253,601 Opened emails ↑



Twitter:
6,217 Followers ↑
140 tweets ↑



Mobile Application
21,815 total Downloads ↑
307,480 Uses ↑
427 Average Active Users ↓
(6,649 Peak ↑)

2016-17 Connections



Youtube:
67 videos ↑
38,014 views ↑



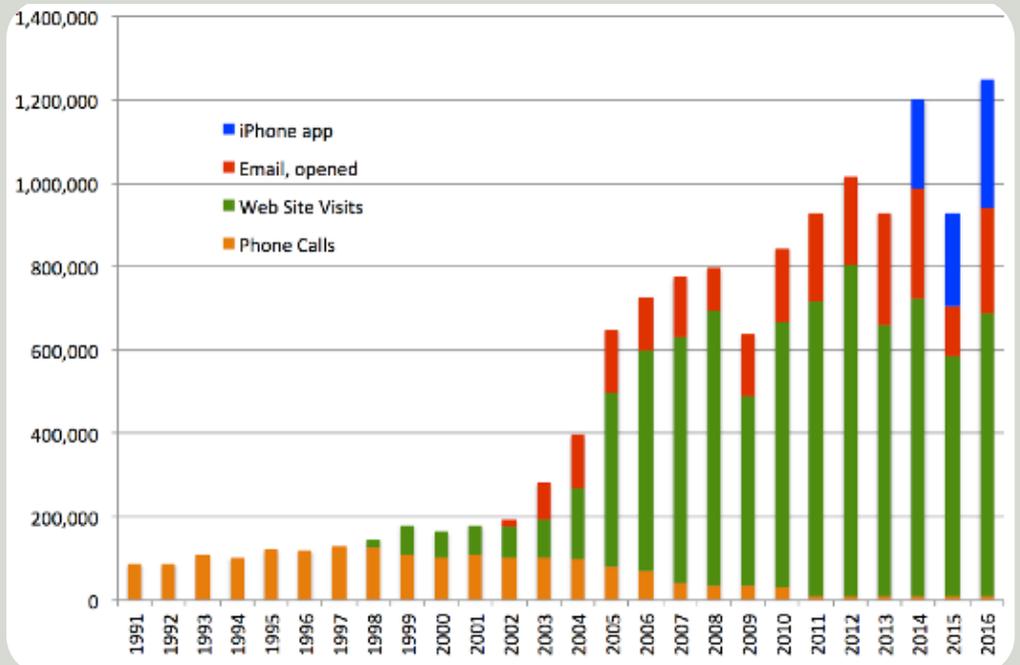
Utahavalanchecenter.org
677,135 Visits ↑
2,008,872 Page Views ↑
171,384 Unique Visitors ↑
1,006 Advisories ↑↑



Instagram:
11,900 Followers ↑↑
410 Posts ↑↑

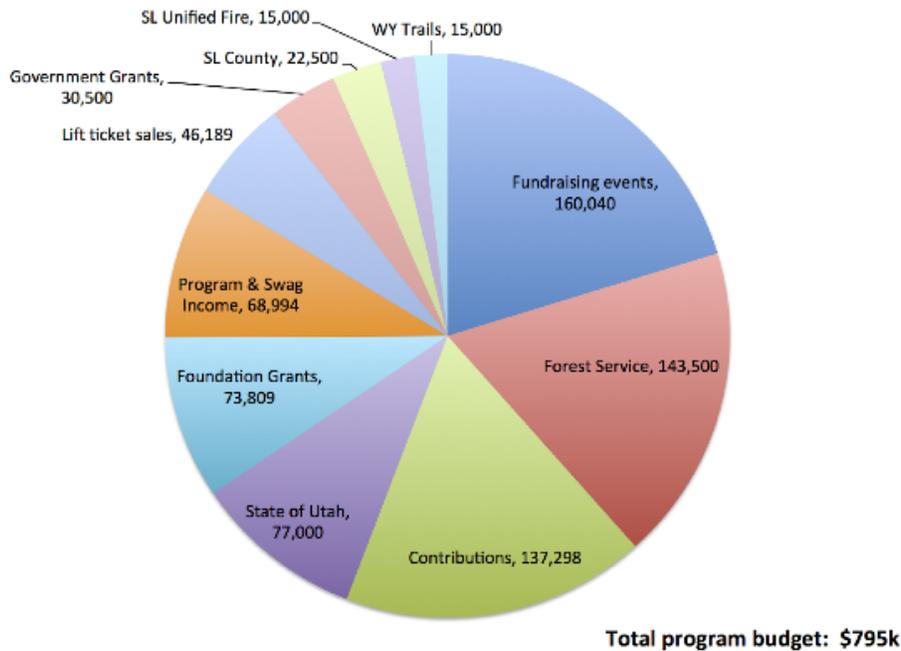


Vimeo:
32 videos ↑↑
107,085 views ↑↑



BUDGET

2016 Total Program Estimated Revenue by Source



The Utah Avalanche Center is a partnership between the U.S. Forest Service and the nonprofit Friends of Utah Avalanche Center. In addition, several local and state government agencies contribute funding. The following is a summary of the Forest Service budget for the season:

Income:

1. Uinta-Wasatch-Cache - \$115,000 (103K from earmark, 5K from Am. Fork, 7K from Evanston Ranger District for Ted)
2. Manti-La Sal - \$28,500 (all from regional earmark)
3. State of Utah - \$77,000 (52K from State Parks, 25K from Public Safety)
4. State of Wyoming - \$15,000 (from RTP)
5. Salt Lake County - \$22,769
6. Friends of UAC - \$125,000

Total - \$383,269

Expenses:

1. Salaries - \$353,311
2. FS/personal vehicles - \$12,553
3. Misc employment costs - \$14,107
4. Misc expenses - \$3,298

TOTAL - \$383,269

Two-thirds of the funding for the UAC comes from the non-profit funding sources, making up a little over \$500,000 in FY 2016. New for 2015-16 was a \$25,000 Recreational Trails Program (RTP) grant administered by Utah Division of State Parks earmarked for Know Before You Go development and delivery in rural Utah.

SPONSORS



1: Low (\$500 to \$1,000)



2: Moderate (\$1,000 to \$3,999)



4: High (\$10,000 to \$20,000)



3: Considerable (\$4,000 to \$9,999)



5: Extreme (Over \$20,000)



STATE OF UTAH
NATURAL RESOURCES
Division of Parks & Recreation

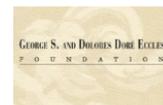


Black Diamond



SALT LAKE
COUNTY

VAIL RESORTS[®]
EXPERIENCE OF A LIFETIME™





PREPARED BY:

Utah Avalanche Center staff

COMPILED BY:

Brett Kobernik