2025 | Annual Report

Providing life-saving avalanche information and education throughout the Inland Northwest since the mid-1980s.

IPAC
Idaho Panhandle Avalanche Center

Friends of IPAC

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***Cover Photo**: Surface hoar visible at the bed surface of a human-triggered avalanche in the Selkirk Mountains on February 2, 2025. Consistent snowfall overwhelmed these fragile grains for almost two months and was the culprit of many avalanches. Photo: Micah Krmpotich. **Above**: IPAC Field Technician George Lagesse investigating buried surface hoar and faceted grains below a thickening slabs. After 40 days, confidence coalesced and we removed this atypically weak and persistent avalanche problem from our forecast products. Photo: Kyla Berendzen.*

Introduction - Mission

The Idaho Panhandle Avalanche Center (IPAC) operates as a collaborative effort between the Idaho Panhandle National Forests and the Friends of the Idaho Panhandle Avalanche Center (FIPAC), a 501(c)(3) organization, and additional support from the Kootenai National Forest and the Lolo National Forest in Montana.

The IPAC is a USFS Avalanche Center that provides regular avalanche forecasting across four mountain regions and approximately 1.9 million acres of public lands in North Idaho and Northwestern Montana - the Selkirk, Purcell, and West and East Cabinet Mountains, and a portion of the Bitterroot Mountains in the Silver Valley.

FIPAC, IPACs non-profit partner, is a grassroots organization aimed at supporting avalanche forecasting operations and avalanche awareness throughout the Idaho Panhandle. The long-standing commitment to provide quality and accessible avalanche education continues to be a fundamental part of our mission. FIPAC is guided by a passionate, community Board of Directors who promote community engagement and support of the avalanche program through public communication and events.

Federal funding only covers about 50% of IPACs annual operating budget. Your donations and financial support through memberships and business sponsorship directly helps fund IPACs forecast and education staff, and allows us to provide weather and avalanche forecasts, and avalanche education to our communities.

Above the Crack Accomplishments

EDUCATION

362

Participants in classroom and field based courses

30

Public Education Opportunities (Motorized & Non-Motorized)

FORECASTING

87

Number of forecast days (172% increase from ‘23-24 season)

307

Total weather & avalanche products issued (34% increase from ‘23-24 season)

5

Avalanche Watch to Warning Cycles

***Above**: Just one of the many glide cracks that opened up atypically early across our forecast zones. Throughout the operational season, we documented 10 cracks that eventually succumbed to a Glide Avalanche and ranged size 2 to 3.5. Bitterroot Mountains. Photo: Chris Bilbrey.*

Community Engagement

123,500

Total forecast page views (98% increase from ‘23-24 season)

57,400

Unique website visits (63% increase from ‘23-24 season)

48,000

Total observation page views (64% increase from ‘23-24 season

6

Portable beacon checkers placed at popular motorized and non-motorized trailheads

132

Members & annual supporters

1,021 Forecast email subscribers

12,600 Combined Facebook & Instagram followers

IPAC Director’s Letter

You may not know it, but the Idaho Panhandle Avalanche Center (IPAC) has been providing avalanche safety information for North Idaho since the mid-1980s. For over 30 years, the IPAC has experienced both challenging and rewarding progress. Initially issuing avalanche warnings via a phone hotline in the pre-Internet era, to weekly snowpack updates, then progressing to two avalanche forecasts per week, IPAC has continued to grow like an avalanche running down the mountain. Slow and steady as she sails, although backcountry use has increased more than twenty-fold since 2000, and avalanche-related fatalities have occurred more frequently over the last decade in North Idaho.

Throughout the years, the IPAC has operated with several part-time forecaster/ field technicians, and either a part-time director or staff members would share the director responsibilities - duties in addition to writing forecasts, going into the field, teaching classes, and working their other “day jobs”. The countless extra director duties that are crucial to team communication, forecasting efficiency/ accuracy, coordinating day to day field operations to broaden data collection, and long-term financial planning. The by-committee approach of the passionate, hard working staff kept the IPAC ship afloat, but this operational model was no longer sustainable - especially as more people are recreating on public land systems in avalanche terrain.

In 2023, and with broad community and forest support, the USFS advertised the first full-time permanent Avalanche Center Director position for the IPAC. Former IPAC Director/ Forecaster Kevin Davis thought, “what person would come here when they could work in Jackson Hole, Bozeman, or Salt Lake - big avalanche country? Not a snowball’s chance in hell Kevin thought.” Then it happened, and as an old saying goes…a blind squirrel will find a nut once in a while. In July 2024, the IPAC got its first full-time director.

Filling this critical director position provided immediate reinforcement and allowed IPAC to take positive steps forward to address rapid growth in winter backcountry recreation by providing timely avalanche forecasts and increasing public awareness. For the first time in the long history of the program, the team achieved regular avalanche forecast products 5 days per week from early-December to mid-April. This is up from the historical average of twice per week and is an undoubtable benefit to all types of backcountry users throughout the Inland Northwest. I'm grateful for the hard work, dedication, and patience of the entire staff in tolerating the "new guy", and embracing the many operational changes and new processes that made year 1 a success.

While there were no avalanche accidents or avalanche-related fatalities this season, we observed many bold lines, groups recreating without avalanche rescue gear in avalanche terrain, and had a few close calls with rider involvement, but no partial or full burials. We know a few more mistakes or a little less luck could have led to a different outcome. The IPAC remains committed to expanding our brand to people who might not know what the avalanche program does, increasing public buy-in to check the forecast before heading into the mountains, and promoting our avalanche education program. Strong, cooperative relationships will be pivotal to building a sustainable forecasting program with full-time staff. All of which will improve public safety messaging to help people stack the odds in their favor.

Chris Bilbrey
IPAC Director

FIPAC President’s Letter

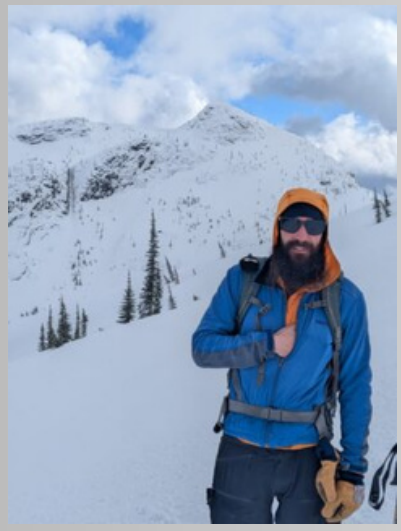
Another frozen season in the books and I am perpetually in awe of our outdoor communities as we continue to execute our mission of public safety and education. My time with IPAC has allowed for some unique experiences to see that everyone involved in this Center and in support of its missions are often one in the same. A backcountry skier checking the forecast webpage, an enthusiastic split-boarder turned avalanche instructor, a snowmobile club leader promoting safety, a business owner donating resources, a decades long snow professional studying weather models, or a snow-biker bashing brush to find that next zone all share a common joy that these mountains allow us each winter. Our organization is growing and building a more sustainable foundation, and it has taken everyone’s support to make it this far. Thank you to our Members, Sponsors, local Forest Service management, students, supporters, and current and past staff members. IPAC is not an entity that would exist without you. It is all of you.

Gabe White
FIPAC Board President

Team IPAC





Staff (from upper left): IPAC Director Chris Bilbrey, IPAC Forecaster Mikey Church, IPAC Forecaster Izzy Davis, IPAC Forecaster Jeff Thompson, IPAC Field Technician Kyla Berendzen, IPAC Field Technician Micah Krmpotich, IPAC Field Technician George Lagesse, IPAC Field Technician Kali Rose Zurfluh

Idaho Panhandle National Forests (not pictured): Deputy Forest Supervisor Jason Brey, Recreation Staff Officer Josh Jurgensen

Thanks for The Unwavering Support

Avalanche season often starts like the 100 m sprint. When in reality, the season more mimics the marathon - testing the physical and mental fitness of the best of the best. The storyline of each season is unique and different, but similarly embedded with chapters full of new obstacles, levels of risk, and decision-making outcomes. Having a holistic understanding of the twists and turns through the powder cloud of avalanche conditions requires the forecast staff to be fully immersed in the daily, weekly, and even sometimes hourly evolution of change that influences avalanche problems.

The Idaho Panhandle Avalanche Center (IPAC) could not accurately tell the snowpack story without the generous support and engagement of our avalanche community. Thank you to everyone who volunteered their time accompanying us in the field and/ or provided us with information about what you saw when out and about in the mountains. Having public input truly helps make our forecast products better throughout the entire season.

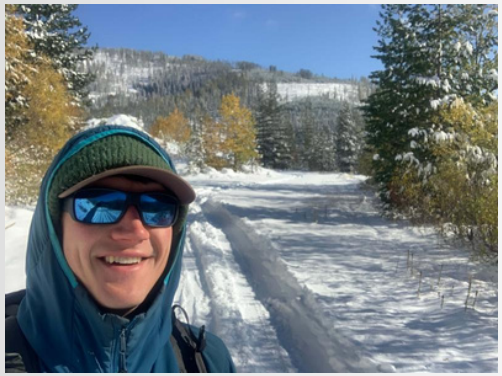
A huge thanks is in order for **Allsport Racing** and **Westside Motorsports** who again provided us with three loaner snowmobiles to use for fieldwork operations. We were thrilled to have two Polaris Khaos and a Ski-Doo Summit Adrenaline in our sled fleet!

Thank you to **Schweitzer** and **Silver Mountain Ski Patrols** for continually sharing snowfall and avalanche information with the avalanche center. We are also grateful to **Lookout Pass Ski Area** for granting uphill access to IPAC staff so we could regularly conduct fieldwork in the popular Stevens Peak backcountry area.

And last but far from least, thank you to the **Friends of IPAC**, the **Forest Service**, and **the many members and business sponsors** for your continued, unwavering support of this avalanche program. We're proud of what we do, but couldn't pull it off without community support, and the hard work and dedication of the entire IPAC family. Have a fun and safe summer season and see you next fall!

Team IPAC

Team FIPAC



Board Members (from upper left): President Gabe White, Vice President Tom Eddy, Secretary Mike Brede, Treasurer Miles Rinne, Larry Banks, Sean Mirus, Gary Quinn. **FIPAC Staff**: Education Coordinator Jon Totten, Sponsorship Coordinator Brendan Bonner (not pictured)

Season Review - Forecasting

2

LOW danger days,
January 30 to April 12

40

Consecutive days with the January Drought Layer listed as a persistent avalanche problem

265

Documented avalanches
(237 natural, 28 triggered)

149

Avalanches size
D2 or larger

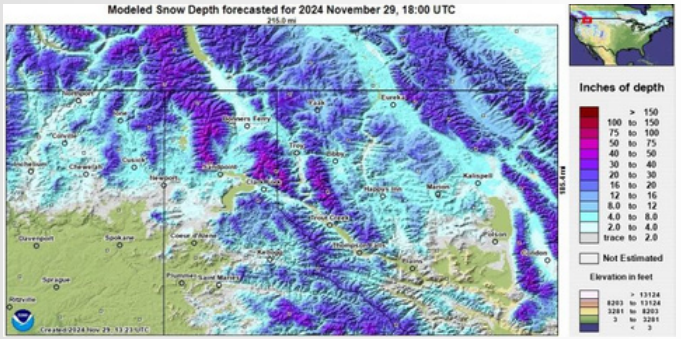
226

Professional and public observations submitted

"Persistent" means to exist for a long or longer than unusual time or continuously. Linking persistent with words like snowpack instability, avalanche, or danger form semantic relationships commonly associated with mountainous areas high in elevation and cold, and where the snowpack harbors slabs of snow over multiple weak layers capable of producing many avalanches. In the Inland Northwest, persistence usually describes the frequency of thick alder, the damp-foggy-snowy conditions, or the precipitation type rollercoaster. However, this season served a flavor of persistence that rarely emerges in the fragile, broad distribution that plagued stability and kept the danger elevated for nearly two months.

The first meaningful storm arrived on Halloween and kicked off the 2024-25 avalanche season. This followed abnormally warm, sunny, and dry weather in October. This meant the season's first flakes fell mostly on bare ground to much delight of the forecast staff versus above a pile of weak, rotten snow. Fluctuating rain-snow elevations created a myriad of thin crust around softer layers, but only small avalanches were observed. November snowfall built a solid base 3 to 5 feet deep and SNOTELs sat between 130 and 150% of median SWE by December.

On December 4, the Idaho Panhandle Avalanche Center (IPAC) issued its first regular avalanche forecast for the season. This marked day 1 of 87 forecast days - the most forecast days of any prior season and a 172% increase from the past two seasons. Avalanche forecasts were issued five days per week through mid-April. By the start of regular forecasting, the danger was rated LOW (1of5) thanks to steady snowfall, consistent temperatures, and limited weak layer formation between storms.



***Above**: Modeled snow depth for IPACs forecast zones on November 29, 2024. Image: NOAA.*

Forecasting

The parade of storms continued into December, but a strong warm front December 7 drove rainfall over mountain tops. A cold front the next day formed the first global aspect-elevation rain crust. New snow instabilities above were the main hazards initially, but as the crust faceted and the slab got thicker, deeper instabilities returned. While a complex mountain snowpack was brewing above 4,000 feet, mild temperatures and limited snow cover below made accessing the continuous snow line a challenge, and more like an El Nino winter versus La Nina.

The static avalanche conditions changed tenor as the month progressed. A storm December 18 delivered a quick 1.5 to 2 inches of SWE and flexed the crust's integrity. This was the first notable uptick in natural avalanches, and they started breaking across terrain features. Ushering out the old year for the new, a multi-day storm deposited 3 to 5 feet of snow and 4 to 6 inches of SWE. The faceted crust finally succumbed, and this period culminated in the first widespread cycle of the season.

We issued an Avalanche Warning and HIGH (4of5) danger on December 28 and 29. Clear weather windows to view avalanche activity can be extremely rare in North Idaho, so we rely on a limited sample size of observed avalanches to help infer similar activity elsewhere. In December, we recorded 37 natural and human-triggered avalanches large enough to bury or injure a person - 31 from December 19 to 31.

On December 28, the second close-call avalanche incident of the month and season occurred in the Silver Valley. 3 riders were caught and carried in a large avalanche (right image) that broke several feet deep in facets above the December 8 rain crust. The group was extremely fortunate, no one was injured or buried.

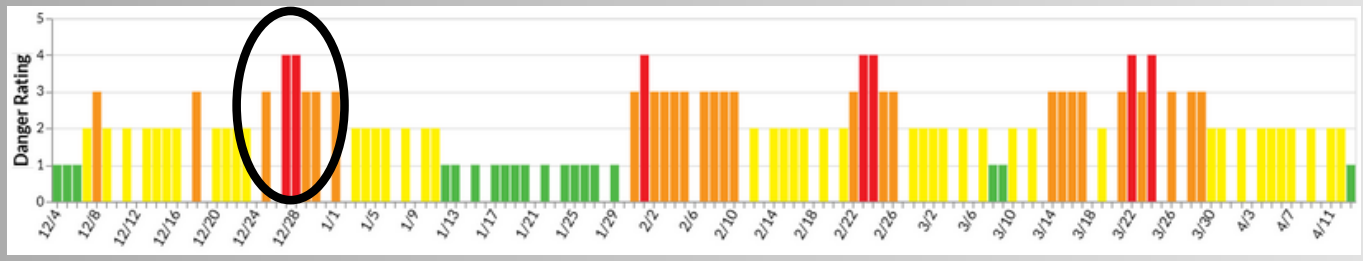


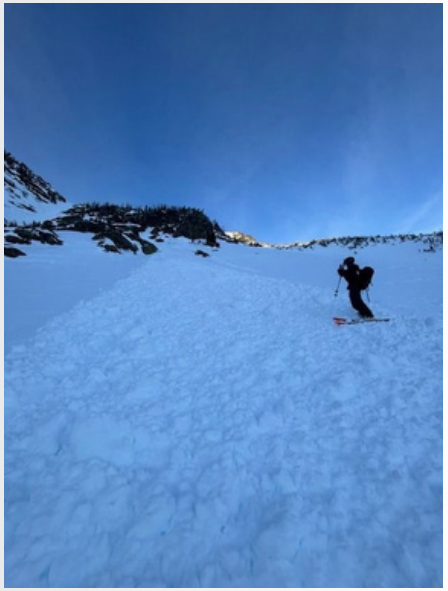
***Figure**: Tier 1 danger ratings for the Silver Valley-Bitterroot Mountains forecast zone during the 2024-25 season. Image: IPAC. **Right**: Looking at the crown of the large human-triggered slide that caught and carried three people on December 28, 2024. Photo: IPAC.*

Forecasting

The New Year arrived and SNOTELs sat between 125 and 150% of median SWE. Frequent storms and bountiful snowfall were replaced with persistent cold, dry weather that reshaped the season's avalanche character. Long, dry spells are not uncommon in January but normally accompanied by warmer temperatures. Not the many days of single digits, clear skies, and hardly a flick of wind - the perfect setting to breed large, surface hoar (15 to 25 mm in size, up to 30 mm) and facets.

The January drought lasted almost three weeks. A small storm mid-month and one on January 20 did little to rattle conditions. By month's end, faceting was 20 to 30 cm deep, mostly F-hard, and open slopes resembled endless fields of surface hoar feathers. Conditions evolved from recycled powder-facets to easily triggered loose avalanches. Despite the unusually weak surfaces, avalanches remained small, and the danger hung LOW (1of5) for 18 days.

January's lackluster snowfall pushed SNOTELs below the median SWE. The tradeoff was generally safe conditions for traveling in more complex terrain and exploring new objectives. Discussions oscillated from whether instability would increase and for how long, to whether people will adjust travel habits and how quickly message fatigue sets in as dangerous conditions were expected to persist atypically long.



***Top Right**: 30 mm surface hoar grain. **Bottom Right**: Easy to trigger loose dry facet sluffs emerged as a hazard to manage during the prolonged cold, dry spell in January, East Cabinet Mountains. Photos: Izzy Davis. **Left**: Annotated photo of general near-surface snow layer hardness and depth of faceting. This fragile upper snowpack structure would plague conditions for almost two months, Purcell Mountains. Photo: Micah Krmpotich.*

Forecasting

Snowfall returned on January 31. The ensuing weeks served a healthy dose of snowfall, and it didn't take much to overwhelm the fragile January Drought Layer (JDL). In 48 hours, SWE totals ranged 1.5 to 2.5 inches, the danger spiked from LOW (1of5) to HIGH (4of5), and we documented 23 natural avalanches. Dangerous conditions ensued for many days as the snowpack remained talkative and on edge. Field days with only a handful of loud rumbling collapses accompanied by shooting cracks were rare, but slab stiffening slowly masked instability.

A second more vigorous storm arrived February 22. This one injected warmer air that limited snow totals, but doubled the water load - 3 to 5 inches of SWE in 72 hours. This warranted another Avalanche Warning and a two-day period of HIGH (4of5) danger on February 23 and 24. We recorded 43 natural avalanches in two days. Despite 77 total avalanches in February, we only recorded 6 large, triggered slides. Remarkably considering how fragile, widespread, and reactive the JDL was in a geographic region where average backcountry users have less muscle memory managing lingering problems.

***Top**: A large remotely triggered avalanche in the Selkirk Mountains on February 2, 2025. The slide broke in a layer of 20 to 30 mm size surface hoar grains. **Bottom**: Surface hoar grains remained reactive and visible to the naked eye in snowpits for many weeks following burial. Photos: Chris Bilbrey.*

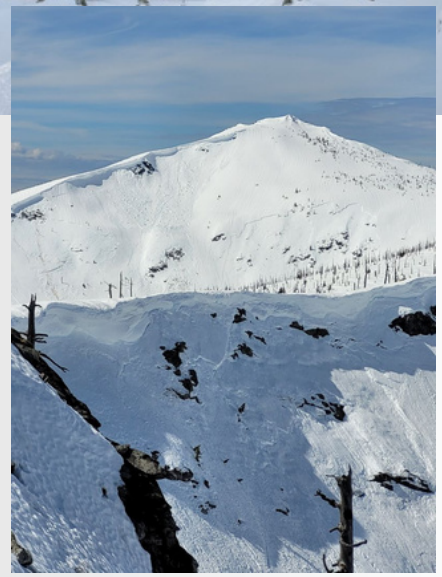
Forecasting

After the snowpack cleansing cycles of February, March graced us with small storms to start. This helped the snowpack find equilibrium, but many slopes sat intact with the JDL looming - albeit deeper. Snowpack tests kept failing, but feedback and avalanche activity waned significantly. The robust slab had nudged a JDL failure to a low likelihood/ high consequence regime. Confidence coalesced and we removed the JDL problem 40 days after being buried.

The snowpack got another incremental 2 to 5 inches of SWE March 12 to 18. A respectable load, but it didn't provoke similar instability as recent storms. The resistant theme was short-lived and a cold to warm storm battered the region March 20 to 25. It delivered many feet of snow, 2 to 3 inches of SWE, then heavy rain over mountain tops. In 36 hours, the warm sector wrung out 2 to 7 inches of rain triggering the most destructive avalanches of the season.

In March, we recorded 83 avalanches and 65 from March 23 to 31. Most were rated size 2 to 3 and of wet origin. Elevated wet hazards lingered from excessive water pooling in the snowpack and weak overnight freezes. By April 1, SNOTELs had climbed near or slightly above the median SWE.

After the two-month storm train, many avalanches, and stressful forecasting April was anticlimactic. Drib and drab snowfall barely moved the avalanche needle, and a gentle spring transition made wet hazards predictable. Solid refreezes moved higher, more precipitation fell as rain, and wet activity evolved from Wet Slabs to snowpack encompassing Glide avalanches. IPAC issued the last regular forecast on April 13. Bi-weekly snowpack updates continued through April, then our final spring-summer statement was issued April 30.



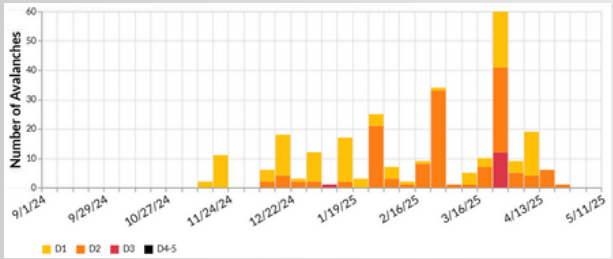
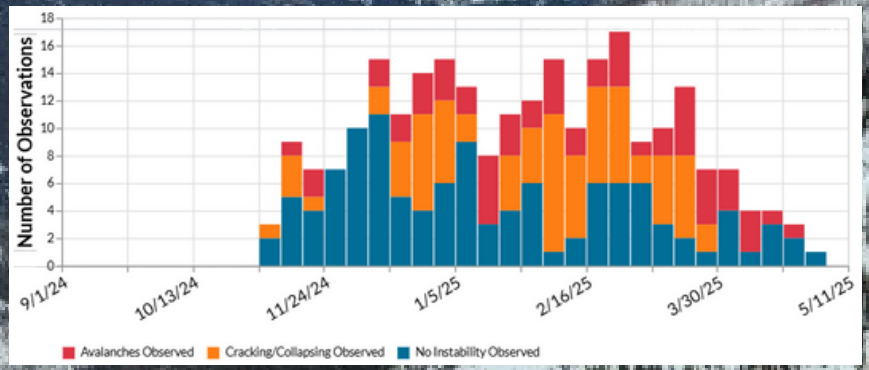
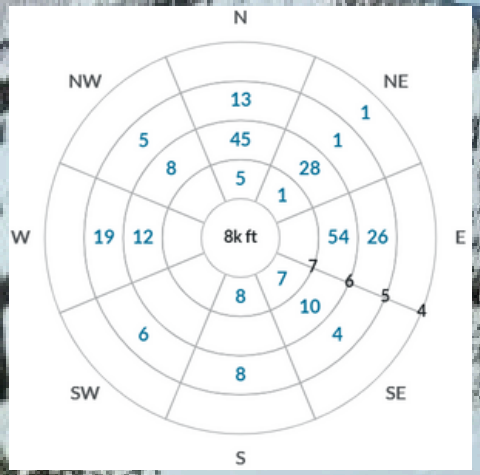
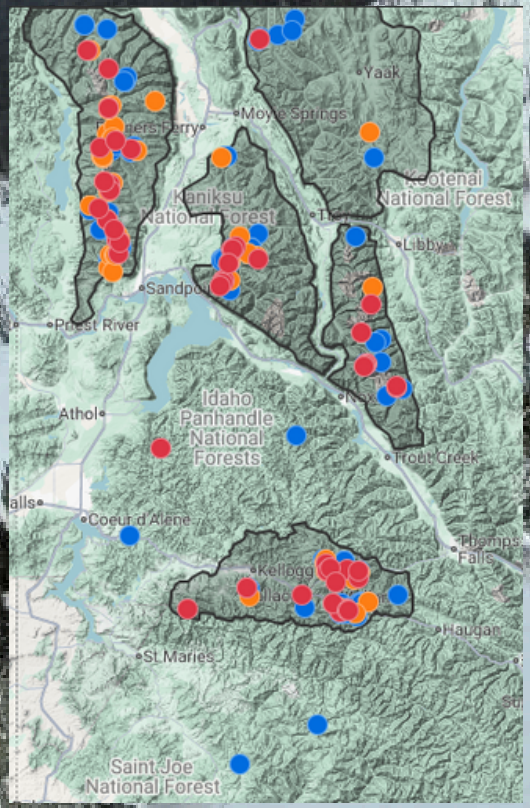


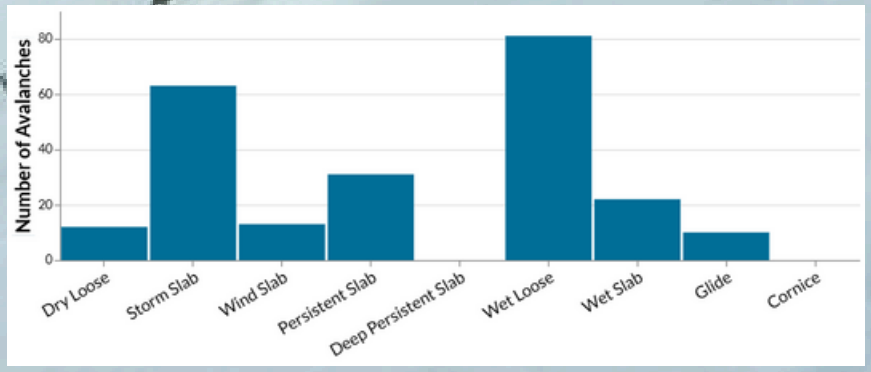
***Figure**: Seasonal avalanche activity classified by size during the 2024-25 season. Image: IPAC. **Top**: Debris from a large avalanche triggered by a wet and heavy snowfall event in late February in the West Cabinet Mountains. **Bottom**: In late March, up to 7 inches of rain fell following multiple feet of snow and provoked the most destructive natural cycle of the season across all forecast zones, Selkirk Mountains. Photos: Micah Krmpotich.*

Avalanches Observations Instabilities









***Bottom left**: Spatial distribution of professional and public observations for 2024-25 season. **Top left**: Number of observations and signs of instability (avalanche observed, cracking/ collapsing, no signs of instability) over time. **Top right**: Observed avalanche count by aspect and elevation across all forecast zones. **Bottom right**: Number of avalanches by problem type across all forecast zones. Images: IPAC.*

Education

The Friends of the Idaho Panhandle Avalanche Center (FIPAC) had another successful avalanche education program during the 2024-25 season with **362 students participating in 30 courses led by 14 instructors and 15 volunteers**. Our commitment to providing quality and accessible avalanche education in the Idaho Panhandle continues to be a fundamental part of our mission.

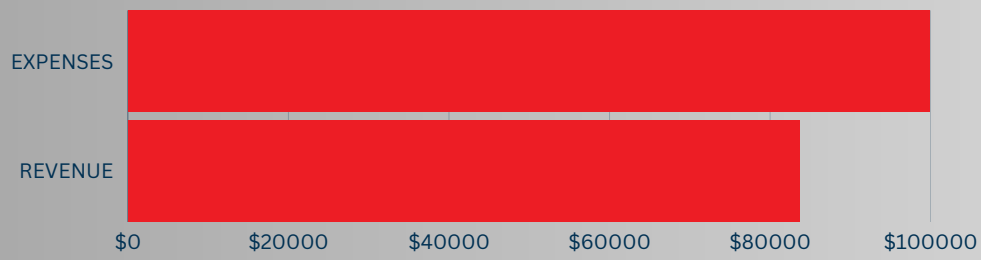
Season highlights include: continued interest in the junior backcountry 101 course, increasing enrollment in motorized courses, and our community's ongoing commitment to "Get the Training".

Thank you to all of the students, instructors, volunteers, and host venues (**Schweitzer and Silver Mountain Resort**) who made this season a success. I can remember multiple conversations with fellow instructors acknowledging what a privilege it is to get to spend so much time shepherding eager students in Idaho's snowy mountains. Think snow.

Jon Totten
FIPAC Education Coordinator

Financial Breakdown Friends of IPAC

Revenue & Expenses



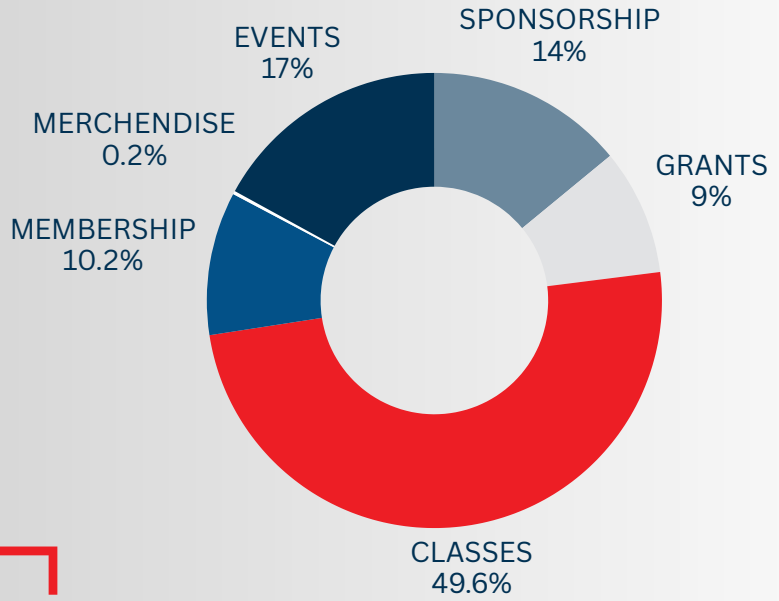
Expense Breakdown

The Friends of IPAC **invested $99,841 into avalanche forecasting and education** during the 2024/2025 season.

Forecasting & Fieldwork	Education & Awareness	Technology	Program Mgmt/ Operations Cost
$34,201	$34,072	$6,070	$25,498

The Friends of IPAC is **committed and heavily vested in helping fund regular, if not daily, avalanche forecast** to benefit the local avalanche community...**your financial support is crucial** to continue **to provide timely and actionable public avalanche information**!

Revenue Breakdown By Category



- Second year of **over-expenditure** (financial loss) **highlighted by declining revenue from membership, sponsorship, and fundraising, and rising costs to operate.**
- Known year after year **over-spending is unsustainable** and will negatively impact the program and public safety.
- **Education** revenue **has plateaued** as more recreational users become educated.

Doug Abromeit Scholarship

Every year the Friends of the Idaho Panhandle Avalanche Center (FIPAC) celebrates the work and life of Doub Abromeit (1948-2013) by starting the winter season with the **Doug Abromeit Avalanche Scholarship**. Doug was a native of Sandpoint, Idaho. The scholarship is intended to further avalanche education and awareness for those in our forecast region of North Idaho, Eastern Washington, and Western Montana. The scholarship is open to all youth in the Inland Northwest with parental consent.

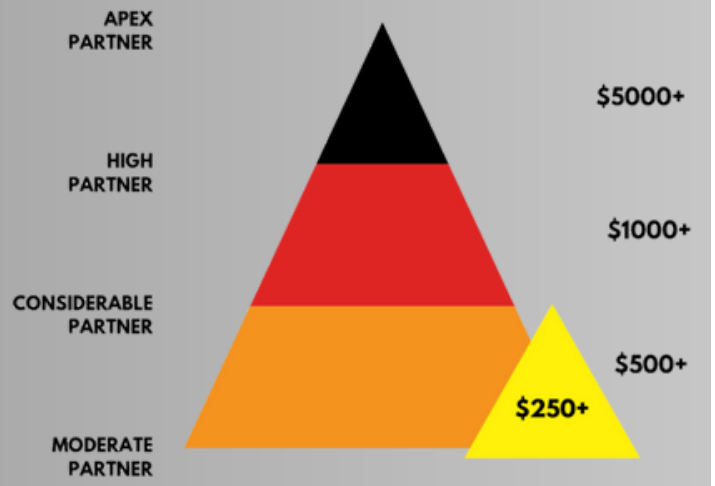
***Above**: The late Doug Abromeit (1948-2013). Photo: IPAC.*

The 2024-25 season marked the 10th anniversary of the scholarship where applicants write a 400-word essay stating why they should be selected to attend a “free” Level 1 Avalanche Course taught by the FIPAC, and how they will use this education to promote avalanche awareness. **This year’s recipient was Mason Addison**.

Mason moved to Sandpoint in 2018. Shortly after moving, he took up skiing. Initially, he didn’t have much interest in backcountry skiing, and thought instead of climbing a mountain to ski down, the whole point seemed to be to ride the chair to the top, then ski down. Then a little over a year ago, his older brother took him on his first backcountry ski tour and he was completely hooked. Following just one day in the pristine backcountry, Mason felt accomplished and happy.

After being introduced to backcountry skiing, Mason started learning about all the necessary gear he needed to buy. He also realized he should take the next steps toward being a responsible backcountry recreationist and take an avalanche class. This past season, he worked part-time as a ski instructor on the weekends to help pay for the Avalanche Rescue Fundamentals class - a prerequisite for the Level 1 class. This scholarship helps support his budding interest in backcountry skiing and safety, and a future goal of becoming an outdoor guide. Congratulations Mason!

Sponsor Highlight



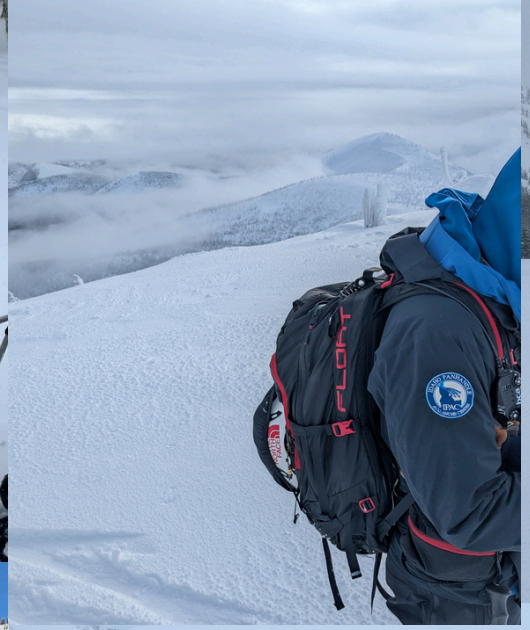
Alpine Shop
Westside Motorsports
Spokane Mountaineers
7B Boardshop
Longleaf Wilderness Medicine
Sand Creek Custom Wear
Phat Panda
The Browder Family
Tobler Marina
Pend Oreille Shores Resort
Coeur d'Alene Bike Co.
KOCHAVA
Heater Craft
Ski Shack
Bluebird Home Inspection
Outdoor Experience
Smalltown Kids
Radio Brewing
509
onX Backcountry
Schweitzer
Silver Mountain Resort
Ski-doo

We are incredibly thankful for our supporting businesses that contributed this season!

Powder Turning Into The Sunset

Long-time IPAC Avalanche Forecaster Ben Bernall made the hard decision to move on from the program in January 2025. Ben had been a part of IPAC since 2015 and integrated forecast coverage in the East Cabinet and Purcell Mountains in western Montana with IPACs existing areas, and brought a wealth of big mountain experiences. Unfortunately, increasing demands from his job as the Trails and Recreation Manager on the Kootenai National Forest combined with forest staffing shortfalls made juggling multiple hats too cumbersome.

Additionally, Liz Figgins and Nate Stephens (not pictured), IPAC Field Technicians, found themselves in a similar situation with their forest jobs and have taken a step back from program operations. The IPAC is extremely thankful for their time and contributions and they will be missed. To fresh tracks and clean lines.



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Idaho Panhandle Avalanche Center

Friends of IPAC

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