

Mt. Rainier National Park  
Mountaineering Report  
2013

## **Summary and Highlights -2013**

The 2013 season was a successful season. Several operational changes were made with many benefits and few consequences.

According to principles of operational leadership, the supervisory staff was limited to only 4 employees each. This brought down their workload significantly and enabled these supervisors to get out of the office more and into the field, on rescues, or up at high camps.

We also implemented a requirement that a lead climbing ranger must be present and participating in all patrols on the upper mountain. Lead climbing rangers include GS-9 supervisor's and GS-7 lead seasonal climbing rangers. This requirement led to better oversight and group decision making in the field.

The Disappointment Cleaver route became difficult to negotiate at an early stage this year, even in August. At a few points in September, it took several days to explore and re-establish a route. Neither guides nor rangers could remember in any recent time where maintaining the route took so much effort.

It was a busy season, both in the number of climbers and number of rescues. There were 10,779 climbers who registered. We were on track for over 11,000 climbers until early August when the weather deteriorated and never regained any late summer stability that we often see each year. We had an unusual number of rescues; about 50 total when our average is about 35 each year. These are the total number of rescues in the park, not just upper mountain, climbing-related incidents.

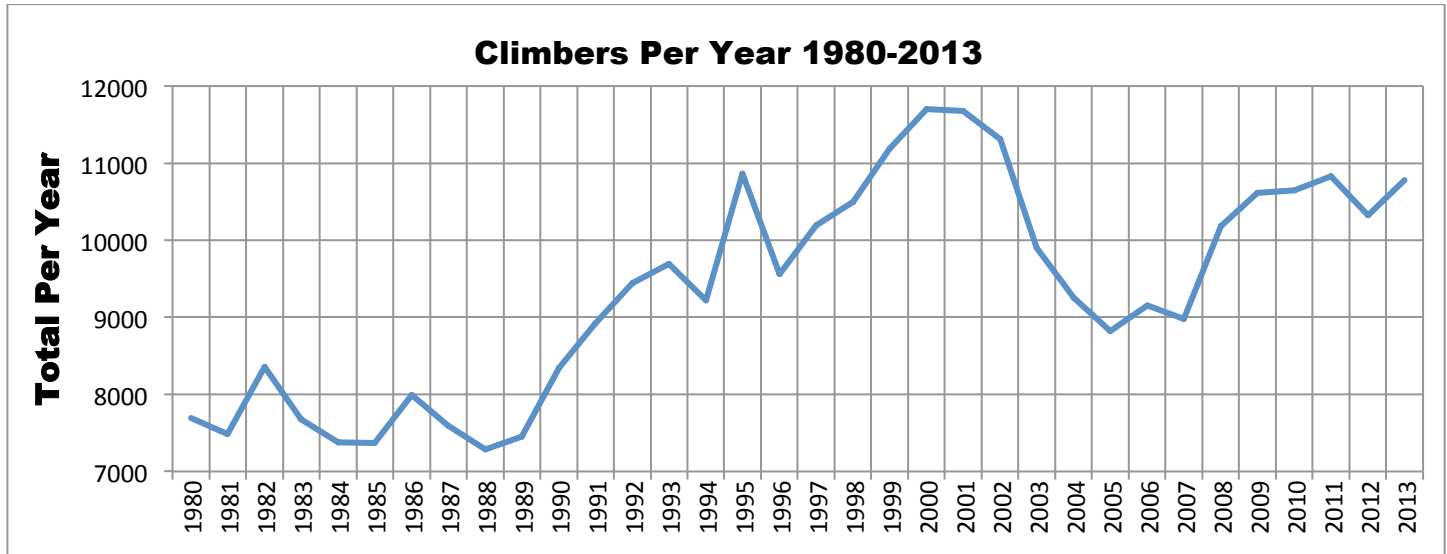
A new record time to the summit and back to Paradise was set by Jason & Andy Dorias at 3:57:55. It had previously been held by Willie Bonegas at 4:40 and was broken only a few weeks before the Dorias's ascent by Eric Carter & Nick Elson at 4:19:12. Climbing rangers were on the crater rim when the Dorias's came over the top. Amazing to watch these guys roll.

By the middle of the summer, the park had procured a helicopter contract and began training about 10 climbing rangers in a new (to Mt. Rainier) rescue method called short-haul. Instead of a helicopter lowering rescuers to the ground and raising injured up a winch cable from a platform in the helicopter, in short-haul the rescuer rides a fixed rope beneath the helicopter from a staging area below. The rescuer(s) unclip from the line, access and stabilize the patient, then extricate the patient with select adjuncts such as a 'screamer suit' or a flexible litter system called a 'baumann bag'. All participating climbing rangers became certified and ended up performing several actual rescues. Later, a few other rangers became certified at the end of the season.

The Camp Muir Development Concept Plan was approved and signed. This is multi-year project that mostly focuses on conserving the character of the National Historic Landmark District at Camp Muir.

## Overall Climbing Statistics and Route Use

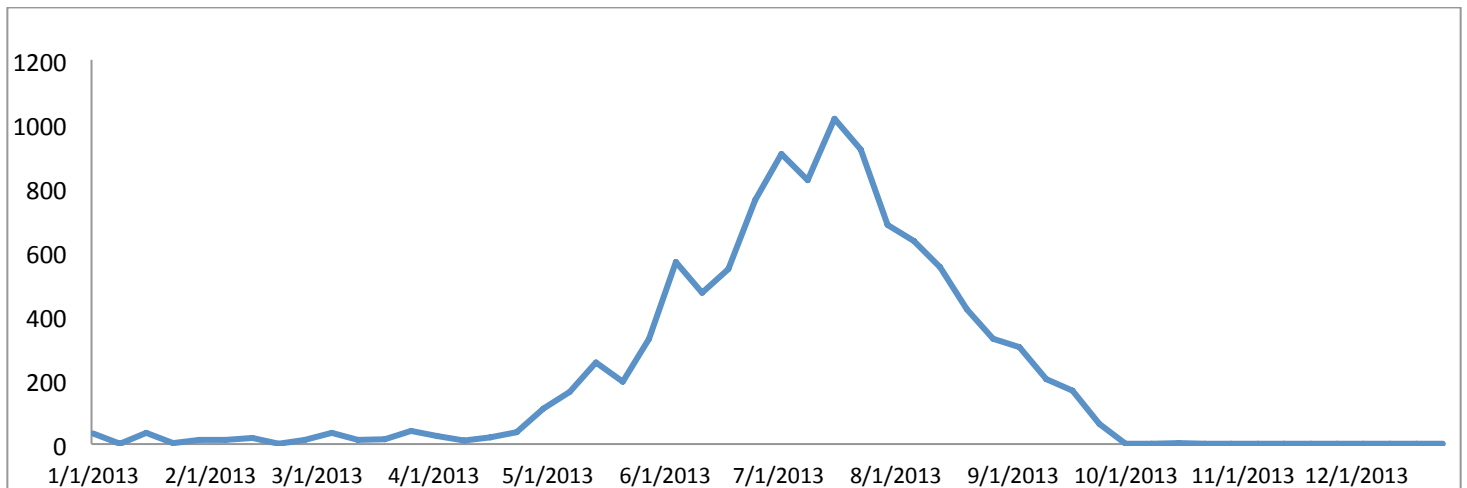
Figure 1 – Number of climbers / 1980-Present



There were roughly 10779 climbers in 2013. This was roughly a 3% increase over the year before (10,409). Climbing numbers have fluttered over the last several years with strong starts and mid seasons each year. In 2013, the weather took a turn for unpredictability in early August. Coupled with difficult route finding on the Disappointment Cleaver in August and September, the trajectory to a record breaking number of climbers was curbed.

The number of climbers per week (shown below) is fairly typical revealing a surge at Memorial Day and July 4<sup>th</sup> followed by a steady decline in August and September.

Figure 2 – Registered Climbers Per Week 2013



Route use in 2013 indicated a fairly average spread between all the routes. Figure 3 below shows the average vs. 2013 route use on all climbed routes in 2013.

Figure 3 – Route Use Table

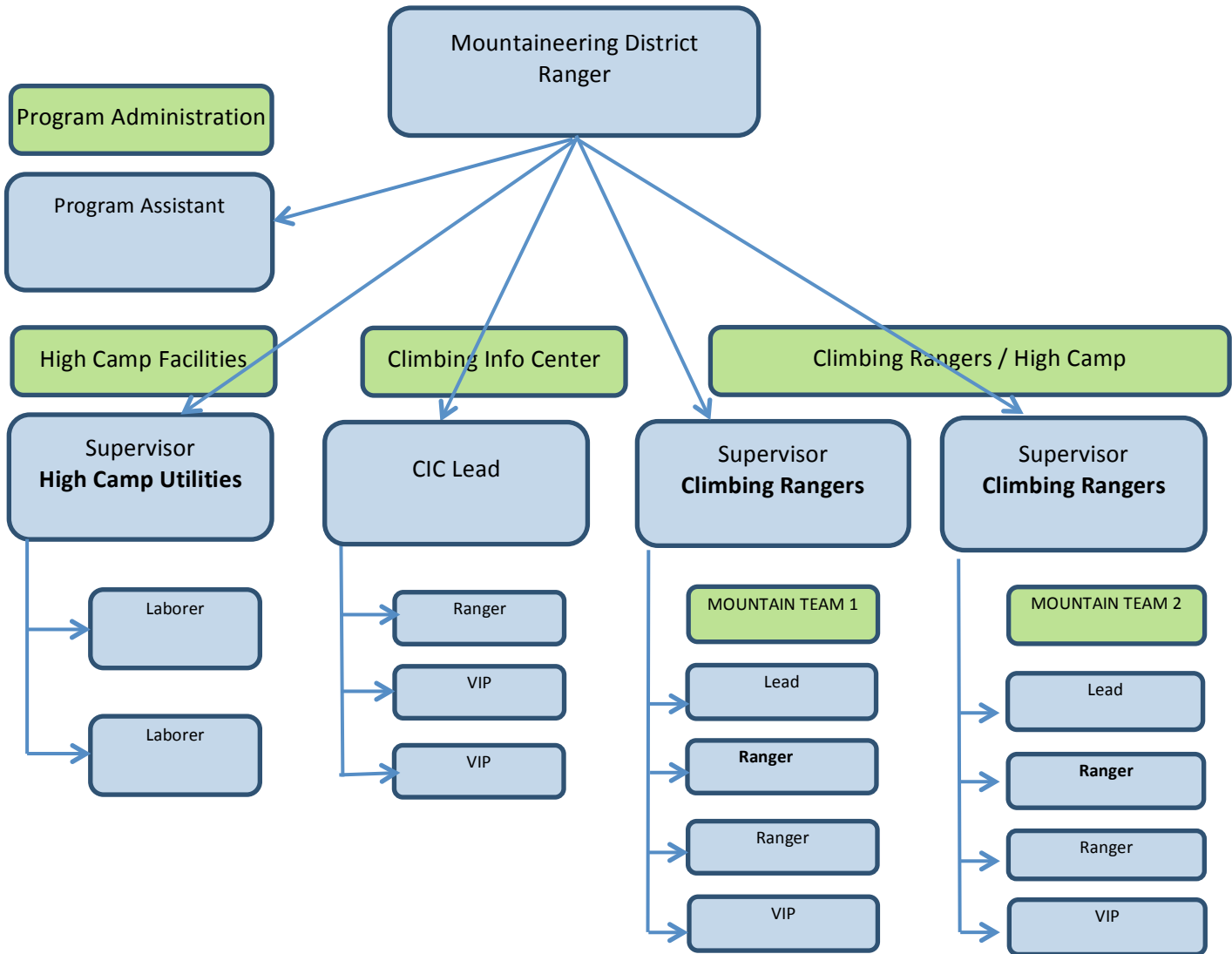
Route	Total 2013	2013 % of Avg	08-13 Total	6-year avg
Disappointment Cleaver (DC)	7831	72.65%	26784	63.62%
Emmons – Winthrop	1670	15.49%	6877	16.34%
Kautz Glacier	432	4.01%	1774	4.21%
Fuhrer's Finger	202	1.87%	629	1.49%
Little Tahoma	167	1.55%	557	1.32%
Liberty Ridge	129	1.20%	554	1.32%
Gibraltar Ledges	102	0.95%	534	1.27%
Ingraham Direct	98	0.91%	3447	8.19%
Glacier Only	70	0.65%	356	0.85%
Tahoma Glacier	14	0.13%	112	0.27%
Kautz Cleaver	14	0.13%	118	0.28%
Ptarmigan Ridge	10	0.09%	106	0.25%
Mowich Face	7	0.06%	29	0.07%
Kautz Headwall	6	0.06%	31	0.07%
Success Cleaver	5	0.05%	54	0.13%
Nisqually Cleaver	4	0.04%	11	0.03%
Nisqually Glacier	4	0.04%	42	0.10%
Sunset Amphitheater	4	0.04%	6	0.01%
Wilson Headwall	3	0.03%	32	0.08%
Sunset Ridge	3	0.03%	14	0.03%
Gibraltar Chute	2	0.02%	17	0.04%
Nisqually Ice Cliff	2	0.02%	14	0.03%
	<b>10779</b>		<b>42098</b>	

### Climbing Program Operations

There were two new climbing rangers and one new maintenance employee this season. The small rate of turn-over is important. After 2-4 years, the training investment in each seasonal climbing ranger is rather large. We strive to keep as many people coming back as we can.

Figure 4 – Climbing Ranger Program Organization Chart

# Mount Rainier National Park Mountaineering District - 2013



In an effort to increase supervision and leadership, we continued to decrease the supervisory span of control from about 8:1 to 4:1. This seems to have hit a sweet spot in making our operation more efficient.

Also, for the first time in the history of the climbing program, all climbing rangers were brought over to Longmire for their primary housing. Rangers rotated through Camp Schurman on a patrol basis as needed and as available.

A case can be made for dedicated Schurman and Muir rangers by arguing that they are more knowledgeable of those specific environments and can give better recommendations and provide better support and maintenance. However, the simplicity of supervising and communicating with each ranger by putting everyone together provided a greater benefit. We will employ this model in 2014.

The board of review from climbing ranger Nick Hall’s accident/fatality in 2012 was published. It identified several factors for our search and rescue operations such as the development of fall protection standards, completion of the park’s search and rescue plan, developing a peer reviewed training plan, increasing supervisory oversight, obtaining equipment to provide better air-to-ground communication, discontinuing the practice of using the hoist method of extraction under heavy type-1 helicopters, improving current communications redundancy at high camps, employing SPOT GPS trackers for rangers on patrols or rescues, as well a few other factors. Many of these recommendations were already being integrated into the 2013 program before they were published by the review team.

These directives, plus others unrealized from past analyses will continue to propel the climbing program forward. Standards of professionalization are ever increasing. These processes will only continue to help the climbing program manage its high risk environment.

## Training

In 2013, the climbing ranger program recorded almost 3000 personnel-hours of training. Trainings included these categories:

Figure 6 – Climbing Ranger Training 2013

<b>Category</b>	<b>Number</b>	<b>Hours</b>
Avalanche	5 trainings	55 hours
Aviation	5 trainings	30.5 hours
Climbing Ranger	11 trainings	40.5 hours
EMS	4 trainings	49 hours
Other	7 trainings	76 hours
SAR	23 trainings	166 hours
Wildland Fire	1 trainings	8 hours

Not all climbing rangers participated in all trainings. Since the climbing rangers are broken out into smaller work groups like working at the Climbing Information Center or at Camps Schurman or Muir, training can be more targeted to a specific group.

The climbing rangers procured their own EMT-B refresher in 2013. The refresher was taught by Wilderness Medical Associates instructor (and former Rainier climbing ranger) David Weber with assistance from Dr. Brian Scheele (another former climbing ranger). These independent refreshers allow the rangers to focus on upper mountain scenarios and hot-spot train on common recurring incident scenarios.

In 2013, we contracted Conterra, Inc. to conduct our technical rigging and rope rescue refresher, which was conducted as a 5-day workshop. Conducting this workshop leads to a high degree of safety and situational awareness required by high-angle rescues in our rescue environment.

Climbing rangers are also all Dept. of the Interior, Helicopter Crewmembers or Helicopter Managers, which are two certifications which take roughly one year and five years, respectively, to obtain. Climbing rangers are sent their first season to a week-long helicopter school then subsequently spend about a year obtaining task-book signatures to become certified. One of our climbing ranger supervisors became certified as a helicopter manager this season.

Ten climbing rangers also became certified in short-haul. As explained above in the highlights, short-haul is a method of helicopter insertion and extraction for rescuers and injured parties. The certification and currency standards are very tight and rigorous. A high level of experience and background is required in helicopter operations.

Nearly all the climbing rangers have a background in snow science. Reading the snow and evaluating snow stability is paramount to operating safely in the alpine environment, both in the summer and winter. Climbing rangers receive at least one day of continuing education (a refresher) in evaluation snow stability and are US Level 1 qualified, many hold US Level-2 certifications or higher.

Also, in 2013, Mt. Rainier National Park began to implement the Dept. of the Interior's All-Hazard Qualification System. In which, specific required training and experience is delineated in order to become certified at different levels in search and rescue activities. In accordance with this, climbing rangers received professional contracted training in incident management and Incident Command skills.

### **Budget Challenges**

In 2011, the fee for climbing was raised from \$30 for everyone to \$43 dollars for adults and \$30 dollars for youth. That has since been adjusted with inflation to currently \$45 and \$31 respectively. This fee was based on the basic program outlined at the time which cost approximately \$512,000 of which \$108,000 are non-fee dollars. Since then, the fee program has failed to collect the entire remaining \$404,000. Each season, the climbing fee program has raised roughly \$370,000 (plus or minus several thousand dollars year to year). The costs of this basic program has also increased over the last three years to about \$525,000. This has left a \$55,000 gap.

In order to maximize our climbing rangers time in training and at high camps and make the best use of the money we have, the staff at the climbing information center has been converted to half volunteer, half paid seasonal and totals four rangers. We also did not have climbing ranger staffing the White River WIC on Thursdays and Fridays as we traditionally have had. The lack of climbing rangers staffing comes at the cost of lesser experienced staff who aren't climbing the mountain regularly in the position of answering complicated and detailed questions about climbing conditions.

We also chose not to staff Camp Schurman regularly until July this year in order to use the remaining resources in trainings, on patrols, and staffing Camp Muir. This has impacted the climbing public and climbing guide services negatively. Camp Schurman has been clearly identified in Boards of Review from climbing ranger fatalities as having challenging issues to overcome in communications. We were careful this year with who we sent there, with whom, and at what time, always lead by an experienced ranger.

We are currently striving to find ways to supplement the funding needed to augment our Camp Schurman and Information Center staffing so to provide better information, preventative search and rescue, and coordination in the front-country.

### **High Camps**

There are two normally staffed high camps; Camp Schurman and Camp Muir. Roughly 8500 of all climbers go through Camp Muir onto various other routes. A much smaller percentage climb through Camp Schurman. The epicenter or average location of rescues on Mt. Rainier is on the Muir Snowfield. So, we prioritize our staffing at Camp Muir. By contrast, roughly 3-8 incidents occur and approximately 2000 climbers go through Camp Schurman. It is also an important camp to staff with its own toilet system to maintain.

In 2013, scheduled Camp Muir staffing began earlier (mid-May) than in recent years. This was experimental and had been suggested by some rangers and other interested parties. It did work well, however, it did cause some conflicts with trainings we needed to conduct.

Spring high camp flights are an 'all-hands-on-deck' operation. We began scheduling and planning for these flights each week to take place during the first period of decent weather. Many false starts were experienced because the weather is so un-reliable in late May.

By Memorial Day Weekend, regular daily staffing of Camp Muir was scheduled. Camp Schurman did see a weekly two-day patrol, but not regular staffing until July.

The solar snow melter has now worked for 2 years flawlessly at Camp Muir. This has improved the air quality inside the hut because less propane has been needed to melt water. No snow melter exists at Camp Schurman yet, but this is planned. The estimated cost is about 9,000 to 10,000 dollars.

The climbing ranger operation has benefited greatly over three years from the network connection at Camp Muir via the building to building bridge from Paradise to Muir. This has enabled an IP phone to work, as well as a computer, and all the benefits that are associated with that. Rangers have been able to use Camp Muir as an incident command post. The new level of communication has benefited supervision, coordination, the delegation of work assignments, emergency communications, as well as many other aspects of the climbing ranger operation. A network bridge is now being planned for Camp Schurman with an associated weather station (in conjunction with the Northwest Weather and Avalanche Center) and webcam. In both locations, the network connection is not available during the winter season.

Camp Schurman staffing was discontinued on Labor Day. Staffing at Camp Muir continued until the last week of September.

Phase one of the Camp Muir Development plan was initiated in the summer of 2013. The new location for the toilets behind the public shelter was surveyed by park staff. There was also a new drain field for urine dispersal installed on the south face below the public shelter. The plan is to build and perhaps install the new toilets in 2014.

Because weather became a problem both in the construction in August and for the flights to get supplies up there, all the work of pouring the foundation for new toilets was not accomplished.

## **Patrols**

Climbing rangers achieved 116 ascents of the mountain in 2013. This is a smaller number of ascents than usual. Our staff of climbing rangers was smaller this year than in years past, Camp Schurman was not staffed regularly until July, and climbing rangers were brought down from patrols and high camp coverage in order to train for short-haul operations.

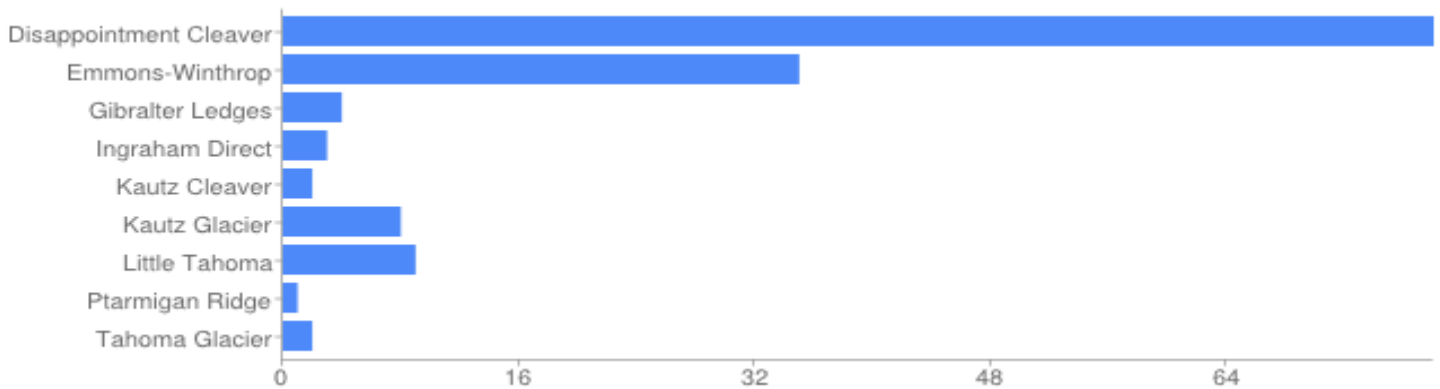
Climbing ranger mountain patrols enable several things.

1. Climbing rangers maintain a high state of physical conditioning. The average ranger summited 8 times in 2011. Many rangers can reach the top from Camps Schurman or Muir in two hours or less.
2. Climbing rangers are able to monitor the use of the mountain, provide input to climbing parties, keep litter and human waste picked up, and protect the alpine environment better.
3. Climbing rangers are able to provide more updated route conditions on the Mount Rainier climbing blog.
4. Climbing rangers are closer to emergencies when they arise by being on the mountain rather than at high camps.

Here are the routes that climbing rangers patrolled in 2013.

Figure 8 - Climbing Ranger Route Patrols





### **Climbing Information Center / White River WIC**

The climbing information center at Paradise is the main climbing permit issuing station in the park. For the fourth year in a row, the climbing information center has been run by its own staff of rangers. This is a departure from the past where climbing rangers from the high camps have worked the CIC. The program configuration allows us to target training and simplify the skills that any one ranger must learn in order to be effective at their job. The downside to this is that the rangers who issue the permits are less familiar with the current conditions. Nevertheless, the same climbers who register will mostly be climbing through Camp Schurman or Muir where they will be talking to a ranger who has recently climbed.

The rangers who work at the CIC also have the collateral duty of preventative search and rescue. It is part of their work to travel between Paradise and Camp Muir and contact day and overnight hikers and climbers and make sure they are permitted, equipped and informed about the conditions and weather. These rangers also do a lot of impact monitoring and campsite assessments.

This year, in order to save some money, the climbing rangers provided no staffing at the White River WIC as we have usually done on all but a handful of occasions. The program did pay for one volunteer who had been a volunteer climbing ranger for many years, to work under the supervision of the east district wilderness staff. This seemed to work well but is not as good as climbing rangers who regularly climb the Emmons-Winthrop and Liberty Ridge staffing the desk of the ranger station.

### **Mountrainierclimbing.blogspot.com**

The climbing blog has been the best way the climbing rangers have been able to get updated route conditions out to the public in a timely way. The blog is immensely popular and takes hits from all over the world. In the past several years, there have been many hundreds of thousands of hits. We actually receive requests to advertise on it from large corporations.

Because of the installation of the network bridge to Camp Muir in 2011, the climbing rangers now have the ability to update the blog from Camp Muir, immediately after their climb. This should increase the timeliness of their route updates, reports, and communications.

Figure 9 – Blog Post Topic Distribution in 2011

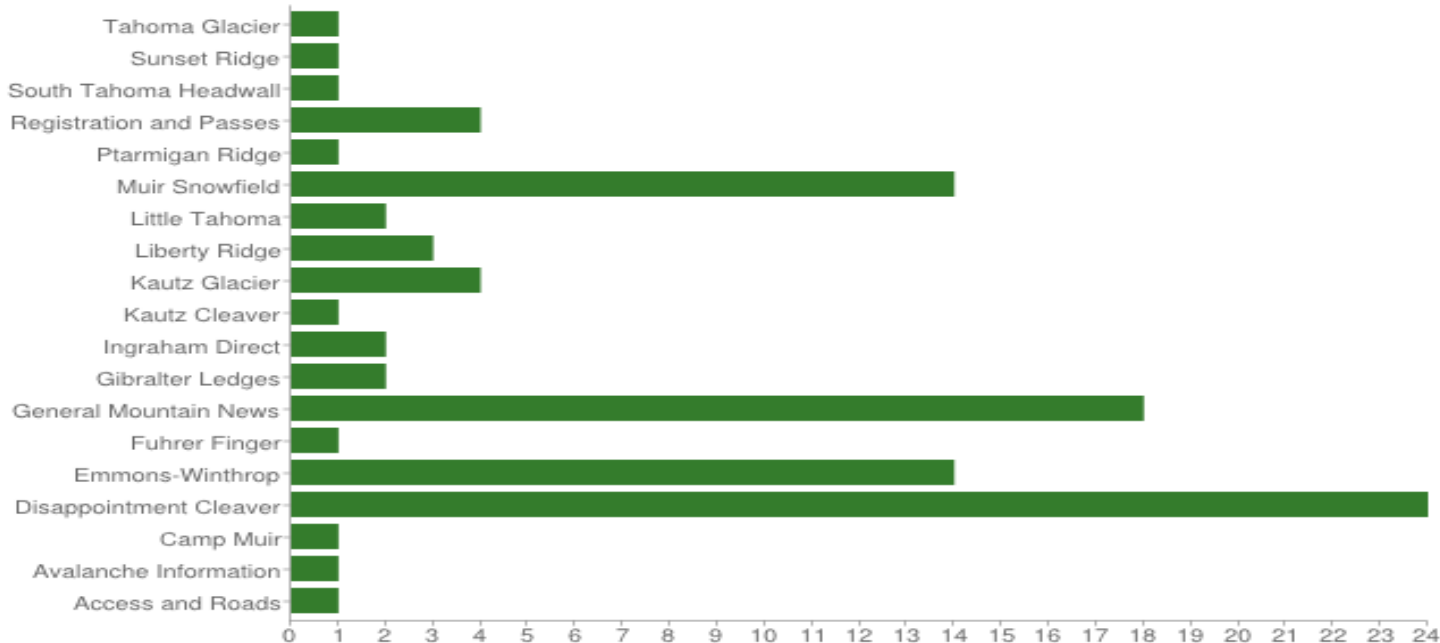
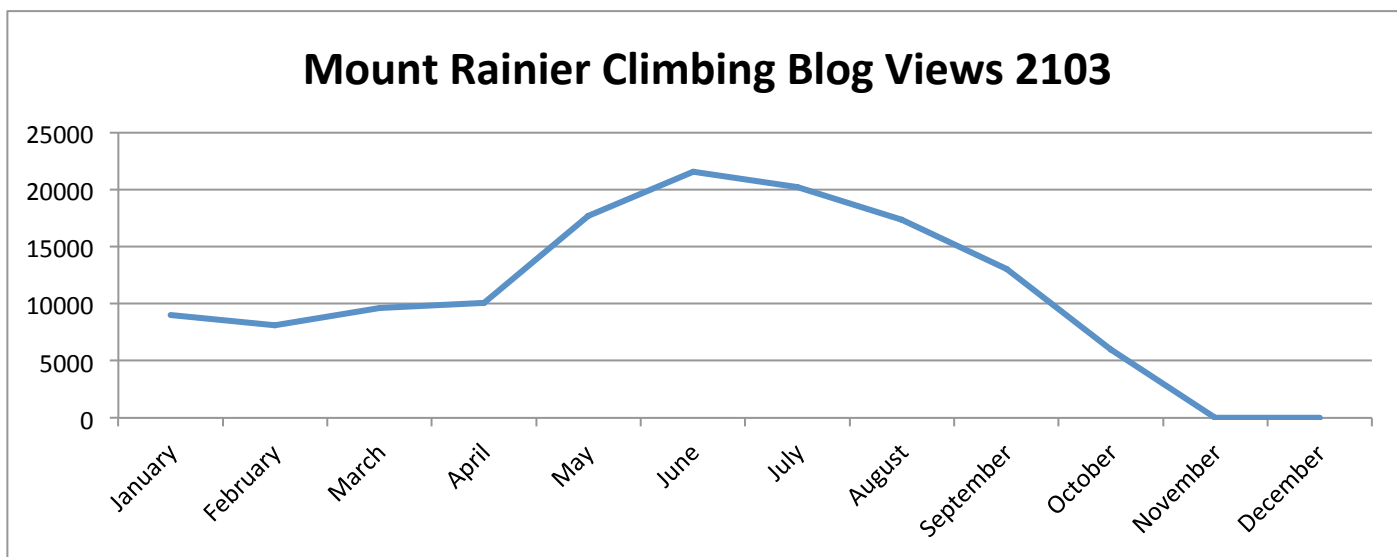


Figure 10 – 2013 Mount Rainier Climbing Blog Views. The annual total for 2013 was 132,720 \* Nov-Dec data N/A.



**Resource Protection**

The climbing rangers are simply wilderness rangers who must have skill in climbing to access the area of land in our district, monitor its use, document impacts, and clean up areas of impact. As a part of each individual’s weekly climbing ranger patrol log, rangers are required to enter each impact they observe. There are roughly 62 impact categories under 8 general categories. The more impacts the rangers record, the better managers can make decisions and intervene to control or mitigate these impacts.

Climbing rangers recorded over 1200 individual impacts.

Climbing rangers also are partly funded by the North Coast and Cascades Inventory and Monitoring Network to help with mass-balance glacier studies. Climbing rangers assisted NPS crews in placing six ablation stakes on the Nisqually

and Emmons (each) with a steam drill between the elevations of 11,100 feet and 5000 feet. We also assist in a summer observation and the final fall observation.

Climbing rangers have also assisted USGS crews in the placement and observation of summit temperature loggers.

Figure 11 – Wilderness Impact Category Totals

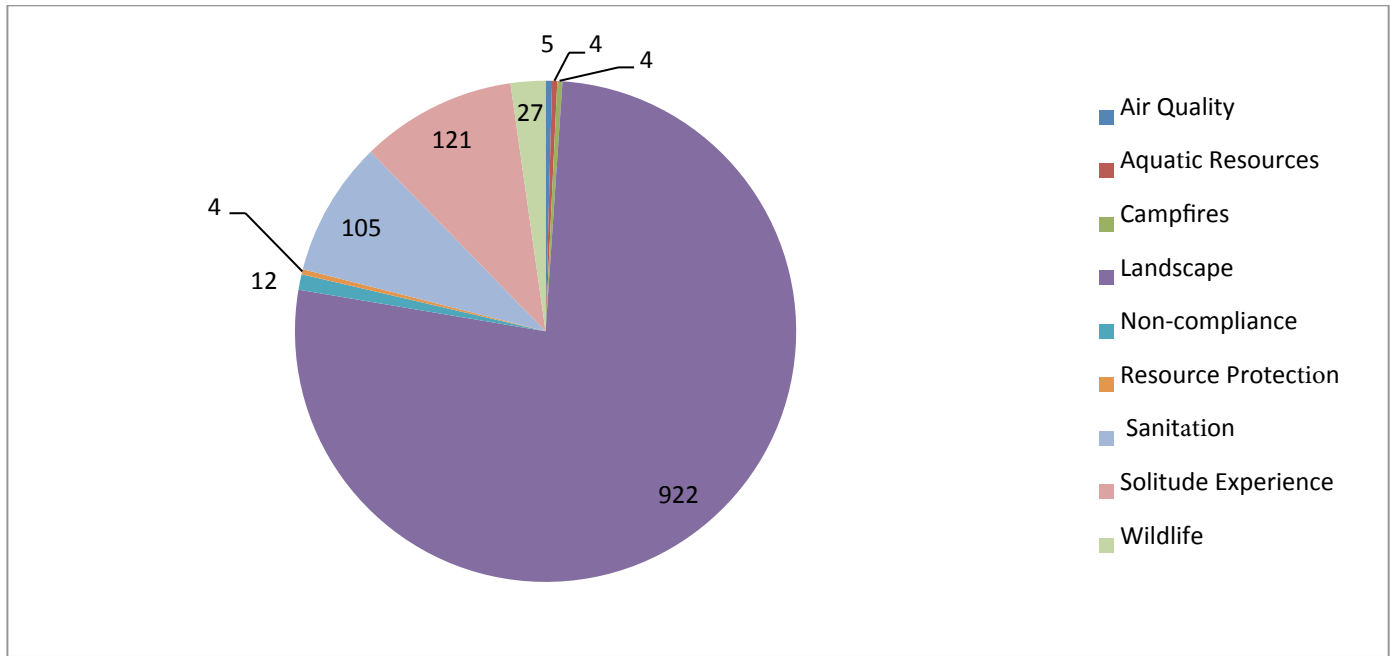
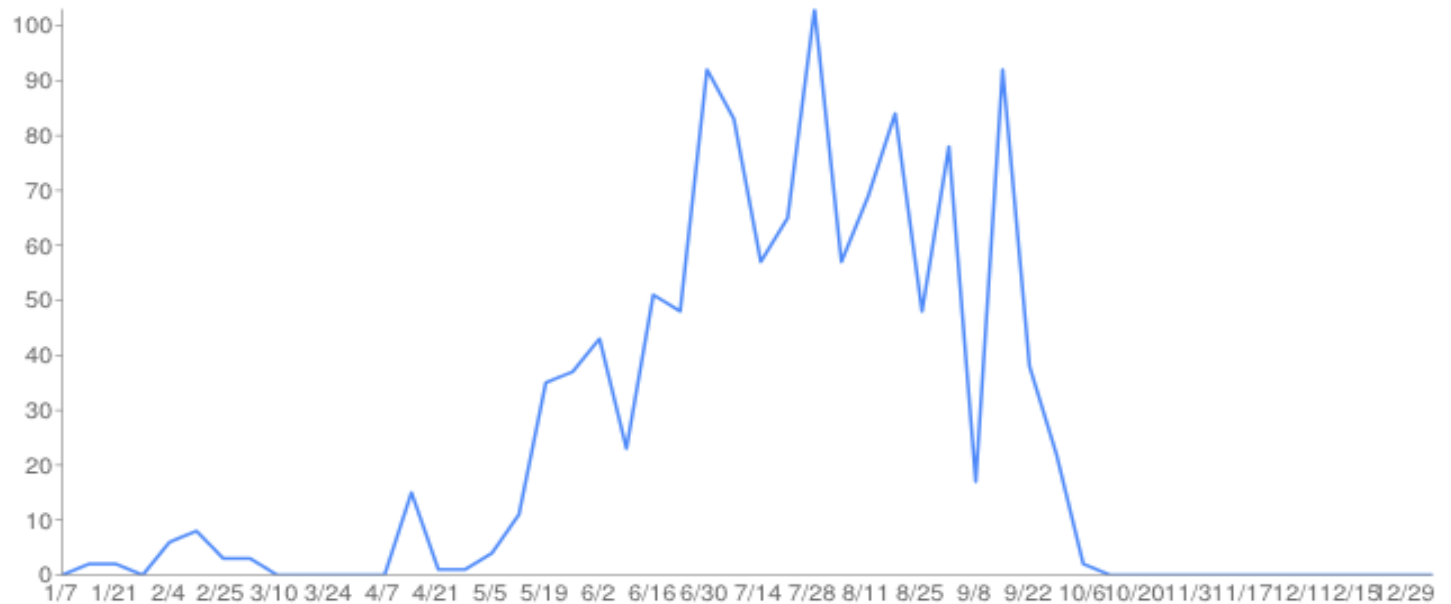


Figure 12- 2013 Wilderness Impact Observations Per-Week



Above, in figure 13, represents primarily litter and stray wands, which by the end of the summer, melt out of the snow and are just laying on bare ground. This doesn't necessarily show that more people are littering in August, but this is when we see most of the melted out litter on the ground. This figure also represent a large volume of meadow stomping, denuded vegetation, and campsite rings that develop later in the season after the snow has melted.

The data also suggest several areas where we could develop strategies to lessen the impacts on the mountain and preserve the wilderness character. These include removing wands from the Muir snowfield and the climbing routes and also removing blue bags and human waste. The data we are currently collecting on commercial, single engine, and military over-flights is being used to in management plans to limit flights over the park.

### Human Waste

Nothing much has changed from last year in our management of human waste. We have two systems, the toilets at the high camps and the blue bag system.

The toilets at high camps are not “composting” toilets, they work somewhat effectively at separating the solids and liquids. The liquids are dispersed directly back into the rock debris below Camps Schurman and Muir. The solids are somewhat dehydrated and then transferred to 40-gallon barrels, which in turn are flown off by helicopters. The barrels are then transported to a waste processing facility outside the park.

The blue bag system is used in areas where there are no toilets. Human waste is deposited on the ground or snow. The solids are picked up like you pick up your dog’s poop in the park. The waste is transported by the visitor/climber to a high camp or ranger station where they are put in a barrel. The barrel is either flown from Camp Schurman/Muir or picked up by vehicle at ranger stations. These barrels are then transported to an incinerating facility outside the park.

The overhead in maintaining these two systems costs between 80,000 and 100,000 dollars, if you include all the people, materials, supplies, and transportation costs. Several 10’s of thousands of those dollars are paid for by money not associated with the climbing program or the cost recovery fee (climbing fee). The exact cost of operating the system is not easy to figure because you have to put a percentage of several people’s time who are not paid for out of cost recovery money.

In 2013, of the total cost of operating the human waste system in the alpine areas of Mt. Rainier paid for out of climbing fees was about \$57,000.

Below is the number of each type of human waste collected at Camp Muir.

Figure 13 – Total Human Waste Removed from Mt. Rainier

Human Waste Collected from Mountaineering Operations		
Location	Number of Barrels	Pounds of Waste
<b>Camp Muir</b>		
Raw Human Waste	15	6,500
Blue Bags	17	1,500
<b>Camp Schurman</b>		
Raw Human Waste	3.5	1,750
Blue Bags	3	400
<b>White River</b>		
Blue Bags	0.5	100
<b>Paradise</b>		
Blue Bags	5	1000
<b>West Side Rd</b>		
Blue Bags	0.2	30

Totals	31.35	10,070
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**Muir Development Concept Plan**

In 2013, the Development Concept Plan for Camp Muir was completed and signed. It outlines a several-year development plan for Camp Muir, which mostly results in the rehabilitation of several structures. The biggest part of the plan is removing the guide service client shelter and replacing it with a building to blend in with the historic character of the area. It is a national historic landmark district (NHLD). It will be designed to harbor three groups of 12 clients and guides with a rock veneer consistent with the public shelter and ranger station.

The toilets near the public shelter will also be removed and relocated to behind the public shelter. This should create space along the ridge for day use and camping as well as keep the living areas out of the downwind odor from the toilets. The toilet facilities are also being redesigned to be more durable, clean, snow-free, less stinky, and easier to maintain.

Eventually, part of the plan is to get the guide service weather-port tents off the snow and provide a cooking facility on the ridge near the back of the ranger station.

This is a multi-year project and is expected to last up to five years or more. The first part of the project slated for summer 2014 is to build the new toilets behind the public shelter. In 2015, the old toilets will be removed, while some prefabrication of the new client/guide shelter will take place in the frontcountry.

**Volunteer, SCA's, and other partners**

The climbing program has always relied on these partnerships to conduct its operation. Each year, approximately ¼ of all employee hours are volunteer. Volunteers aren't exactly free.

Because of the complexity of the duties and the serious consequences of mistakes, the climbing ranger program only accepts volunteers who are able to commit to an April – September, 40-hour / week schedule. This allows for the volunteers to receive the same training as the climbing rangers they work with such as avalanche training, EMS training, technical rope rescue training, general operations training, safety policies, aviation training, and incident management training to name a few.

Each full-time volunteer also receives a \$20/day stipend and their housing is paid for. These costs average just over 4,000 dollars per volunteer per summer. They are also provided enough gear so that they can safely perform all of the duties for which they are trained. Some of this training is rather expensive and can be as much as \$200, per person, per day.

The entire volunteer program cost us about \$28,000 this year. The return on investment though is quite high.

Figure 15 – Total Volunteer Hours & Cost Valuation

**VIP Hours 2013**

VIP	SCA	MRA	Total
3608	0	0	3608

Paid	x \$20/hour	\$72,160.00
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Equivalent:		
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## Guiding

This year was the 7<sup>th</sup> year of a 10-year contract with three commercial guide services. The companies were selected and the contract was signed on November 1, 2006. The three companies were Alpine Ascents International, International Mountain Guides, and Rainier Mountaineering, Inc. The climbing program maintains a positive and progressive relationship with the guide services, which makes sense because we work so closely together on the upper mountain and on search and rescue operations.

The contract is very specific on the numbers that each company is allowed to guide, the guide client ratios, and many other parameters. Here's the results from the guide services end of season reports, which includes not only their normal summit climbs, but also their winter seminars, expedition seminars, and private climbs all around the mountain.

Figure 16 – Guide Service Client-Guide Ratios and Totals

<b>Guide Service</b>	<b>Guides</b>	<b>Clients</b>	<b>Total</b>
Alpine Ascents International	327	632	959
International Mountain Guides	363	689	1052
Rainier Mountaineering, Inc	737	2008	2745
Total:	1427	3329	4756

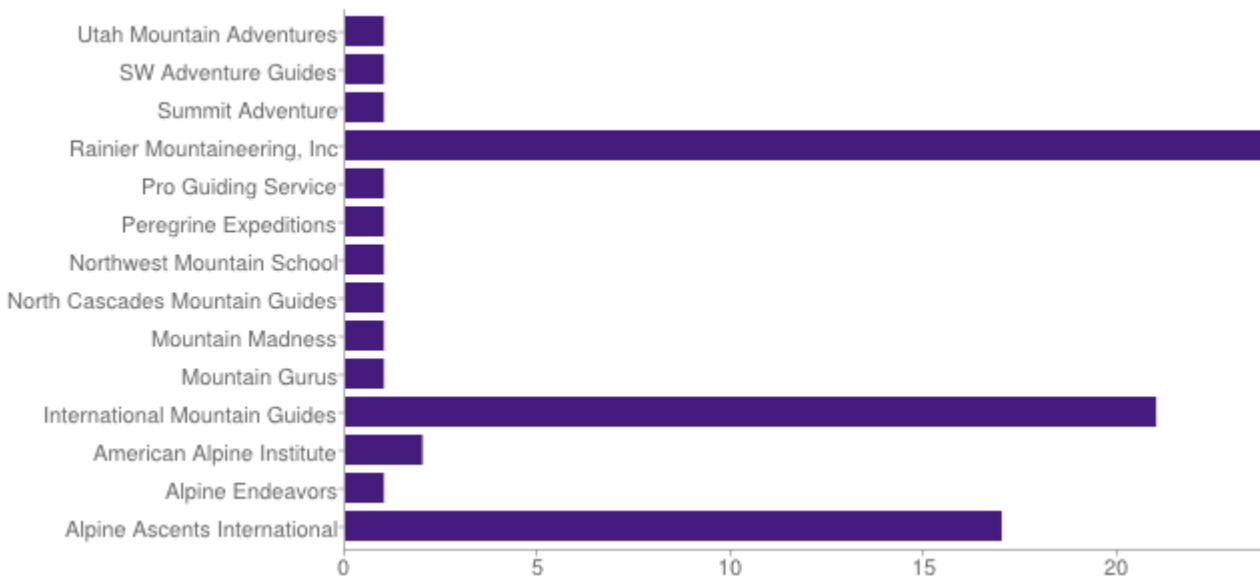
Since the total number of climbers registering for Mt. Rainier was 10,779 people in 2013, this makes the ratio between independent and guided activity about 55% to 45%, respectively. This is consistent with historical ratios.

The guides work closely with the climbing ranger staff. For the last several seasons, the climbing rangers have held joint trainings with all three guide services. The trainings have been formal with a barbeque afterwards so that the rangers and guides can get to know each other. Training topics have included mountain knowledge, rescue systems, incident command system, air operations, and many others.

In 2014, we have committed to performing multi-day high angle rescue systems training above Camp Muir with the guides. Each guide service has committed to providing several seasoned guides for a few training sessions on the upper mountain.

The climbing rangers also do random monitoring of the guide services for compliance to their contracts and operating plan. These monitoring forms are submitted electronically to the climbing program manager and the commercial services manager in the park. This allows any kudos or issues to be passed on or mitigated very quickly. In 2013, there were over 50 monitorings performed by climbing rangers. We were also to catch some of the approved single trip guide services, listed below.

Figure 18 – Commercial Guide Service Monitoring's



**Mountain Rescue Association**

The MRA is of incredible importance to us. Mt. Rainier National Park currently has a patrol program with its Washington chapters where we invite them to come and practice their skills here; in turn they are given free admittance to the park. They can perform a climbing patrol of the mountain while training. This allows them to be “proximal” to incidents when they are occurring. Mountain rescue’s participation in our search and rescue incidents is invaluable because for each MRA volunteer rescuing, we can keep an NPS ranger in their job and keep a ranger station open or a ranger on patrol.



During the recent rash of rescues in January 2012, Mt. Rescue contributed nearly 4000 rescuer-hours, which is the equivalent of over \$80,000 of paid time. Climbers and all outdoors men and women owe Mountain Rescue a high honor for their efforts.

During the 2013 climbing season, Mt. Rescue contributed about 2000 hours of volunteer time on Mt. Rainier training and contributing to SAR operations.

**Searches and Rescues**

In fiscal year 2013, (Oct 1, 2012 – Sept 30, 2013) there were 45 search and rescue operations. This was an above average number of rescue incidents.

Figure 20 – Total Unprogrammed Cost of SAR Operations – Last 10 Years

2013	\$149,299.00
2012	\$359,342.00
2011	\$130,398.00
2010	\$160,689.00
2009	\$54,078.00
2008	\$68,740.00
2007	\$143,200.00
2006	\$62,303.00

2005	\$267,157.00
2004	\$27,2451.00
2003	\$63,612.00
2002	\$136,566.00

These costs represent “un-programmed” costs, which are defined as overtime, gear, supplies, and aviation resources that are not a part of normal scheduled operations. This cost does not account for normal scheduled time rangers are on duty. In general, the larger years’ sums represent years where there were multiple major search operation or multiple fatalities.

No climbing fee money is dedicated to paying for any of these un-programmed costs. However, a small percentage of the climbing fee money does go to search and rescue in the following way. The climbing fees do pay for climbing rangers. If during the course of their normal duty there is a search or rescue, their scheduled hours are billed to climbing ranger program. This most often represents about 5-10 % of the climbing ranger financial load. It is also important to remember that the entire climbing ranger program is roughly 80% funded by climbing fees and 20% funded by other monies.

**Other Noteworthy Events**

The first two short-haul rescues on the upper mountain took place. The first was on the top of Disappointment Cleaver, the second was at 11,400 near the top of the Corridor on the Emmons-Winthrop route.

The Washington National Parks’ Fund held a fund-raiser to benefit search and rescue operations at Olympic, North Cascades, and Mt. Rainier National Parks. The dinner and auction raised \$36,000 and was split into thirds and given to each park. The \$12,000 Rainier received was spent on several incident management and leadership trainings, technical access kits for patrol rangers, some swiftwater rescue gear, and a few other small items.



## Income, Expenditures, and Budget

### Program Expenditures

The climbing program's budget is difficult to manage. The budget cycle is by fiscal year (Oct-Sept). The planning, hiring, training, and equipment of the climbing program needs to be taken care of before the climbing season has begun, and thus before the fees have been collected! This means that we commit to spending money before we know exactly what our budget is. However much this seems like a poor business practice, we have been able to make this work since the fee's inception in 1995. In a few years, this has resulted in some rash decisions, like laying off rangers prematurely in order to save money and make budget.

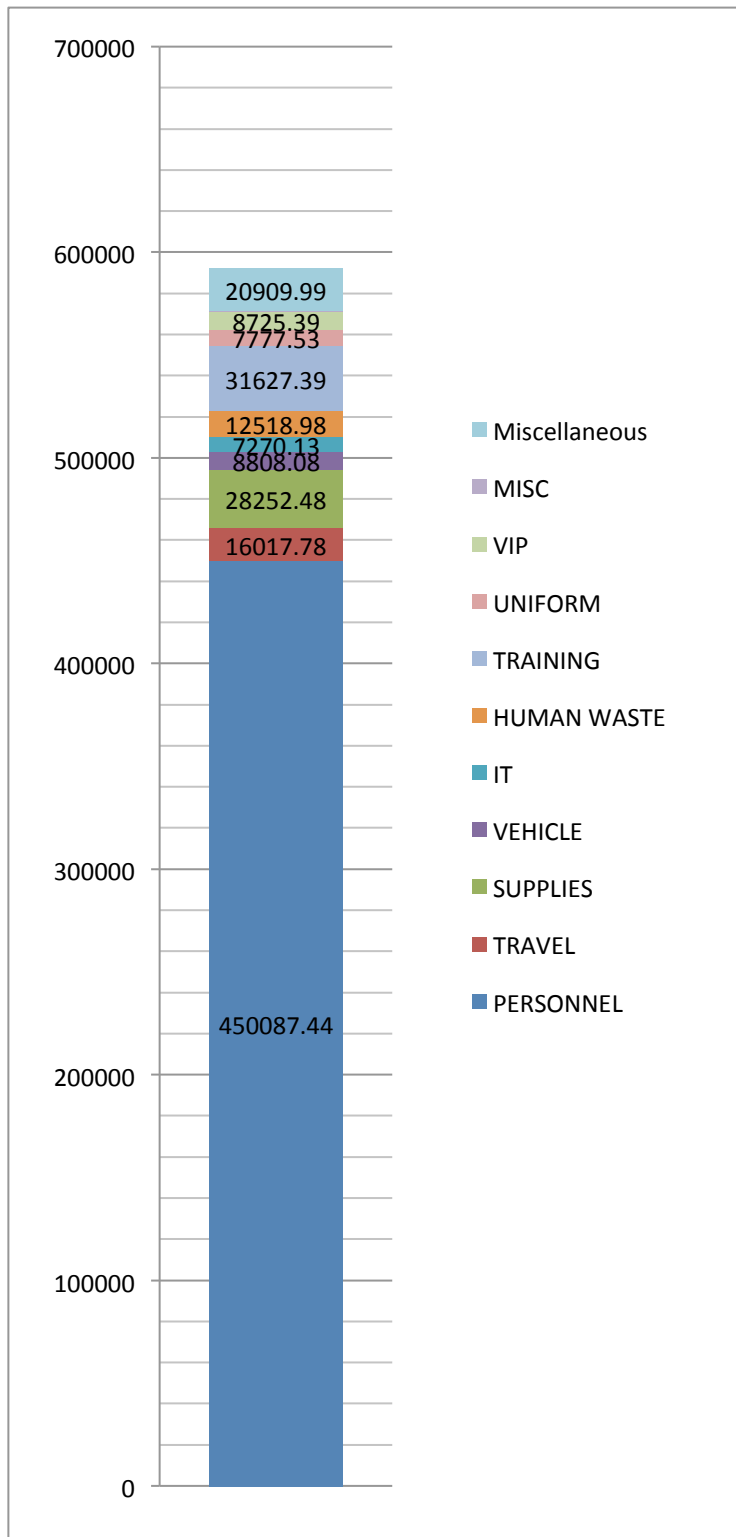
The entire climbing program's budget in 2013 was about \$592,000. As opposed to recent budget summaries, this does include the climbing program manager's salary who also has many park-wide responsibilities. This figure also does not include several hundred thousand dollars of help and assistance the climbing program gets from other divisions in the park who are just doing their job such as maintaining our radios, building and maintaining structures at high camps, and managing concessions operations.

In 2013, the climbing program consisted of 18 people. This breaks down into 1 program manager, 2 supervisors, 2 lead climbing rangers, 5 climbing rangers, 2 high camp maintenance rangers, 3 volunteers, and 1 administrative assistant.

Here are the expenditures of the climbing program roughly categorized from all funding sources combined.

Salaries of the permanent and seasonal staff account for roughly 76% of the climbing budget. These costs include regular hours, premiums such as overtime and hazard/environmental differential, as well as other benefits such as paying into unemployment insurance.

Travel is mostly in park and reimbursed as backcountry per diem at a rate of \$20/day, day patrols not included, must be overnight.



Training costs include EMT refresher training, aviation training, and technical rope rescue training, as well as leave not trace, incident leadership and management, and wilderness training.

VIP costs are all costs associated with the VIP's and SCA's in the climbing program. This is their \$20/day volunteer reimbursement, a small amount of gear and equipment we buy for them, and paying for their housing.

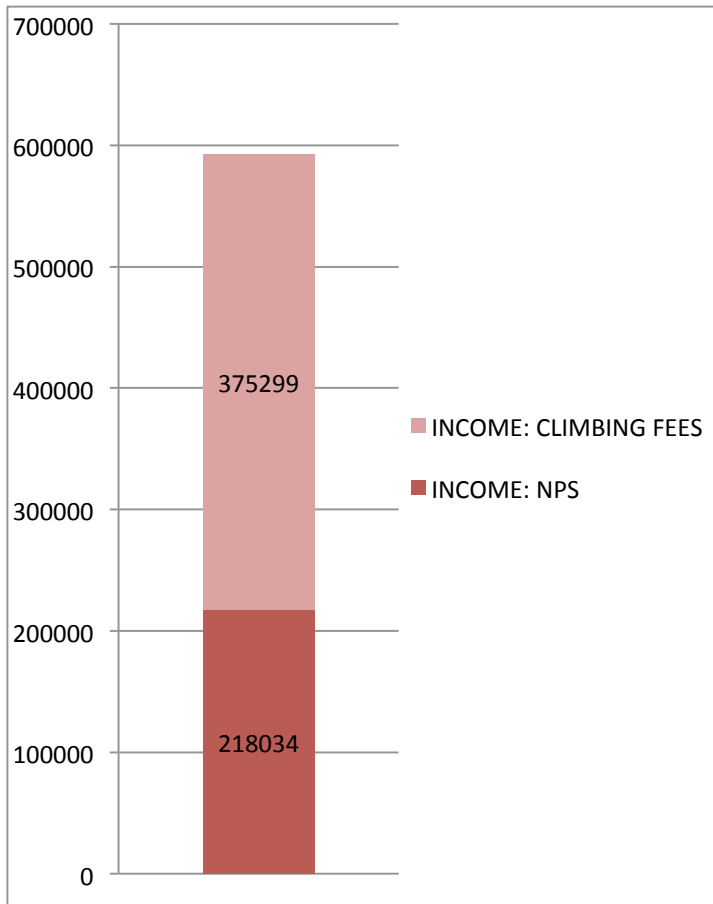
Supplies represented here are both administrative supplies such as paper, forms, booklets, pocket guides, computers, IT equipment, as well as supplies like carabiners, ropes, crampons, jackets, and other equipment.

Vehicle rentals are strictly the 4 vehicles the climbing rangers rent from GSA in order to provide transportation around the park while in duty status.

The \$12,518 quoted for Human Waste is only an equipment/supply cost. The personnel staffing is bound up in the Salary Category, which would roughly equate to about \$45,000 of the large blue column.

The other categories are miscellaneous categories brought out here to show projects such as developing a solar water melting system, buying uniforms (NPS green/gray), fee collection supplies, and other miscellaneous infrastructure.

Figure 22 – Program Income and Funding



This graph represents all income categories. Roughly \$375,000 were collected from the sale of climbing passes at roughly a 10% / 90% split between youth passes and adult passes (\$31 / \$44).

Roughly \$218,000 did not come from the climbing cost recovery fee. These funding sources included:

- \$71,000 concessions franchise fees
- \$28,000 centennial initiative
- \$3,500 glacier research/monitoring
- \$7,000 washington national parks fund grant

In fiscal year 2013, the climbing program was roughly 80% funded by climbing fees and 20% funded by Mt. Rainier National Park accounts.