

# INFINITE RECHARGE<sup>SM</sup>





Glacier Peak Site Specific  
Info 2-12-20



**2020 DISTRICT SCHEDULE**  
**PACIFIC NORTHWEST DISTRICT**  
**GLACIER PEAK EVENT**

**Competition Schedule**

<b>Friday, February 28, 2020</b>	
5:00PM-9:00PM	Pits Open
<b>Saturday, February 29, 2020</b>	
8:00AM-10:30AM	Pits Open, Practice Matches, Inspections
10:30AM-11:00AM	Opening Ceremonies
11:00AM-1:00PM	Qualification Matches
1:00PM-2:00PM	Lunch
2:00PM-7:30PM	Qualification Matches
8:00PM*	Pits Close
<b>Sunday, March 1, 2020</b>	
8:00AM	Pits Open
9:00AM-9:30AM	Opening Ceremonies
9:30AM-11:30AM	Qualification Matches
11:30AM-12:00PM	Alliance Selections
12:00PM-1:00PM	Lunch
1:00PM-4:00PM	Playoff Matches
4:00PM-4:45PM	Awards/Closing Ceremony
5:15PM*	Pits Close

*\*Schedule subject to change. All times are estimated based on flow of rounds.  
See Pit Administration table for updated times.*

# Glacier Peak

Is a Friday, Saturday & Sunday event

- Day 1 is Friday
- Day 2 is Saturday
- Day 3 is Sunday

To lessen confusion, the rest of this PowerPoint will talk about Day 1, Day 2 and Day 3

# Overview of Presentation

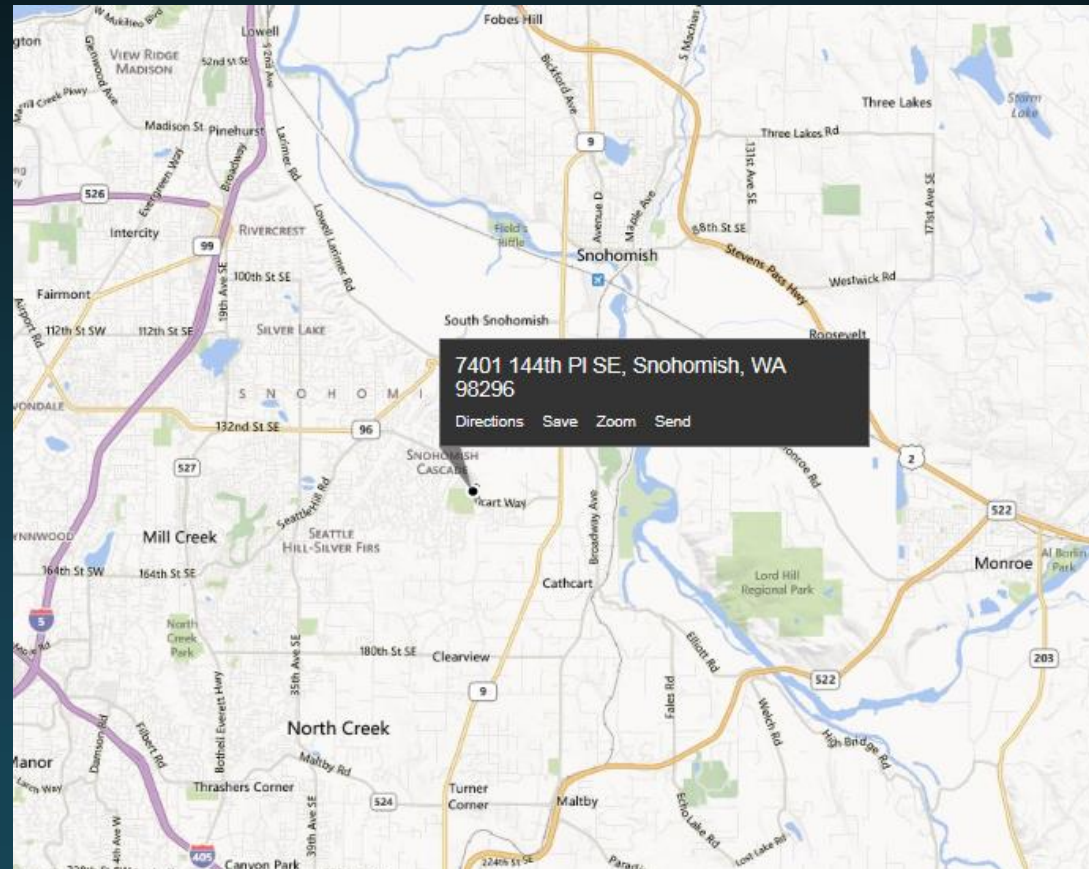
- Event Specific Information
  - General Logistics: Parking/Busses/Food
  - Load in / Load Out
- Walk through of the event
  - Tour of the areas
  - Day 1: Inspection Day
  - Day 2: Qualifications
  - Day 3: Eliminations

# Before you arrive!

- We need your main contact while onsite to visit <http://firstwa.org/FRCRSVP> and register
  - By default you will not receive a pit table from us. If you need us to provide you a table, you need to request one when you register on firstwa.org
  - Acknowledge you have 3" wheels
  - Student/Mentor count
  - Your mobile phone number – **This is extremely important in case we need to contact you at the event.**
- Please do this by **Monday, 2-17-20** (if you complete this form after 2-17-20 you may not receive a table)

# Glacier Peak District Event

7401 144th Pl Se Snohomish WA 98296





# Logistics: Arriving at Glacier Peak

7401 144th Pl SE Snohomish WA 98296





# Directions for loading in

- Please don't arrive before 4:15 pm Friday
- Pits won't open until 5pm
  - We are setting up the room from 3pm to 5pm



# Logistics: Parking

- Parking in school lots OK.
- There is no good bus parking. Your driver needs to make arrangements



# Trailer Parking

- There is no trailer parking for you on Day 2
- You may park with a trailer on Day 3

# Day 2 and 3 Arrival

- Doors will open at 8:00 am
- If you arrive early, please be prepared to wait outside



# Logistics: Food

- Concessions will be open Fri, Sat and Sun (more info on the next slide)
  - Please bring small change for concessions
  - Pre order Pizza will be available
- Bringing Food?
  - You may bring food into the venue
- Note: please do not plan to use power onsite to heat food or keep it hot. We are using all of the power in the building and your crock pots etc will get unplugged.
- Clean up after yourself

Concessions will be available Friday, Saturday, and Sunday. All items will sell for \$1.00 each except for Pizza which will be \$2.00/slice. CASH ONLY at the concession stand. Items for sale will include; Muffins, Doughnuts, Chips, Cup-o-Noodles, Cookies, Candy, Coffee, Hot Chocolate, Hot Tea, Hot Cider, Soda, Water, Gatorade, Fruit, and other items.

We have a proud connection to our local Garlic Jim’s pizza and will be offering to sell their pizza for team lunches. Below is an order form to use for purchasing team pizza. Please have the order forms and payment turned in no later than 9:30am at the concession stand to order pizza. We are not able to do Pre-Event lunch ordering, you can order your pizza Friday night during pit set-up or either morning of the event. Pizza’s will be delivered to Glacier Peak at lunch time. Team pizza orders can be made by check or cash, no credit/debit cards. We will also have order forms at the team check in desk.

Pizza Order Form

Please fill out form completely and return it to the concession stand

NO LATER THAN 9:30am.

Team # \_\_\_\_\_

Type of Pizza	# of Pizzas	Cost of Each	Total cost of each Type
Pepperoni		x \$16.00	
Sausage		x \$16.00	
Cheese		x \$16.00	
Total Cost			

Payment must be made when ordering Pizza. Make checks payable to Glacier Peak Robotics.  
Sorry, no Credit/Debit Card payments.

*Proudly Serving*





# About the pit Power

- Pit power is limited. We are putting up to 8 teams on a single 20 amp circuit
  - Power generator is shut down overnight
  - Consider charging your batteries overnight at home / hotel
    - (Remember: 12 rounds may require several batteries)
  - No compressors or other large motors
  - Limit 400 watts per team, 2400 watts per 6 team Power Alliance
  - Lighting should go with low wattage
- High school gyms have very little power
  - You may NOT use any outlets in the gym
  - The game equipment uses all available power
  - We will remove and confiscate any equipment from gym outlets until after awards ceremony on Sunday. **You have been warned!**

# Safety Glasses

- Teams are expected to provide safety glasses for their team members and spectators to use in the pits
- The safety glasses FIRST Washington brings are for the public, not for teams or spectators affiliated with teams
- No safety glasses will be given out Day 1. **Have them with you and accessible when you load in, you will not be allowed in the pits without them.**
- We will not hand out safety glasses to anyone wearing a team shirt
- We will be very diligent about collecting the safety glasses when spectators leave the pits

# Schedule Overview: Whole Event

- Day 1: Team Arrival and Inspections
  - Driver Meeting will be at 7:30 pm **Day 1**
- Day 2: Qualification Matches
- Day 3 AM: Qualification Matches
- Day 3 PM: Final Rounds / Team Departures



# Load-In and Inspection

## Day 1: 5pm – 9:00pm

- Safety glasses are mandatory. You will not be allowed into the area without them.
- Follow instructions from onsite staff.
- You may NOT park in the loading area. The driver MUST stay with the vehicle. Drop it and park in designated area. Staff your unload team appropriately to make this happen.
- Bring a cart! You will need a cart with at least 3" diameter wheels. Our cable protection bumps are 2" in height. We recommend 4" or larger wheels.
- Your FIRST and Only goal on Day 1 is passing inspection!



# Wheel requirements for carts, boxes, and anything rolling

- Our venues will have power cord covers (aka Yellow Jackets)
  - Our yellow jackets are 2" tall
- Your FRC robot cart **MUST** have > 3" diameter wheels
  - Wheels must be in good working order. No damaged or stuck wheels. Soft rubber. No hard plastic or steel tread wheels.
  - Maximum weight for your carts, tool boxes, etc will be 50 lbs per inch of wheel size (1 cart, 4 x 3" wheels, 600lbs max)
- Under no circumstances will we allow wheels less than 3" in diameter on ANY equipment / boxes / carts
  - Very high likelihood of damage to floors
  - You won't clear our cable management equipment
- All wheels must be non marking rubber or synthetic wheels
  - No steel wheels. No sharp wheels.



# Day 1 is Inspection Day

- Your primary goal for Day 1 is to get your robot to pass inspection.
- This is a short and intense activity. Preparation is the key to making it a good day.
- Asking for help is a good thing. Providing another team help is the highest honor in **FIRST**. Don't be bashful.
- Teams with lower numbers have experience.

# Load-in & Inspection Callouts

- **No Bag & Tag – but watch out for [R16]**
- **During Load-in, take everything to your pit!**
- **Other important Inspection changes this year:**
  - [I1] It's your team's robot – New rules around who can build MAJOR MECHANISMS
  - [I3] Multiple configurations can only weigh up to 150lbs – Any given configuration still must be  $\leq 125$ lbs
- **Be careful with:**
  - [R9] Specifically around light sources. Not required but highly suggested that any bright light source be:
    - Shrouded
    - Directed only at the target
    - Able to be turned off when not in use

# Day 1 Pits Open: 5pm

- At exactly 5 PM we intend to open the pit area for everyone.
- You must wait for clearance to enter the building.
- You MUST have safety glasses on your face!
- We can not provide safety glasses for team members. You MUST bring your own.

# Do less better

- These are smaller events.
- You are onsite for less time.
- Consider travelling light!
  - Less setup time
  - More room in your pits
  - Save the big pit displays for District Championship!

# Day 1 Team Registration: 5PM

- Your lead mentor must visit the pit admin desk starting at 5PM.
- Bring required forms
  - Team Roster printed from TIMS with hand written additions if needed.
  - Consent forms for all team members (students and adults) who aren't in TIMS/STIMS **The expectation is that all of your students and mentors have registered and are on the printed roster. You should have very few printed consent forms.**

# Who to bring Day 1

- You really want your drivers and core robot builders and mentors Day 1.
- Depending on your teams logistics, you might consider having a partial team Day 1 and the whole team Day's 2 & 3.
- Day 1 is NOT a good spectator day
  - It is ALL in the pits Day 1.



# Veteran Teams

- Bring Spare Parts
- Please consider bringing unused sensors, motors, control units, and hardware for loan to other teams.
- Because of the weather, many teams may not quite be done with their robot. Please look around and if you see a team in need, take time to help get their robot ready to compete!

# Day 1

## Inspection Process: 5PM

- Inspection involves 4 steps
  - Size and weigh-in at the inspection station
  - Control system inspection at the CSA station
  - Physical robot inspection at your pit starting 5PM
  - Connection to the field controller at least once by Day 2 morning
    - Our goal is for you to be able to connect Day 1 night if you are ready.
- Inspectors are your friends! Inspectors are here to help get you on the field safely and fairly. They will help you pass inspection.

# Starting the inspection process

- You may enter the weight / size line at any time after 5PM.
- After weight and size, stop at the CSA desk for the control software check.
- You may sign up at the Inspection desk for an in-pit inspection appointment starting at 5 PM. We invite you to sign up early.

# Inspection Tips

- It is rare for a robot to pass inspection on the first attempt. It is an iterative process.
- PLEASE: Get inspected early, even if you are not ready. You might have an issue that takes time to fix.
- All teams must connect to field as part of inspection.
- You MUST pass inspection to earn qualifying points.

# WPA Key Assignment

- Your robot radio (WPA Key) must be reprogrammed at each event you attend.
- This is required to connect & compete at the field.
- A kiosk (with instructions) is provided for you to program your radio.
  - The kiosk will be located at inspection or pit admin

# Word to the Wise

- Day 1 is no longer the final build day. It is now pass inspection day!
- Do not be bashful about asking for help. We have all been there before.



# End of Day 1

- The pits close at 9:00PM on Day 1.
- You **MUST BE OUT OF THE BUILDING** before 9:00PM. The building closes at 9:00PM.
- We dislike doing it, but we will come lead you out of the building starting at 8:55PM. No exceptions.

# Practice Rounds: Day 2, 8:30 AM

- Practice matches are scheduled, and will run from 8:30 AM to 10:00 AM
- You have to pass inspection to run a practice match.
- It is very common for teams not to be ready for their scheduled match in the mornings. We will accept teams on a first come/first served basis who wish to take an unscheduled practice round. Check in with the lead Queue Manager to get on the list.
- Priority will always be given to teams scheduled and/or teams who have not been on the field at least once. Be gracious and professional if you get bumped for a higher priority team.

# Connecting to the field: The Final Step

- If you run a practice match during Day 2 morning, the field computer will remember that as your last step of the inspection process.
- If you are unable to make a practice match, we are going to ask you to take your robot and control system out to the field for a quick 5 minute test to insure your system can connect to the field. Your robot will not be on the field, we will simply connect it to the field while sitting on your cart.
- THIS IS A MANDATORY STEP!
- Many simple issues are solved by doing this on Day 1 that would otherwise cause you problems when it really counts!
- Our goal is for you to connect to the field by 10 AM Friday

# Machine Shop Open: Day 2

- We have a volunteer machine shop onsite to help you fabricate replacement parts.
- The shop has small mills, lathes, and various other tools.
- **ONLY AUTHORIZED MACHINE SHOP VOLUNTEERS MAY USE THESE TOOLS!**
- We have excellent volunteer machinists. However, there are limits to what they can do for your team.
- We have a TIG welder.
- The machine shop has request forms for your team. It will be located near the loading ramp on the arena floor.
- In general, the machine shop will NOT loan you tools.

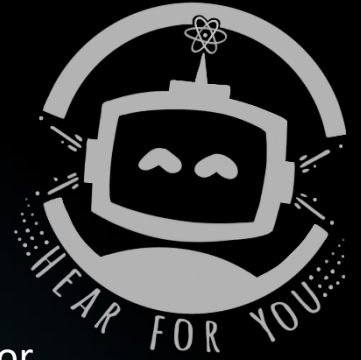
# Day 3: Load Out

- No parking in load out area.
- Load out during elimination rounds on Day 3 is fine

# Quiet room & Scouting Pit

- 5588 will be hosting a quiet room at the event.
  - Room number will be posted at Pit Admin
  - Students may sign up for 10 minute periods at pit admin (up to 10 students at a time) to remove themselves from the stress of competition. Not a hangout room, but focused on getting ready to return to the loud venue. 5588 will provide room monitors.
- 3663 will be hosting a “Scouting Pit” in room 534. Check with Pit Admin for more specifics.

# Hear For You Quiet Rooms



The robotics scene is an exhilarating experience dotted with the joy and satisfaction of building a robot and competing: an energetic environment that would not initially appear to induce stress or anxiety. Unfortunately for some students, this is not the case. The pressure that they put on themselves, and their peers, can be overwhelming. Students with special needs and overreactions to sensory environments often need breaks to self regulate and re acclimate to environments like an FRC event. The anxiety of performing well, the cacophony of noise, and the energy of each match leaves some students yearning for a moment of relief. FRC Team 5588, Reign Robotics are hoping to provide a Quiet Space for people to take a moment to destress at robotics competitions. 'Hear For You' is a program developed by team 125 and run locally by 5588 to provide information, guidance, and support to those who may need it in the *FRC* community.

The quiet room is a place for students, mentors and volunteers to take a short 15 minute decompressing break during competitions. Members may use the room up to two times a day if needed.

# Workshops

- Diversity, Equity & Inclusion Workshop Saturday 10:00 am – 3:00 pm
  - Room # is 702A check with Pit Admin day of event to confirm.
- 2930, 5588, 5827 will be hosting a Safety Roundtable Saturday at 3:30 pm
  - Room # is 702A check with Pit Admin day of event to confirm.
- 1778 will be hosting a Business Round Table on Sunday at 10:00 am
  - Room # is 702A check with Pit Admin day of event to confirm.



# Commitment to Equity and Access



## Building Your **FIRST** Community:

Diversity, Equity, and  
Inclusion Tips for Adults.

Register at:  
<http://firstwa.org/DEI-Workshops>

Workshop Dates:

Accesso Showare Center, Kent: January 26, 10 AM - 3 PM  
Clackamas Academy, Oregon City: February 28, 10 AM - 3:30 PM  
Glacier Peak HS, Snohomish: February 29, 10 AM - 3:30 PM  
West Valley HS, Spokane: March 6, 10 AM - 3:30 PM  
Bellingham HS, Bellingham: March 21, 10 AM - 3:30 PM  
Auburn HS, Auburn: March 28, 10 AM - 3:30 PM

We highly encourage all coaches, mentors,  
and volunteers from all programs, FLL Jr,  
FLL, FTC, and FRC, to join us.

Here's what coaches/mentors and  
volunteers are saying:

*"Loved the history and hands-on  
conversations and group dynamics"*

*"This workshop is giving me ideas  
on strategic recruiting and working  
intentionally to recruitment of  
minority/non traditional students"*

Exciting new technology during  
match play this year!

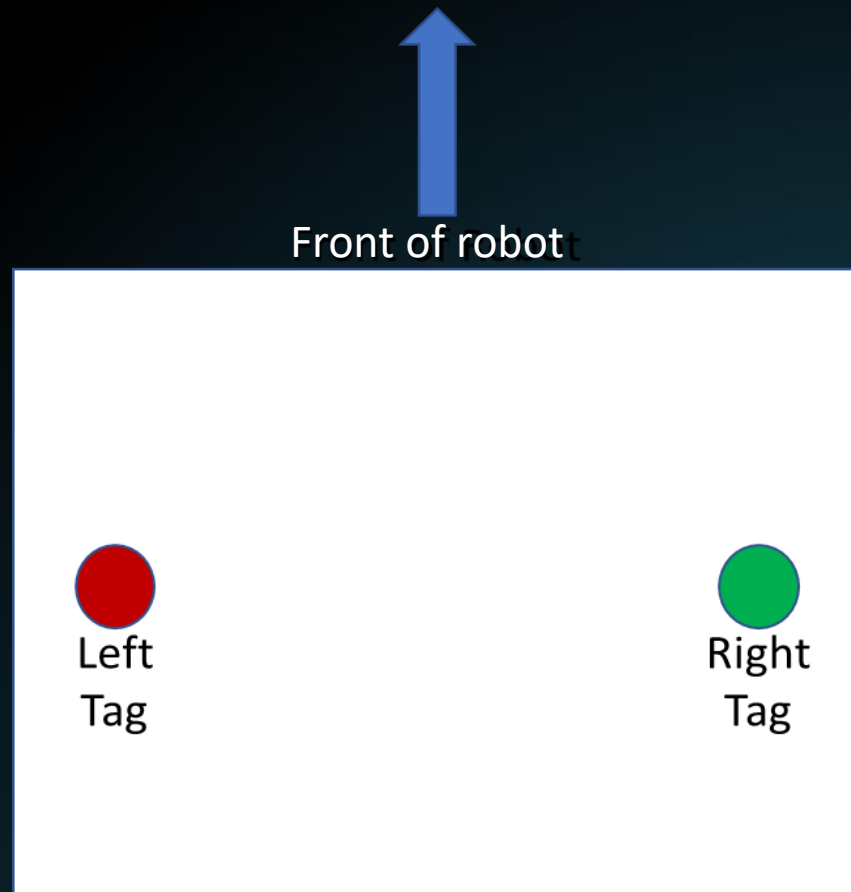
Zebra Technologies  
&  
FIRSTWA

# General Information

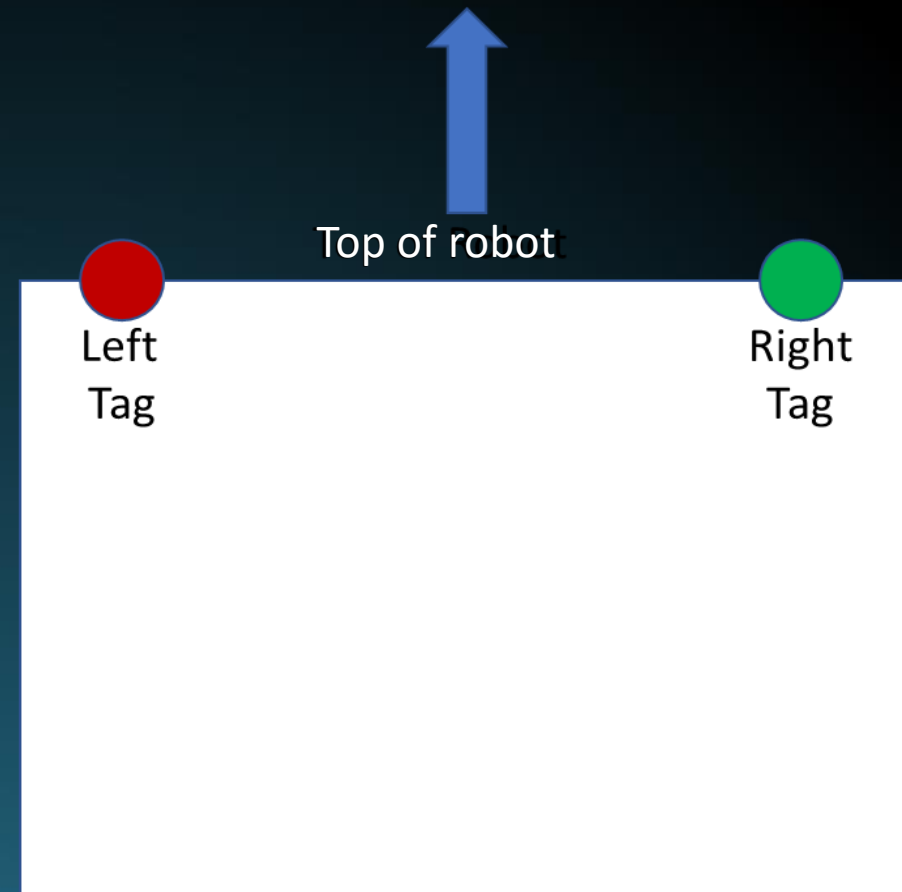
- Data collected 12 times per second
- Data collected for all robots every match of every event
- We can determine robot velocity, heading, acceleration, kinetic energy, and much more
- Trending of robots through the season

# Attaching Tags

- Installed via double-sided tape and cable ties (provided by FIRSTWA)
- Tags must be placed high on the robot and not surrounded by any metal.
  - Think about where you need to install your radio, then look for that type of spot for these tags.
- Keep the tags lined up from left to right; draw an imaginary line connecting your two tags, and that line should be perpendicular to the direction of your robot's forward motion.



Top View



Back View

# Questions

- FIRSTWA Discord

<https://discord.gg/7RJ5Vha>

- Chief Delphi

**Zebra MotionWorks™ for FRC 2020 Location  
Announcement**



# Curriculum used to enhance *FIRST* in schools

Coaches! Please share with *FIRST* Washington what curriculum (if any) you utilize to enhance *FIRST* in your school. Common ones include: Project Lead the Way (PTLW) Core Plus and Skills USA.

Many corporate partners and the State of Washington wants to know so please let us know. Oregon and Alaska teams...please share too!

This information will help us continue to build the case for additional resources for you all (space, funding, equipment, etc.)

Take a minute to fill out this form and tell us

<https://app.smartsheet.com/b/form/6970441f3f0648aca5a40c859e603520>

# Thanks for viewing

- You can contact [arime@firstwa.org](mailto:arime@firstwa.org) with additional questions
- These slides will be posted on the Glacier Peak event page on [firstwa.org](http://firstwa.org)