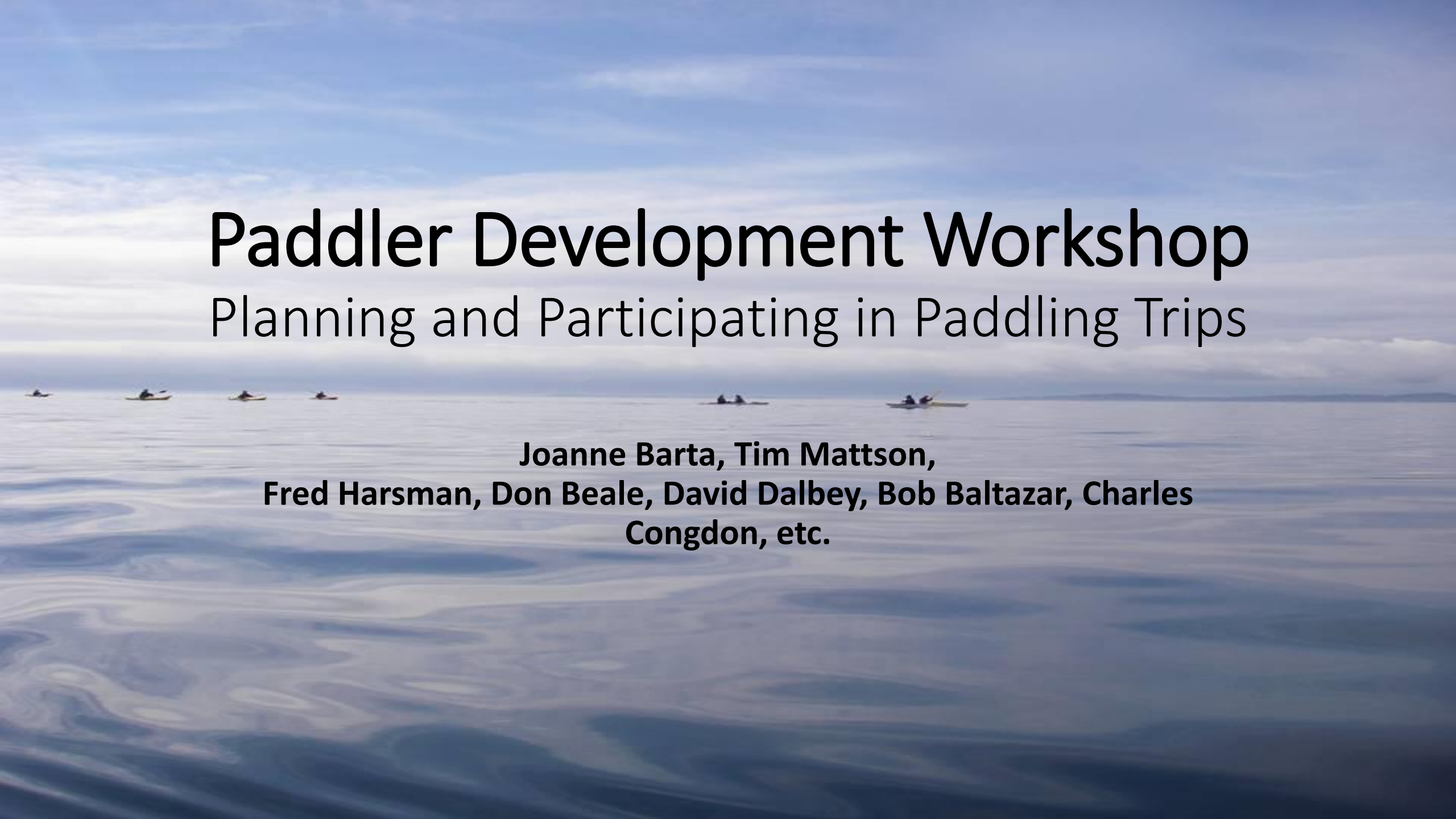
A lot of information…but don’t freak out

You are not intended to remember all of this in one sitting

The material which follows is intended as

- A survey/summary of many topics
- A catalyst/jumping-off point
  - Hopefully someone will be enticed to follow up one or more of these topics in depth
- A reference (CliffsNotes-level)

Lessons from numerous classes of all levels are found in these pages



Paddler Development Workshop

Planning and Participating in Paddling Trips

Joanne Barta, Tim Mattson,
Fred Harsman, Don Beale, David Dalbey, Bob Baltazar, Charles Congdon, etc.

About the Authors

This training was developed by OOPS for OOPS Trip Organizers from about 2008-present. It was put together by experienced paddlers with a wide range of advanced training representing both American Canoe Association (ACA) and British Canoeing (formerly known as the British Canoe Union - BCU).

- Joanne Barta
  - ACA Level 3 Instructor certification. Other training includes Strokes and maneuvers from Nigel Foster; Instructor training, Risk management, Rescues with Body Boat Blade; Risk Assessment and Management, surf training with Karl Anderson; surf, BCU 3 star training with Ginni Callahan; and rolling instruction with Cheri Perry and Turner Wilson. She enjoys teaching Risk Assessment and Management, Rescues, and How People Learn.
  - She participated in LoCo Roundup, and several Qajaq USA symposia (SSTIKS, Michigan Training Camp; The Traditional Paddlers Gathering; HRGF; Delmarva; TIPS). Taught Outdoor Leadership at Pacific University since 2015 teaching Beginning Kayaking, Sea Kayak leadership, Outdoor Recreation, and Kayak Guiding. Past OOPS Education Coordinator
- Tim Mattson
  - Tim has been paddling since the mid 90's in white water rivers, rough coastal shorelines, and, of course, peaceful quiet waters. He is a retired ACA certified instructor (level 5: advanced open ocean) and instructor-trainer (level 3: coastal kayaking). He was active for many years in the Puget Sound kayak racing scene and helped found the Northwest's premier traditional kayaking symposium (SSTIKS). Wilderness First Responder.
- Fred Harsman
  - British Canoeing 4-star sea kayak (sea kayak leader), and ACA coach 3. Other training includes coaching clinics / classes / training sessions with top instructors including Nigel Foster, Shawna Franklin ,Gordon Brown, John Walpole, Karl Anderson, Tim Mattson, John Wallum, and others. Plays in the ocean and like to rock garden and surf my kayak, and has done numerous BC coastal trips (favorite being a 12 day trip in the Hakai area of BC). Worked and taught kayaking at Portland Kayak for 18 years. One of the original folks who put together the syllabus for the Trip Organizer training along with Joanne Barta, Bob Baltazar, Don Beale, and Tim Mattson
- Don Beale
  - ACA level 5 instructor, and BCU 4-star sea leader. Dedicates time and funds for professional training each year. Teaches kayaking and Greenland paddle carving at the Oregon Ocean Paddling Society, SSTIKS (South Sound Traditional Inuit Kayak Symposium), and other Greenland events in the US and abroad.
- David Dalby
  - Personal awards: British Canoeing 4-star sea kayak (sea kayak leader), 3-star canoe, BCU Level-1 coach with Level-2 training. Guided and taught with Alder Creek 2011-2016, (still teach & guide periodically). Past OOPS Trips Coordinator, Education Coordinator and President.
- Charles Congdon
  - British Canoeing 3-star sea kayak, 3-star canoe, BCU Level-1 Coach. Other training includes clinics / classes / training sessions with top instructors including Nigel Foster, John Walpole, Shawna Franklin and Leon Sommé, Rob Yakes, Ginni Callahan, Nick Cunliffe, Karl Anderson, Tim Mattson, Paul Kuthe, Sherry Perry and Turner Wilson. Favorite classes include Dynamic Water Rescues, Incident Management, BCU Coastal Navigation, and Coaching the Mind. Oregon Emergency First Responder. Enjoys teaching Rescues, Rolling, Navigation and Trip Planning (on and off the water)

Please Introduce Yourself

- Name
- A few things about yourself
- How long have you been paddling?
- How long have you been with OOPS?
- Why are you here?

Agenda

- Goals
- Logistics and Legal
- Trip Planning
  - Trip Levels, Skills
  - Conditions
  - Safety & Risk Assessment
  - Medical Issues
- Group and Incident management

Class Goals

To introduce some of the skills needed to plan and take part in fun and safe paddle trips in the beautiful Pacific Northwest including:

- Finding a place to paddle
- Judging the conditions before and during a trip
- Being safe around other water users and in-water features
- Dealing with medical issues
- Managing a group
- Being a good organizer or paddler
- Being inclusive – make the trip work for everyone, even if someone is above their head

- To encourage you to grow as a paddler in skill and knowledge

Lifelong Learning – it's about more than moving the boat!

Effective Paddling, Turning, Edging, Steering

Paddling

- Rolling
- Moving-Water Paddling
- Rescue Techniques
- Towing
- Tidal/Trip Planning
- Navigation in Conditions
- Group and Incident Management
- Weather
- Teaching Physical Skills
- Marine geology, hydrology, and biology
- Native Cultures
- Ropes and Knots
- Boat and paddle design
- Camping out of a boat
- Etc.

Our Goals as Paddlers

- To make sure everyone has a great time
- To learn and grow as paddlers, so we can better take care of each other and have fun
- To get home before serious environmental, medical, or personal problems arise
- To never, ever, have to call someone and tell them that their loved one will not be coming home
  - Paddling is not without risks

Paddler Responsibilities

All Paddlers

- Have appropriate equipment (including immersion wear)
- Know where to go, and how to get back (navigation)
- Good decision-making skills (experience, and appeal to the wisdom of the group)
- Make the trip safe—stay within acceptable risk—read conditions
- Keep an eye on the clock—time management.
- Be prepared for all conditions seen on trip (weather, tides, etc.)
- Communication: keep everyone in the loop, communicate early and often
- Stay with the group – no one leaves without permission, even the leader
  - Help the group find you again if you get separated – stay in a place widely visible, signal, enhance visibility
- Be reasonably self sufficient.
  - OOPS does not run a guide service

Paddler Responsibilities

Organizers

- Set up the trip and rate it properly, deal with waivers, write post-trip report, etc. (administration)
- Making sure the appropriate equipment is on hand (first aid kit, tow belt, etc) .. Both for the organizers and participants.
- Keep the group together – “herding” and leadership
- Find all possible bailout options along your possible projected trip
- Decide how to handle popular trips (form pods, recruit other organizers to propose additional staggered trips to handle overflow, etc.)
- Screen participants

What if something goes horribly wrong?

If there is an incident, the most experienced professional paddlers from Alder Creek, Next Adventure, Portland Kayak, Body Boat Blade, Columbia River Kayak, etc. will be **witnesses for the prosecution**

- They will be asked if the participants (especially leaders) of the paddle exercised proper “duty of care” based on industry standards, and did not lead participants into harm due to negligence or incompetence

We want to be sure that all paddlers will receive a positive review from these paddling experts

Resources

Check out the “Paddler Resources” page under the “Information” menu on the OOPS website (https://oopskayak.org/onlinepaddlingresources).

There you will find:

- Map and charts
- Weather, Wind, Tide, Current, Temperature, and Pollution information
- Paddle Locations, Launches, water trails, suggested trips, etc.

Want to learn a new skill?

- Check out our learning resource page https://oopskayak.org/onlinelearningresources or take a class from one of our fine local paddling stores.

Agenda

- Goals
- Logistics and Legal
- Trip Planning
  - Trip Levels, Skills
  - Conditions
  - Safety & Risk Assessment
  - Medical
- Group and Incident management

OOPS in the Land of Liability

- Insurance:
  - OOPS has liability insurance:
    - Protects the club, its leaders and volunteers if we are sued
    - Protection only holds if we act according to standard practice established by "experts" in the sport.
      - See the ACA SEI risk management article.
- How to keep our insurance
  - Understand and follow the rules
  - Document EVERY trip: conditions, people, events…
  - Same standards for EVERY trip

Without the Insurance, trip-organizers and instructors couldn't afford to risk involvement with OOPS.

No insurance … no OOPS.

The Rules for OOPS Trips

- Our insurance requires us to define **Policies** and follow them.
- Those policies come from:
  - Common sense… and professional standards
- Key rules (full list in the OOPS Activity Policy document)
  - Equipment appropriate to the trip:
    - PFDs, sprayskirts, bilge pump, whistle, first aid kit, food/water, etc.
  - Dress for immersion risk.
    - No cotton except in very specific circumstances
  - Limited group size
  - Keep the group together!
  - Waivers and pre-trip talks are required
  - Every trip has a CPR certified first aid person.
  - Fill out ALL required trip paperwork (there isn't much of it)
- Organize trips a full level below your own ability.
  - E.g. If you can only safely paddle up to level 3, you should only organize up to level 2 trips.

Rules set minimum standards … anticipate, adapt, and stay safe.

Running a Personal Trip

1. Figure out when and where you want to go:
   - Check conditions, experiences of other paddlers, personal logs
2. Decide who you want include on the paddle and maybe change your plan to suit their skills:
   - Your new friend who has never paddled before probably isn't up for a 20-mile trip down the Columbia
3. At the Put-in BEFORE getting on the water:
   - Decide who is the nominal leader and agree on signals
   - Find out what gear everyone has and if anyone has medical issues
   - Discuss plan, who needs to get back when, and possible hazards
4. After the trip
   - Tell wild fish tales about what went right
   - Discuss problems and near-misses
   - Make sure any injuries are dealt with, and everyone can safely drive home

Running an OOPS Trip

documents and trip organizer information available at: https://oopskayak.org/Documents

1. Before the trip is advertised:
   - Submit your Trip organizer resume:
     - Fill out and submit to OOPS Trips Coordinator for OOPS' files. You only need to do this once.
   - **Fill out the trip proposal form** at the bottom of https://oopskayak.org/Trips :
     - If approved, it will be posted on the calendar and announced on the listserv by the OOPS Trips Coordinator.
2. Once the Trip is Posted:
   - Screen trip participants / build roster / recruit co-organizers / **sign up yourself**!
3. At the Put-in BEFORE getting on the water:
   - Every participant including trip leader **fills out the activity roster/waiver**
   - Conduct the **trip briefing/safety talk**
4. After the trip
   - **Fill out the Post-Trip report** at the bottom of https://oopskayak.org/Trips :
     - Send to OOPS Trip Coordinator right after the trip **along with the signed release form(s)**
   - Trip incident report:
     - Fill out if there are incidents … even small ones. You never know when something trivial may grow into something serious.

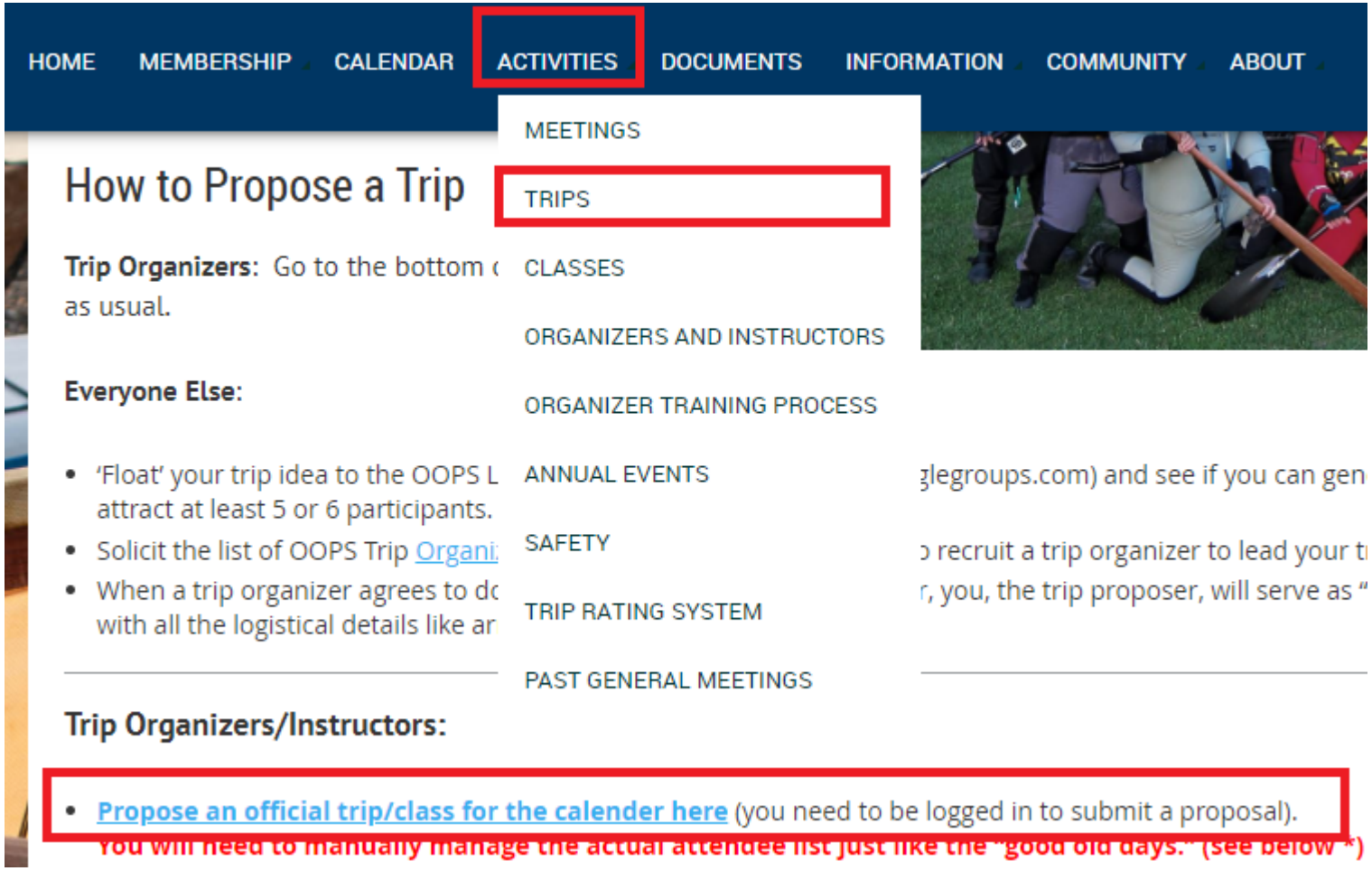
Information you will need to Submit an OOPS trip

- Decide on a location, on-water time, total distance, put-ins and take-outs.
  - Research parking spaces and fees
  - Find possible landings for emergencies, rest-room, and lunch breaks. Research the type of landing at all locations
  - Measure any open crossings
- Decide on a date, meeting time, launch time (taking weather, tide, currents into consideration)
- Get co-organizers, first aid/CPU person
- Research projected water and air temperatures, weather, sea state, swell, and wind speeds
  - Use these and venue/hazards to decide immersion protection, helmet, tow rope, etc. requirements
- Research tides (Columbia west of Bonneville, Willamette north of Oregon City) and currents 12 hours on either side of trip
- Use all of the above to figure out a rating for the trip

See https://oopskayak.org/Trip-Rating-System for more details

Submitting your Trip

- Make sure your personal OOPS account is tagged as “Trip Organizers” or “Provisional Trip Organizers” (needed to access trip submission form)
- Fill out the trip submission form at https://oopskayak.org/Trips



When submitting an OOPS trip

- If you need extra help, e-mail organizers@oopskayak.org before you propose your trip to see if you can get some co-organizers to join you (lets you bring more people)
- **You and your assistants must sign up as soon as the trip is posted**
  - The participant limit enforced by the website includes you and your assistants
- You need to manually maintain the attendee list and check wet-exit status
  - Wet exit status will be noted in the registration e-mail you get
  - The website will maintain the order of signup and will automatically move the next person off the waitlist if a registered person cancels correctly
  - On some trips (especially higher level) the waitlist will be maintained by personal communication
- You need to manually e-mail participants with trip details, etc.
  - Although you can point them to the Trips forum to work some of that out
- Paid events are handled a little differently – ask if you really need to know

The pre-trip interview

- Make sure people are right for the trip
  - If you don't know them, talk to them (phone or email):
- Ask them about:
  - Are they wet-exit certified (should be noted on the copy of their registration e-mail)
  - Do they have the experience they need? Where do they like to paddle?
    - Watch out for know-nothing "experts" and over-confident "pros".
  - What do they do when they capsize?
  - Dynamic Water: how consistent is their combat roll, and when did they last use it?
  - Do they have the right equipment and clothing?
  - Are they in shape for the planned trip?
  - Any medical issues? A diabetic will need to stop to eat frequently
    - Doesn't disqualify them, but you need to plan for this and have a trip where it is possible

When in doubt, gently guide them to a more appropriate trip.

Sample participant questions

- After Charles took this class, he asked people so many questions they were scared away.
- Here is what he asks them now if he doesn't know them or their skill level:
  - (Ocean Classes) What skills do you wish to work on at the coast in lumpy waters?
  - (Ocean Paddles) What sort of coastal paddling have you done, and what do you consider your upper level?
  - Can you tell me about some of your recent paddles?
  - What sort of immersion gear do you have (do you have a drysuit, wetsuit, etc.)?
  - When was your last wet exit and rescue (intentional or otherwise)?
  - What do you want to get out of this trip/class?
  - Do you understand why this trip/class was rated at level XX?

Exercise: the pre-trip interview

- Conduct a pre-trip interview. During an OOPS event in Washington we are going to be doing rescue practice in Canoe Pass at Deception Pass
- Key points to note:
  - Be encouraging.
  - Be realistic … remember if you give in and let an unprepared person join the group, everyone suffers.
  - Steer the person to a more appropriate OOPS trip if that makes sense.

If people need it

Mandatory Organizer Tasks the Day of Every OOPS Trip

- Make sure you arrive prepared with the latest weather, wind, swell, tide, and current information for 12 hours on either side of the trip
  - Strongly encourage your participants to come prepared as well – quiz them!
- Arrive early so you can meet people and redirect to a Plan B paddle if necessary
- Make sure everyone signs the waiver
- Check on equipment as it arrives (proper boats, immersion wear)
- Get people help taking boats to/from cars to water
- Conduct the official pre-trip briefing (use Pre-trip Checklist and Trip Rating Guide on website)
  - Introductions
  - Verify everyone signed waiver
  - Discuss itinerary, rest stops, lunch spots, bail outs
  - Get everyone to identify possible risks, conditions, hazards, medical conditions
  - Safety discussion (mutual comfort, capsizes, towing)
  - Go over communication methods
  - Equipment check, who has what, radio and zipper checks
  - Group Expectations
- Give people a place to meet when launched, then get someone experienced out there first

Another way to remember what to cover before you get on the water (personal trips)

- M. Y. A. B. C. D. E.
  - Me – Introduction and a bit about me
  - You – introductions from the group
  - Area – the plan for the day, the water we will be on, and the “type” of trip we will be undertaking
  - Boats and kit – safety check and also who has what kit and where
  - Communication – how we will communicate, signals we will use
  - Doctor – invitation for anyone to let me know of any relevant medical needs and a reminder for people to carry any relevant medication
  - Emergency – what to do if an emergency occurs – a swim brief and what the rest of the group should do

After your paddle returns to the take-out

- Just before landing, ask people to gather before leaving and share feedback
- Double-check that everyone signed the waiver
- Help people get their boats back on their cars
  - People will be tired and forgetful
  - If there is a wind, make sure someone is always actively holding a boat until someone else secures it to the car with at least one strap
- Make sure everyone has had something to eat and drink before they drive away
  - To prevent falling asleep at the wheel on the way home
  - Or gather a local eating joint for a meal together
- Make a quick note of anything you want to put in the post-trip report (conditions seen, unexpected hazards, people who did really well or had troubles, rescues done, first aid given, equipment failures, etc.) or privately communicate to the Trips Board member.
- E-mail a double-sided scan of the signed waivers to the Trips Board member (trips@oopskayak.org) or deliver it to them in-person.

Preparing to submit a Post-Trip Report

These are much easier than the original proposal. You will need:

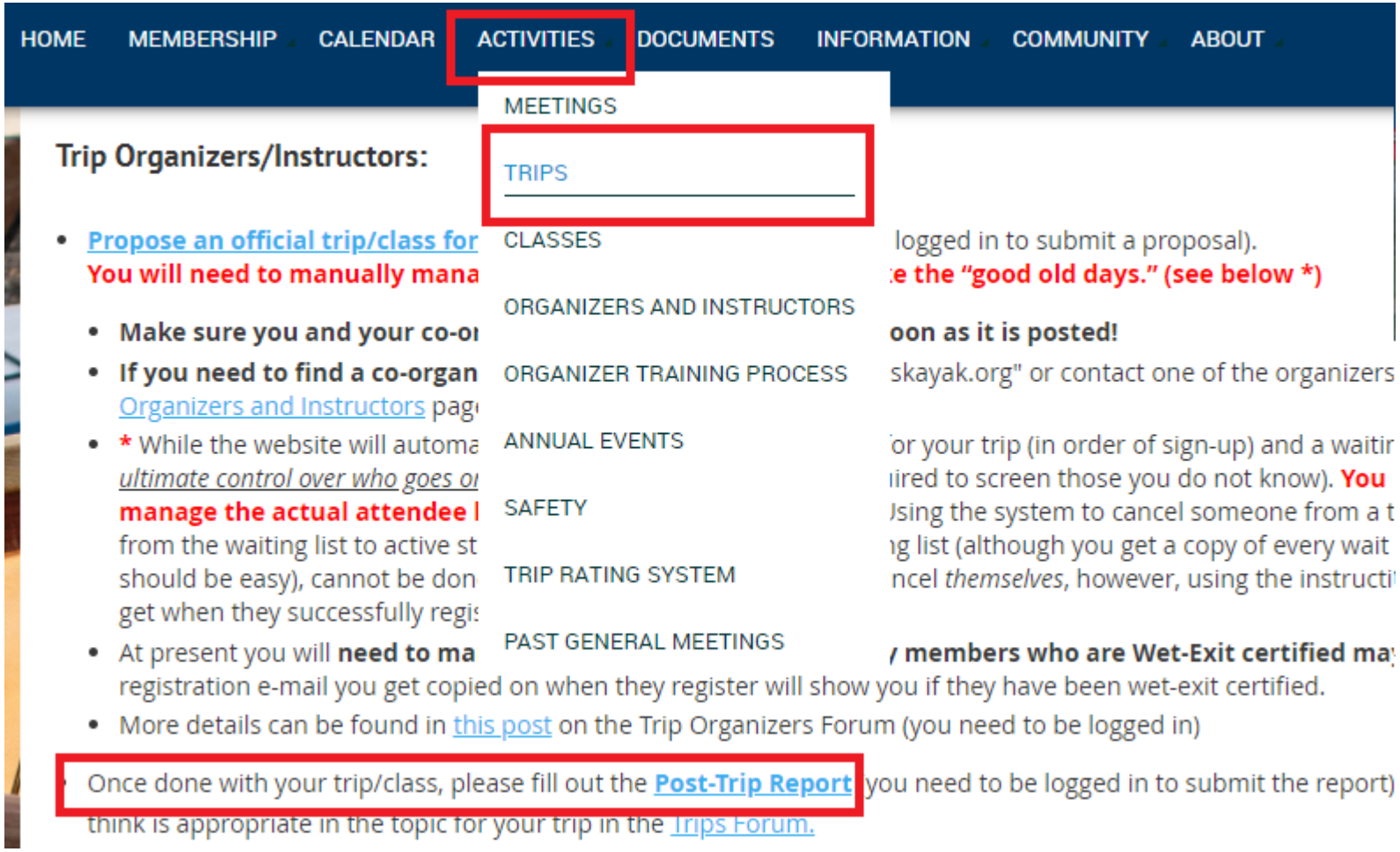
- Trip name and date
- A list of participants including organizers
- A list of organizers who were on the trip (including yourself)
- Details on any unexpected conditions and whether the first aid kit was used
- The overall rating of the actual paddle (see https://oopskayak.org/Trip-Rating-System)
- Were there any incidents that could result in a suit against OOPS?
- Do you want to have a private discussion about the trip with the Trips Board member?

Writing the Trip Summary

- Save flowery prose for Facebook or the Listserv
- Be factual – this is for learning purposes and to refresh you memory later
  - Get your times right
  - Report the correct order of events in detail that would help you or the next person anticipate what they might see if they paddled there
  - Document incidents in as much detail as possible
  - Document difficult decisions in as much detail as possible
  - Note paddlers who did really well, struggled a lot, or who were a management challenge (and how you dealt with the latter)
  - Other items of note: (neat wildlife, first OOPS trip for someone, paddler that wandered, hazards encountered/avoided, great lunch spots encountered, things you might have done differently, etc.)
  - Make this a useful reference for the next time you or someone else plans on taking the same trip.
- Do it while the memories are fresh
- This document might be used in court if something went wrong
- If you need to vent, report someone who was a real problem, risky behavior, etc., contact TOHelp@oopskayak.org - non-organizers can use this too!

Submitting your Post-Trip Report

- Make sure your personal OOPS account is tagged as “Trip Organizers” or “Provisional Trip Organizers” (needed to access post-trip report form)
- Fill out the post-trip report form at https://oopskayak.org/Trips



Life in America: the Land of Litigation*

- **The Bad and the Ugly:**
  - "Experienced Paddlers"/Trip Organizers are liable … whether the trip is with friends, an OOPS trip, or professionally guided trip.

- **Friends, clubs, professional guides … what's different?**
  - Consider The PERCEPTION of liability. Two extremes:
    1. Friends usually don't sue friends (but relatives might…), so we often neglect liability protections when paddling with friends.
    2. Paid guides: High expectations … fair game for law suits
  - What about a large club such as OOPS?

*From the May 2010 SEI Focus, pp 3 to 5. Adapted by Sam Fowlkes from a Risk Management Seminar given by Will Leverette at the 2004 Whitewater Symposium. Reproduced without permission as an appendix to these slides. SEI = Safety Equipment Institute

Thriving in the Land of Litigation*

- **Set a high standard of care … or in lawyer speak:**
  - "to perform as a reasonable and prudent person with your level of training and experience would perform under similar circumstances".
- **The OOPS approach:**
  - Maintain a balance of responsibility … each paddler is responsible for his/her safety … while the club takes steps to help our trip organizers perform in a reasonable and prudent manner.
- **From the SEI Focus article*, what is the #1 approach to protecting ourselves?**
  - Informed Consent … or "warn and inform".
- **How does OOPS implement this strategy?**
  - The waiver signed on every trip
  - The trip rating system
  - The pre-trip briefing

*From the May 2010 SEI Focus, pp 3 to 5. Adapted by Sam Fowlkes from a Risk Management Seminar given by Will Leverette at the 2004 Whitewater Symposium. Reproduced without permission as an appendix to these slides.

Common Problems and Staying Safe

- The six most common and significant allegations are listed below in order of importance and prevalence:
  - Failure to “warn and inform”
  - Failure to give proper instructions
  - Instructor/ guide error
  - Wrong place, wrong time
  - Equipment failure
  - Rescue was unduly long and exhaustive, causing pain and suffering
- Paddlers can build a solid defense if the points above are properly addressed
  - The bottom line is prevention. Proper training, knowledge and experience gives paddlers the judgment to recognize when a situation is developing and the tools to take both preventative and corrective action.

ACTIVITY POLICY QUIZ: Part 1

- You are organizing a level-three trip, and a participant does not have a tow belt. Is this in compliance with the Activity Policy?
  - Yes – a tow belt is recommended but not required.

- Must each item in the safety checklist be reviewed prior to every trip?
  - No – the checklist is a recommendation. Some items on it will be more applicable on some trips.

- You are organizing a level two trip, and are planning on twelve total participants. How many Organizers or Assistant Organizers do you need?
  - Two – there must be one organizer for every 5 non-organizer participants at level 2.

- What is the minimum Organizer/Participant ratio for level three?
  - One Organizer for every four participants at level three, and one for every three at level four.

- Does an assistant need to be an approved Organizer?
  - Yes – assistants must also be organizers

ACTIVITY POLICY QUIZ: Part 2

- True or False: One first aid-certified person per Organizer or assistant is required.
  - False – one first aid kit meeting OOPS standards and one person with current first-aid and CPR training is required for every pod.

- What cotton clothing item is allowed on OOPS activities on the water?
  - An exception to the 'no cotton' rule is made for a hat.

- For a minor in an OOPS activity, what accommodation is required?
  - There has to be a designated 'responsible adult'.

- Does the responsible adult for a minor have to have express permission to authorize medical treatment and transport?
  - Yes.

- In the event of an incident, who does the Organizer notify? Who notifies the Club President?
  - The Organizer notifies the appropriate Trips/Education Coordinator. The Coordinator then notifies the President.

Bottom Line

- As a club, OOPS has to follow certain polices to minimize risk in a risky sport
  - These are mandatory to keep our insurance coverage
    - Including waivers, pre-trip briefing, and post-trip report
  - They are found in the Activity Policy
- We try to balance responsibility of club and individual paddlers
- Think about these issues when planning private trips as well

Agenda

- Goals
- Logistics and Legal
- Trip Planning
  - Trip Levels, Skills
  - Conditions
  - Safety & Risk Assessment
  - Medical Issues
- Group and Incident management

When planning a trip, what are the most important considerations?

- A topic of much discussion
- Paddle from Safe Haven to Safe Haven
- Paddlers of all levels are most bothered by
  - Wind & Waves (particularly wind)
  - Lack of bailout options
  - Lack of local knowledge
- Beginners will find it all challenging
  - Pick short paddles on a calm day in flat water for beginners
  - If they come home all-smiles, consider it a job well-done
    - In time they may get better and be up to the “exciting stuff.”

OOPS Trip levels

See https://www.oopskayak.org/Trip-Rating-System for definitions

Condition	Level 1	Level 2	Level 3	Level 4	Level 5
Wind	Under 8 mph	Up to 14 mph	Up to 19 mph	Up to 25 mph	Exceed any two level 4 conditions Three or more level 4 conditions present
Sea State as seen from boat	Waves up to the deck seam; water glassy to rippled, no whitecaps	Waves up to armpit; light to moderate chop, scattered whitecaps	Waves to paddle tops; numerous whitecaps, waves becoming longer	Many whitecaps, some spray	
Waves, breaking waves	waves < 1’ no breaking waves	Waves to 2', no breaking waves	Waves to 3', 2’ breaking waves	Waves to 6', breaking waves < 4’	
Landing Type	Frequent easy landing opportunities including gently sloping, sand, gravel or grass	Frequent landing opportunities including docks or moderate sloping banks, brush or overhanging trees	Bad footing, surf up to 1.5’	Steep rocky shores sheltered from the waves or surf up to 4'	
Open Crossings	No open crossings	Under 1 mile	1 to 2 miles	2 to 4 miles	
Total Distance	Up to 6 miles	6 to 11 miles	11 to 15 miles	15 to 22 miles	
Current	None or mild (less than 1 knot)	Mild currents (up to 2 knots): current increases / decreases group speed by half	Up to 4 knots: paddlers must sprint to move forward	Up to 6 knots	

Any two conditions exceeding a level’s listing bumps the rating up to the next level.
Night or limited visibility (fog) bumps the rating up one level. Changes in conditions just before trip may increase level as well.

Recommended Skills per level

	Level 1	Level 2	Level 3	Level 4	Level 5
Paddling	Forward, reverse, sweep turns, stern rudder	High and low bracing. Comfort with some edging. Efficient forward stroke.	Eddy line crossings. Confident edge control and bracing.	Confident boat control in wind and moving water. Reliable roll.	Reliable rough water roll.
Rescue	Wet exit ability	Confident wet exits and assisted rescues (as swimmer and rescuer). Paddle float or other self-rescue.	Confident assisted and self rescues.	Recently rehearsed assisted rescues in Level 3 or Level 4 conditions.	Confident rough water assisted rescue ability.
Group Dynamics	Group positioning awareness	Group positioning and dynamics awareness.	Group management ability.	Confident group management experience.	Confident group management experience
Navigation			Basic navigation skills.	Accurate course plotting and chart positioning skills.	Night and limited visibility navigation

Exercise

- Pretend that we are going to paddle in Nehalem Bay today. How would you rate the paddle?
  - Wind waves are a bigger deal than swell
  - Don't forget current!
  - The website does not automatically calculate the overall rating, which usually is the highest rating level seen 2 or more times (+1 for night and fog + more for conditions)
- You had a good trip. What information would you pass on to the next organizer that you discovered in your research?

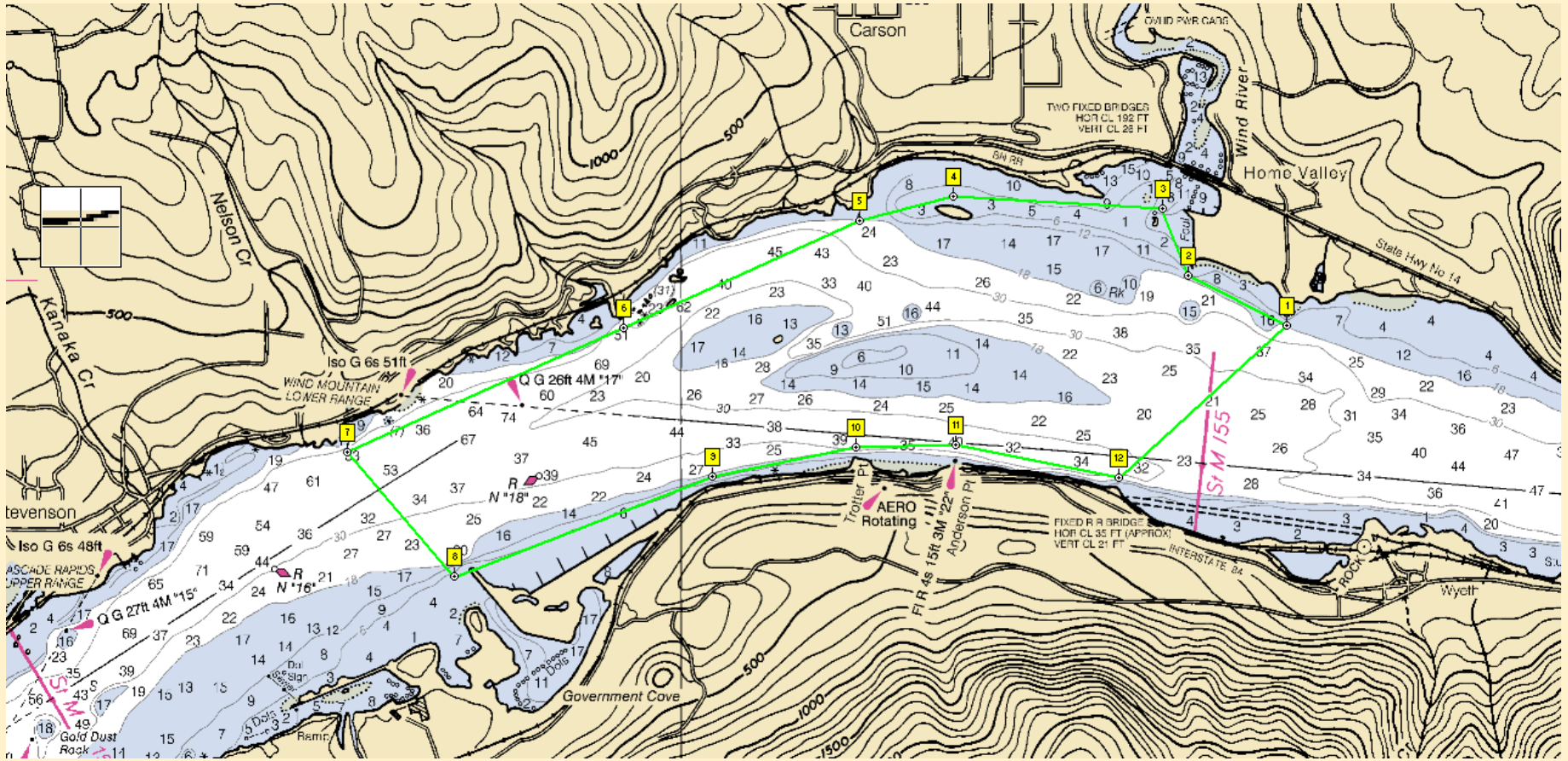
Paddles where special care is needed

- A level 1 trip when conditions start to worsen
  - When one person has problems, many will follow
    - The kayak shops see this all the time
  - Which is why it's always good to have a other experienced paddlers with you
- Any paddle (especially level 2) in an environment where the wind can come up "without warning" and/or there are very few or difficult outs
  - This could quickly turn into a level-4 mess

Paddling from Safe Haven to Safe Haven

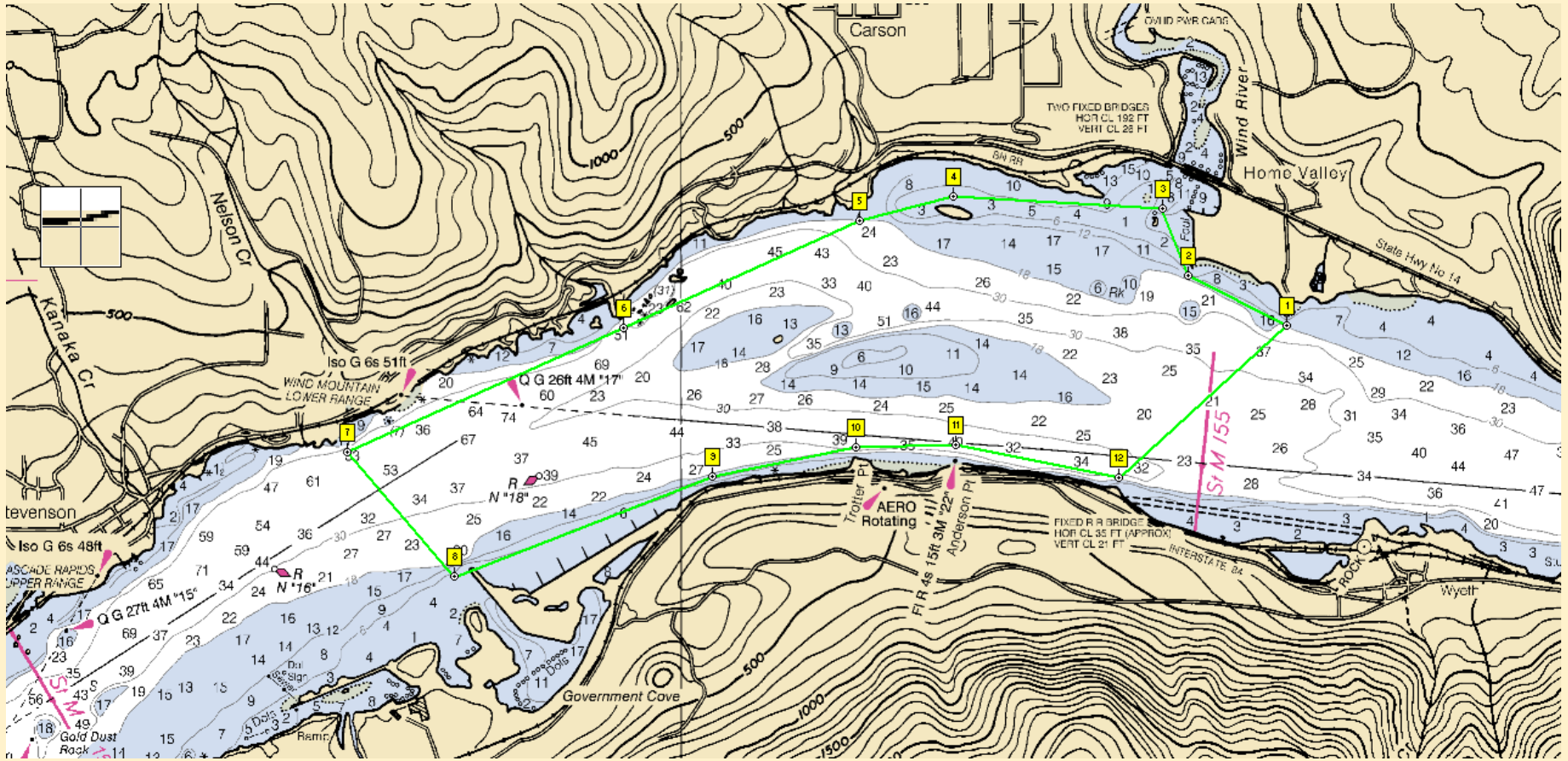
- Don’t just plan on breaks at the put-in, take-out, and lunch.
- Try to plan trips with places you can land about every half-hour to hour or so (every few nautical miles) so that:
  - People can use the restroom
  - Hot people can take off some clothing, cold people can put on some extra clothing, wet people can change
  - People can snack (especially diabetics)
  - People can stretch
  - Slow people who are always “humping it” to keep up can rest
  - Someone can go for help if needed
- You don’t have to land, and if you do, make it short.
- But make sure you have the option

Rate this trip: Wind river



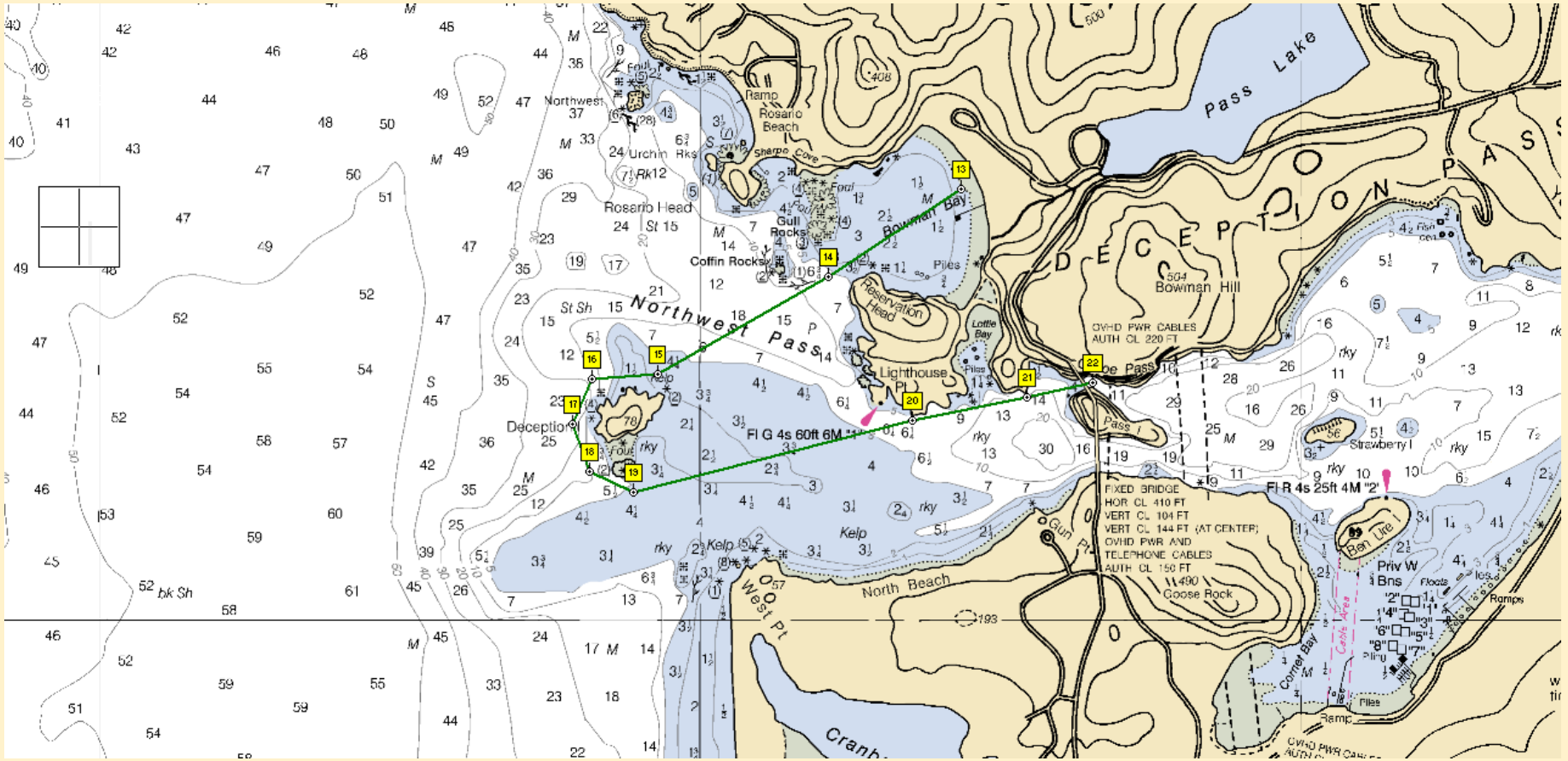
- Expected Wind is from the NW at 10 knots.
- Currents are 2 knots
- Crossing distance is 1mile.

Rate this trip: Wind river



- We arrive and the actual conditions are:
  - Wind is west at 20 knot.
  - Current at 2 knots, crossing is 1 mile
- Re-rate this trip for the actual conditions.

Rate the trip: Deception Pass



- Crossing distance is ¾ mile.
- Wind is calm.
- Current is ebbing at 6.5 knots in Canoe Pass.

Bottom Line

- Use the OOPS Trip level and skill matrices to help select and plan trips
  - It doesn’t hurt to be conservative setting the overall level
- These are useful tools for private trips too!
- Watch out for paddles with beginners or the possibility of rapidly changing conditions
- Know your safe-havens and bail-out options

Agenda

- Goals
- Logistics and Legal
- Trip Planning
  - Trip Levels, Skills
  - Conditions
  - Safety & Risk Assessment
  - Medical Issues
- Group and Incident management

Conditions

Here in the Pacific Northwest, we need to consider at least some of the following before and during every paddle (including level 1). All paddlers should come to the launch with relevant information in-hand:

- Weather, especially winds
- Water Temperature
- River conditions (temperatures, currents, flow rates)
- Tidal Factors – Height and Currents
- Swell & Surf
- Possible Landings

Your one-stop-shop: https://oopskayak.org/onlinepaddlingresources

Weather – NOAA, Wunderground, Sailflow, darksky, Windy, VHF Radio

- Dealing with weather is simple … always check forecasts and know your limits.
- It's the wind that matters most. Key issues for understanding wind:
  - **Direction**: Stated in terms of where the wind comes from (opposite of the convention with current).
  - **Fetch**: the span of water the wind blows over. Longer equals bigger waves
  - **Time**: How long has the wind been blowing? The longer the more waves will develop
- Fog, thunderstorms, precipitation can also have a big impact on your trip
- And don't forget the air temperature and humidity
- Pay attention to how all these vary during the day

Any wind over 25 knots (29 mph) is very tough! Only advanced paddlers working in well practiced teams should choose to paddle beyond 30 knots (35 mph)… and even then, you better hope you're heading downwind!

Wind Waves

- Fetch: The unobstructed distance of water passed over by the wind
- The longer the fetch, the bigger the wind waves
  - This may change as your trip processes (opposite ends of a lake)
- The bigger the wind waves, the more impact they will have on your progress
- If the waves are tall enough, your boat gets pushed by the wind on the top of the wave, and left alone at the bottom
  - Making keeping your direction challenging
- Wind waves can be a bigger deal than swell – their period tends to be shorter, giving you less time to react between waves

Managing a group in the wind

- Paddle as a reasonably tight blob
  - With the slowest paddler in the center
  - Leader on the downwind leading edge to set the angle of the paddle and catch boats
- Gorge Run
  - Organizer in back to get the swimmers, boat catcher in the front, plus flankers
  - Set up designated meeting points
    - People who stick to the sides of the river in gentler conditions will progress faster than those surfing, so designate places for the group to reform before progressing
  - If only one leader – do it from the side, and don't be afraid to raft the group up (good luck getting everyone's attention)

Wind and Weather

- Find out how the wind speed will vary at Stevenson, Washington over the day.
  - How about Astoria, Oregon
- How about in two days?
- BONUS: Looking at synoptic charts, how do you predict the wind direction and strength to change today in Astoria? Now check your results with the NOAA hourly graphs.

River Conditions – NOAA, River Reports, VHF Radio, USGS

- Before any river trip, note the height, flow rate, currents, wind direction, tide, and water temperature
  - Keep a record of conditions observed after every paddle to fill in the gaps
  - USGS reports mean water velocity in feet/second for some stations (1 f/s = 0.6 knots)
- Currents make a big difference
  - Can speed up or slow down progress
  - Can drain or save paddler energy
  - 3 knot current – stand still at normal paddle speed
  - 6 knot current – stand still while sprinting
  - Tides can speed up or slow down a river

River Conditions cont.

- Wind opposing current will stand up wind waves; same direction will calm
  - Important particularly on the Columbia
- Especially on larger rivers, you can “eddy-hop” to make good progress against the current
- Pay special attention to deep and shallow parts of the river, and river obstructions (natural or manmade)
  - Magnify/tame waves

Water Temperature – River Reports

- Pacific Northwest – rivers are only warm for a few months a year
  - It gets warm outside long before the rivers do
  - The resulting cold shock is a common reason for drowning on spring days
    - Which is why a properly-worn PFD can save a life – see Medical section
- If it's hot out but the water is cold, make sure to keep people in immersion-wear cool, and consider denying people who are not adequately dressed if necessary
  - Early rescue practice can be used to give people "the hint" if this is a paddle where immersion or lots of splashing may be likely
- Know your limits, and dress for immersion – see website for recommendations
  - **And insist on a *properly closed* life jacket at all times**

Golden Rules of Cold Water Safety

- The **5 Golden Rules of Cold Water Safety** are your roadmap through this jungle. While each rule is important in its own right, it's the combination of all five that allows you to build a strong cold water safety net.
- **1) Always Wear Your PFD**
- **2) Always Dress For The Water Temperature**
- **3) Field-Test Your Gear**
- **4) Swim-Test Your Gear Every Time You Go Out**
- **5) Imagine The Worst That Could Happen and Plan For It**

Proper Immersion Wear – Dress for Water

- Layer appropriately under drysuit
- Don’t forget paddle jacket for lunch breaks or squalls!
- No cotton for water below 80!
- Wet cotton over a drysuit can keep someone from getting too hot

Water Temperature	Hypothermia / Breathing Risk	Appropriate Clothing
70F and up	Low	Dress for air
55-70	Moderate	Wetsuit or drysuit required
45-54	High	Drysuit
Below 45	Extreme	Drysuit

River Conditions

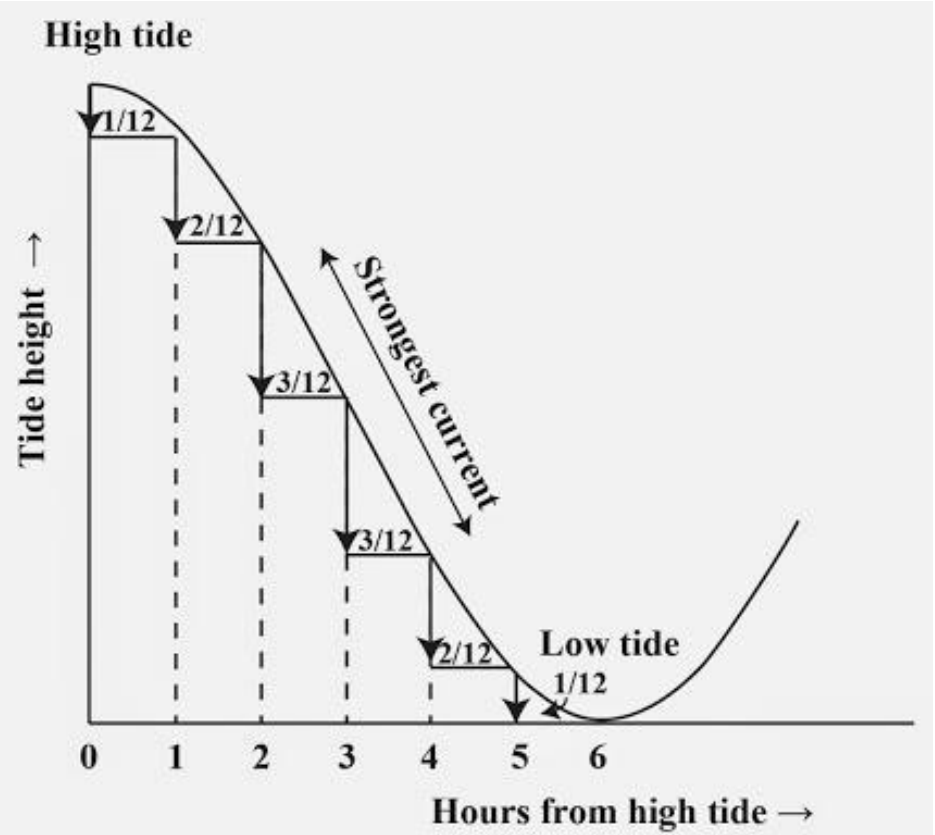
- Use the NOAA website to find the predicted river height of the “Willamette River Above the Falls at Oregon City” in two days
- Use the USGS website to find the water speed on the “Willamette at Newberg”
- Use http://levels.wkcc.org/ to find the water temperature in the “Clackamas at Estacada”

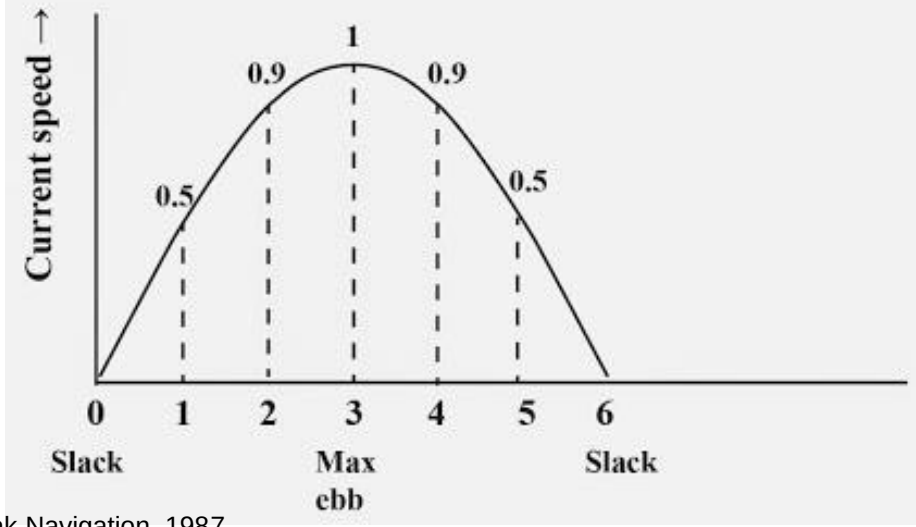
Tidal Factors – Height and Currents – NOAA, Tidespy, Protides, Deepzoom

- Tides affect most of the lower Columbia and Willamette Rivers
  - They modify the river currents and heights
  - They can create navigational hazards (tide races, inaccessible turns)
- Tides at the coast have a big influence on when/where we can launch and explore
- They also can amplify rip currents and currents parallel to the shore (created by the return of the surf water to the deep ocean)
- You can estimate the **water height** at a given time using the Rule of 12ths
  - **If it takes 6 hours to go from low to high tide**, the water level will be at **25% after 2 hours, at 50% after 3 hours, and at 75% after 4 hours**

Tidal Currents - Rule of thirds (50/90 rule)

- The NOAA tables provide times for slack and peak.
- Use the rule of thirds to estimate current at other times:
  - Divide time from peak to slack into three equal segments (~1 hr)
  - Slack to peak
    - 50% of peak after 1st segment
    - 90% of peak after 2nd segment
    - 100% (peak) after 3rd segment
  - From peak to slack
    - 90% of peak after 1st segment
    - 50% of peak after 2nd segment
    - 0% (slack) after 3rd segment



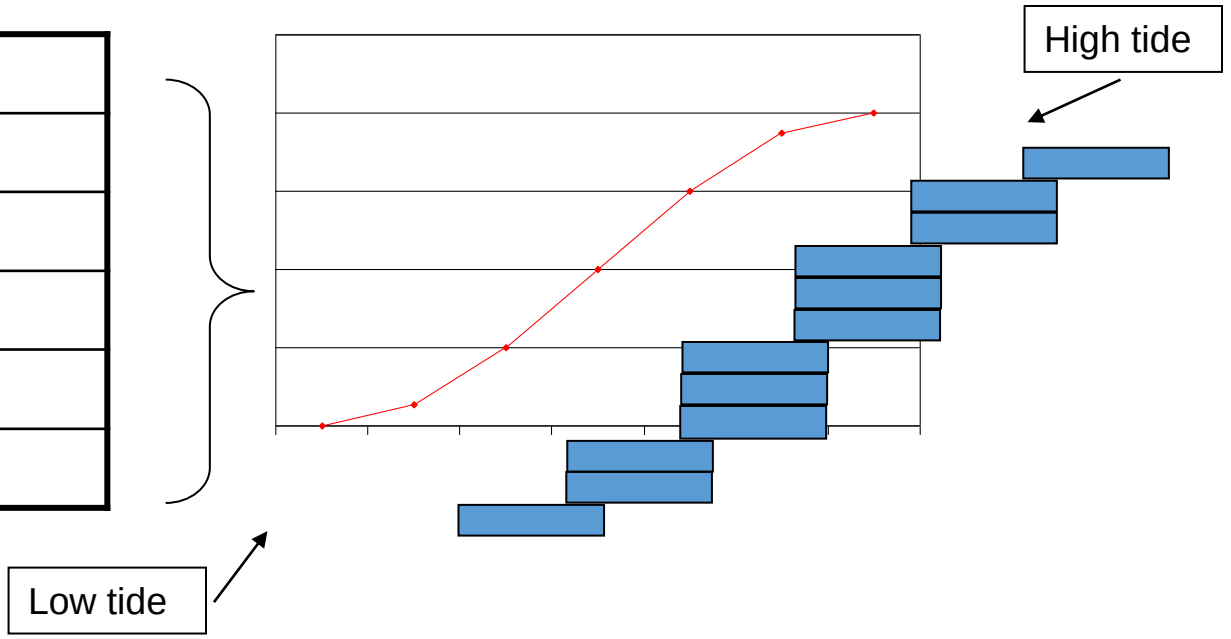


This rule interpolates abs(cos(n*pi/12)) for n = 0 to 12. it comes from David Burch, Fundamentals of kayak Navigation, 1987

Estimating Tides: The rule of 12ths

- Tide varies from low to high (and back again) according to a smooth curve called a sine wave.
- The rule of 12th's approximates a quarter sine wave
  - Divide time from low to high tide into six segments (~ one hour segments).
  - The change after each segment (hour) expressed as a fraction of 12:

First hour	1/12
Second hour	+2/12
Third hour	+3/12
Fourth hour	+3/12
Fifth hour	+2/12
Sixth hour	+1/12



Restating: **If it takes 6 hours to go from low to high tide, the water level will be at 25% after 2 hours, at 50% after 3 hours, and at 75% after 4 hours**

Crossings in current discussion - Clatsop Spit to Sand Island

- When crossing a channel in current, the current will flush you along the channel as you cross.
- Consider the 1.5 nm crossing from Clatsop spit, OR to Sand island, WA at the mouth of the Columbia with a 2 knot ebb current (assume constant current, no wind)
- How do you get across?

Get high and stay high!

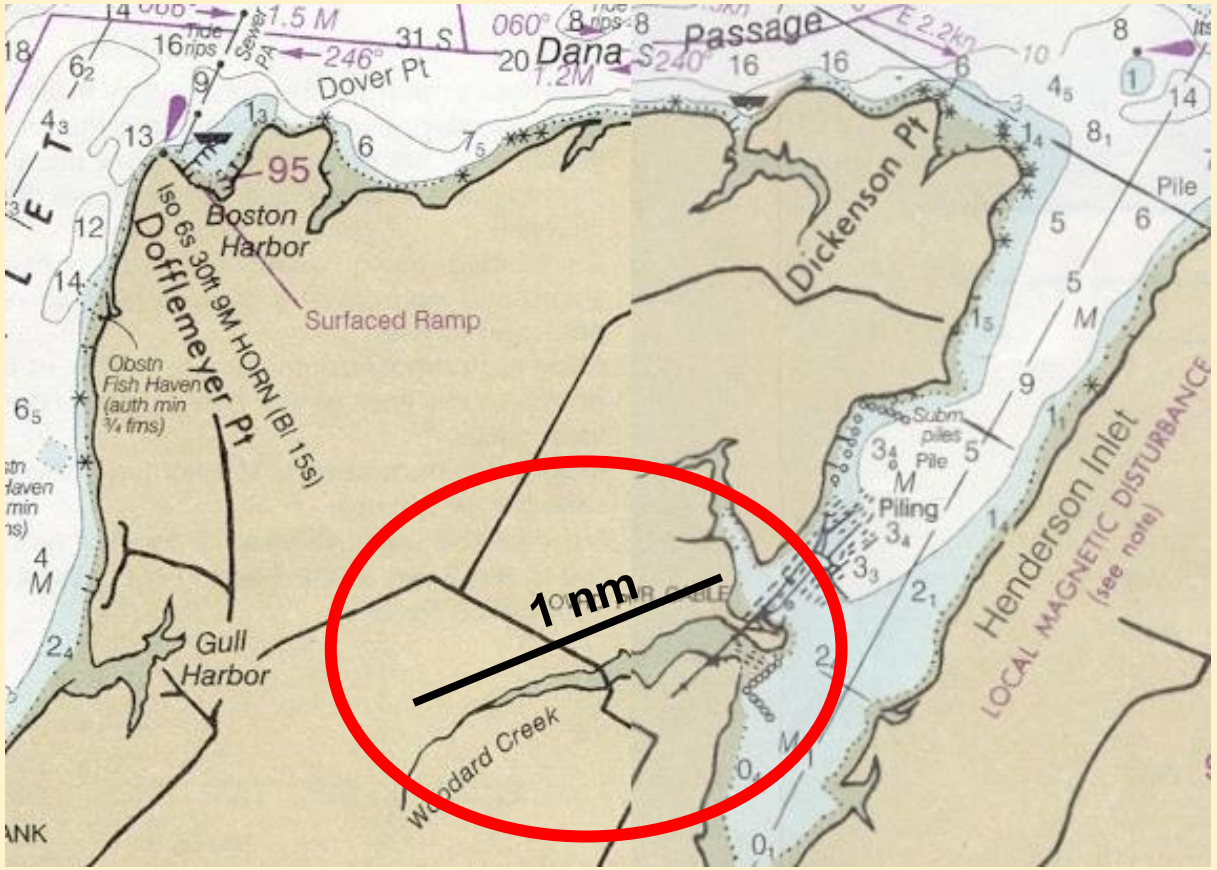
Tides and Currents

- What are high and low tides at Garibaldi?
- What are the current predictions for “Hunting Island, south of (PCT1216) Depth 20 ft” (hint: Washington at the mouth of the Columbia)
- What are the current predictions for the Tillamook Bay Entrance?
- BONUS: What currents and tides can you expect at Brookfield (formerly Jim Crow) Point today? (hint – need to interpolate between two tide stations)

Estimating tides:

You are leading a group of paddlers to explore the Woodard Creek estuary. You know that:

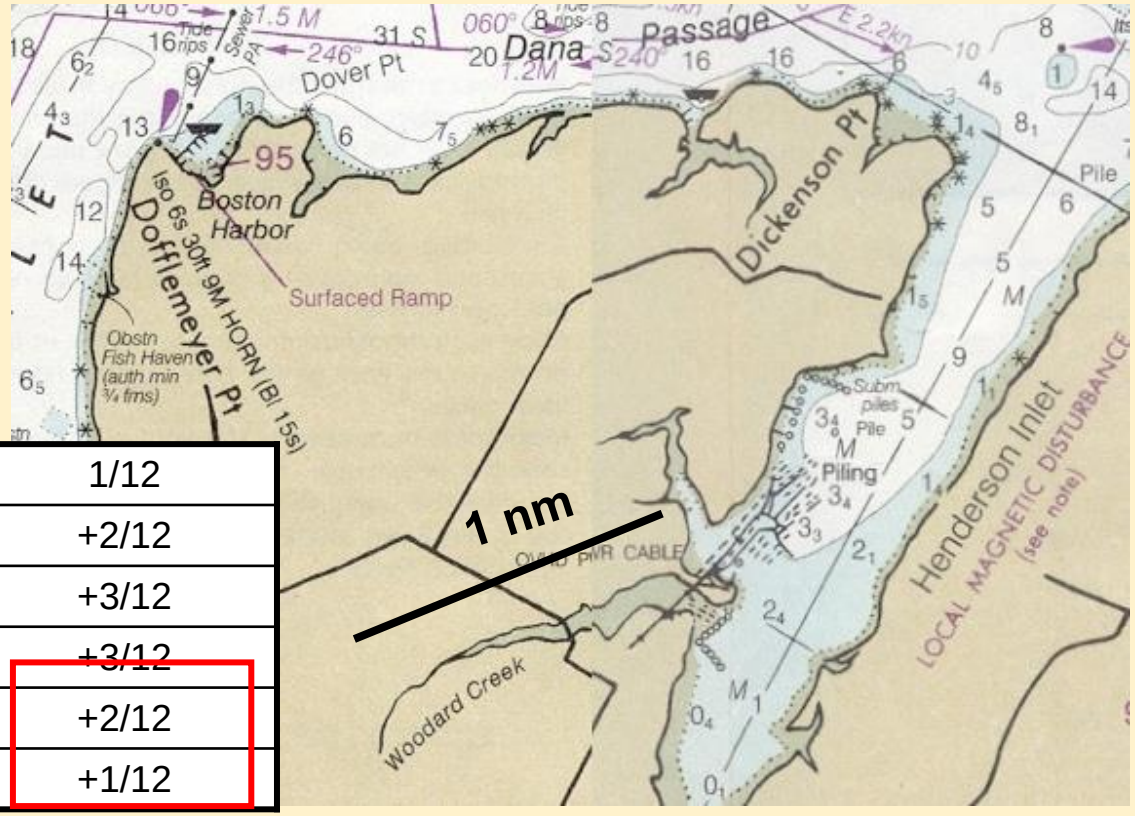
- From past experience, it is all mud at a 1 ft tide.
- Tide data: high 9’ at noon, low 0’ at 6 PM.



What time must you turn the group around to avoid the mud?

Using the rule of 12ths to estimate "turn-around" time

- Assume:
  - Tide data: high 9' at noon, 0' at 6 PM.
  - It is all mud at a 1 ft tide.
  - You want 2' min depth to avoid bottom drag
  - Group paddles at three knots



First hour	1/12
Second hour	+2/12
Third hour	+3/12
Fourth hour	+3/12
Fifth hour	+2/12
Sixth hour	+1/12

- Working from low tide
  - Divide tide range by 12
    9 ft / 12 = ¾ ft
  - Desired min depth is 3ft (2ft + mud depth of 1ft)
  - Convert min tide into "12ths"
    3ft / (¾ft per segment) = 4 segments
  - By the rule of 12ths, you get to 4 segments in 2 1/3 hr or the group must be out 2 1/3 hr before 6PM or 3:40 PM.
- Working from high tide to get a rough sense
  - 6.75 feet at 2pm (9ft – 3 * 3/4ft)
  - 4.5 feet at 3pm (9ft - 6 * 3/4ft)
  - 2.25 feet at 4pm (9ft – 9 * 3/4ft)
- Group paddles at 3 knots, so 20 mins to go 1 nm and get out.

So: turn around ***no later*** than 3:20 PM

Do these calculations ahead of time!

Swell & Surf – NOAA, Magicseaweed, VHF Radio

- Swell is the collection of waves moving away from a storm in the ocean.
  - Pay attention to the direction
- Swell height is an average of the largest 1/3rd of all waves
  - 1 in 100 (1 every ~15 min) will be 1.5x this, 1 in 1000 (1 every ~2.8 hours) will be 2x this
- Swell period is literally the time it takes for successive waves to pass the same point in seconds.
  - Practically, the peak period of a swell gives a great idea of how powerful the swell is and the size of the surf it will create

Swell & Surf – NOAA, Magicseaweed, VHF Radio

- Doubling the period gives about a 50% increase in the height of the breaking waves from the same sized swell (and ***much*** more power to the waves – there is more water in each wave).
  - 4ft @ 10 seconds = 6ft breaking waves; 4ft @ 20 seconds = 9ft breaking waves
- The increase in wave height begins to occur at depths of around one half of the wavelength.
- In general, a wave will start to break when it reaches a water depth of 1.3 times the wave height.
- The steeper the beach, the bigger the waves

Guessing the size of breaking waves

Use the larger of:

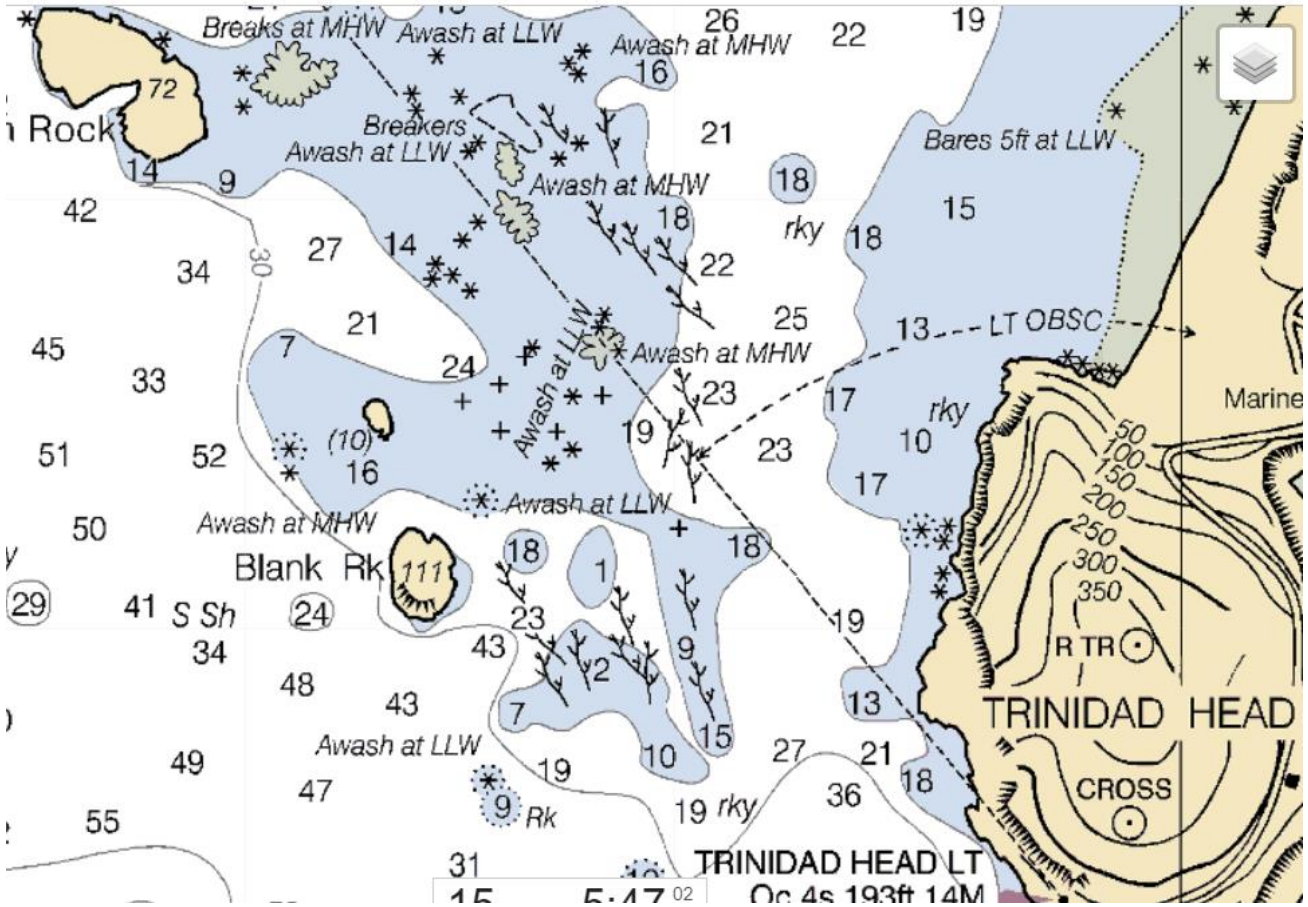
- Half the swell period in seconds, converted to feet
- Combine the height of the swell and wind waves and multiply by 1.3
- Example:
  - We have 4-foot swell with a 16-second period, and 1-foot wind waves
  - By formula 1, waves with a 16-second period could result in 8-foot breakers
  - By formula 2, 4-foot swell plus 1-foot wind waves times 1.3 gives (4+1)*1.3=6.5-foot breakers
  - So it’s going to be a big day. Take out the camera, not the boat

Swell and Surf

- What is the surf going to be like at Lincoln City in two days? What swells make it up, and what will the wind be doing as the day progresses?
- What is the NOAA Marine forecast for offshore of Lincoln City at the same time?

Managing a Group in Boomers/Rock Gardens

- Use people as buoys to paddle around (to avoid hazards)
- Move people from safe-zone to safe-zone
- Always keep an eye to the sea for the next set/sneaker wave
- Take. Your. Time.



Managing a group in the Surf Zone

- Land everyone, starting with an experienced person to tell those coming in to hold, move forward, etc. and another person with the group to sequence people in
  - Weaker people first is one strategy
- Once everyone on shore, debrief
- Then consider releasing those people who want to go out to play some more
- Make sure the surfing circuit is agreed upon and fully understood before they launch
- Set a time when the group needs to move on to its next activity, and players need to agree to come in when they get the signal

Conditions and Trip planning (OOPS or personal)

- Weeks or months before:
  - Talk to people who have been to the location before, post questions on the listserv or Facebook, and look at https://www.oopskayak.org/location-information and on https://oopskayak.org/Location-Information-Forum
  - Look up average air temperatures, guess water temperatures
  - Sunrise, sunset, possible landings
  - Tides & currents
  - If the idea looks reasonable, submit your trip proposal
- 1 Week before the trip:
  - Start checking weather forecasts, especially wind
  - Check currents forecasts, water flow if applicable
  - Check surf and swell forecasts

Conditions and Trip planning (OOPS or personal)

- 2 days before:
  - Go/no-go based on weather, wind, currents, flow rates, surf, and swell
- Day before and Morning of:
  - Continue to check weather, wind, currents, flow rates, surf, and swell and switch to Plan B if necessary
  - Write down pertinent information on your boat (tides, weather, etc.)
- The Day After:
  - Document on Facebook and at https://oopskayak.org/Location-Information-Forum for the next person
  - File your trip report

Bottom Line

- Don’t be surprised by what you experience during the paddle!
  - At least what can be predicted by available evidence
  - Pay attention to the conditions at the end of the day as well as at the start
- There are plenty of resources – no excuses
  - Double-check with other participants – does everyone agree with what to expect?
- Everyone needs to do this homework

Agenda

- Goals
- Logistics and Legal
- Trip Planning
  - Trip Levels, Skills
  - Conditions
  - Safety & Risk Assessment
  - Medical Issues
- Group and Incident management

Safety: general principles

- Everybody is responsible for safety: but the trip organizer has additional considerations.
- Three key principles
  - Hazards: Anticipate and avoid them, but don't assume you can always avoid hazards … be prepared to deal with them.
  - Risk Assessment … have a system to quickly assess risks and keep updating your assessment as the trip unfolds.
  - Medical emergencies … Understand the most common medical emergencies OOPS members are likely to face and be ready.
- All of this applies to private paddles as well as club paddles

But First, for everyone's peace of mind

- Before you go out, tell someone where you are going, and when you will be back. Call if you are going to be late, and make sure your phone is on.
- For more elaborate trips, file a float plan

- Float plans
  - Electronic Float Plan with State of Oregon: http://www.oregon.gov/OSMB/forms-library/Pages/Float-Plan.aspx
  - Official Coast Guard Float Plan: http://floatplancentral.cgaux.org/

Risk Assessment: Keep it simple

- There are many systems out there:
  - NOLS
  - Body Boat Blade
  - PEG: People, Environment, Gear
  - BBC: Bodies, Boats (and equipment), Conditions
  - The Mother Principle (worst case scenario analysis)
- Pro Tip: These Assessment Systems are also good planning checklists

The key is to have a system that helps you remember ALL the key issues you need to consider.

Find one that works for you … and use it

- Before the trip
- At the put-in
- **Throughout the day**

Example: Risk Management Triangle

Assign stop-lights to each side of the triangle based on risk relative to the conditions inside the triangle.

All **green** is “good to go”. **Red** is “no-go”. **Yellow** is “proceed with caution”

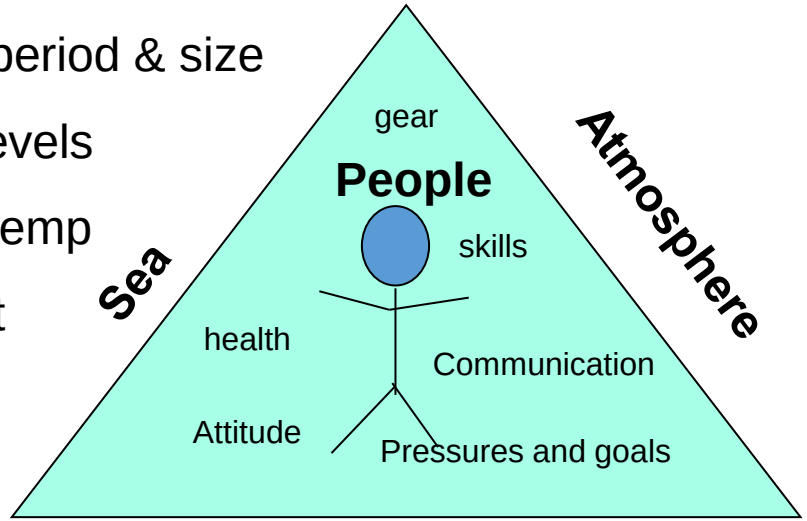
Swell, period & size

River levels

Water temp

Current

Tide



Wind

Temperature

Precipitation

Fog

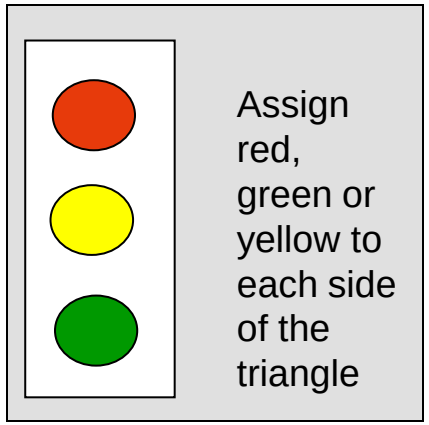
Context

Shore, sand, rock

Boat traffic

Bailout options

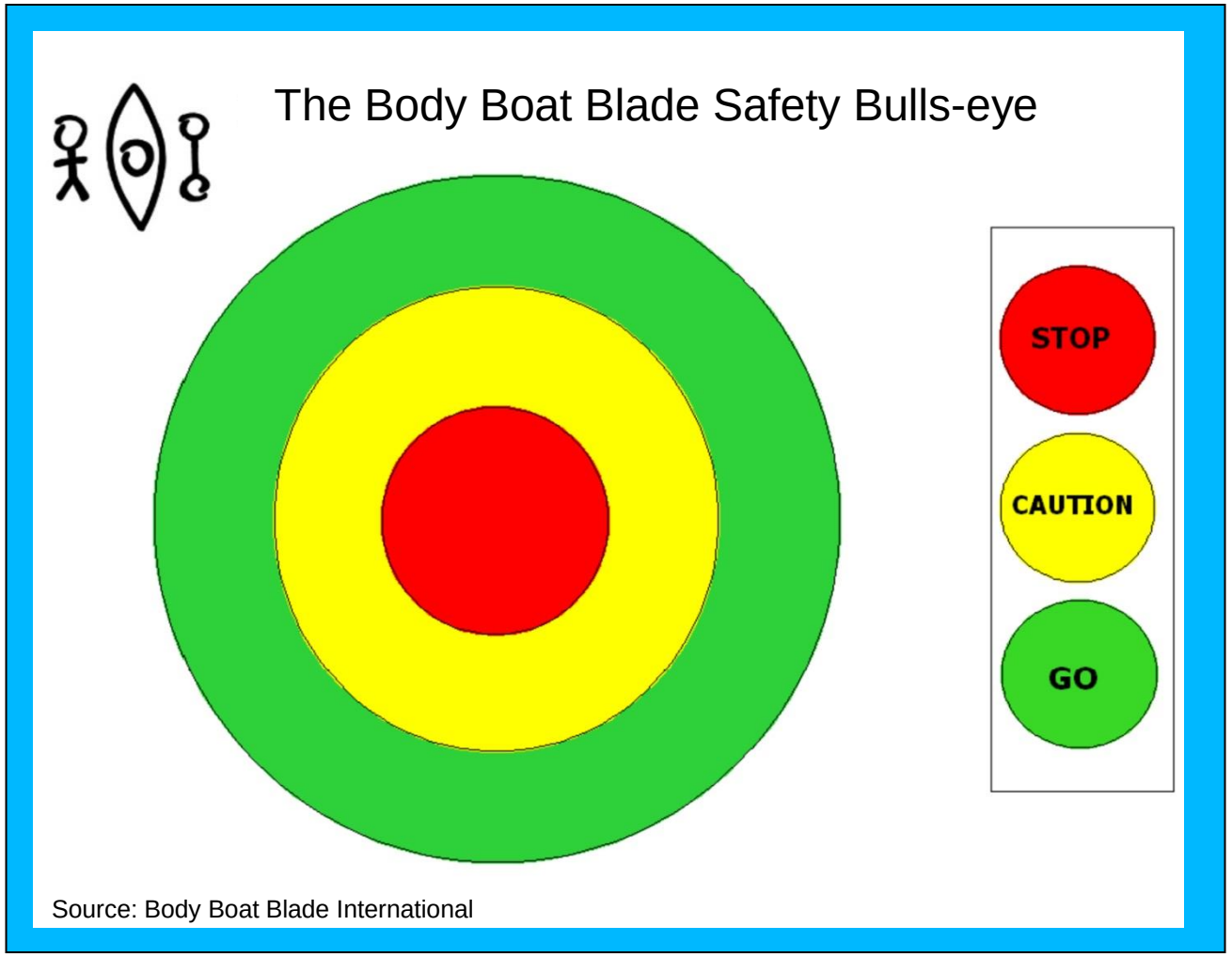
Accessibility to emergency services



Assign red, green or yellow to each side of the triangle

Source: NOLS, www.nols.edu

Example: The BBB Risk Assessment Bulls-eye



- Create a check list of risk factors (**see next slide**).
- Evaluate **group** relative to each category
- Place a mark for each category
  - Green: go
  - Yellow: caution
  - Red: no-go
- A bulls-eye with a bunch of red marks would be an obvious no go situation.
- One with lots of green and a couple of yellows might be a go.

Risk Analysis: The BBB Check list

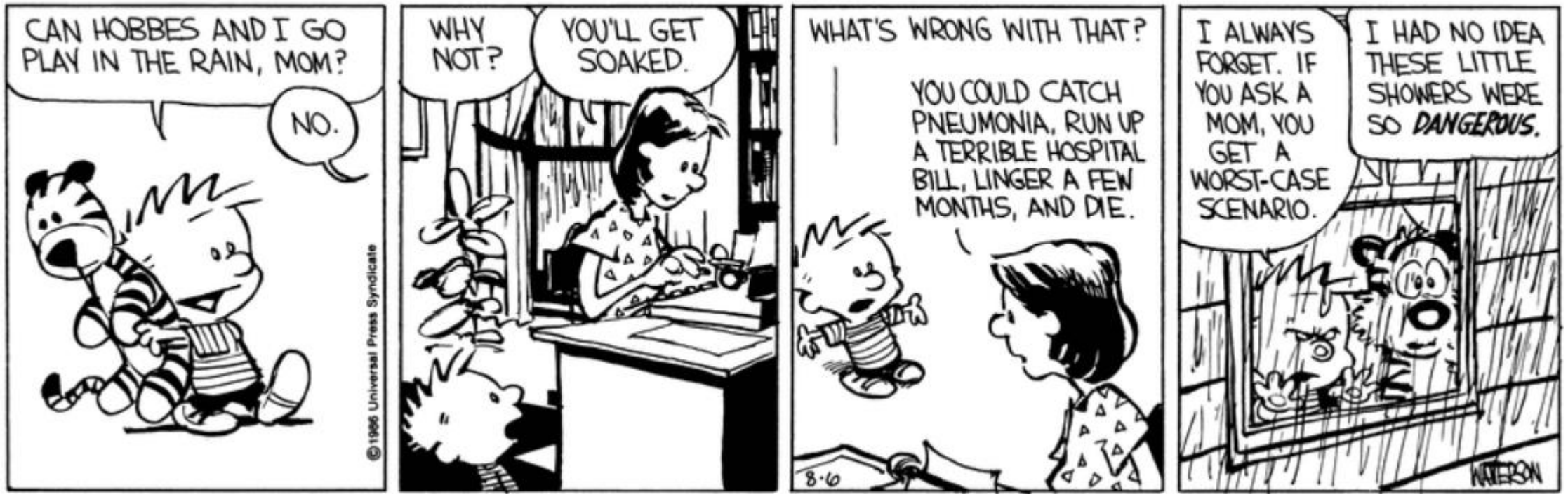
- **Weather**
  - Big picture
    - improving, same, degrading
  - Wind
    - Speed … now and later
    - Direction … now and later
    - Off-shore or on-shore
    - Relation to currents
  - Rain/Sun
    - Temperature
    - Psychology
  - Visibility
    - Fog
    - Night/Dusk
- **Land**
  - Outs
    - Terrain
    - Remoteness
    - Roads
    - Help
  - Landings
    - Swell
    - Beach type
    - Tide
  - Other hazards
- **Water**
  - Swell
    - Size
    - Period
    - direction
  - Tides
    - High, low, range
    - Relation to off shore boomers
    - Relation to on-shore break
  - Currents
    - Speed and direction
    - Relation to wind, swell
    - Tide races and overfalls
  - Boat traffic and shipping
  - Other hazards
- **Groups**
  - Leader/s
    - Walk in park?
    - Can you pick up the pieces and/or pull the group out?
  - Behavior of individuals in forecast conditions
  - Strength
    - Physical
    - Mental
    - skills
  - Personal equipment of group
    - Body
    - Boat
    - Safety
  - Health concerns
- **Other Factors**
  - Time of day
  - Sunset/sunrise times

5 Categories: Weather, Land, Water, Group, Other Factors.

Evaluate each and record results (go, no-go, caution) on the bulls-eye

Example: "Mother Principle" Risk Assessment

Calvin and Hobbes by Bill Watterson for August 06, 1986



- Understand "worst case scenarios" and make sure the group can deal with them at any given time
- Continually assess the situations/group through the trip…always noting the "worst case" scenario "of the moment" and making sure the group can avoid it or at least manage it.

Some Hazards you are likely to face locally

- Wind, Waves, Current, Weather
- Rocks, sticks, wreckage (sticking up and under the surface)
- Bridges – junk caught against footings, eddies behind
- Strainers (downed trees) – water goes through, boaters do not
- Piers/wing dams – human-made strainers
- Dams – “hydraulic” at bottom pulls things back under water; escape by swimming down to the bottom
- Boat Traffic
- Tidal Shallows that can strand you for 12 hours (Sauvie Island, Willapa Bay)

Exercise

If there is time

Use one of these systems to rate the risk involved in a trip to Jetty “A” from the Cape Disappointment State Park Boat Ramp or Waikiki Beach today

Your brain on the outdoors

Adapted from: http://blog.stansport.com/how-the-outdoors-will-trap-your-brain-part-1/ and http://blog.stansport.com/how-the-outdoors-will-trap-your-brain-part-2/

- Except in the earliest stages of learning a skill, your brain does not “assess the situation”, “brainstorm alternatives”, “develop a plan”, “execute the plan,” and “evaluate”.
  - This type of analysis takes a lot of time and requires a lot of information.
  - When a possible threat is present (saber tooth tiger), this can kill you

Rules-of-Thumb – domain-specific heuristics

- Your brain takes shortcuts, especially when under pressure, or if the situation is fluid: **your brain robs energy from the reasoning part of your brain to power hyper-alertness and reflexes**:
  - You literally don't have the brains for complex reasoning and detailed plans
- So we use rules of thumb
  - "No less than three, go to sea"
  - "Always look towards the sea"
  - "be off the water by 2pm" (due to winds)
  - "Measure twice, cut once"
  - "Don't paddle at the mouth of Netarts Bay during the ebb tide"

Heuristic Traps

- **Heuristic**: an approach to problem solving that is not guaranteed to be optimal or perfect, but is sufficient for immediate goals. Mental shortcuts that ease the cognitive load of making a decision (Wikipedia)
- **Problem: When a rule of thumb gives us a grossly inaccurate perception of a hazard, we fall into what are known as a "heuristic traps":**
  - Situations where even trained people *repeatedly ignore* obvious clues to danger and proceed when the signs are screaming at them to scout, stop, or turn back
  - They **focus on one aspect of a challenge** *to the exclusion of all others*

Decision-Making Traps with Big Consequences

Rules of thumb/“heuristic traps” that give us a grossly inaccurate perception of a hazard

- **Scarcity Trap**: "I've driven 3 hours to get here, so I'm going to launch no matter what the conditions are! “
- **False Familiarity Trap**: “I was down this river last fall, so I don’t need to scout the next corner this spring“
- **Expert Trap:** "Sean is a very experienced paddler, he would never take us to a hazardous place“ (e.g. *"Don't let your leader lead you to your death!“ or “Your leader may be falling into another trap”*)

Decision-Making Traps with Big Consequences

With your mind focused on one of these traps, you literally don't have the brain power to think of the big picture – fight or flight again

- **Ego Trap**: "Well, if Sam made it through that rapid, then certainly I can make it through too"
- **Social Pressure Trap**: "Joe and Patty have already made it through the big surf. I guess I'll go ahead and launch -- I don't want to look like a wimp"
- **Momentum/Laziness Trap**: "Tom and Paul are here, and have already taken their boats off their cars -- let's go ahead and launch anyway"

Much more on this: Read "Decision making for wilderness leaders: strategies, traps and teaching methods" and "Heuristic Traps in Recreational Avalanche Accidents: Evidence and Implications," both by Ian McCammon, Ph.D.

A different type of trap: Risk Creep

- Humans are terrible at recognizing slow change.
- Our brains are poorly equipped to recognize when we are slowly getting too tired, too cold, or too close to the edge of our abilities.
- Combat this with triggers, cut-offs, and turn back times.
- Examples: rising river levels, wind in the gorge, larger swell or period on a specific beach
  - How high is too high? How much wind is too much in the middle of the channel?
  - How do you know what your limits are?
  - “Solution”: We use our own or our collective knowledge to establish limits for ourselves. When spring flow hits a certain cms/cfs, the wind a specific speed, the swell a particular size for a given period, we find somewhere else to go.
- Alternative learning strategy: make the easy hard (ex. paddle a kayak with a canoe paddle on flat water, paddle backwards, learn to kayak sail) rather than constantly pushing against our ability in more and more extreme conditions

Exercise

- Give an example where you fell into one of the decision-making traps
- Charles:
  - canoeing snake river with n00bs as a n00b
  - end of trip, take off without consulting leader to surf a few wind waves back to the take-out – playing with a person that weighs half as much and is faster
  - Car loaded, in dry suit, pull out into rain to load boats onto car, decide not to paddle
- Mel: Aldrich Point to Skamokawa and run out of daylight

Avoiding Decision-Making Traps 1

- Be Vigilant
  - Work hard to note when you, or those you are with, start falling into these traps
- Absence of Evidence is not Evidence of Absence
  - Just because you ignored the warning signs and got home safe, doesn't mean the risk wasn't there (see "Reflection" coming up)
  - You got lucky
  - Remember Dirty Harry: *"Did he fire six shots or only five?"… you've gotta ask yourself one question: "Do I feel lucky?" "Well, do ya, punk?"*
- Reassess
  - Regularly reassess your plan and the risk during the trip. Your inclination will be to continue on. Should you? Really? Pay attention to your gut – it's OK to say "No"

Avoiding Decision-Making Traps 2

What people in high-stress professions (firefighters, mountain rescue, Coast Guard) do to avoid the traps is replace rules-of-thumb with “recognition-primed decision-making”

- Recognizing a situation from a distinct set of clues
- Respond based on a large database of scenarios, training, practice, and experience
- Done properly, can become quick and intuitive (and save a life)
- Not based (mostly) on someone dying

Recognition-primed decision-making

- Always put on your turnouts on in the same way
- Always connect to the hydrant the same way
- Always report on a car crash or fire the same way when you arrive on-scene
  - Then respond using the template of previous training
- Always give the same information, in the same order, during a MAYDAY call
  - Then make yourself easy to find using techniques learned during training
- Always do 4 things after forcing a door
- Stage uphill and upwind from a hazmat incident, establish hot, warm, cold zones based on wind direction and speed (it’s written down)

Avoiding Decision-Making Traps 3

How to build this experience:

- Reflection:
  - Figure out ***why*** things went well. How? Can you repeat? Did risks exist that never came to a head? Debrief each other.
    - Be honest with yourself: If you had a perfect trip, reflect: did you pass any snags, wing dams, fishermen, power boats, etc.? Did the group get spread out/some people out of sight for a while? Were people well-positioned and able to help if something ***had*** gone wrong?
  - Figure out what went wrong. Go beyond the simple answers
- Do Mental Exercises – Paper Scenarios
- Conduct "real" scenarios
- Keep a logbook with all these observations, plus conditions (flows, tides, weather, who was there, etc.)
  - Forecast, actual conditions, anything notable observed about (conditions, places, people), what happened, etc.

Avoiding Decision-Making Traps 4

How to build this experience cont.

- Conduct a *Pre-Mortem* with the entire group
  - Imagine that your plan was implemented as you intended but it still failed. Why? What could cause this (unexpected weather, bear at proposed takeout, etc.)
  - Imagine that the easy parts of your plan went fine, but the challenging parts were a mixed bag. What happens to the rest of your plan if you miss a key crossing at slack tide?
  - Pre-Mortems help you spot weaknesses in your plan, and expose unknowns
- Prediction, Experience, and Reflection accelerate the process of recognizing key patterns
- Read and discuss with others lessons from “Deep Trouble” books
  - See also the “OODA Loop” – Observe, Orient, Decide, Act

Getting honest feedback – watch out for peer pressure

- Everyone assesses risk on their own. But you also need to understand the group perception of risk:
  - Everyone on the trip must support the group's plan. An apprehensive or nervous paddler is not only unhappy, they are tense and in a potentially dangerous state
- When discussing risk as a group, people may hide their true feelings out of fear of what others think or of being responsible for a "no/no-go" decision that denies others a "fun" day of paddling.
- Getting honest feedback without peer pressure
  - Talk to people individually in private
  - Everyone in line with hand behind their back and eyes closed. Show happiness/comfort to leader via number of fingers or thumbs up or down
    - Eyes closed only also works on the water

Managing the siren call of heuristics

- Don’t take boats off of cars until the group has honestly assessed the conditions (anonymous votes recommended)
- Come with a Plan B (and maybe C)
- Reassess frequently throughout the trip. Be honest with yourself
- Make reassessment a shared responsibility of the entire group. Again, anonymous votes (or simply exaggerating the silent vote) might be a way to allow people who are out of their depth but afraid to say so to bring some sense into the group).
  - Pay attention to the other paddlers – who is beginning to look/act differently?
- Act early (don’t decide to pull the plug when in the middle of a 40kt headwind!)
- Trust your gut: it’s OK to say “no”
- Paul Kuthe: “Some of my best days paddling have been on the beach”

Pattern Recognition Exercise

St. Helens public boat ramp

You are returning from a long day's paddle. Where along the dock do you tell people to get out (it's about 2-3 feet from the water surface to the walkway on the ramp)?

Why?

Where should they not get out?

Why?

What's a Wing Dam?

Answer: a drowning machine

They look something like this:

High water

Low water

Pattern Recognition Exercises

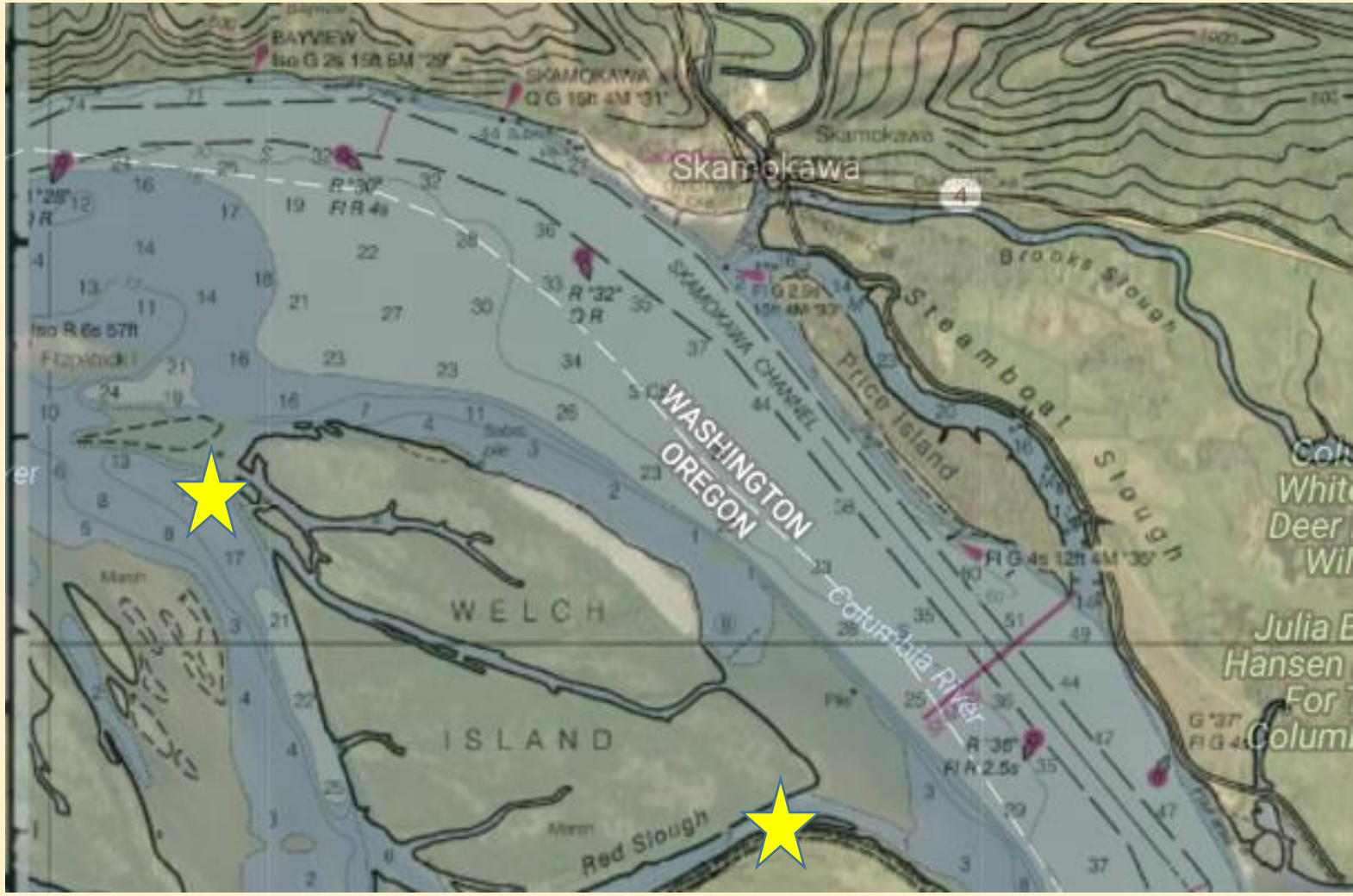
- A paddler is floating sideways towards a wing dam or downed tree and cannot get away. What should they do?
- A paddler gets stuck on a wing dam or downed tree and is still right-side up. What do you do to rescue her?
- A paddler flips approaching a hazard. There isn’t enough time to get them back into their boat, but there might be time to do something else…

Pattern Recognition Exercise

It's the OOPS Skamokawa weekend. Your group is coming around from behind Welch Island when dense fog hits. From either location:

- How do you find your way back to town?
- How do you cross the shipping channel?

Thinking out these things ahead of time is one of the reasons the organizer asks participants about possible hazards before starting the paddle



Remember

Reevaluate Risk from the time you enter the parking lot until you get home again.

- Use a system that works for you on and off the water
- **Red Flag**: it looked good when you left home, but it's bad when you get to the put-in
  - If you did your homework this isn't a surprise…usually
  - Sometimes local knowledge can supersede forecasts
- Constantly stay alert to changes on the water
- Wind may make getting boats on cars dangerous
- If people are really beat, don't let them drive home without some food and rest

Some things to consider when paddling in the Portland Area

- Dressing for water temperature (typical water temps for different times of the year and locations)
- Boater's right away / shipping and small-boat traffic (worst congestion areas, etc.)
  - Avoid the Willamette downtown on a hot day
- Wing dams and bridges - what they look like, what to avoid, what to do if you can't
- Winds tend to rise in the Gorge, on Willamette, at coast in the afternoon
- Tides and mud flats (Sauvie Island, Scappoose Bay)
- Fines if you don't have your Invasive Specifies Permit or Sauvie Island pass
- Water cleanliness / where to check for warnings esp. for the Willamette River
- When the rivers are flowing too fast
- Hunting Season, off-limits areas/times of year for wildlife refuges
- Sometimes you get ticketed if parking in a trailer spot (even when doubled up)
- Some boat ramps are free, some are not, some require a Discover or similar pass

Bottom Line

- Know your team and know yourself
- Be honest with yourself
- What could go wrong, and could you and the group handle it if it did?
- Look for “automatic thinking” in yourself and others (rules of thumb, heuristic traps)
  - And train to avoid them
- The OOPS pre-trip checklist is your last-minute sanity check and chance to gauge the comfort of the group before you get on the water
- Continue to re-evaluate when you get on the water

Agenda

- Goals
- Logistics and Legal
- Trip Planning
  - Trip Levels, Skills
  - Conditions
  - Safety & Risk Assessment
  - Medical Issues
- Group and Incident management

The most Common Medical Issues

- Injuries from the car to the put-in
  - Including getting into/out of a boat
  - To prevent these injuries
    - Two+ people carry all boats – builds a team, too
    - Hold onto boat if there is a wind when taking on/off car
    - Help less-experienced paddlers launch, or get out
- Sunburn
- Heat and Cold Challenges

Medical Emergencies

- Red Cross training is for an Urban environment:
  - Professional medical care is minutes away.
  - Medical emergencies: Wash your hands, dial 911, know CPR.
- Kayaking is more exposed:
  - Professional medical care may be hours to days away.
  - Medical emergencies: deal with it … you are on your own!
- Be prepared for what you might encounter on an OOPS trip:
  - Cold water plus wet and stormy weather
  - The demographics of our paddlers
    - Most OOPS members are middle-aged or beyond
    - Most of us are “desk bound” and not as fit as we’d like/should be

The “Most Likely” Medical Emergencies

Some of the more severe issues you may see on a paddle:

- Cuts, bruises, strains, breaks
- Heat Challenge (Hypothermia/Overheating)
- Diabetic Reaction
- Heart Issue
- Stroke
- Anaphylaxis
- Sea Sickness/Nausea
- Drowning

The Bad News: all of these are higher risk/likelihood in the over-50 crowd (most of OOPS)

For All Medical Issues

Ensure scene safety

- Don’t treat the patient while the caregiver or patient are still at risk
  - Expand your awareness to the max!
  - Don’t increase the number of patients!
- The leader should stay apart from treatment
  - Or delegate overall group coordination to someone else if the leader the most skilled medical provider present
- Don’t make the patient worse
  - Watch out for hypothermia while treating/transporting a patient

For All Medical Issues cont.

Biohazards - Take appropriate precautions

- If it's wet, and not yours, don't let it get on you (goes both ways)

Use Your Eyes first!

- Do they look sick? How sick? Is it safe for you to help?

Disclaimer

The following are not a substitute for professional medical training

Patient Assessment 1

Is this person sick? Before touching the patient and while sizing up scene, assess the following:

- "Appearance"
  - Check the following
    - Normal eye contact, muscle tone, behavior, movement? Nausea? Unusual headache? In pain? **Unusual** anxiety/combativeness?
    - Seems to be making sense? Mental state altered, or in distress, or "feeling of doom"
    - "Last time I felt this way I was hospitalized for…"
  - If the patient's mental state is altered – medical emergency
    - Depending on how they are altered, it could be a heat challenge, stroke, diabetic reaction, sea sickness, heart attack, fear, etc.
    - Trip over – try to solve/minimize the problem, aggressively get help/get to help
    - Don't make the patient do anything – keep them rested, calm while others tow, etc.
  - Note time when changes first noticed

Patient Assessment 2

Is this person sick? Before touching the patient and while sizing up scene, assess the following:

- Breathing – normal breathing is quiet and effortless
  - Check the following
    - Does it seem to require great effort? Speaking in broken sentences?
    - Unusually fast or slow?
    - Position of comfort eases breathing (tripoding)?
    - What sort of breathing noises?
  - No breathing
    - Call for help
    - Check for obstructions
    - Start CPR/breathing for patient
  - Labored breathing – medical emergency - trip over
    - Check for and administer appropriate medications (asthma/allergy)
    - Pull out all the stops to get help/get to help
  - Note time when problem first noticed

Patient Assessment 3

Is this person sick? Before touching the patient and while sizing up scene, assess the following:

- Circulation
  - Check for
    - Healthy skin color, or pale, mottled, or bluish? Inappropriate sweating/lack of sweating?
    - Signs of trauma or bleeding?
  - Trauma/bleeding?
    - Aggressively stop severe/prolonged bleeding
    - Immobilize damaged parts of body
    - Keep clean and get help/get to help
  - Skin color/sweat not normal – medical emergency

More quick assessments

- Check for 30, 2, “Can-Do”
  - Respiration under 30
  - Perfusion takes less than 2 seconds (press fingernail or ear lob, release)
  - Able to follow simple commands
  - Failure of any test is a medical emergency
- Radial Pulse and “Can-Do”
  - Can you find a pulse on the wrist under thumb?
  - Able to follow simple commands?
  - Yes to both – get to help but take your time
  - No to either or both – medical emergency!

Pop Quiz

- 39 yo female, sweaty, pale, nauseous, acting odd?
  - Heat exhaustion, heart attack, diabetic issues?
- 65 yo male, looks an odd color and has stopped paddling
  - Seasick? Something more? Ask what they are feeling
- 72 yo female, incoherent, scared, paddling in circles
  - Stroke? Or just wigged out?
- 58 yo male, Altered mental status
  - Heart issue, hypo/hyperthermia, diabetic issues, stroke, breathing problems?
- 54 yo female, Trouble breathing
  - Allergy? Choking? Anxiety? Asthma?
- What is the definition of “Cold Water”
  - Under 70 degrees – Oregon waters for most months of the year

You don’t need to be a doctor to know if someone looks really unusual, or sick - especially if this changes during the trip

Heat Challenges (Hypothermia & Overheating)

In the Pacific Northwest, hypothermia is the most common medical emergency faced by kayakers.

General Issues

- The body starts to malfunction – the patient cannot help themselves
- Easily turns fatal if not addressed
- Don’t swing things too far the other way when treating
- Patients lose heat 25x faster in water than air

Symptoms

- Coming up

Treatment

- Need to immediately remove the challenge and turn things around
  - The worse the patient gets, the more fragile they become

Cold Challenge (Hypothermia)

Issues

- Recovery gets exponentially harder the colder the patient gets
- Patients lose heat 25x faster in water than air
- Abrupt movement of a severely hypothermic patient can cause cardiac arrest
- Patient's mental status degrades

Symptoms

- **Normal**: Shivering, normal mental state
- **Mild**: Shivering, pale, and "umbles" (stumble, grumble, mumble – altered mental state)
- **Severe**: Not shivering, pale, decreased vital signs. Limited consciousness (or totally unconscious).

Treatment

- Remove challenge: Get out of wet clothing, insulate, warm
- Stoke the internal fires: Simple sugars, hydrate (slowly with warm liquids), exercise if safe, heat packs
  - Studies show external warming is of limited use and could result in another patient

Hypothermia - Treatment

- Normal Cold Response: Easy to “nip in the bud”
  - Remove the cold challenge. Dry off, fuel up, exercise.
  - Put on additional protective clothing; hot water in boots, gloves, down front
- Mild Hypothermia: Immediate action is needed, but you can still fix this in the field.
  - Remove the cold challenge. Get them dry, insulated, fueled and active. Warm drinks, chemical heat packs (on the chest, armpits and groin), water bottles full of warm drinks and body-to-body contact are all helpful.
- Severe Hypothermia: Death is imminent, rapid evacuation is essential – Call for help!
  - Severe hypothermia is a very fragile medical state. Rewarming is dangerous and requires specialized equipment. The heart is particularly fragile.
  - Stop further cooling and gently transport the victim to medical care. The victim should be transported flat, as this causes the least strain on the heart. Be ready to do CPR

Hypothermia in the field

- Be vigilant and watch for paddlers showing symptoms of hypothermia.
- Lunch breaks are a particularly vulnerable time …

Heat Challenge (Overheating)

Issues

- Patient's mental status degrades as temperature approaches/passes 104
- High heat, humidity, dry suits, drinking too much/little can bring on

Symptoms

- Fatigue, weakness, headache, dizziness, nausea, irritability, thirst, cramps, seizure, stop sweating (heat stroke)

Treatment

- Remove challenge: get in shade, stop exercising
- Cool. In the case of heat stroke, aggressively (ice bath, full immersion – caution, patient unable to swim)
  - Patients lose heat 25x faster in water than air
- Hydrate slowly with electrolytes (8-15 oz every 15 minutes) – ice chips good

Heat Issues Signs and Symptoms

Signs and Symptoms	Conditions		
	Heat Cramps	**Heat Exhaustion**	**Heat Stroke**
Muscle Cramps	**Yes**	No	No
Breathing	Varies	Normal/elevated, shallow	Elevated, deep -> shallow
Pulse	Varies	Often rapid, weak	Rapid, full
Weakness	Yes	Possible collapse	Collapses
Responsiveness	Normal	**Mildly altered,** improves with treatment	**Very altered, worsens over time to coma**
Skin	Moist – Warm, no change	**Cold, Clammy**	**Sweaty or Dry, Flushed or Pale, **Feel Hot****
Perspiration	Heavy	Heavy	**Little or None**
Internal Temperature	Slightly elevated	Usually below 104F	**May be higher than 104F**

Other Medical Emergencies

- Migraine headaches
  - Severe headaches that start with visual disturbances (aura or flashing lights), vertigo, tingling … lasting hours to days
  - Not life threatening, but patient probably will not be able to paddle
- Shoulder dislocations
  - Patient will hold arm in a position to minimize pain
  - Stabilize the joint in that position and evaluate (unless you are a WFR and "wilderness protocols" apply … in which case you can reduce the dislocation).
- Wounds
  - Clean thoroughly and cover with a sterile dressing
- Bee stings … life-threatening allergic reactions
  - Anaphylactic shock. Ask before the trip if this is an issue. If it is, make sure the person in question has their EpiPen ***with them*** and tells you where it is.
- Asthma
  - Most people self-treat with their inhaler. Patient may be greatly distressed … may need coaching to relax and breathe deeply
- Serious medical issues common to older sea kayakers
  - Cardiovascular events – emergency evacuation
  - Diabetes … patient needs to tell you at the put-in. Carry tube of frosting in your first air kit … if diabetic has problems, treat with frosting followed by substantial food
- Sea sickness – paddle over for that person and helpers

Exercise

How would you quickly fix the following issues on the water?

- A cut/blister
  - electrical tape
- Low blood sugar/diabetic emergency
  - frosting tube
- Mild Hypothermia
  - cag, balaclava, sugar candy
- Dehydration
  - extra water
- Missing hatch cover
  - bungie & plastic; garbage bag/string; inflatable beach ball
- Patch a hole in the hull
  - gorilla tape
- Deal with broken paddle
  - carry a spare

Write yourself a note now: go home and make sure you can fix all of these issues from supplies you can reach with your spray skirt on

Bottom Line

- Speak up if someone looks sick
  - You don’t need to be a doctor to tell
  - Especially if they look “more sick/suddenly sick” since they showed up at the put-in
- Are they “call 911” sick? If so, call for/get to help!
- Don’t make them worse, don’t let them get worse if possible
- Don’t add to the number of people needing help

Agenda

- Goals
- Logistics and Legal
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  - Conditions
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  - Medical Issues
- Group and Incident management

What makes a good trip Organizer?

- Good trip organizers remember that the reason people have signed up for our trip is to paddle and have fun. It is our job to see that they are successful.
- Good organizers try to be inclusive – everyone on the trip needs to have fun
  - If someone shows up that is a bad fit, it is your mistake, not theirs. Find a way to make it work if feasible
- Good trip organizers strive to continuously improve … Pursue continuing education:
  - Paddling skills (strokes, etc.)
  - Seamanship, navigation, etc.
  - Instructor Training and Certification
- You should be able to coach others on how to do something, rather than doing it yourself!

Groups that work

- A group of people working together with a common goal.
  - Our target: A group that is greater than the sum of its parts
  - A common result … cat herding
- The four stages of Group formation
  - Form: the people come together
  - Storm: the initial chaos … individuals working in proximity
  - Norm: Individuals pulling together with a common goal
    - The collection of people becomes a pod.
  - Perform: The pod is greater than the sum of its parts

- A good leader deliberately drives a group through these stages … quickly:
  - Clear communication
  - Consider games to “form the group” and get them to the Norm stage ASAP

Forming a Group on the Land

- Helping each other get the boats to/from the water
- Signing the waiver
- Pre-trip briefing
- Group warm-up exercises
  - Mutual embarrassment helps form a group
    - Be your favorite zoo animal
    - Circus machines
  - Share favorite stretches
  - Throw a Nerf ball to someone in group, call out their name, and say your favorite food

Forming a Group on the Water

- Raft up, have one or more people walk across all the boats
- Shields and Aliens while traveling
- Formations to do at half-speed
  - “Blue Angel” fighter jet formations – now start swapping positions
  - Form a line in direction of travel – back paddler weaves through line to front
  - Form a line perpendicular to direction of travel – people from left and right switch positions
- Pairs of crack-the-whip, paddle in circles, figure 8s
- Everyone shares favorite foods while paddling together and calling each other by name
- Close eyes – how many paddlers?

Assessing Participants on the Water

- You've done the interviews, and you know some of the people, but what about the ones you do not know?
- How they load and get into their boats will tell you a lot. As will how they hold their paddle and the first few strokes
- Additional assessment exercises
  - In a circle, bows to a common point; paddle back 4 strokes, turn 360, return bows to same point as fast as possible
  - Eyes closed in boat – take off spray skirt, or put down paddle and wave hands around
- Assess your paddlers early and adjust the difficulty/length/etc. of your trip so that everyone has fun and isn't pushed too far outside of their comfort zone
- This also helps form the group

The Group Underway

The Organizer and Co-Organizers should have theirs radars at maximum 360-degree range and adjust the paddle as necessary:

- Looking out for moving or static hazards
- Looking out for changes in conditions (weather, tide, swells, etc.)
- Keeping track of the group (headcounts, now where is Joe going?)
- Keep track of the condition of each paddler
- Keeping track of where you are, and taking action to determine your position when you cannot agree (recently one trip deviated 90-degrees from the correct course)
- Keep track of time, actual group speed
- Keep safe-havens in view
- Etc.

Helping keep things together

- Use games and activities to keep the group together
  - Aliens and shields
  - Paddling in changing formations
  - Exchanging favorite foods in a speaking voice with someone else by name
  - Take turns drafting each other as closely as possible
  - Group navigation exercises
- Use pods, or buddies
  - Everyone counts off and remembers their numbers
  - Pair people – pairs are responsible for knowing where the other is at all times (don’t necessarily need to paddle together)
  - Consider a “slow pod” and “fast pod” who have to meet at various milestones. Each needs proper organizer and first aid ratios

Spotting Paddlers who are in Trouble

Signs:

- Paddling differently:
  - Was relaxed and taking in the scenery, now is stiff, collapsed in on themselves, and looking straight ahead or slumped and paddling slowly
- Has stopped paying attention to the group
  - Tunnel vision and powering ahead
- Saucer eyes, fixed grimace
- If you and your help are struggling, likely so is everyone else

Dealing with Paddlers who are in Trouble

What to do:

- Try to engage in conversation, “train spotting,” etc.
- Get someone who is still OK to buddy with them – the psychological tow
- Teach them combat breathing: inhale for 4 seconds, hold for 4, release for 4, hold for 4. Results in an autonomic drop in heart rate by about 20 bpm.
- If more than one person is having problems, raft up and have them secretly show comfort level from 1-5 (fingers up behind back or with eyes closed)
- Don’t be afraid to “call it” – “This Beach Looks Really Nice to Me!”
  - If you are struggling, or observe that people in the group are struggling, **go to shore**.
    - Likely everyone felt a bit over their head and were waiting for someone else to say so too – remember the social pressure and momentum heuristic traps?
  - Ideally your nearest bailout point, else closest safe landing
- Listen to your gut

Exercise

Discuss a time when you were in trouble. What happened, what were you aware of, and how did someone help you?

Charles: Tillamook crossing from Three Graces to lunch spot in wind from the sea with a boat coming into the harbor

The Positive Leader/Paddler

- Look Positive
  - Look where you want to go
    - Naturally adjusts your body and boat to go where desired
- Point Positive
  - Point in the direction you want others to go
  - Because remember #1 – if you point at the hazard, they will go towards the hazard!
- Speak Positive when coaching someone to grow
  - Mention only where you want to go/what you want to do
  - The time to show the true severity of hazards is either during the on-land scouting (risk assessment) or during later reflection
    - The heat of the moment is definitely the wrong time – freaked out paddler not a safe paddler
  - Save the war stories of other paddles for the bar afterwards
  - Don’t direct someone to their peril (don’t say “look at that nasty rock” – remember – they will go where they look)

C.L.A.P

- Key aspects of a well managed group: C.L.A.P.
  - Communication: agree on communication plan up front, all can hear
  - Line of sight: Ideally, all paddlers should be able to see everyone else
  - Anticipation/Avoidance/Awareness: Its easier to avoid trouble than deal with it
  - Position the leader for maximum effectiveness

Some Group Management Ideas

- Use point, sweep, and wing paddlers for beginners and hazardous situations.
  - Point looks behind him/her-self … sets pace so slowest paddler can keep up.
  - Outriders can also form a “pen” to contain other paddlers
- Have fun … don’t be a control freak.
  - Conditions dictate how tightly you manage the group.
  - Be assertive and take charge when needed
  - Games are a way to keep group together without being a control freak
- Give the control freak participant or the worry-wort something to do
  - Assign them as Sweep, wing?
  - Empowering them keeps them busy, helps keep the group together – assuming they don’t become an even bigger pain

Management Challenges – The Turtle

- Weak Paddler/Wrong Boat
  - Use them to set the group pace…from near the front; or lead paddler should go at speed of turtle
  - Maybe pair with fast paddler or have them draft in the middle of a single-file line (follow as closely as you can)
  - Have the group paddle in changing formations that pace the turtle
  - In a wind, paddle upwind of them to break some of the wind and make it easier for them to control their boat
  - May need to tow at some point while they paddle – use your rabbit for that!
- Afraid
  - Give them a relaxed buddy or provide instruction (while keeping your radar going)
  - Talk to them! Try to make them see beyond the bow of their boat (“train spotting”)
  - Play a game like Aliens and Shields, favorite fruits, etc. to help them break their fear

Management Challenges – The Turtle cont.

- Ideas on Managing a group with slow paddlers
  - Ramp down the trip level
  - Slow group down by exploring shore
  - Shift the group towards activities rather than travel – try to accommodate
- Red flag if you have critical timing on parts of the trip (need to make tidal slack at a certain point in journey)
  - Will likely require a change in the itinerary
  - Remember – navigate from safe haven to safe haven…including the ones behind you.

Management Challenges – The Rabbit

- Ideas:
  - Have rabbits race each other around the group if situations allow, or conduct scouting missions to check something out, then come back and report
  - Maybe we just need to give them something to do…other than set pace.
    - Have them tow the slowest paddler, or you, to slow them down?
  - Have rabbits race, towing the turtles – burn off that energy!
  - Never tell them your heading – shift the entire group 45 to 90 degrees at random so these guys end up “behind”. Do this early on, keep them guessing, and they’ll catch on.
  - If practical: give them the longest paddle and the shortest/widest boat?
  - Talk to them about leadership, how you don’t need to be the fastest to be strongest, and have them act as a buddy for a slower paddler
  - Challenge them to paddle backwards for as long as possible

Management Challenges – The Rabbit cont.

- A leader who says “follow me” and then powers off into the sunset not looking back is not a leader – assume authority and form your own pod
- We want to be inclusive, but if keeping rabbits in check endangers the group or makes the paddle hell to manage (such as splitting up the group to chase them down), you may need to cut them loose
  - Carefully – important to stress keeping with the group in pre-trip briefing

Management Challenges – The Butterfly-Collector / Birder / Photographer

- For some, giving them the responsibility of running sweep may cause them to keep up with the group
- Let them wander if they stay within voice distance
- Pair the wanderer with someone that can talk and paddle to shepherd them
- In low visibility, give everyone a number and have them call it off during “count off”. Use prearranged “where are you” and “I am here” whistle signals.
- Try to find these folks during screening, and create a trip/pod with objectives that can accommodate their…dallying
- We want to be inclusive, but if they cannot keep focused enough to keep with the group, you may need to cut them loose
  - Carefully – important to stress keeping with the group in pre-trip briefing

Management Challenges – The Butterfly-Collector / Birder / Photographer

- More thoughts on cutting these folks loose
  - Benign conditions
    - If they will just not stay with the group, I'm not so worried about letting them go on their own way after "setting them free" with witnesses.
    - They aren't really part of the group at that point but are basically just "hanging around in the vicinity".
  - Potentially dangerous conditions (worsening weather, chance of getting lost, falling darkness)
    - If the person is intentionally straying, try to use the group to corral them, or even put a tow on them.
    - If they are straying unintentionally, I'd put a tow on them and use the group to bring them, and the rest, to safety.

Management Challenge – the Storyteller / Life of the Party

- A double-edged sword
  - May slow down the group or cause people to split apart
  - But can also help with group cohesion, and help keep people paddling close to each other
    - This paddler can also help ease the fears of some novice paddlers…assuming they don't make people feel inadequate
- You may need to break in to make the enthralled group aware of a course change or hazard avoidance
  - Or you can subtly herd them, putting yourself between them and the hazard
  - You might be able to use your rabbits to herd them – making it a game – how far can you get them without them noticing?

Management Challenges – The Paddler Who Has to Leave "Early"

- Try to find this out when people sign up/days before
- If you cannot guarantee a specific return time, suggest that they do not come on this paddle
  - Especially if tides, winds, or amazing natural scenery could slow group
- If you are stuck with them on your trip
  - Shorten your itinerary from the start
  - Plan to break up into two regulation pods, one that goes back earlier
  - Send them back with an experienced buddy
- Worst case, let them leave the group after signing a waiver with witnesses
  - Ideally, no one paddles back alone
  - Have then contact you after they return so you can be sure they made it safely

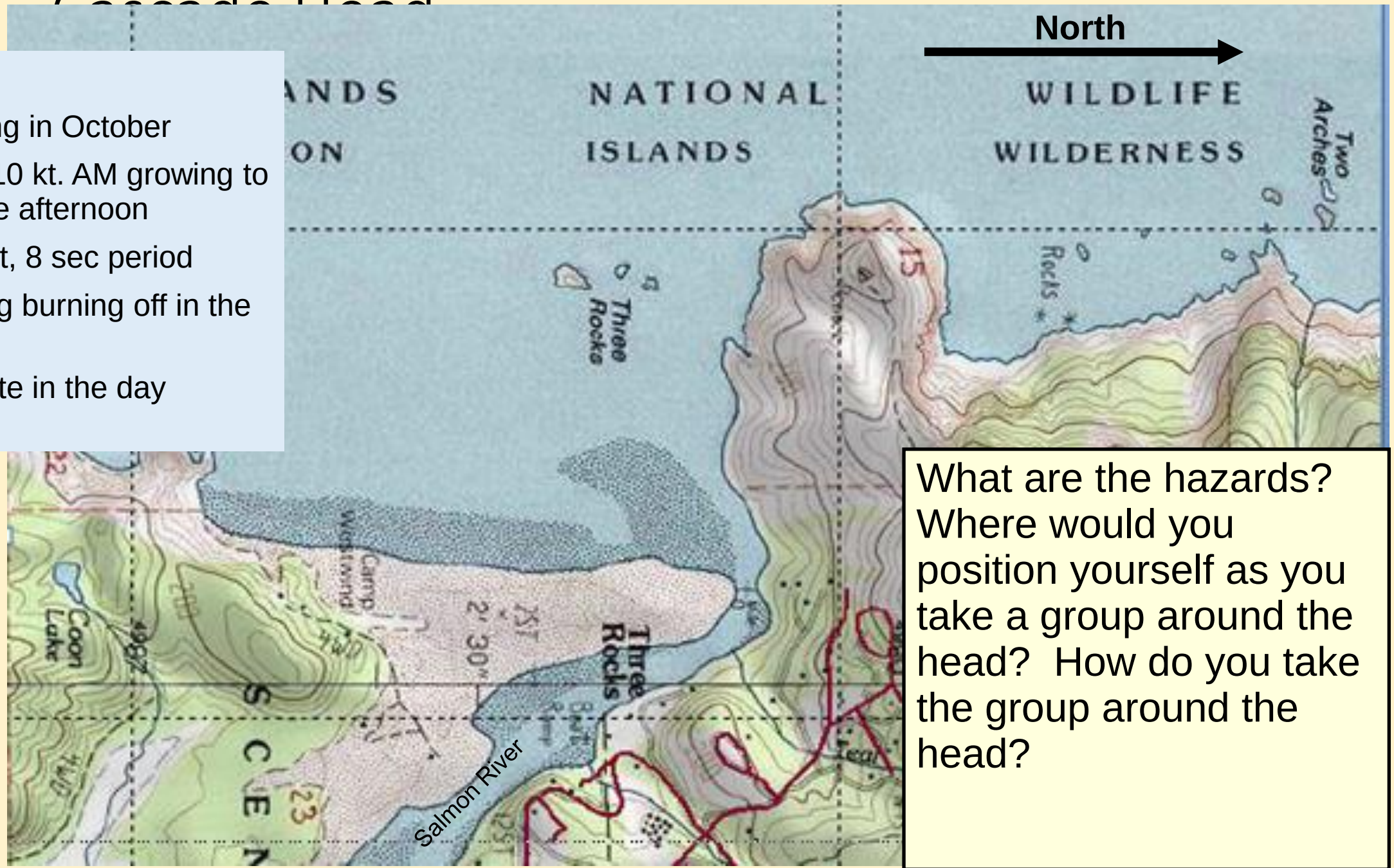
Scenario 1

- You are leading a trip to the Salmon river and around Cascade head.
- Conditions:
  - Mid morning in October
  - NW Wind 10 kt. AM growing to 20 kt. in the afternoon
  - W swell 3 ft, 8 sec period
  - Morning fog burning off in the afternoon.
  - Low tide late in the day

Cascade Head

Conditions:

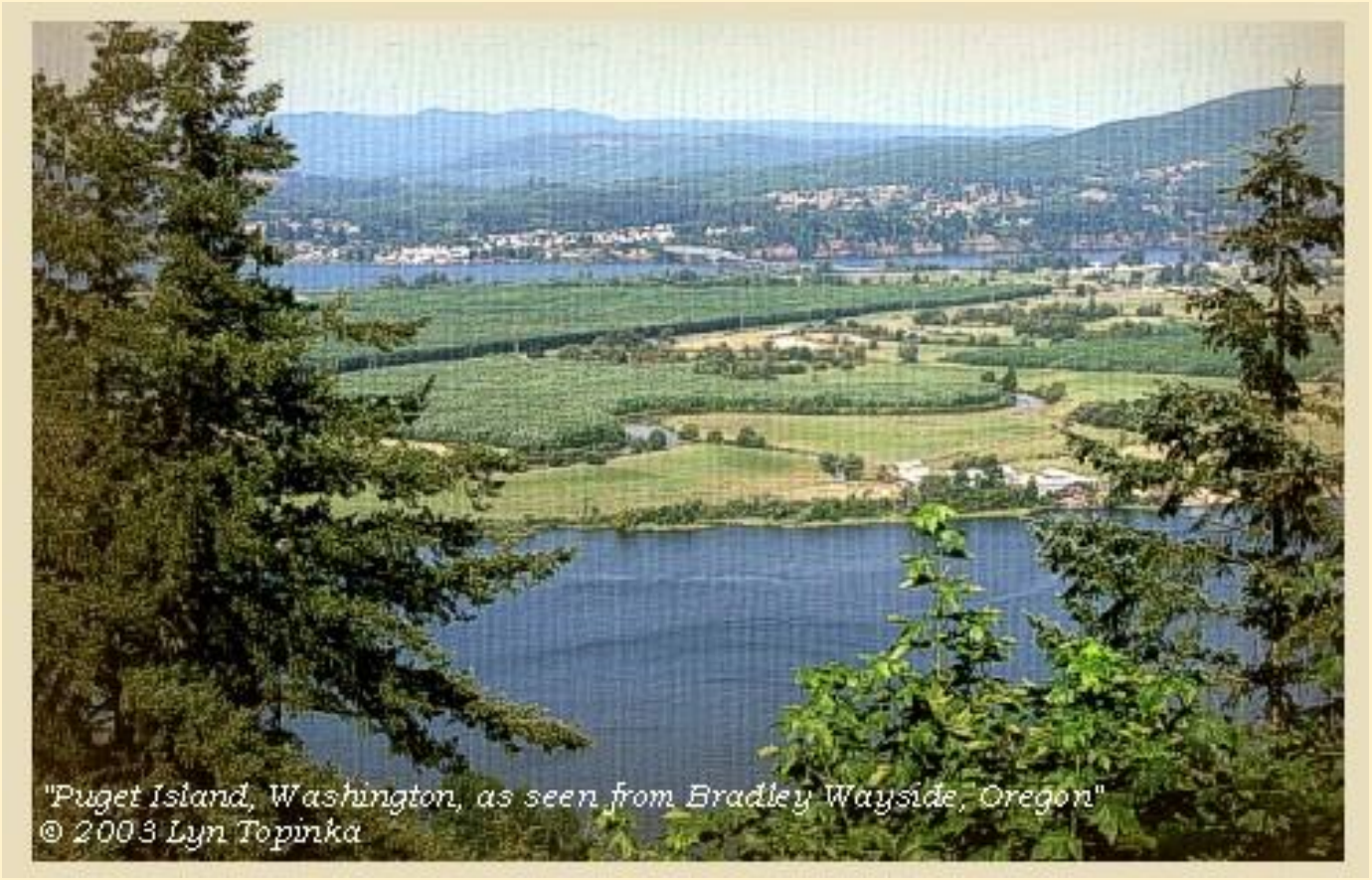
- Mid morning in October
- NW Wind 10 kt. AM growing to 20 kt. in the afternoon
- W swell 3 ft, 8 sec period
- Morning fog burning off in the afternoon.
- Low tide late in the day



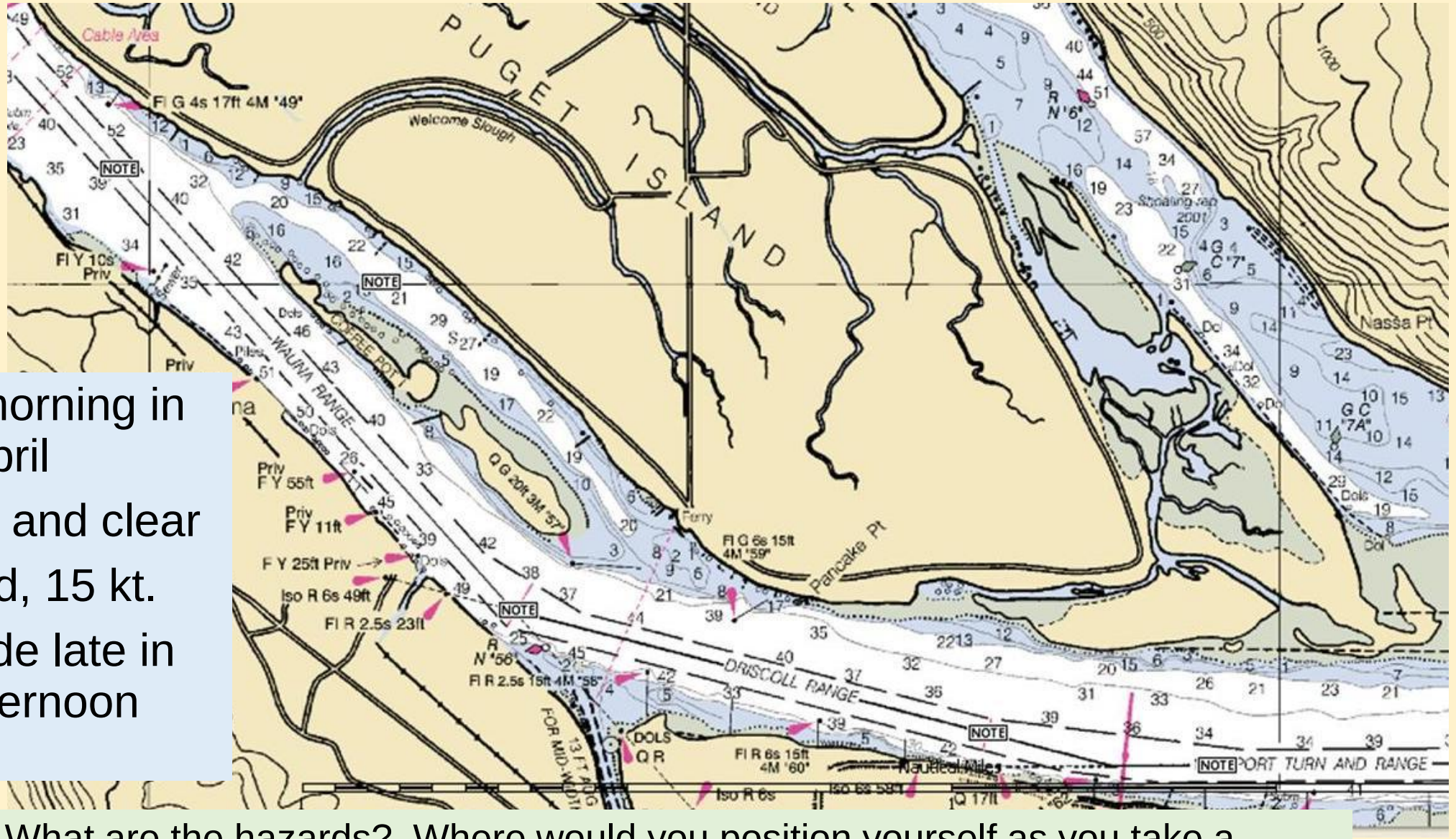
What are the hazards? Where would you position yourself as you take a group around the head? How do you take the group around the head?

Scenario 2

- You are leading a trip along the southwest shore side of Puget Island (on the Columbia River).
  - Late morning in mid-April
  - Sunny and clear
  - W wind, 15 kt.
  - Low tide late in the afternoon



Columbia River/Puget Island



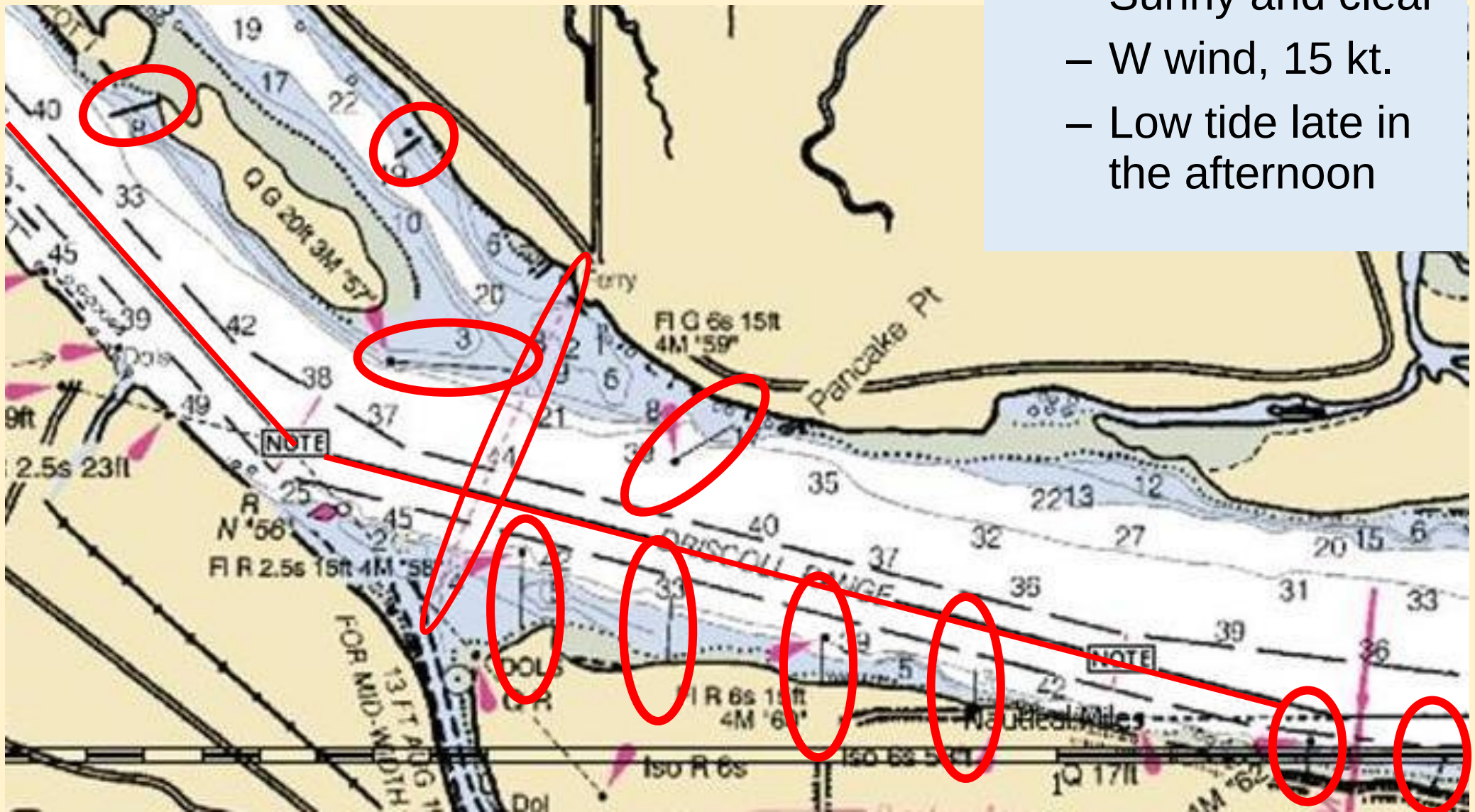
- Late morning in mid-April
- Sunny and clear
- W wind, 15 kt.
- Low tide late in the afternoon

What are the hazards? Where would you position yourself as you take a group along the island?

Columbia River/Puget Island

Wing dams! Shipping channel! Ferry!

- Late morning in mid-April
- Sunny and clear
- W wind, 15 kt.
- Low tide late in the afternoon



Exercise

- List some of the things that can go wrong in a trip

Some “answers:” Things that can go wrong on a trip 1

- Injury getting boat to/from water – always 2-people carry!
- Car keys locked in car
- Someone gets too hot or too cold – intervene before this goes bad
- Rough water and windy crossings – encourage, coach, buddies, avoid if practical
- Serious Illness or injury – know the signs, call for help ASAP
- Someone capsizes and can’t get out of boat – seconds to save them – Hand of God!
- Group gets separated – prevent, make sure everyone knows plan, search in pairs, bring radios, have meeting points

Exercise “answers:” Things that can go wrong on a trip 2

- Rescuer or rescuee unable to complete rescue – get them help, try alternative methods (extra helpers)
- Gasket in dry suit breaks – temporally fix with gorilla tape
- Zipper not fully closed and suit floods – have buddies check each other before leave, change clothing (bring spares)
- Boat needs repair on water – gorilla tape hole with boat across your deck after drying around hole

Some reasons why things can go wrong

- Missed crux moves (missed slack tide during crossing)
- Miscalculations (you got the wrong mileage, bearing, tide, positioning, etc.)
- Accumulations of small errors (longer lunch than expected, a seasick paddler, starting early, slightly wrong bearing on a long crossing)
- Overwhelmed by conditions
- Failure to reassess

Incident Management

- Maintain C.L.A.P. when something goes wrong
  - The leader should delegate **someone else** to handle the issue while they maintain global awareness, count heads, and collect the group
  - Round folks up rather than rubber-necking in a circle – raft up for stability
  - If the leader is the only one skilled enough to handle the problem, delegate the job of “safety officer” to someone who isn’t freaking out before jumping in.

Handling an Incident – S.A.F.E.R

- **S**top! (Count to 5, take a few deep breaths).
- **A**ssess
  - Full 360 scan counting heads, noting upcoming hazards, etc.
  - Consider how much time we have
  - Are things getting better or worse?
  - Do we have a breathing emergency?
  - What other risks are there, etc.?
- **F**orm a plan (simplest with lowest risk preferred; also, what mode are we in: cruising/rescue/salvage/etc.?)
- **E**xecute Plan
- **R**eassess (did it work? Do we need to move to more risky/complex solution to the problem? Go back to A)

Incident Management cont.

As a rescuer, your responsibilities are to S.T.E.V.E:

- Self
- Team and their equipment
- Every other river user (don't endanger others to do your rescue)
- The Victim
- Their Equipment

Don't become part of the problem - pause and look at the big picture before responding

- Consider the Simplest rescue first: "Shout, Reach, Throw, Row, Go for help"
- Always pay attention to where the wind and current are taking you
  - This is why you need others watching out for overall safety as well

Post-Incident Management

- Consider if others, or the same person, are likely to have the same problem again?
  - Have conditions, or fatigue, pushed the level of this trip higher than expected?
  - Or has someone reached their limit?
- Be honest with yourself – is it time to end the trip?
  - Seasick, exhausted, or scared people are not having any fun…which is contagious
  - Hopefully you will realize this and head for shore *before* there is an incident

Paddles where special care is needed

- A level 1 when conditions start to worsen
  - When one person has problems, many will follow
    - The kayak shops see this all the time
  - Smile, be supportive, and get them off the water
  - Which is why it’s always good to have a backup experienced paddler with you
- Any paddle (especially level 2) in an environment where the weather (in particular wind) can change quickly with our without warning and/or there are very few or difficult outs
  - This could quickly turn into a level-4 mess

As the paddle ends

- Have brief discussion about what went well / could have been done better
  - Rose and thorn, best thing that happened and something learned
- Thank everyone for being on your paddle
- Make sure everyone helps load boats
- Discuss paddle during after optional paddle-dinner

This helps people learn from each other, lets the people who saw issues pass this on in a non-threatening environment to those who may not have noticed the potential hazards

Exercise

Tell the group about the best leader/guide you have ever been with, or someone who just didn’t get it

Charles good: Cheri and Turning taking us out to play with them. Bad: towing exercise where the leader paid no attention to the tension of the tow rope behind them or the rest of the group

Recommended Reading

- The Complete Sea Kayaker’s Handbook – Shelly Johnson
- Sea Kayaking Illustrated, a visual guide to better paddling – John Robison
- Northwest Marine Weather – Jeff Renner
- Weather at Sea, weather forecasting made simple – David Houghton
- Sea Kayak Safety and Rescue – John Lull

Thank you for coming!

Your feedback (positive or negative, public or private) would be highly appreciated

Backup

Agenda

- Goals
- Logistics and Legal
- Trip Planning
  - Trip Levels, Skills
  - Conditions
  - Safety & Risk Assessment
  - Medical
- Group and Incident management
- Good organizers – a number of perspectives

What makes a good trip Organizer?

- Good trip organizers remember that the reason people have signed up for our trip is to paddle and have fun. It is our job to see that they are successful.
- Good organizers try to be inclusive – everyone on the trip needs to have fun
  - If someone shows up that is a bad fit, it is your mistake, not theirs. Find a way to make it work if feasible
- Good trip organizers strive to continuously improve … Pursue continuing education:
  - Paddling skills (strokes, etc.)
  - Seamanship, navigation, etc.
  - Instructor Training and Certification
- You should be able to coach others on how to do something, rather than doing it yourself!

What makes a good trip Organizer?

- Good leadership behaviors
  1. Awareness of the WHOLE group
  2. Good communication prior to the trip.
  3. Well Organized … knowing where you are going before you get there
  4. Review what is expected so everyone knows what's going on.

- Behaviors to avoid
  1. Taking too long to get on the water … showing up late or on time but not ready to go.
  2. "Over managing" … not allowing an appropriate degree of freedom WITHIN the group.
  3. "Under managing"

Leadership in the military

Basic leadership tenets in the military are:

- Outline the mission
- Define the parameters / resources available (weather, conditions, distance, etc.)
- Discuss personnel
- Delegate
- … and finally Supervise and monitor…

This approach covers situational awareness, pod unity / cohesiveness, and interdependence of the pod members.

What makes a good leader?
The Trip Organizer Rubric: part 1

- Group Management:
  - Identifies weakest spot in group and positions self for assistance.
  - Knows where each person in the group is at all times.
  - Identifies behavioral changes in individual group members
  - Acts upon new information to preserve the integrity and safety of the group
- Towing:
  - Know when to tow and when not to tow.
  - Demonstrate hooking into one or more boats.
  - Set up an inline tow.
  - Use a quick release.
- Rescues (ideally this is *Not* the lead organizer – maintain CLAP!):
  - Take charge; give the swimmer calm, clear and concise instructions.
  - Maintain control of boats, paddles, and swimmer
  - Have the swimmer back in their boat within one minute in conditions one level above the trip rating.
  - Able to rescue a paddler who cannot help themselves (scoop rescue).
  - Make sure your group size is the same before/after rescue – did someone go paddling off?

What makes a good leader?
The Trip Organizer Rubric: part 2

- Use of Planning Resources:
  - Charts – Know fetch, depth contours, possible landing spots, chart symbols
  - Weather – Know at least three different resources for forecast information
  - Tides - Know more than one resource for tide height data
  - Currents - use NOAA website to pull information on currents, where applicable.
- Communication:
  - Be polite but firm.
  - Be friendly, positive, encouraging, patient, realistic, energetic, and tactful.
  - Good trip leaders remember that the reason people have signed up for our trip is to paddle and have fun. It is our job to see that they are successful.
  - Observe each member and be sensitive to individual situations.

Concepts of Trip Leadership 1

- Follow C.L.A.P.
  - Communications, Line-of-Sight, Awareness/Avoidance, Position of Maximal Usefulness
- Maintain situational awareness
  - Watch for oncoming waves, weather, hazards, shipping, etc. in all directions and anticipate/avoid issues before they arise
  - Keep an eye on how all participants (including self) are doing
  - Constantly re-assess risk/plans
  - Red Flag if you struggle to maintain awareness
- Know where someone will drift (accounting for currents and hazards) if they dump or get separated from their boat
  - Stay away from hazards with this in mind

Concepts of Trip Leadership 2

- Learn to dance without looking at your feet
  - Build your skill and speed so you can keep a 360-degree watch, interact with group, and move among or around them without having to concentrate on how you are doing it
- Keep some gas in the tank – shorten the trip as necessary
  - Make sure people have enough energy to get home if they are paddling in a headwind or there are more rescues than anticipated
- In case of trouble, follow S.T.V.E
  - Care for self (S), then your team/their equipment/other water users (T), then victim (V), then their equipment (E)
- Simple to complex – or Keep It Simple Stupid
  - Corollary for rescues and S.T.V.E: Shout, Reach, Throw, Row, Tow, Don’t Go (call for help)"

Concepts of Trip Leadership 3

- Keep a light hand on the tiller, but not too casual – take it seriously
  - Keep the trip fun but safe. Be chilled, or authoritative, as necessary. People are more likely to comply if they know why they are being asked to do something
  - Use tact and subtle coercion for paddlers who stray from the pod
  - But if someone is hypothermic, warm them. If unable to make way, tow them
  - And if someone endangers the pod, be assertive – remember S.T.V.E
- Become Adept at Non-Verbal Cues
  - Learn to spot tired, sick, frightened, or overwhelmed paddlers and deal with each appropriately. Keep up a constant reassessment
- Navigate from Safe Haven to Safe Haven
  - Know all the places people can rest and sort things out
- Learn to manage the jackrabbit and the turtle
  - Have one tow the other, rabbit race each other around group, drafting with the turtle in the center

Concepts of Trip Leadership 4

- Pre-Trip Warmup and Paddler Assessment
  - Use quick games/activities to form the group and observe paddlers and assess their true skill level: quick turns, tennis ball basketball, shields and aliens, crack-the-whip.
- Delegate, delegate, delegate
  - Sweep, point, point-watcher, boat-spotters, pace-setter, etc.
  - **This includes not being in the center of rescues** – let someone else do it while you maintain global awareness, count heads to make sure you know where everyone is, call back people who didn't know a rescue was happening, etc.
  - If you are the only one skilled to do the rescue, delegate someone else to count heads, corral, chase down the clueless
- Be there for everyone, not just your paddle buddies
  - Make sure to spend time with everyone and be aware of their needs (such as looking for non-verbal cues)

Concepts of Trip Leadership 5

- Beware the deceptive “ease” of level 1 trips
  - Have good co-organizers and play some quick games to let you assess everyone’s skills. Someone who struggles while fresh may cut the trip short
  - These people will have the most trouble if conditions change
- Risk Assessment
  - Have everyone be part of risk assessment at the start (what could go wrong and how we solve it)
  - Continually re-assess as the trip unfolds – weather may change, someone may get too hot/cold, etc.
- Take the pre-trip briefing seriously
  - Everyone has a first time, be it first, first time, or in a given environment,…
  - Different types of paddlers know different signals, have different skills

Concepts of Trip Leadership 6

- Don’t be afraid to “call it” – “This Beach Looks Really Nice to Me!”
  - If you are struggling, or are finding the group is struggling, **go to shore**.
    - Likely everyone felt a bit over their head and were waiting for someone else to say so too.
  - If someone is afraid or anxious, they are not having fun, and not paddling as well as they could
  - Look for non-verbal cues
  - Use anonymous votes (if necessary) to assess group comfort – eyes closed, raise hand over head – more fingers = more comfortable
  - Listen to your gut
  - Q: “What do I have to lose continuing on?” A: Possibly someone’s life
  - Paul Kuthe: “Some of my best days paddling have been spent on the beach”

A good leader always has

- A plan, a chart, and a bail out option
- A ‘plan B’
- A tow belt, spare paddle
- A watch
- Snacks, extra warm clothes
- Weather/tide/current forecasts
- A way to call for help-- cell phone, VHF radio
- First aid and repair kits
- Good judgment – pay attention to your gut – it’s OK to say “no”s
- An inquiring mind – always looking for more to learn
- **A big smile and positive attitude**.

Your Basic Toolset

- Brain
- Chart
- Tide, current, weather information
- VHF Radio
- Grease pencil
- Tow belt
- Barometer (especially on multi-day travels)

Medical Backup

Cuts, bruises, strains, breaks

Issues

- The longer you wait to treat, the greater the complications

Symptoms

- Usually pretty obvious

Treatment

- Expose the wound so you can accurately assess
  - Look for other injuries beyond the source of complaint – consider mechanism of injury
- Treat appropriately for wilderness conditions
  - Keep dressing dry/on if possible
  - Don’t allow patient to use treated part if possible
  - Seriously consider safest appropriate bailout option to get patient to definitive treatment

Cold Water Safety

- Wrong excuses for not wearing a properly secured life jacket:
  - I can swim well, I am a skilled boater, I am close to shore, it's only necessary if boat moving
- Facts about drownings
  - **88+% were not properly wearing a life jacket**
  - 34% (1 in 3) die in water between 50 and 68 degrees
  - 60% drown in water under 50 degrees
  - **43% were less than 7 feet from shore/safety (shore, boat, dock, etc.)**
  - 66% were less than 50 feet from shore/safety
  - Only 30% of those people could not swim
  - Source: http://www.coldwaterbootcamp.com/pages/cfv2.html

A properly Fastened Life Jacket

- All buckles buckled and zippers zipped
- Bottom strap tightened securely under rib cage
- Shoulder straps: room for some fingers under them, but no more

Properly fastened:

- A person can be lifted from the water by their shoulder straps.
- When they are in the water the PFD does not ride up around their head.

Surviving Cold Water (water under **77** degrees)

- Hypothermia takes time … but you also have to worry about the body's initial response to immersion in cold water… cold shock:
  - Rapid, uncontrollable breathing (Hyperventilation, Gasping Reflex)
  - Constriction of the capillaries under the skin causing an immediate increase in blood pressure and heart rate

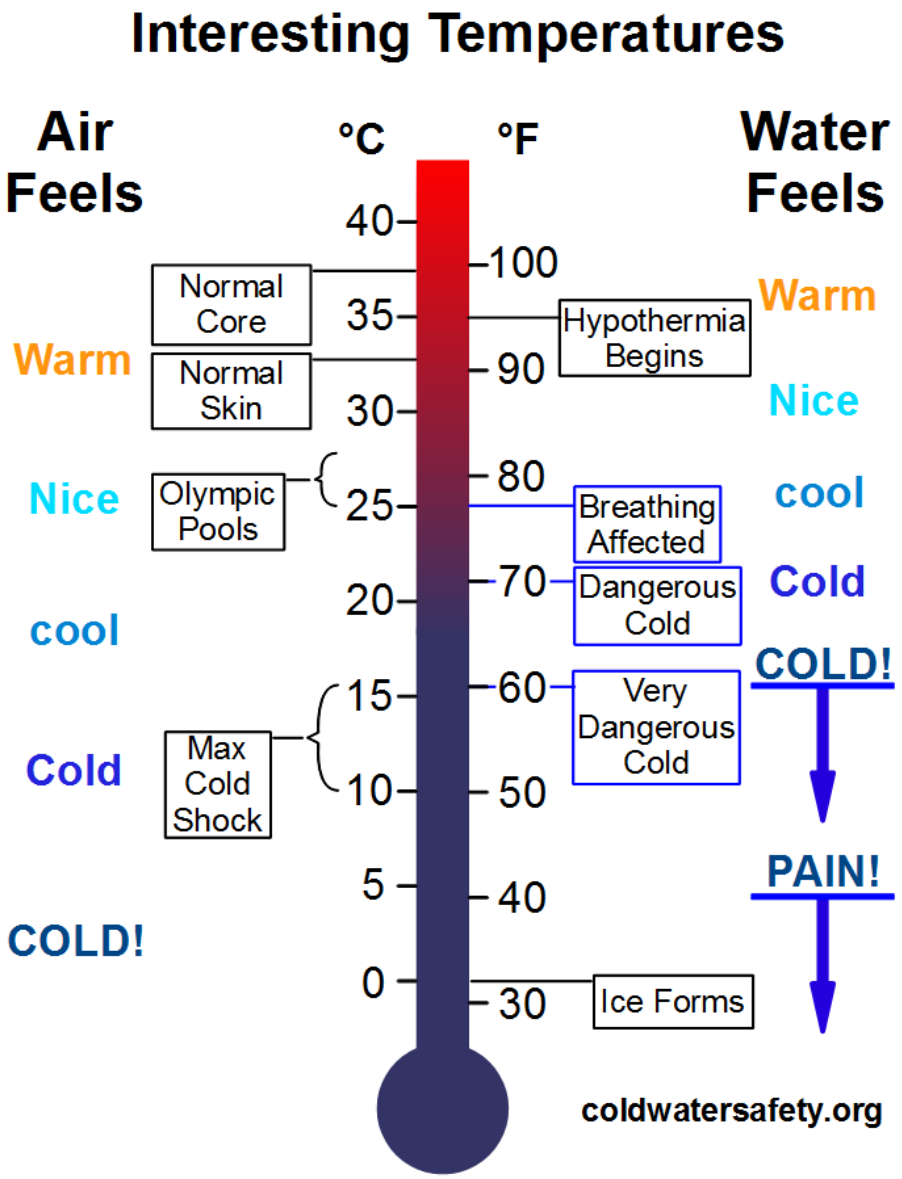
- When you fall into cold water … remember the 1-10-1 rule:
  - 1 minute to control breathing – most don't survive this without a life jacket – nearly impossible to swim
  - 10 minutes to get out of 50-degree water
  - 1 hour to lose consciousness due to hypothermia in 50-degree water

https://www.youtube.com/watch?v=J1xohI3B4Uc

- Falling into *ice water* you only become severely hypothermic after 30 minutes…if you have life jacket on

Photo credit http://www.enter.net/~skimmer/coldwater.html

Why Cold Water is Dangerous



Why Cold Water is Dangerous

- **Sudden Drowning**
  With very few exceptions, immersion in cold water is *immediately life-threatening* for anyone not wearing thermal protection like a wetsuit or drysuit.
- When cold water (below 77F) makes contact with your skin, cold shock causes an immediate loss of breathing control. The result is a *very high risk of suddenly drowning* - even if the water is calm and you know how to swim. The danger is even greater if the water is rough. Inability to coordinate your breathing with wave splash greatly increases the danger of inhaling water.
  - Maximum uncontrolled breathing response from water 50-66F
- The more skin protected from the cold, the less risk of uncontrolled breathing

Why Cold Water is Dangerous

- **Gradual Drowning**
  Cold water drowning can happen immediately, but it can also take a fairly long time – a gruesome, drawn-out process in which small amounts of water are inhaled, over and over again, until your lungs become so waterlogged that you suffocate. Inhaling about five ounces (150 ml) of water is enough to cause drowning.

Why Cold Water is Dangerous

- **Heart Failure and Stroke**
  Because skin blood vessels constrict in response to sudden cooling, cold water immersion also causes an instantaneous and massive increase in heart rate and blood pressure. In vulnerable individuals, this greatly increases the danger of heart failure and stroke.
- All of these things happen long before hypothermia becomes an issue.

Why Cold Water is Dangerous

- **Stages of Immersion**
  To understand why some cold water deaths happen instantly, while others take hours, you need to be familiar with the four stages of cold water immersion, what happens during each of them, and why it happens.
- Stage 1:Cold Shock
- Stage 2:Physical Incapacitation
- Stage 3:Hypothermia
- Stage 4:Circumrescue Collapse

Why Cold Water is Dangerous

- Cold shock is over in a relatively short period of time, generally within five minutes, however breathing problems may persist for a longer time while you're in the water.
- If you survive the cold shock phase, the threat shifts to physical incapacitation. It's quite possible to lose the ability to use your hands in 60 seconds, and use of your arms in minutes.
- It takes at least 30 minutes for an average adult to become hypothermic, even in freezing water. A very large person with a lot of body fat can delay both physical incapacitation and hypothermia, sometimes for hours. Size does matter.
- The final stage, circumrescue collapse, derives its name from the fact that the collapse can occur before, during, or after rescue.

Golden Rules of Cold Water Safety

- The **5 Golden Rules of Cold Water Safety** are your roadmap through this jungle. While each rule is important in its own right, it's the combination of all five that allows you to build a strong cold water safety net.
- **1) Always Wear Your PFD**
- **2) Always Dress For The Water Temperature**
- **3) Field-Test Your Gear**
- **4) Swim-Test Your Gear Every Time You Go Out**
- **5) Imagine The Worst That Could Happen and Plan For It**

Drowning

Issues

- You need to get them breathing again before their heart stops (because you have no way to restart in the wilderness)

Symptoms

- They inhaled water and they are unconscious

Treatment

- Make sure there is nothing stuck in the mouth to prevent drainage
- Turn on side to drain
- Chest compressions may help push water out
- Breathe for them and check for pulse, possibly in combination with the above.

Drowning

- Drowning is the third most common cause of accidental death in the United States
- 8,000 deaths each year.
- Worldwide about 150,000 people drown annually.
- Statistical reporting on near-drowning is unreliable, but experts have estimated that there may be 600 near-drowning incidents for every reported drowning death.
- “Bystander CPR appears to be the definitive action for drowning victims, not any other interventions, basic or advanced.”

Drowning

Paddler inhaled water and is unconscious

Problem

- You need to get them breathing again before their heart stops or even after

Treatment

- Make sure there is nothing stuck in the mouth to prevent drainage
- Turn on left side to drain
- Ideally on slight slope with head below feet
- Chest compressions may help push water out
- Breathe for them and check for pulse, possibly in combination with the above.

- “Bystander CPR appears to be the definitive action for drowning victims, not any other interventions, basic or advanced.”

Heat Issues – Hyponatremia

Issues

- Depletion of sodium in the blood from over-hydration combined with sweating
- Greater risk from prolonged exertion, diuretic use (so pee more), lack of acclimatization

Symptoms

- Variable, abnormal mental state
- Looks like heat exhaustion: Fatigue, weakness, headache, dizziness, nausea
- **Good history critical**: little or no food intake, high fluid intake, copious/frequent clear pee (by contrast heat exhaustion is yellow, infrequent), lack of thirst

Treatment

- Remove challenge: get in shade, stop exercising
- **No fluids** – treating like heat exhaustion will make worse
- Gradual intake of salty foods
- Resumption of hunger + thirst and normal urine input – problem solved

Diabetic Reaction

Issues

- A well-controlled diabetic can become uncontrolled with unusual exertion
- Lightweights may be more susceptible (smaller reserves)
- These people need to eat regularly – plan this into your trip!
- Uncontrolled diabetics have partial/total loss of feeling – unable to tell when injured

Symptoms

- Weakness, shaking, sweating, headache, nervousness, hunger, altered mental state (often combative)
- Diabetics usually know when they are having problems and can tell you about it

Treatment

- Start with 8-15 oz of fruit juice.
- If no improvement after 15 minutes, repeat and measure blood sugar
- **After** symptoms subside give more substantial food (peanut butter and jelly sandwich an excellent start)
- If symptoms do not subside get to hospital. If they do, then patient can carefully continue trip

Heart Issue

These symptoms match many problems.

If patients are at high risk of heart disease (i.e. they are a typical OOPS member) and if it comes on suddenly with exercise, assume it's the heart

Issues

- Don't let these people exert themselves even if symptoms "go away."
- Make sure these people bring their medications and that they are easily accessible (plus backup medication in case primary dropped in water)

Symptoms (some or all of) – "atypical" in women, elderly, diabetics

- Chest pain/pressure (30% do not!), radiating pain in jaw or arm, rapid/shallow breathing, shortness of breath, nausea, sweating, dizziness, feeling of doom, denial, lower abdominal pain, pain in lower back, heartburn/indigestion
- Made worse by exertion

Treatment

- **Rapid evacuation is essential**. Keep patient calm and exertion low and get help FAST. Flag down power boats! Call for help! Time is of the essence!
- Help administer medication if they have any (nitroglycerin)
- 325mg aspirin (chewed!!) can improve outcome
- Detect and intervene early … before CPR is needed (=they die in the wilderness)

Stroke

Issues

- Patient confused, frightened, maybe unable to communicate
- Time is of the essence

Symptoms

- **FAST**: (**F)acial** droop, (**A)rm** drifts when held out in front, (**S)lurred** speech.
- RECORD THE (**T)IME** when the patient first showed symptoms! Most important information needed by hospital
- Also suggestive: Over 45, no history of seizures, atypical in past 24 hours, OK blood sugar (diabetic emergency can look like stroke)

Treatment

- Calm, keep warm
- Fastest evacuation possible – best outcome if they get drugs **within an hour; 3-4 hours on the outside**
- Do **NOT** administer aspirin!
- Protect numb/paralyzed limbs – patient won't know if damaged

Anaphylaxis

Issues

- The patient is about to suffocate due to an overwhelming allergic reaction and you can only slow it for **20-40 minutes**
- Make sure two EpiPens and Benadryl are easily accessible

Symptoms

- Difficulty breathing and swelling in face/throat
  - Itching with or without hives, flushed or pallid skin **without respiratory distress** is “just” an allergic reaction
- Shock symptoms (increasing heart and respiration, decreasing blood pressure before Epipen administered)

Treatment

- Apply EpiPen for 10 seconds as soon as breathing problems start
- Second EpiPen if no results in first 5 minutes; otherwise will need to administer again in ~20 minutes (once needed again)
- Use Benadryl to prolong effect of EpiPen
- MUST GET TO AMBULANCE IN **20-40 minutes** to survive. PULL OUT ALL THE STOPS TO GET THEM TO ADVANCED MEDICAL AID (anyone with epinephrine)

Sea Sickness/Nausea

Issues

- Unless you have good medicines, patient will be unable to paddle and extremely miserable. Trip over.
- Vomiting over the side = patient drowns

Symptoms

- “Green,” pale, sweating, miserable

Treatment

- Get off the water
- Look at horizon
- Ginger or better *before* going on the water
- Try to determine if this is brought on by motion or food poisoning
- Vomit on spray deck and rinse off.