



Staying Out of Trouble (SOOT)

Introduction

Most SWR Classes (and books) concentrate on rescue skills and pay very minimal attention to Safety. This is quite unfortunate since many accidents also involve injuries and are mostly preventable. Paying attention to safety (accident avoidance) provides other dividends:

- Trips are more enjoyable.
- Avoids trips to the hospital.
- Trip length is more predictable.
- Paddlers (especially novices) will stay with the sport.

Plan your Trips – Even Day Trips

Most paddlers simply check the American Whitewater (AW) website for rivers that are running. There are other factors you should consider as well:

- Weather Forecast ([Weather Underground](#))
- Water Level ([American Whitewater](#))
- River Stage Forecast ([USGS](#))
- Water Temperature ([USGS as well](#))
- Venue Description ([AW as well](#)) Also guide books
- Evacuation Access ([Google Maps](#))
- Hospitals (Google)

This only takes a few minutes using your cell phone to gather this information. The Team River Runner website has an easy template to follow: [TRR Float Template](#).

Weather & water temperature help to avoid [Hypothermia](#) and [Hyperthermia](#), both of which are very common occurrences. Water level & stage forecast help to avoid rivers in flood conditions. Knowing the venue helps prevent getting in well over your skill level. Should an incident take place, knowing which side of the run is easier to evacuate on can save lives (don't count on cell service especially on remote runs). A bit of research on the local hospitals and their [trauma level](#) helps you get exactly the care you need in a timely manner.

Proactive Risk Mitigation

Risks are often easy to predict. Unfortunately, we are often very excited about our paddling trips and neglect to think about the “what if’s”. The fact gathering via the Float Plan is crucial for the next steps:

- R - Rational Risks
- P - Probabilities
- M - Mitigations

- C - Consequences

Let's take the example of leading a novice group on a fun Class II run that includes younger children. Think about risks you would expect on a trip like this:

- Time of the year:
 - R – Hypothermia.
 - P – Reasonably high in Spring or Fall, especially for those with a slender build.
 - M – Inspect thermal wear, Bring warm drinks in a thermos, First Aid Kit with sugar.
 - C – Trip delays, Degraded skills after a swim, Not very enjoyable and may cause an accident
- Water Levels:
 - R – Too high, Too low.
 - P – Increases with natural flow runs or storms in watershed.
 - M – Float Plan, Documented cut-ff, Alternate run, Cancel trip.
 - C – Long swims (possible flush drowning), Increased difficulty, Walking out before the run is completed, Extra delays if water level is too low, Boat pins & Entrapment.
- Venue:
 - R – Strainers, Over-Crowded, Undercuts, Paddlers following too closely, Entrapment.
 - P – Easy to research ahead of time, Following too closely to the Scout is very common, Need for rescues and potential fatalities.
 - M – Pre-Trip Putin Talk, Adequate support paddlers, Careful choice of the Scout Paddler, Preset Safety, Buddy System, Choose less crowded break spots.
 - C – Difficult rescues, Rescue take too long, People get mixed in other paddling parties
- River Difficulty:
 - R – Paddlers overstate skill levels, Older paddlers have stamina issues.
 - P – Reasonably high with individuals you don't know personally, Higher risk with younger paddlers and older paddlers.
 - M – Careful vetting (sometimes a challenge), Careful monitoring, Face Saving techniques for offering portage assistance, Periodic training, Cardio & Strength Training
 - C – Greatly delayed trips, Frequent rescues, Underlying medical issues leading to life threatening conditions.
- Gear Issues:
 - R – Improper fit (Helmet, PFD, Boat), Damaged Gear (Broken backband, leaks, loose clothing, Dry gear wetting.
 - P – Increases with loaner gear, Increases without a maintenance plan, High for new paddlers.
 - M – Pre-Shuttle inspection, Spare Gear, Repair Kit.
 - C – Bad experience, more frequent rescues, potential need for evacuation (with gear).
- Inadequate Group Gear:
 - R – No FAK, No Breakdown Paddle, Poor Throw Ropes.
 - P – Happens far too often unfortunately, High occurrence on Day Trips and familiar runs.
 - M – Pre-Shuttle Checklist, Spare Gear.
 - C – Lost boats, Small medical issues become serious, Increased hazards during rescues, Walking out
- Group Issues:
 - R – Insufficient support boaters, Jackrabbits, Nervous Nellies, Poor creek paddling etiquette.
 - P – Moderate risk except for unknown paddlers, High risk with those stepping it up, Poor creek paddling etiquette is very common these days.
 - M – Honest assessment of the paddling group, Proper venue selection (no higher than the weakest paddler), Careful monitoring, Frequent practice, proper paddling group order, Solid Communications and setting expectations.

- C – Novices overrunning the Scout, Scared paddlers getting into trouble, Scared paddlers running drops they shouldn't by themselves (last to run), losing control of the paddling group

Some further reading:

- [Risk Management](#)
- [Risk Management Matrix – PADL Chart](#)

Pre-Shuttle Checklist

We are all human and many of us are forgetful. A quick gear check before you run the shuttle helps to ensure all necessary group gear is available and dealing with the all-too-common personal gear items like:

- Inadequate Helmet
- Forgot my PFD.
- Forgot my Spray Skirt

Group gear is highly dependent on the type of run you are planning:

- First Aid Kit (sadly, far too many trips lack a First Aid Kit)
- Two Full size Throw Ropes (75' long and 5/16" or 3/8" diameter)
- Breakdown Paddle or at least hand paddles
- Pin Kit
- Simple Repair Kit (optional but very handy)
- Folding Camp Saw (optional and usually needed more than a pin kit)
- Sound Device for Coastal Paddling

I feel a simple First Aid Kit should be taken on all paddling trips; you never know when it may be needed. Kayak paddles are mostly black in color; breakage or losing one isn't uncommon. Many paddlers carry 50' x 1/4" throw bags. These are unsuitable for unpinning boats and tend to be very uncomfortable to pull on with much force. Pin kits have uses besides unpinning boats like repairing back bands and first aid. A folding camp saw is a life saver when a tree fall blocking your takeout road. Also useful for first aid splints and cutting a broken paddle so it's easier to pack out.

Man's Got to Know his Limitation's.

This was a great movie line from Clint Eastwood. If organizing a trip, establish a river level cut-off ahead of time and stick to it. I've seen novice races run in flood stage just because this precaution wasn't taken (all the Safety Volunteers walked out because of that decision). Choose a Plan B venue in case the river is too high or low.

Evaluate your crew as well. Do you have enough seasoned boaters to cover those "Stepping it Up"?

A wise precaution with paddlers you don't know is asking what runs they have paddled similar to the one you plan and then ask them which rapid they enjoyed the most on that run and why. The first part is easy to fake – the second part, not as much.

Gear & Maintenance

Get the right gear for your venues and pay attention to your paddling buddies. Edgy play boats pose significant challenges in rescues but are perfectly fine on play runs you have the skills for. Pay close attention to the group gear you need for this trip. Make sure you have the right thermal protection based on your float plan.

Annual maintenance can help prevent serious incidents:

- Inspect your boat for loose or work fittings.
- Does your spray skirt (or boat) leak significantly?
- Is your helmet cracked or doesn't fit well?
- Is your PFD serviceable and does it properly float you?
- Is your drysuit wetting out?
- Are your river shoes adequate?
- When was the last time you inspected your First Aid Kit?

There are lots of great products out there to keep your gear in top condition. Equipment issues are a common factor in paddling accidents and sometimes lead to fatalities.

Training

Winter is a great time to take First Aid and CPR classes – stay current. I strongly recommend taking a SWR Class every two years and practicing throwing skills periodically throughout the year. Deck boaters should practice their rolls frequently or you may lose it. Many take paddling skills classes to help improve their basic paddling skills.

Sadly, we have all seen groups of boaters that can't:

- Throw ropes accurately.
- Perform First Aid if needed.
- Lack basic boat control skills.

Continuous Monitoring

When paddling, don't lose sight of those in front and especially behind. If they get into trouble, you might not be able to aid timely enough to prevent serious injuries. With newer boaters and children, keep a close eye out for the early stages of Hypothermia. Cold paddlers quickly lose boat control leading to pins, entrapments, and flush drowning.

Take swims seriously, rescue quickly before they tire out or drift into serious hazards.

Communications

Whitewater venues have a lot of ambient noise. Top remedy, we use a combination of:

- Paddle Signals
- A Pea Less Whistle
- On coastal venues, a sound device like a small Air Horn

Many carry a cell phone in a waterproof container like a Pelican Box. Although cell service is generally lacking on the river, it may be available shortly after exiting the canyon. The cell phone can also take pictures which may be helpful to first responders.

Ensure your First Aid Kit has SOAP Notes and Incident Report Forms.

For larger groups, a simple put-in talk can help avoid problems if an accident takes place.

If you have special medical needs (like diabetes), be sure to let someone know what assistance they can provide and where your medicines are located.

Scouting & Preset Safety

Choose your Scout wisely. A scout requires:

- Solid Paddling Skills
- Somewhat Risk Adverse
- Great Judgment
- Careful consideration of those following

If a significant strainer or other major hazard is encountered, wave everyone off for further investigation. In many cases, it's best to head to shore to discuss and establish preset safety. Sadly, many paddlers blindly follow those in front of them and drift into serious hazards requiring rescue. Evaluate staging eddies for adequate size and communicate accordingly to avoid paddlers having to blindly run drops they are not prepared for.

Conclusions/Recommendation

The number one tool for preventing accidents is trip planning. Fortunately, this is incredibly easy these days with smart phones. Now that you have the facts (Float Plan), think about likely issues and consequences. After that, stay current on maintenance (mind, body, and skills). When paddling, pay attention and periodically check on your paddling partners. Communications are vitally important should any incident take place. River trips are supposed to be fun, and these tips will go a long ways towards that goal.