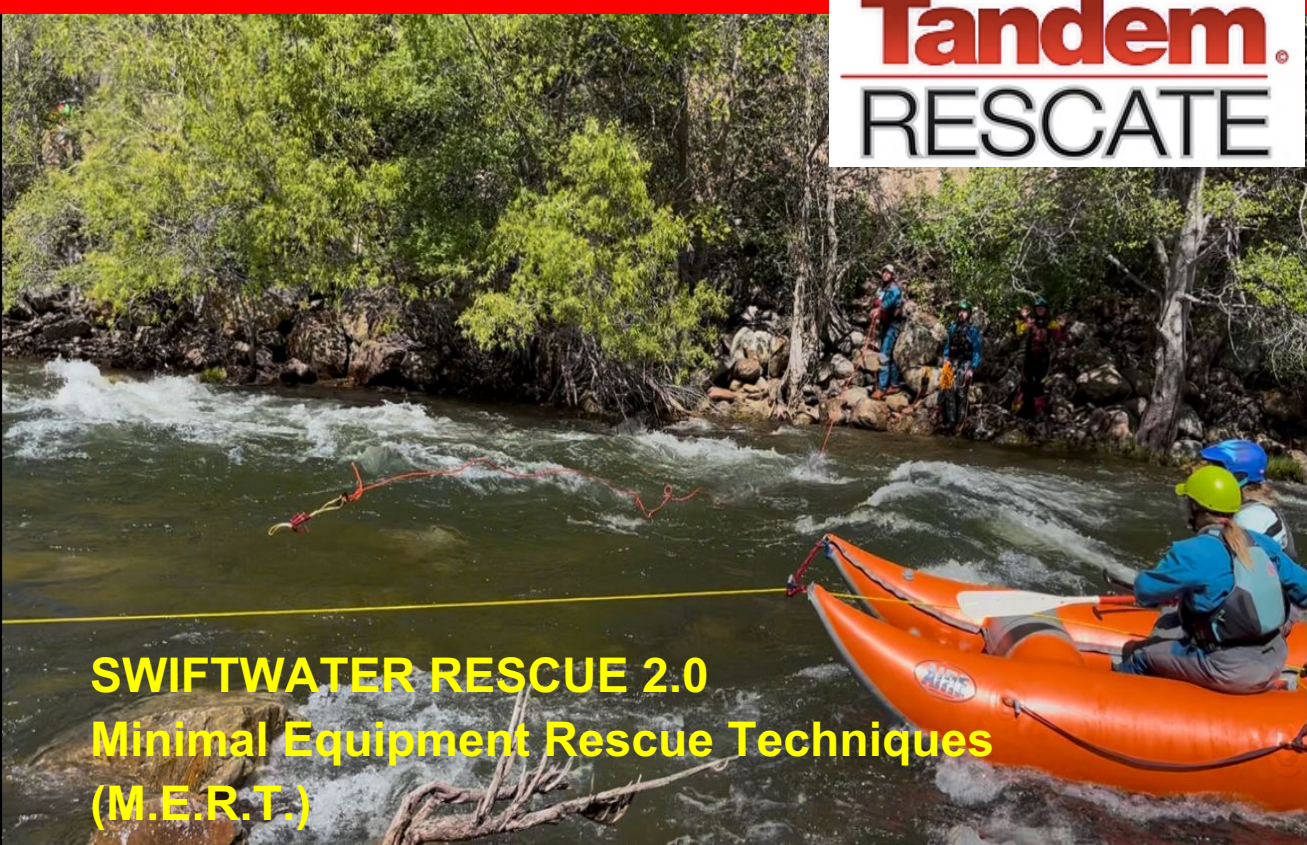




Tandem.
RESCATE

SWIFTWATER RESCUE 2.0 **Minimal Equipment Rescue Techniques** **(M.E.R.T.)**

Crossline Reach™ Professional Workshop

Transforming Professional Swiftwater Rescue Through Remote Access, Minimal Equipment, and Maximum Capability.

Why This Matters

Swiftwater Rescue 2.0 is not simply another rescue course.

It represents an evolution in how professional river personnel approach access, positioning, rope rescue, and victim recovery.

By integrating M.E.R.T. principles with the Crossline Reach™, guides gain capabilities that traditional rope systems often cannot provide quickly enough in dynamic moving-water environments.

For commercial outfitters, this translates into enhanced guide proficiency, improved operational readiness, and expanded rescue options when time is critical.

Mission Statement

Swiftwater Rescue 2.0 exists to advance the safety, efficiency, and operational capability of professional swiftwater rescuers through the implementation of **Minimal Equipment Rescue Techniques (M.E.R.T.)** and the **Crossline Reach®** system.

Our mission is to equip professional river guides, swiftwater rescue technicians, first responders, search and rescue teams, and public safety agencies with practical, field-proven methodologies that reduce rescue timelines, improve remote access and positioning, and enhance both personal and team safety in dynamic moving-water environments.

Through realistic scenario-based instruction, disciplined risk management, and innovative rope-based rescue systems, Swiftwater Rescue 2.0 develops rescuers who can rapidly establish technical rescue operations from shore, watercraft, and aerial platforms while minimizing equipment requirements and maximizing operational effectiveness.

We are committed to advancing the profession of swiftwater rescue by promoting continuous innovation, technical proficiency, sound judgment, and the responsible application of rescue techniques that improve outcomes for rescuers and the people they serve.

Traditional Rescue vs SWR 2.0

Traditional swiftwater rescue relies on complex, heavy rope systems, requiring large teams, significant setup time, and a physical rescuer entering the "hot zone". In contrast, **Swiftwater Rescue 2.0** with **MERT** and **Crossline Reach** emphasizes lightweight gear, rapid deployment within "airway time" (seconds), and one-sided, remote access solutions to keep rescuers safe.

Core Comparison

Feature 	Traditional Swiftwater Rescue	Swiftwater Rescue 2.0 (MERT & Crossline Reach)
Primary Method	Complex team-based rope rigging	Minimal gear on rescuer, rapid single-person deployment
Hot Zone Exposure	Rescuer frequently enters the water to make the grab	Remote line capture and vectoring keep rescuers dry and safe
Vector Adjustments	Requires time-consuming re-rigging from the shore	Can be changed remotely from safe positions on the bank
Access Requirements	Often needs access from both sides of the river	Fully capable of one-sided shore access rescues

Professional Responsibility

- **IRIA Standards** - The International Rescue Instructors Association (IRIA) Standards are evidence-based, objective criteria used to measure rescue training and equipment. Driven by court-recognized experts and the IRIA Risk Management Matrix, they provide clearly defined specifications, testing methods, and operational policies for land, water, and aerial environments.
- **Professional Guide Responsibilities - Continuous Risk Assessment:** Guides must use the [IRIA Risk Management Matrix®](#) to continually evaluate environmental conditions (ranking hazards from Low to Extreme) and ensure the environment matches the group's capabilities.
- **Incident Management & Prevention:** Guides are tasked with leading proactive prevention planning, executing efficient self-rescue and client-rescue techniques, and responding to dynamic, high-risk situations.
- **Ethical Conduct:** Professionals must adhere to the [IRIA Code of Conduct](#) and *Oath of Service*, ensuring standard professional behavior, transparent client management, and strict safety practices.
- **Equipment Verification:** Guides are responsible for inspecting, properly utilizing, and maintaining personal and group safety equipment (like PFDs, throw bags, and rafts) in compliance with international standards.
- **Ongoing Competency:** Maintaining IRIA certification requires continuous professional development, incident reporting, and compliance reviews to keep rescue skills court-defensible and up to date

"Why Outfitters Need This Training"

Professional river guides and whitewater companies need specialized certifications **Swiftwater Rescue 2.0**, **MERT** (Minimal Equipment Rescue Techniques), and **Crossline Reach Training** because they operate in high-risk, dynamic river environments where rapid, low-resource problem solving is essential.

The Crossline Reach™

Include:



Reach description - 20 years after its invention by swiftwater rescue guru, Dr Michael Croslin, the Reach remains a fundamental and essential piece of swiftwater rescue, technical hardware.

Used by Fire, EMS, Search and Rescue, Trekkers, Whitewater and Recreational boaters, this multi-use protective device is highly effective for line-crossing, remote anchoring, stream crossing, quick access, and egress in rescue operations.



- PPE role - The role of your PPE is a fundamental one in making sure you have the proper equipment on carry to provide protection for yourself, your team mates and help you perform onsite tasks that do not require additional equipment or support. With the MERT focused kit and a crossline reach your PPE is up to the highest standard built for safety and efficiency.
- Rescue Accelerator - is built into the MERT PPE Kit. But without training opportunity to use these techniques will not appear out of the blue. By enrolling and participating in the Swiftwater Rescue 2.0 training these opportunities for certain situations in different scenarios become more easily recognizable.

Considered PPE in the professional Swiftwater Rescue arena, it ultimately functions as a capture device, securely capturing another line from afar. When thrown across any line, rope or cable, it will cross, clip and capture the line as securely as a carabiner.

Extensively tested, it works extremely well in even the most extreme situations, such as severe gradient and flow conditions, allowing faster and safer rescues for individuals and teams alike. It can easily be thrown with one hand quickly and accurately, offering unparalleled remote capture capabilities

- Device anatomy - Can support up to 900kg (2000lbs) of pull strength
- Securely grab ropes, lines or cables at a distance on land or in water
- Collapsed down and is easily stored inside your pfd pocket
- Reach rope retriever for water rescue
- Safely access any discharged line remotely via line capture
- A fast and safe device that works well even in severe gradient and flow conditions
- Main body: 6061-T6 aircraft aluminium
- Spring clips + pins: 304-type stainless steel
- Deployed size: 110*110*100mm (4.3*4.3*4.0")
- Stowed size: 50*50*100mm (2.0*2.0*4.0")
- Weight: 318g (0.7lbs)

Reach Operator Skills

- **Reading rivers** - Reading the river is a learned skill. Begin with expanding your knowledge on river vocabulary especially whitewater terms. Professional whitewater paddlers are the best in describing these river features in the field. Once you know how to identify certain currents, waves and hydraulics then comes the need for personal discovery of these currents through swimming or navigating the river.
- **Morphology** - All rivers are different due to their geology, terrain and volume of water. It is important to focus on the study of moving water in these areas. AWA Whitewater Scale of Difficulty Class I-V, Gradient, Velocity and Volume of water. Other environmental factors include frequent flooding, steep gorges or canyons, wide rivers, man-made structures, rivers with dense vegetation lines along the shore and rivers with high frequency of strainers and or sives.
- **Swimming** - Strong swimming skills are a high priority skillset. Above all aggressive swimming skills improve your ability to resist a beating and help get you where you need to be with proper body positioning and technique.
- **PPE** - The most advanced and versatile PPE kit is the MERT Kit.
- **Rope management** - Managing line in the river environment is extremely important to avoid entanglements of the line on itself on shore or in the boat. Keep lines clear of river obstacles that can snag the line creating an entrapment hazard. Always consider how your hands are holding and working with the line. Avoid tangles or wraps around fingers and hands especially when working with tensioned lines.
- **Throw bagging** - Throw bagging swimmers in movement or even to a stable site is a critical skill all swiftwater rescuers must develop. Clean long throws, precise accuracy, retrieval of the line and bag into coils for additional throws and yes re-packing techniques are always on the top of the training exercise routines.
- **Coil management** - This must become a habit for every swiftwater rescuer. Coil management means you are ready to deploy your rope!
- **Reach Throw and Retrieve methods.**
- The Reach is designed to not only remotely anchor by being thrown or projected outward to land in between rocks, boulders, trees, urban structures and other foliage it can easily connect and securely clip other rescue lines, ropes and cables securely creating a remote connection from a distance. Standard coils and butterfly coils are the two most common types of retrieving the throw bag line back into your hand for another throw.
- **Throwing** will vary depending on what you are aiming for and what you plan to do in the next steps. When deploying into the water quick controlled retrieval is essential when using the Crossline Reach. Otherwise, the Reach will sink to the bottom of the river and can get lodged when you don't want it to.
- **Long distance** throws with the Reach require lots of practice. Dry land drills can improve accuracy and distance. utilize an underhand throw or side-arm throw for best results. For longer throws specific rescue lines that have a tight weave and are more rigid can reach distances up to 80ft. under human power.
- **Coils:** Choose standard round coils each time creating a coil make sure to give a half twist to the line in order to keep the line from twisting. On average smaller coils or butterfly loops have better results when throwing.
- **Helpful tip!** - Each time you collect a coil of your line count the coils, later on measure the distance for 10 coils and 20 coils according to your arm length and body size. Knowing the measurement of your coils will help you retrieve the correct amount of line for the throw distance needed. As this is a dynamic environment throwing too much or too little line with the Reach can determine the difference in a successful direct remote anchor or clip of a line.
- **Counting coils** - Counting coils helps calculate distances for precise throws.
- **Distance throws** - Throwing long distance takes practice. A more rigid or tighter pic on the weave of the rope combined with smaller diameter floating rescue lines throw farther. Clean coils in your throwing hand are a must.

Remote Rescue Applications

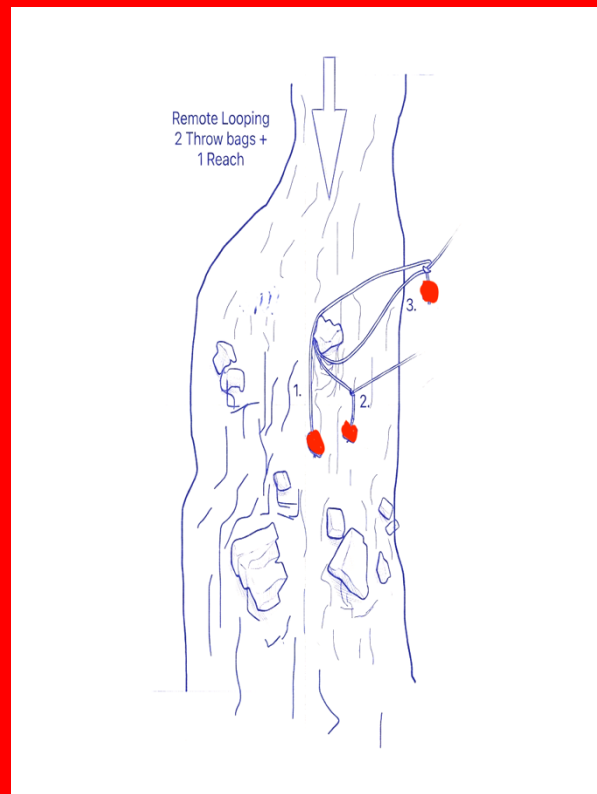
- **Remote Line Capture** - Line Capture with the Crossline Reach provides a fast simple way of getting a line established across a swift moving channel. It allows the user to remotely capture another line essentially anchoring to it evolving towards a series of proven techniques to progress in the river environment. For example: With Line capture rescuers can use line capture when the length of standard throw bags can fall short of the receiver's hand. The extension of the Reach onto another throw bag now doubles the width of the channels that can be crossed under human power throws.
- **Remote Line Vectoring** - Allowing the user to reach out to another line at a distance clip to it and effectively apply a vector to change line direction or increase force if a vector pull is needed.
- **Direct Remote Anchoring** - Provides an escape route for the user. The Reach connected to your throw line can be thrown and placed into the river bank between rocks, boulders as a chocking device that you can belay yourself from. This remote connection provides solo river progression aided by the device remotely anchored in among the structure of the river banks and islands in the river channel.

Looping - Referred to from the Kiwi Method

Loop & Pendulum - Loop a mid-stream obstacle with a throw bag line and pendulum swing into the eddy current downstream of the obstacle used to loop and pendulum out to the site. River obstacles can be used now as pivot points mid-stream for access. Line Capture is used for looping lines around mid-stream obstacles such as rocks, trees, bridge footings and even islands in the channel.

1. Plan to present the first throw bag out and around the upstream side of the obstacle to be looped. Maintain the line in position resting against the obstacle for as long as possible.
- 2.

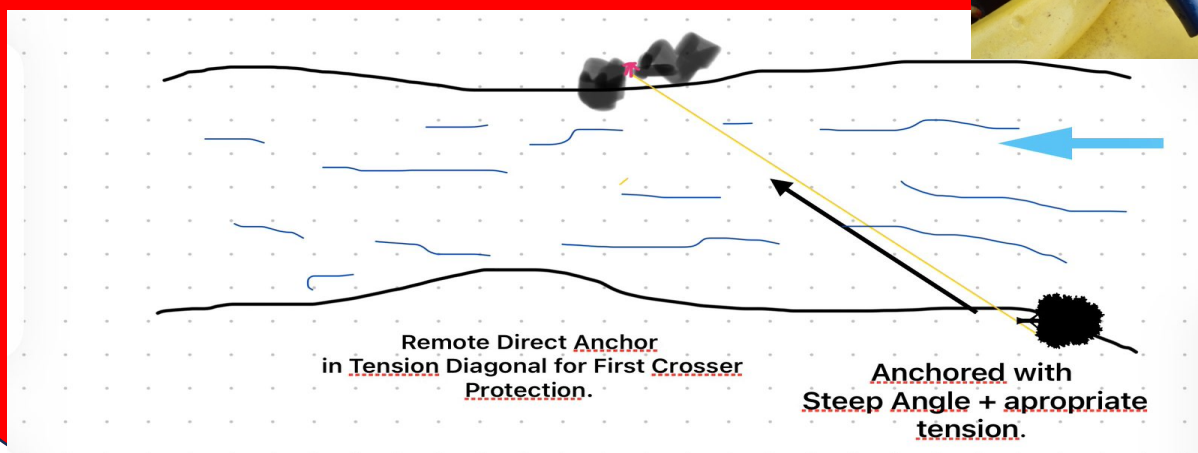
Then remotely capture the line dangling downstream of the obstacle. Remember to throw as far up the line possible in order to capture upon retrieval. Once the secure clip is made then pull in the reach towards you clipping the other line and haul back to shore. The Reach may run down the line and find its stopper knot at the bag.



Gear Retrieval - Retrieve run away boats, lost kayaks, boats surfing in holes or lost paddles with the Crossline Reach. Once you have the Reach it is recommended to work additional pre-rigging for some water crafts therefore providing a clip to a tag line or particular part of the craft.



Tension Diagonal - Using remote anchoring or looping techniques with the crossline reach adds in fast Attack set-up methods in Airway Time sensitive situations.



Ascending - Having the capability to ascend in current is a valuable skillset. Applications include Strong swimmer pendulum to turbulent eddies or sites in the river through pendulum evolutions, fixed line lowering and ascending either in a wading format or in full swim mode. If not hand over hand we use traditional ascenders and progress capture devices to help grab the rope for ascending stronger currents. Swimmers ascending lines will benefit from a sideways position with head upstream reaching up the line and while hauling dipping the head under water for a streamline position on each haul.

Scene Containment - In **swiftwater rescue**, the [Crossline Reach](#) allows rescuers to safely secure a line across moving water without exposing themselves to the hazardous current. It makes scene containment both fast and protected through several mechanical and tactical advantages. No two better ways to set and operate downstream containment aside from Line capture and Long Line Reach Vectoring with a light weight inflatable.

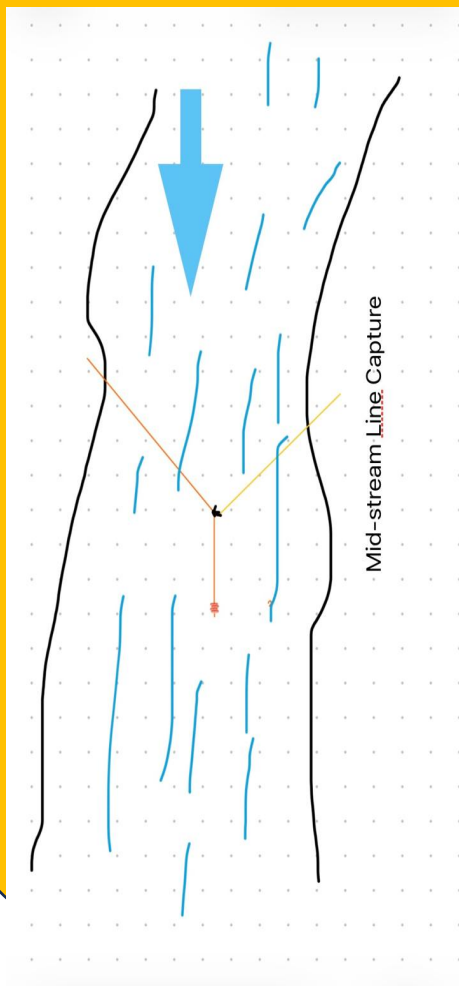
Field Evolutions

Pendulum crossing- Use a Direct Remote anchor to the far side of the channel to be used as a fixed self-belay line for a waded crossing or pendulum crossing for the first crosser, one person.

Once a solid connection is made the remote direct anchor must be pull tested by hand according to load direction of the pendulum arc.

Consider downstream consequences and improve grip on the line by tying a stopper knot in the line for your hand, by adding a hand ascender with a comfortable handle. Add in QRS tag line for added safety with a partner that can back up the pendulum crossing.

Once you arrive at the shore improve the anchors and rope system for others to follow.

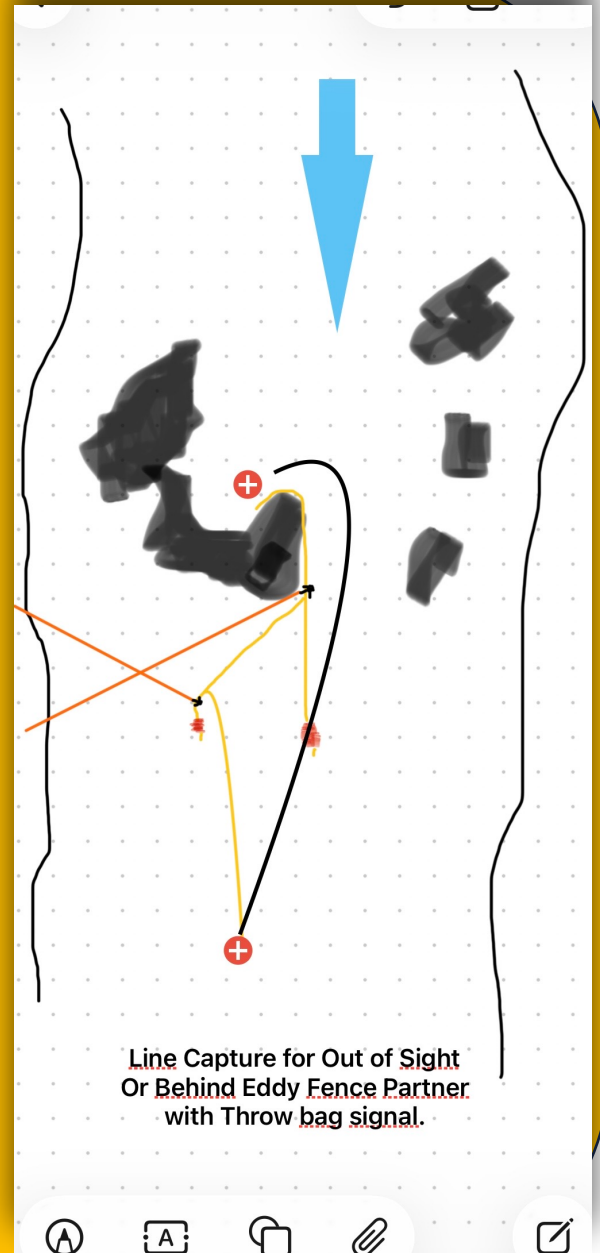


Midstream line capture - Line Capture Methods and Objectives.

Line capture with your crossline reach refers to clipping securely to another line. Most commonly line capture is used to create a cross channel connection in order to then progress into a rope-based system that provides access. If your partner is directly across from you signal to them to throw their throw bag just downstream of your position. A long powerful throw that pays out the line straight is best. Once your partner throws you as the Reach operator must also deploy quickly out and across your partner's line. Once the Reach hits the water begin rapid retrieval into your coils looking closely for the moment the cross clip happens and the two lines connect.

Remote Midstream V-Lower - Remotely connect to the strong swimmers Live Bait line from the opposite shore of the channel creating a Mid-stream connection V-Lower for vector positioning the rescuer at the site.

Blind Corner/Out of Sight Rescue - Line capture for reaching to a partner out of sight is fast attack access. Whitewater and rescue professionals should have a throw bag with them at all times and therefore projecting your throw bag out beyond the obstacle that is holding you or preventing visual contact in the river is a signal out and downstream of your position to your reach partner for connection



R2 Long Line Reach System.

Live Boat V-Lower Mid-Stream

Setting up the Long Line Reach fast attack system is simple. A higher anchor point upstream above water level will help keep the first portion of the long line out of the water. It can be anchored on either side of the channel. Once the long line is rigged to the boat with boat operator descent/ascent control they can paddle out into the current at an upstream ferry angle to ferry with the long line connected to the rear thwart and stern facing upstream and trailing behind through the center of the craft while the tenders on shore who have a portion of the long line give slack feeding out the line during the R2 paddle approximation downstream towards the far shore while navigating the rapid. The need for getting out mid-stream or within Reach range is to obtain control of the craft by clipping and vectoring the line.

As the paddlers turn downstream from their peel out of the eddy they paddle towards their objective while the far shore will deploy their reach and capture the long line creating the V-Lower midstream. Tenders of the long line on shore will lock off their belay of the line while descent is now transferred over to the boat operators who begin to manage their descent towards the objective. For lateral movement additional Reach operators further downstream can connect to the long line and vector as needed.



One-sided looping - Line Capture is used for looping lines around mid-stream obstacles such as rocks, trees, bridge footings and even islands in the channel.

1. Plan to present the first throw bag out and around the upstream side of the obstacle to be looped. Maintain the line in position resting against the obstacle for as long as possible.

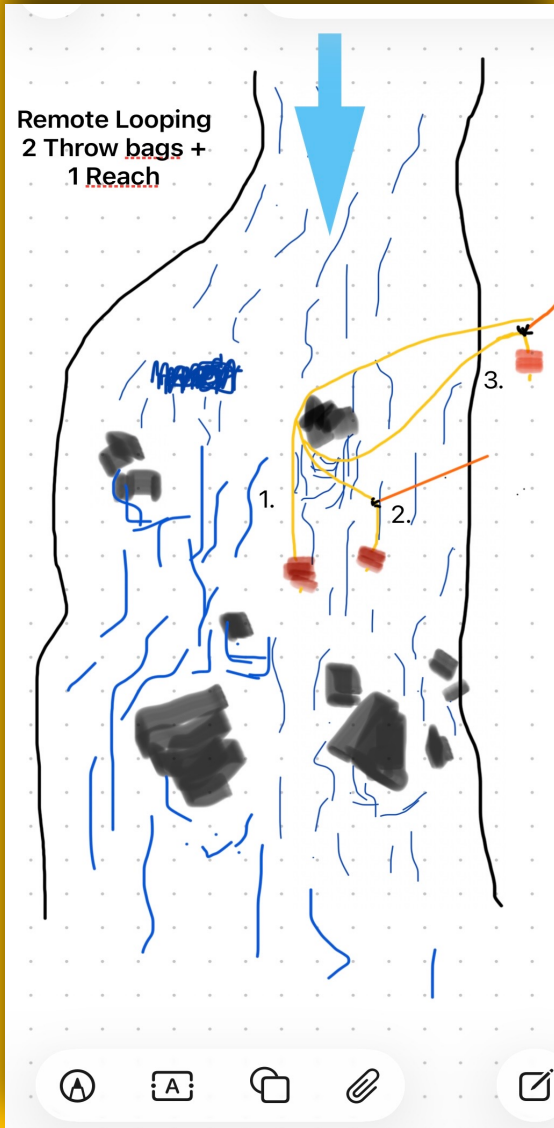
2. Then remotely capture the line dangling downstream of the obstacle. Remember to throw as far up the line possible in order to capture upon retrieval. Once the secure clip is made then pull in the reach towards you clipping the other line and haul back to shore. The Reach may run down the line and find its stopper knot at the bag.

3. Keep tension on the lines hugging the obstacle that is now looped with the two rescue lines to make sure the line does not come off of the obstacle. Now these lines should be tensioned back to shore at a steep diagonal to provide access.

Give or take line upstream or downstream around the obstacle is sometimes needed. Placing the bag and the reach against the obstacle as to not interfere with further operations. Ideally remove the Reach when it is possible for additional uses and safety.

If time is of the essence the Reach may stay in play for loads of one to two rescuers including with a small rescue inflatable combined. The base hub of the Reach where most lines rest and load is rated to over 4kn.

Once you have successfully looped the obstacle the connected lines serve as fixed line access to the obstacle or site via tension diagonal or pendulum swing. Both operations may also be backed up with the use of QRS Belt or Strong swimmers PFD if a strong swimmer rescue is appropriate. Otherwise connect a small inflatable to the newly formed looped obstacle with tension diagonal or pendulum swing for accessing the site.



And we are just getting started!

Course Information

Investment

Swiftwater Rescue 2.0 Certification (Swiftwater Rescue Technician Recertification Course)

24 Hours

Class III–V

\$380 USD

Crossline Reach™ Professional Package

\$100 USD

Total Investment

\$480 USD per participant

(Group pricing available.)

Course Includes

- ✓ Qualified SWR 2.0 Instructors de Tandem/IRIA.org
- ✓ River-based rescue scenarios
- ✓ Dry-land workshops
- ✓ Professional certification
- ✓ One Crossline Reach™ per participant (Pro Deal)

Certification

Participants receive:

- Swiftwater Rescue 2.0 Certification
- Crossline Reach Operator Training
- Training Completion Letter
- Professional ID Card
- SWR 2.0 Patch

Certification valid for **3 Years**.

Participant Equipment

Required PPE includes:

- Whitewater Helmet
 - Type IV or V PFD
 - Wetsuit or Drysuit
 - River footwear - Closed toes, hard sole.
 - Rescue knife
 - Whistle
 - Locking carabiners
 - Prusik cords
 - Floating throw bag
 - Tubular webbing
-

Train Faster.

Rescue Smarter.

Reach Further.

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