

AMC-NH Safety Curriculum

Introduction to Swiftwater Safety (part of Spring School)

An introduction to the dangers of the sport, how to recognize and avoid them, and the basics of what to do when problems occur.

Ten Life-threatening Hazards

- Hypothermia
- Strainers
- Hydraulics
- Pinning Rocks
- Bridge Abutments
- Undercut Rocks
- Rock Sieves
- Foot Entrapment
- Ice Shelves
- High Water

Recognizing Potential Hazards

- Some hazards documented
 - Dangerous holes, sieves, undercut rocks
- Some hazards obvious
 - eg, High Water, Bridge Abutments, Ice Shelves, Strainers
- Some hidden
 - Rocks causing foot entrapment, undercut rocks
- Temperature
 - Air plus water temperature less 120 danger of hypothermia
- River Reading
 - Rocks, holes, hydraulics
- Horizon Lines

Avoiding Hazards

- Proper Planning
 - Read available river information
 - Check river level
 - Recruit a guide/paddler familiar with river
 - Check/scout for hazards

Proper Clothing

Proper Equipment

- Air Bags
- Throw Rope
- Painters/tow line
- Water Bottle
- Extra Clothing

Group Safety Equipment

- First Aid Kit
- Z-Drag
- Rescue PFD (with proper training)

Paddler Actions

- Look for, and recognize potential trouble spots
- Scout/walk/paddle with care areas of concern as appropriate
- Bracing/Righting Pry/Leans to avoid swim or pin

Proper River Group Dynamics

- Group Organization/Lead/Sweep Boats
- Always stay within range of boat behind
- Learn and use river signals

River Signals

- Stop
- Clear/Go
- Always point to clean line/which way to go
- Universal "I'm OK/are you OK?"
- Come Quickly/Help/Hurry up
- Look over there/I see

Defensive [safe] Swimming

- Safe swimming position
- Upstream of boat
- Never try to stand
- Try and hold onto paddle
- Self rescue of boat for experienced paddlers in right conditions

- Catching a throw rope
- Swims during class

Basic Safety and Rescue (One day course aka Paul Berry special)

A single day course targeted at paddlers with class II skills and above. Teaches paddlers how to rescue themselves and other paddlers during the most common problem situations that develop on whitewater rivers.

Personal Safety Clothing and Equipment

- Proper Clothing
 - Extra clothing vs river/weather conditions
- PFD/Life Jacket
 - Class III vs V vs non-rated
 - Rescue PFD features
- Helmet
 - w/Face Mask
- Whistle
- Throw Bag
- Air Bags
 - Air Bags that double as Dry Bags
- Thigh Straps/Foot Pegs
 - Held In vs Locked in
- Ropes/Webbing in Boat, nothing to potentially get tangled in

Use of Throw Ropes

- Throws
 - Overhand vs Underhand
- Coiling, multiple techniques
- Second Throws
- Anchoring
- Throw bag practice (land).

Throw bag practice (river)

- Catching throw rope
- Float on back, use outside shoulder

Boat Rescue, Rescuing boats and equipment from another boat.

- Empty vs Partially Swamped vs Full
- Towing Boat
 - Painter once around thwart, holding with knee
 - Painter once around paddle, holding with hand
 - Kayak vs Canoe Paddle
- "Bulldoze" boat, pushing in to eddy
 - Kayak vs Canoe
- Rescue upside down boat vs right side up
- Righting a boat.

Rescuing swimmers from another boat.

- People first, equipment later

Self Rescue of gear and boat

- Swimming with boat
- Safely getting out of river
- Staying with equipment vs letting go
- Swimming strategies, recognizing and avoiding danger

Passing/throwing paddles in an emergency

- One vs two-handed throw
- Kayak vs Canoe Paddle

Bracing

- High and Low Braces
- Kayak vs Canoe
- Righting Pry

Advanced Swiftwater Safety & Rescue Skills (One day, first part of Charlie W's course)

A single day course targeted at paddlers with class III skills and above. Teaches paddlers and others additional skills and techniques used in more difficult rescue or recovery situations.

Aggressive Swimming Techniques

- Barrel Roll into eddy
- "Belly Flop", protecting face entry
- Swimming using paddle assist
- Swimming/Escaping from holes
- Swimming over drops

Wading

- Single Paddle Assisted
 - canoe paddle vs. kayak paddle
- Tandem/Pairs
- Circle 3 or 4
- Wedge/Pyramid
- Line assisted wading
 - angle of line/vector pull vs 90deg

Belaying Techniques

- Anchors-people/objects

Zip Lines to cross current

Use of rescue vest

- Belay w/controlled lower in current
 - (two ropes with belay preferred)
- Teathered swimmer rescue

Entrapment Rescues

- Foot Entrapment
- Tag Lines
- Tying into victim
 - Limited Slip Knot Vs girth hitch

Strainer swim drill

Advanced Swiftwater Recovery (One day course, second part of Charlie W's course)

A single day course targeted at paddlers with class III skills and above. Teaches paddlers and others the basics of recovery of boats and equipment when it is pinned or otherwise trapped on a swiftwater river.

Review of rope types/elasticity

- Types of ropes, throw ropes vs recovery/Z-Drag

Knots

- Prusiks/Beaners/Pulleys
- Pinning of boats and equipment
- Steve Thomas Rope Trip
- Z-Drag

Other topics/other courses

Leadership Course

Contents of First Aid kit (possibly put in Leadership course?)

CPR

Wilderness First Aid/SOLO Courses

Resources

The following are some books and a video on this topic. (Note: This is not an official endorsement by the AMC NH Paddlers or any other organization.)

Books:

River Rescue: A Manual for Whitewater Safety, 3rd Edition (AMC Paddlesports)
By Slim Ray (Author), Les Bechdel (Author)

AMC Guide to Outdoor Leadership (Paperback)

By Alex Kosseff (Author)

(includes a chapter on Crisis Management)

Videos/DVDs:

Whitewater Self Defense -- Safety: Lessons, Skills, and Drills

Contributors include Charlie Walbridge, Ellen DeCuir, Kent Ford, and over a hundred other paddlers.

\$29.95 http://www.performancevideo.com/whitewater_self_defense

Decide to Return -- A Strategy for Safe Sea Kayaking ©2007

Walkabout Productions, America Canoe Association in cooperation with the US Coast Guard and the Aquatic Resources (Wallop-Breaux) Trust Fund.

<http://www.americancanoe.org/>

<http://www.uscgboating.org/>