AWA Affiliates

ALABAMA
N. Alabama River Runners Assoc.
Carter Martin
2602 Scenic Dr. S. E.
Huntsville, AL 35801

ALASKA
Knik Canoes & Kayakers
Ed Swanson
3014 Columbia
Anchorage, AK 99504

Alaska Whitewater Assoc.
Jim Hunter
Glentsallin, AK 99588

CALIFORNIA
Southern Cali. Canoe Assoc.
Ron Cervorost
3966 S. Menlo Ave.
Los Angeles, CA 90037

Voyageur Canoe & Kayak Club
Leon Hannah
12814 Arminta St.
Hollywood, CA 91605

Lena canoe Club
H包含了 Black
200 Almond Ave.
Los Altos, CA 94022

Sierra Club
Loma Prieta Paddlers
Emily Kehler
185 Loucks Ave.
Los Altos, CA 94040

Idlewild Yacht Club
Russ Symon, Rep.
880 Market St.
San Francisco, CA 94102

Outdoor Adventures
Dave Orans
688 Sutter St.
San Francisco, CA 94102

Sierra Club River Touring
Bay Chapter, Rent Welfi
1440 Jones, No. 2
San Francisco, CA 94109

Echo Wilderness
Joe Doyle
2424 Rushell St.
Berkeley, CA 94705

Mother Lode
White Water Experience
Pacific High School
Ken Brunger
581 Continental Dr.
San Jose, CA 95111

American Youth Hostels
Santa Clara Valley Club
R. C. Stevens
5493 Blossom Wood Ave.
San Jose, CA 95124

YMCA of San Joaquin County
640 N. Center St.
Stockton, CA 95202

Mountain Waterways
Skip Bonham
171 N. Washington
Sonora, CA 95370

COLORADO
Aspen Kayak & Canoe
Box 1520
Aspen, CO 81611

Colorado White Water Assoc.
J. Michael Jacobs
1400 Dayton St.
Aurora, CO 80010

Whitewater Expeditions
Tom Anderson
Box 122
Ent. Air Force Base, CO 80912

CONNECTICUT
Great World
W. R. Haskell Jr.
250 Farms Village Rd.
W. Simsbury, CT 06092

Univ. of Conn. Outing Club
Mary Pothier
Box 7023
Storrs, CT 06268

IDAHO
Idaho Alpine Club
Dean Haggard
1933 McEddy
Idaho Falls, ID 83401

ILLINOIS
Northern Prairie Outfitters
Randy Hendee
206 N. W. Highway
Fox River Grove, IL 60021

Illinois Paddling Council
Jack Sparrow
2310 Prospect Ave.
Evanston, IL 60201

Chicago Whitewater Assoc.
Bruce Wicker
5652 S. California
Chicago, IL 60629

LOUISIANA
Bayou Haystackers
Marsha Ginter
624 Olive St.
New Orleans, LA 70119

MARYLAND
Canoe Cruisers of
Greater Washington, D.C.
Takoma Park

Terrapin Trail Club
Bx 18 Student Union Bldg.
U. of Maryland
College Park, MD 20742

Appalachian River Runners

Joe Monohan, Box 107
MC Henry

(Continued on p. 179)

INDEANA
American Camping Assoc.
Ernest Schmidt
Bradford Woods
Martinsville, IN 46151

Hoosier Canoe Club
Dennis Fickinger
7250 Tavern Dr.
Indianapoliss, IN 46256

KANSAS
Johnson County Canoe Club
Cos. and Joan Wetter
3782 Rosewood
Prairie Village, KS 66208

KENTUCKY
The Viking Canoe Club
Joe Underly
3108 Rockwood Dr.
Louisville, KY 40216

SAGE—School of Outdoors
Box 3181
Lexington, KY 40504

MAINE
Bates Outing Club
R. Reese
Dept. of Physics. Bates College
Lewiston, ME 04240

Sunrise County Canoe Exped.
Bx 970
E. Machias, ME 04630

MICHIGAN
Voyageurs
F. Henn & Ch. Rep.
1818 Kensington Blvd.
Fort Wayne, IN 46005

Tulipan Club
Nancy Roe
952 Riverside
Sooth Bend, IN 46416

Geogiana Canoe Association
W. D. Crowley, Jr.
Box 7023
Atlanta, GA 30309

CANTON
A. Michael

St. Joe Valley
Canoe & Kayak Club
Elkhart YMCA
260 B. Jackson
Elkhart, IN 46514

(Cont.)
Contents

ARTICLES
Why Do We Run Rivers? ........ Scott Holzhauser 149
Study of Whitewater Fatalities .... Carl Trost 150
Offset Gate Techniques .......... Dave Kurtz 165
Tribute .......................... C. Walbridge 171
"Third Hand" Theme ............. O. K. Goodwin 172
ARCC: 1973-1974 ............... Brent Blackwelder 177

DEPARTMENTS:
Affiliates .... 146, 179, 180
Letters .......... 148
Hahn's Honchos .... 153
Dean's Voyaguer .... 163
Try This .............. 164
Classified .......... 164
Racing Tips ......... 165
Race Results ........ 169
Book Reviews ........ 174
Editor's Soapbox ... 178

American Whitewater is mailed to all members of the American Whitewater Affiliation, an affiliation of boating clubs and individuals interested in whitewater paddle sport. Membership is open to interested individuals at $5.00 per year and to clubs at $10.00 per year. Club membership includes listing in the Journal.

Publication is planned at 6 times yearly. Single copies, $1.00 each. Surplus back copies are available at reduced prices. Write Geo. Larsen, P.O. Box 1584, San Bruno, CA 94066.

The Staff and committee members listed above are unpaid volunteers who contribute their time and efforts to bring aaffiliatemember subscribers this journal. Your contribution of articles, letters, race results and schedules, photos and drawings is essential for their continued efforts and the timely publication of the American Whitewater Journal.
Dear Iris,

Perhaps it would be of interest to the AWWA members to know who was the first modern person to develop the modern kayak and perfect the roll.

Since my association with kayaks goes back to 1922 I became exposed to the roll through a book by Edi Hans Pawlata (Kipp Kipp Hurra! im Reinrassigen Kajak) published in 1928 in German.

My copy of 53 pages not only describes the technique by word and pictures and diagrams, but in addition it has a scale pattern for a rigid as well as a folding kayak designed by Pawlata.

In 1930 I built the folding kayak, and using Pawlata's instructions my friend Stannard Baker mastered the roll technique in this kayak in 1930.

Cordially,

Lothar Kolbig
323 Coffeepot Dr.
Sedona, AZ 86336

(In a later letter Mr. Kolbig mentions that he and “Sneakin Deacon” Kiehm had been canoeing friends for some 50 years and includes this tantalizing paragraph: “Here in the West with its few rivers, especially the Southwest, canoeing or white water sport is not strong. Our sport here is backpacking into the remote wilderness areas of the canyons that are the tributaries of the Colorado. Despite being past 70 my interest and activity in this is undiminished. For fear of becoming boastful I'll open the curtain just a little bit and admit of having stood on the banks of the Nile, the Oxus and the Indus Rivers and rafted down the swift tributaries of the Amazon and on the Arctic Ocean, and this fall will be on another trek into Sikkim and Bhutan.” Here's hoping we can persuade this unique man to write down some of his adventures so that we may enjoy them vicariously. – Ed)
WHY DO WE RUN RIVERS?

by Scott Holzhauser

When you're out in the middle of a river, and the wind is blowing 35 mph (upstream as usual), the sun is going down, and the gale winds are frosted with little particles of water, sand or dust; when you look around and everyone is freezing and camp or vehicle is miles away; have you ever wondered WHY? Just what is it that drives us to enjoy such pleasantries? A streak of masochism?

I think not. I have eaten enough sand over the years to evolve my appendix into a gizzard, but I can't honestly say I enjoy it. No, savoring the culinary possibilities of different species of sand grains is not the raison d'être of a river trip. But I digress.

Certainly we all share a love of the outdoors. But so do hikers, climbers, campers and many others. Each of these activities requires certain skills and certain physical stamina. River running, however, like skiing and a few others requires a skill not common to the others: that of making decisions under pressure of time. Here is where we get hooked. Once we have done it for a while, and have developed a skill at it, it is hard to give it up. This feeling is eloquently described by professional river runner Gaylord Staveley on running a few rapids after an absence that was too long. "It was wonderful to be apprehensive again, to have to listen critically and look sharply and have so little time to make the right decisions before the Moment of Truth at the head of each rapid.*

There are two types of people that run rivers, the passive participants, or passengers, and the active participants, the boaters themselves. The first are probably in the majority, but nearly everyone who reads this journal is an active participant, and we tend to forget the passenger.

A river trip seen through the eyes of a passenger is much different than one experienced by a boatman. Both experience joy, exhilaration and excitement but for different reasons. The typical passenger gets his thrills from riding the rapids where he can see the danger and feel the stinging water in his face. He is doing something he probably never thought he would have nerve to do but may have nevertheless looked forward to for a long time. And he is excited and happy.

The boatman, however, who is charged with the responsibility of the trip and the safety of the passengers experiences a different sensation entirely. He must interact with both the passengers and the river. He is happy when the passengers are happy and satisfied. He is (or should be) despondent when they are not and it is his fault. As a boater, even when running private trips with my friends I usually have some inexperienced people along whom I feel responsible for, so it is inevitable that some of my emotions on the river are experienced vicariously through them. Passengers or no, the boatman is always exhilarated after a difficult and successful run, and dejected when it could have been better, for the boatman has to read the river, and he has to do it right or he may find his passengers, equipment and himself in bad trouble.

I consider myself a boatman, and with or without passengers, the greatest highs I have ever felt have been on the river and have come from sharing with others the excitement of a successful and difficult run. It's not hard for me to understand why I run rivers.

* Staveley, Gaylord, (1971) "Broken Waters Sing" Little, Brown & Co. pp. 116-117
At least 28 people died in California in 1973 as a result of river-running accidents, most of them involving inflatables. This is more than three times the figure for any previous year. No member of any river-touring club was involved.

Suspecting that accounts in metropolitan newspapers were giving only a superficial picture of what might be happening on our rivers, early in 1973 I began a statewide tally with an appeal to our club members for clippings from their local papers on river-running fatalities. Accuracy of my file has been reasonably verified and augmented as well as possible with data issued by California’s Department of Navigation and Ocean Development (they are prohibited from giving dates and details). The 28 fatalities, classed according to the type of vessel being used, are 18 with inflatable rafts, 2 canoes, 1 kayak, 2 rowboats, 3 inner tubes, 1 air mattress, and 1 on a log (the last two were both reported as attempting to ride rapids on the Kern River). Newspaper editorials overlooked the inclusion of reservoir accidents in the D.N.O.D. statistics, and I further discounted two boys, aged 4 and 14, who apparently had not intended to run the river when their raft was drawn into the current. D.N.O.D. guidelines do not include inner tubes and such, nor 3 in my count that drowned indirectly but definitely as the result of rafting mishaps (fording a stream after being stranded, retrieving paddles).

Ages of the victims ranged from 13 to 50 years, with a median age of 23 and an average age of 24. Half of the victims were between the ages of 19 and 25, and those that were older account for another quarter. Two of the victims were women, ages 25 and 27.

Only 2 of the 28 victims wore life jackets, however, this leads to a dangerous over-simplification about safety on rivers. The circumstances show that perhaps 19 people would still be alive had they been wearing life vests, some of the 9 that were trapped in snags, reversals, and tunnels would have suffered their same fate, and 6 of their companions might have drowned in the same reversals had they, too, been wearing life vests. Clearly, a flotation vest is essential, but it is no cure-all.

Fifteen rivers and streams and one canal figured in the fatalities, the Kern River above Lake Isabella leading with 6, double that of any comparable river fork.

About half of the victims drowned in flat water or gentle streams (class I and II), although some of these streams were at their high-water stages, with consequent difficulties for the inexperienced. This and lack of life vests support my belief that many people have no understanding of the hazards and deceptive power of mild water, believing that the risk is to others running the "dangerous" streams. This underestimation continues right up the scale, with "good" swimmers failing to recognize the treachery in "easy" white water, and with people that are mislead by the easier appearance of a river at the put-in.

The dates and locations of the accidents in my file followed a very familiar and predictable pattern during the first half of the year, starting with the coastal streams when they swelled with rain in February, then moving to the Sierra rivers...
in April and increasing with the crest of California's snow melt in late May, as shown in figure 2. There was one drowning on each of the two Monday holidays in February; six on the Memorial Day weekend. 6 of the 8 July drownings occurred on weekends, but the week and weekends encompassing July 4 (a Wednesday) took only 2 lives (Only 2 lives!).

ACCIDENT REPORTS

There are possible shortcomings in state and national boating statistics. Public health agencies count death certificates in broad categories, such as "recreational drownings." The Coast Guard and cooperating state agencies require a boating accident report in case of a death, injury that incapacitates for 72 hours, or damage over $100. Reporting is routine on many reservoirs, but a county sheriff may not associate the river-drowning victim that spilled from a small raft with a boating accident report. Thus the weekend contingent of untrained lake paddlers and their less stable canoes may be contributing more than a fair share to the statistics on their craft. There is the question of when a raft made up of inner tubes becomes a vessel, and the problem as to how a deputy might classify an "inflatable canoe" or the plywood "kayak."

The accident form and even the thinking of officials filling out or classifying these reports is geared to a long tradition of motor and sail craft on open waters. Hours of "Operator's Experience" tells nothing compared with "Had you run the river before? – At the same level?" The primary cause of a raft accident is likely to be attributed to "Capsizing" or "Collision With a Fixed Object," with the "Lack of Personal Flotation Device" listed as only a contributing factor. Indeed! We could argue that capsizing is a common and accepted part of our sport, and that these are not even boating accidents but swimming accidents in which the lack of a flotation vest was the primary cause! (Unfortunately, the person so inexperienced as to be without a life vest very likely is the victim of an unforeseen "boating accident.")

ACTUAL CASES

It is easy to dismiss these accidents as inevitable in a risky sport, destined to happen to a small percentage of participants, perhaps to those lacking in common sense, careless, or less competent. This attitude in itself probably contributes its share of victims (since we all consider ourselves sensible, the implication is that accidents happen to others). It is important to remember that, as with our own river decisions, to every victim, what he or she was about to do made sense at the time. Our statistics show that three-quarters of the victims were in a mature age bracket. The several surviving
companions to whom I talked were intelligent, capable people. Each had missed that particular knowledge or learning experience that would have alerted them to what was to come. One near victim, an experienced canoeist, expressed the crux of many river accidents simply and exceptionally well: "It looked so innocent."

The mere numbers belie the circumstances and the personal tragedies involved. A review of some of the accidents is of value in understanding the problem. (Note that newspaper accounts, on which many of these cases are based, are not necessarily accurate).

**Dam Reversal**

In February the coastal streams run high but inclement weather discourages the weekend traveler. The predictable pattern is for accidents on the ephemeral streams that now serve as drainage channels for our urban communities, with the excellent coastal rivers snaring only an occasional local resident that ventures out with kayak or canoe. 1973 exceeded expectations.

Early in February two men and a woman, all wearing wet suits but not life vests, launched their 8-man raft at the town park in the Bay Area community of Walnut Creek. At the mid-point of the 3-mile run the creek enters a concrete channel with 12-foot vertical walls. The channel ends after a smoothly curved, 45-degree, 6-foot descent to the level of the take-out pool. With rain run-off running 6 feet high in the channel, the drop could have been as much as 10 feet. The raft dove under the reversal wave at the base of the drop and was held there. The

Figure 2. 1973 river-running fatalities seem to follow a hydrograph of California streamflow strongly influenced by holidays and fair weather. Solid bars represent deaths on three-day weekends.
passengers eventually washed out, first the woman, who was pulled to shore by nearby workmen, then an unconscious man floated by and was lost, and finally the second man was pulled to shore. They specifically chose to run when the water was high. At whatever level they examined the reversal, the surviving man predicted that they would be stopped; his companion insisted the raft would ride through. The surviving man tried to fight the reversal current, then clung to the raft (he estimates 10 minutes – he could watch workmen being frustrated by a wire fence in their attempts to throw him a rope). Resigned to his fate when his strength gave out, he was swept under and emerged downstream.

Comment: While I procrastinated for a year before contacting the surviving man, several people phoned him within weeks of the drowning to inquire about the run, insisting that they had adequate life vests. It was all the man could do to talk them out of it and convince them that a life jacket would be of no help against the reversal. The experience of the party consisted of an easy canoe run and one previous raft run below the dam. It is curious to note that their activities included sky diving, drag racing, and drag-boat racing, and that the survivors now consider our sport dangerous. One of our expert kayakers subsequently ran the dam with only a few inches of water (much to the consternation of local police), and even at that low level, with virtually no reversal wave, his kayak was stopped. He reports that at high water the reversal is a horror, with debris and tumbling logs.

Local Creeks

The following weekend, Lincoln's Birthday, the troubles centered around San Jose and Carmel, 60 miles to the south. Two young men had to be roped across upper Coyote Creek after being...
stranded by their raft. One man in a party of four drowned when their raft capsized in the rain-swollen Carmel River. He was not wearing a life vest.

Two men were pulled up the steep embankment of Stevens Creek in a litter and treated for back injuries after a 6-man raft in which 5 people were riding went over a concrete check dam. I visited the site and found the stream almost impossible to scout because it was closed off by freeways and houses, the approach was blind due to the heavy brush lining the narrow stream, and the dam was a 10-foot drop in three steps, resembling a giant fish ladder (Figure 3). It is my guess that the raft flipped in the first drop, throwing its occupants onto the next concrete barrier.

Source: Newspaper accounts

Comment: Local suburban creeks, because of brush, debris, check dams, and an all-or-nothing flash flow, are a poor choice.

No Spare Oar

On the Sunday of the Washington's Birthday weekend, a father, his 19-year-old son, and a 15-year-old companion boarded a small, rented raft and entered Cache Creek via two miles of the North Fork, commencing a little-known, 19-mile wilderness run between state highways 20 and 16. The son was a paraplegic who enjoyed scuba diving and rafting despite leg braces. All were wearing wet suits and preservers. At about 1 p.m. they snagged on bushes, dumping the son into the water. The fifteen-year-old went to his aid, losing a shoe in the process. The group made shore, but a lost oar forced an end to their trip, according to newspaper accounts.

At 4 p.m. the 15-year-old went ahead for help, arriving at a submerged low-water bridge some 10 miles away at 10:30 a.m. the following day, where he was brought across the river by Scouts with kayaks and a raft. Meanwhile, the
father and son huddled and shivered beneath their raft throughout the night. Believing that their friend had run into trouble, and unable to stand another freezing night, it appears they struggled along the river until they came within sight of Highway 16 (three miles upstream of the low-water bridge). They attempted to ford a wide part of the stream, but the youth slipped from his father's grasp and drowned.

Body recovery required two days and involved deputies of two counties, two helicopters, a rescue unit, and reduction of the flow at Clear Lake dam to lower the river three feet.

**Sources:** Newspapers (which placed the group on the wrong fork); Coroner's report.

**Comment:** This would not be included in state statistics because the group reached safety after the boating mishap. However, we consider this the direct result of a raft trip leading to exhaustion, desperation, and the death, and seemingly involving a number of elements common to river accidents—high water, brush, isolated canyon, lack of secured spare oar (a common shortcoming of rental equipment), and lack of a companion vessel that could have assisted or gone for help.

Cache Creek, where it finally parallels highway 16, is a very popular summer run, class II+ at 500 cfs (782 cfs yearly average; 955 square-mile drainage). What this group knew of the upper section (same rating), whether they had been deceived by the 670 cfs in their first 2 miles on the North Fork, or had observed the main flow of over 3500 cfs at the take-out prior to starting, is not known to us.

**Surf**

Late in February, five people successfully paddled a 12-man raft down 8 miles of Pescadero Creek, a small, rain-swollen coastal stream. However, rather than land their raft amid the debris lining the banks near the mouth, they decided to run a mild surf, hardly more than 2-foot waves, and let the surf wash them back onto the sandy ocean beach. The raft, driven by what survivors said was a 14-knot current, capsized in the surf. The survivors then found themselves driven by the same relentless current while the waves smashed at them brutally from the opposite direction. One survivor said the battering was so severe he feared he would be knocked unconscious. He tried to dive, but had to remove his parka with its entrapped air before he could submerge. Four of the party managed to get through the surf, away from the current, and back to shore south of the river's mouth. The victim was last seen clinging to the raft, which apparently was trapped in the doubly vicious surf.

**Source:** Interview with survivor.

**Comment:** None of the party had the added buoyancy of life jackets or wet suits, which, in this unusual situation, may have been fortunate, at least for the survivors. The accepted practice is to wear life vests and to avoid reversals. In this unique incident we have a warning that peculiar, reversal-like conditions may exist in the opposition of river and ocean currents. Flow that produced this condition was only 800 cfs (yearly average, 43 cfs; 46 square miles drainage).

**Spring Run-off**

The Stanislaus River has 14 miles of the most popular white water in California. On a flow sustained throughout summer and fall at 700 cfs by a hydroelectric development, 18,000 people floated the upper and lower runs, and another 13,000 people made overnight trips as paying passengers with 12 commercial raft companies during 1973. The river starts with a two-mile series of pools and drops rated as a "forgiving" class IV,
then tapers off. Most outfitters take 4 or 5 passengers per 10-man raft equipped with rowing frame. Passengers wear life vests, usually the large, maritime type.

On Saturday, May 19, the river had risen to 8,600 cfs from 5,000 cfs the day before, probably due to a shower on the ripe snow pack in the high country. One commercial outfitter had a rope across the main channel to one of his rafts, which was pinned to a rock midstream in Death Rapids (named after a drowning a decade ago). A second outfitter attempted a last minute change to the far channel to avoid the rope and capsized two of his rafts.

Upstream, after the first few rapids, a commercial raft had become unmanageable because of water it had taken on in the unusually heavy rapids. It capsized in a hole where normally there is a well-exposed and easily avoided giant boulder. A 50-year-old passenger died of a heart attack, suffered, it is believed, during the first moments of the swim.

Reports of the small inflatables indicate chaos, capsizings, and innumerable rescues by the professional crews. During normal high water the outfitters claim they pull out a half-dozen people each weekend.

Sources: Newspapers and friends on the river that weekend.

Comment: The establishment of a "hazardous" level is arbitrary and can only be done on a personal basis considering one's own equipment, ability, and philosophy of risk. The insidious aspect is that each weekend every person sees everyone else preparing to run the river in an April-into-October season that must inevitably meet with high water (and in some years, unusually high water). Even the most individualistic commercial boatman is not likely to decide that 25 paying passengers, having reserved space months in advance and driven several hundreds miles, and for whom the food has been purchased, are to be denied their trip when everyone else is running. Indeed, it is the boatman with some favorable big-water experience and confidence who is likely to overlook the statistical nature of river running. Perhaps the best answer would be a sign at the put-in posting the present flow against a scale of advisory cut-off levels for various craft.

Retrieving Paddles

On the Stanislaus River in mid July, a man of 26 reportedly removed his life vest to swim after an oar or paddle. There is an adequate recovery area between rapids, but he was apparently swimming downstream when most of us would prefer not to delay in reaching shore and was swept into the Widow Maker (named only for its fearsome appearance — a steep, powerful incline with several strategic boulders enroute during moderate flows). He was recovered face down and artificial respiration attempted, with no response, and he was turning blue. A doctor coming downstream in a C-2 stopped and administered adrenalin, restoring vital signs. The victim was hospitalized and died four months later.

Source: Newspapers.

Comment: This and the next account are included in our files as fatalities that were the direct result of raft trips, but would not be counted in state statistics.

The American River is a pleasant, afternoon's drift on just about anything that will float for hundreds of people in the vicinity of the capital city of Sacramento. San Juan or "Lunch Stop" rapids, one of the two "notorious" exceptions to this placid but moving river, is a ledge that creates a "stopper" wave and several tongues of fast water alternating with turbulence and eddies in its span across two-thirds of the river (class I to II). A raft passenger dropped his paddle, then beached the raft on the bar adjacent to...
the rapid. His companion, leaving his life jacket in the raft, swam out to retrieve the paddle and drowned.

**Source:** Person who knew the victim.

**Comment:** It has been my theory that reports of inexplicable drownings of people swimming across rivers could be attributed to the victims being taken by surprise by the downward currents at eddy lines. Also, this run may typify the life-jacket problem. About half of the several hundred people that float this river on a weekend do not wear life jackets for such a mild stream. Some intend to don jackets if they encounter rapids, but never get around to it. Too many get their initial experience in terror in San Juan rapids, first when their rafts are held and pitched about by the wave, and again when they find what it is like to be submerged without a life jacket, even in an easy rapid.

**Trapped**

There were no reports of the usual tree-snag and wooden-bridge-piling drownings, but the year was not without fatalities in the general category of entrapment.

The Russian River is traveled by some twenty or thirty thousand canoeists each year, most of them renting from a nearby agency. One canoe, attempting to ride the waters funneling through permanent pilings where a summer dam is sometimes installed, apparently struck a previously submerged canoe and broached against a piling, trapping the sternman between the canoes and the piling. Deputies had to use a winch to remove the canoe.

An inflatable kayak with two life-jacketed men, and a raft with one man, not wearing a life jacket, capsized while running the drop in an old, breached dam on the North Fork of the American River between Highway 49 and Folsom Lake.

---

**MAP-Chattooga River**

“The Deliverance River”

River Runners complete map and guide to America’s newest Wild and Scenic River.

Every major rapid and description is indicated with photographs on how to run each rapid safely.

Travel times, water level data, “new U.S. Forestry regulations, scenic descriptions included. Full 19½” x 30” size, suitable for wall decoration, as well as practical river use. Coated, enamel $4.00, waterproof paper $5.00 postpaid.

River Runners—Box 1231—Charlotte, North Carolina 28230
Deputies claimed that the two men bobbed free because of their life jackets but that the third man was trapped in the old timbers. It took the volunteer fire department three hours to extricate the body.

Source: Newspapers

Comment: Under what conditions a life vest might have lifted a person so that at least the head was above water and whether the vest might at times contribute to the problem in snags is an old and highly speculative subject among boaters. I have not seen this dam since it has broken away to the point of being runnable, but I feel that generally the buoyancy of a jacket would be overwhelmed by the force of falling water and would make little difference in this type of situation. Boaters must be alert for fallen trees, the possibility of broaching against boulders, and have enough river technique to avoid these problems or take out before they are in currents beyond their capabilities (a common oversight when a river is higher than normal). Timbers and steel rods are common where dams have been breached or bridges washed away.

Deceiving Appearances

From the freeway a hundred feet above the Sacramento River, the 30-mile stretch from Lake Shasta upstream to Dunsmuir looks like a sparkling Class II stream, especially with its low July flow. Freeway speed also makes distance deceptive. Two young men attempted a 16-mile run in a small raft starting at 2:30 p.m., carrying but not wearing life jackets because of the mild appearance of the stream. At 6 p.m., about 5 miles downstream, their raft became pinned against a large boulder at the brink of a 2 or 3-foot falls. According to newspaper accounts, unable to free their raft, they climbed onto the boulder and decided to let the water carry them over the falls. The first man looked back and saw the hand of his companion clinging to the raft. Neither he nor deputies could find his companion, but the life vests were found with the pinned raft. The body was recovered 10 days later about a mile downstream near Sims.

Source: Newspapers.

Comment: We speculate that this may be a good example of how people are deceived into not wearing life vests, of how they probably put off donning them with each successful rapid, and of the shortcomings of scouting a river from a road. At best this river is shallow but rocky and swift (an expert's class II), turns into class III where the trip started, then in the two miles above Sims has a class IV, a 3-foot drop (the accident site?), and an abrupt, double falls of 6 and 4 feet. The final 15 miles are class IV and III despite glimpses from the road.

Irrigation Canals

On a Sunday in July a happy float trip down an irrigation canal turned into what must be the classic boaters' nightmare when the water entered a mile-long tunnel hewn through a granite hill. Eight men and women (ages 18 to 26) in a flotilla of six inner tubes and two yellow rafts started down the waters diverted from the Stanislaus River at Goodwin Dam. They reportedly attempted the trip on the recommendation of friends, who apparently had made the trip when the water was lower. They had come three miles, passing through three short tunnels, when they rounded a bend in the vertical-walled channel and were confronted with a black tunnel with a jagged roof clearing the water by barely two feet. The swift current pushed them on as the roof closed down, until rafts, tubes, and riders were jammed up about 30 feet from the entrance. One fellow tried to bite through his tube to deflate it. One by
one they were forced to let themselves be carried into the unknown. At times there was air space at the ceiling, but jagged granite or reinforcing steel battered and cut them. Two of the men drowned. The others emerged with barely enough strength to climb out before entering an even worse tunnel.

Source: Newspapers.

Comment: A waterway can be drastically different from one's past recollections or a friend's description. Changes in flow are the rule, not the exception. Reports of canal fatalities of people who failed to scout or anticipate screens, tubes, weirs, siphons, and unclimbable sides have appeared in newspapers for at least a decade.

Helmets

The bulk of the clippings in my file are extremely brief accounts. Most of them seem to be simple cases of people venturing out on lakes and rivers, often rather respectable rivers during the high-water season, without life jackets. That the circumstances behind these reports may be more complex is shown in our final case history. I had hoped to develop some statistics on the need for helmets. Three or four accounts did mention that "companions believed the victim might have struck his head on a rock."

Comment: It is only a personal hunch that shocked and disbelieving companions, having previously convinced themselves that life jackets were not necessary, are groping for an explanation more in keeping with an "unfortunate accident." Consequently, I tend to discount these statements. Coroners' reports are not likely to establish the sequence between head injury and drowning. Our best observation seems to be the helmets that several of my kayaking companions have cracked in the same waters being run by inner tubes and small rafts.

STOCKING STUFFER...

"G"-rated book of over 50 cartoons by Milt Jines (example above). Christmas is at the bottom of the next drop so plan ahead; send $2.25 (plus 12c tax in Calif.) to:

KAYAKER'S EXPOSE
1752 Monticello Rd.
San Mateo, CA 94402

RENEW BY DECEMBER 31!

If your address is correct on the mailing label, just send it and your check to:

WHITEWATER
P. O. Box 321
Concord, N.H. 03301
Life-Jacket Mix-up
On the weekend that the Stanislaus was having its high-water problems, the South Fork of the American was flowing 3800 cfs, not overly hazardous compared to summertime power releases of 1500 cfs on Saturdays, but a decided change from 400 cfs typical on Sundays (1100 cfs average for 673 square miles). A group of four men, using a medium-sized raft and canoe paddles, started from the put-in at California's gold-discovery site at Coloma, accompanied by two others in an inflatable kayak. Only one member of the group (not the victim) had been on the river before. He had heard about the river from friends and had made four runs, one on the previous weekend when the water was not quite as high.

The first 5 miles is a popular beginners' run (class II at normal flows). In this reach one of the inflatable kayakers broke a paddle, and the group put to shore. The kayak team packed up their gear, inadvertently taking away three life jackets between the two of them. This was discovered with some concern. One member volunteered to leave, but the victim-to-be, an experienced small-boat sailor, insisted that he would not need a life vest and gave his to one of the other members.

The raft group resumed their trip down the river, this time heading into a 10-mile, class III+ canyon run known as the "Folsom Gorge." At the mid-point the raft upset in Satan's Cesspool, a 5-foot plunge into cross currents. One of the survivors saw the victim swimming a short distance behind the raft, but moments later the raft and survivors drifted into the next rapid and no one saw the victim again.

Source: Accounts by survivors, and our own run, about two hours behind the ill-fated group.

Comments: Familiarity with the river, the big water to come, and the difficulty of swimming in rapids, even at normal flows, might have led to a different decision on the life jacket. Those familiar with this notorious hole know the urgency of getting to shore before the next drop, but whether the victim was in any condition to do so or expired in the succeeding rapid is not known. (The second rapid is a straightforward drop of 7 feet in a distance of 50 feet, actually less turbulent at the higher flows).

Additional Comment: While pondering the possible attitudes that have led to so many drownings, I was shocked by some movies circa 1964 showing me and my contemporaries running the American and more difficult rivers without life jackets, many of us without helmets. That we survived establishes the value of back-up procedures, some of which are unavailable to or ignored by people with inflatables: the Eskimo roll, self rescue, team rescue by fast and maneuverable kayaks, progressive experience in swimming rapids, and the statistical nature of the sport (luck).

ANALYSIS
One significance of this study is that it is probably the first comprehensive collection of data for an area or season that confirms what experienced boaters already know about high water, cold water, reversals, and being trapped against snags or boulders. Even California accidents are too small a statistical sample to assign proper emphasis to some of these dangers (not that knowing that a fallen tree is a more common hazard is of any value to the boater going down a river toward a weir). The surprising revelation (for me, at least) was the matter of flotation vests. Wearing of a flotation vest is so routine among club boaters that the lack of one does not come to mind in recounting the hazards to an outsider.

American WHITEWATER
Lacking in this study is an analysis in terms of exposure to the hazards. The number of people engaged in the sport is at best a guess. While the number of fatalities on easy rivers roughly matches those in white water, the number of accident-free canoeists may be far greater than the number of white-water floaters. Then there are the well-known, fixed hazards, such as a weir or wooden bridge, that seem to take lives regularly and somewhat independently of traffic. It is interesting, however, that by far the most heavily traveled rivers in the state, the Russian and the Stanislaus, account for no more than the one or two drownings per year that occur at random on any one of the less-frequented streams. (The Russian has always been heavily traveled, but apparently has had a number of years without fatalities. Considering the large number of inexperienced canoeists that meet with snags and junk in the stream, that there have been so few fatalities is generally regarded by serious canoeists as proof of miracles.)

It is reasonable to assume that the dramatic rise in fatalities in 1973 was due to the rise in popularity of river running during the past several years masked by the low flows in 1972. The 1974 snowpack was about 20% above normal. The rainy season has been free of fatalities (because of the warnings in last year’s local headlines?), but otherwise 1974 is shaping up as a carbon copy of 1973. There were at least 11 raft drownings as of May 31, including 2 in reversals and...
one canoe passenger held by current against a fallen tree. In addition, a mother and infant son were sucked into a canal siphon, reportedly while using a raft.

After the 1974 Memorial Day weekend, newspapers carried banner headlines about the 23 statewide drownings and 9 Kern River drownings. One sports writer had caption and copy that suggested to the less-than-careful reader that this was largely due to river running, particularly as exemplified on the Kern. He deplored the contribution of river runners to the otherwise declining accident record of "California's half-million responsible (small-craft) owner skippers." (Actually, the state's weekend drowning total exceeded 32, only 6 of which involved river running.) The numerous problems on the Kern were attributable to the influx of 20,000 people along a 20-mile stretch of the upper river (a white-water stream at 2800 cfs that weekend – nearing a normal May peak). People took to the river to escape the heat, some of them undoubtedly taking with them tubes, air mattresses, or rafts. Two people were seen thrown into the rapids from a tub or raft and are believed to have drowned*; the other fatalities were swimmers or waders. How this relates to serious river running or small-craft statistics has little more to do with anything than whether or not the victim happened to have a paddle in his hand. In the one case, he is a small-craft statistic, the concern of a state agency legally charged with responsibility in that area. In the other case he or she is forgotten, along with the larger number of swimmers, waders, and fishermen that drown as certainly but less glamorously in both lakes and rivers, to join the still larger statistics to which we have become accustomed on holiday weekends.

There is now a suggestion of restrictive legislation in the air. Being overlooked is the right of an individual to choose an activity that has an element of danger, possibly chosen for that very reason, and wherein the only danger is to that individual. This is being confused with the need to protect the public from complex products and the actions of other people in activities (such as motorboating) that are presumed to be safe. Indeed, in California each year 300 to 400 motorboats crash into one another in spite of such legislation.

In round numbers, registered boats (75% motorboats, 25% sailboats over 8 feet) kill 100 Californians every year. Inflatables add 20 to that figure, but could just as well be considered part of over 100 miscellaneous "recreational" drownings (there are also 450 "unspecified" drownings). This amounts to 1 death per 5,000 registered boats, compared to 1 death per 15,000 participants on the Russian or Stanislaus. Multiplying the rate by the total that drowned would indicate that as many people are using inner tubes, rafts, and canoes as own motorboats. While the calculation is questionable, the product is not altogether unreasonable. What is unreasonable is that these deaths seem concentrated in that group of casual boaters, and the rest of us know when and how they will occur and how they can be prevented.

*This is an example of drownings that may never become official statistics. The raft has not been found, bodies may never be recovered, and two other bodies were positively sighted in the Kern, and no one has been reported missing (a problem when a number of lone transients hitch rides into the area).
“By gar, Pierre, we have to lighten the load to save our lives! Help me drink the wine so we can throw out the barrel!”

PLEASE ENCLOSE A STAMPED, SELF-ADDRESSED ENVELOPE. . .

When writing to authors, affiliate clubs and other non-business sources of information whose addresses are in this Journal, please enclose a stamped, self-addressed envelope. Why should the folks who answer your questions pay for the privilege? Besides, they will be more likely to answer you promptly. THANKS.
TRY THIS

Recently I started using a different set of tie-downs that your readers might like. They are of 2" strips of truck inner tube joined by barrel loop to form a rubber chain. Results: lots of stretch and adjustment. The rubber clings to boats so that they don’t move and there are no more little metal hooks to let go or rip off bits of flesh. AND IT’S FREE.

Boraxo seems to be a better way to clean resin off hands or brushes as it breaks it down, unlike acetone which just thins it.

After a while any brush that has been only poorly cleaned will harden. This can often be cured by flexing the hairs (even with a hammer if necessary) and then cleaning with a large motor-driven coarse wire brush. You lose surprisingly little hair and anyway at that stage there’s no risk.

P.S. We still have lots of under-paddled rivers (grade 1-5) in B.C. Come and see. (Submitted by Ben Lemke.)

Readers’ contributions are solicited for this column. Send to Try This Editor. Michael W. Mutek, 446 E. 3rd South, Apt. B-2. Salt Lake City, UT 84111.

The Perfect $5.00 Gift
6 issues of American Whitewater 1975
PLUS (in time for Christmas):
Gift Notification Card
NOV/DEC 1974 American Whitewater
AWA Safety Code

AS WE MUST RECEIVE YOUR ORDER
BY DEC. 2
American Whitewater
P.O. Box 321
Concord, NH 03301

CLASSIFIED AD RATES: 30c per word. Send to AWA Editor, Iris Sindelar, 264 East Side Dr., Concord, NH 03301.

CANOE & KAYAK PADDLES — Handmade wooden slalom paddles by Keith Backlund, formerly craftsman with Dagger. Write for free information: WOOD-LYTE PADDLE CO., Rte. 1 Box 409, Boalsburg, PA 16827. (814) 466-7486.

CANOE INSTRUCTORS REQUIRED IN England (kayak) and France (Canadian) for short/long periods March-September. Details and Appl. form from Christopher Greene, P.G. L. Adventure Ltd., Station St., Ross-on Wye, Herefordshire, Great Britain.

SPRAY SKIRTS — $21 pp. Colors: blue, orange, black. Send waist size and colors. WHITEWATER WEST. 727 S. 33rd, Richmond. CA 94804.


FLOAT BAGS — Split bags: K-1 $16, C-1 $15. C-2 $21 postpaid. 15 mil reinforced vinyl. Add $1.50 for reinforced transparent vinyl bags. WHITEWATER WEST. 727 S. 33rd, Richmond. CA 94804.

RACING TIPS

This column, a regular feature of American Whitewater, is designed to help the novice racer develop better techniques. Each “TIPS” column will feature a specific slalom or downriver racing skill. Please send questions or situations you’d like discussed to:

Ray Gabler, AWA Racing Editor
151 Jensen Circle
W. Springfield, MA 01089

OFFSET GATE TECHNIQUES

By Dave Kurtz

Eddy turns, ferries, and reverse motion: these are the basic maneuvers that the slalom boater uses. Not to be left out from this list of skills is the offset gate technique. This technique is of great importance, but many paddlers do not know it as a specific technique. Its application, however, is needed at many points of a slalom race.

A group of offset gates can be most fully described as a series of three downstream gates with the first and third being on one side of the stream and the second on the other side. The prescribed pathway takes the form of an S shaped curve. This kind of sequence is usually placed in a calm stretch of the slalom course to keep the line of gates continuous, and to add interest to an otherwise lackluster situation.

When the gates are properly set, good paddlers are able to paddle directly through each gate. However, less experienced paddlers will use one or more backferries to complete the maneuver. Back ferrying is slower and actually puts one in a bad position for the next gate from the standpoint of momentum. The technique for kayak is balanced and symmetrical; that for canoes is unbalanced.
How about the strokes to accomplish this? There are three important strokes, two before the gate and one after. The first is a sweep on the outside, the second is a draw on the inside, and the third is another sweep or forward stroke. The first sweep actually changes the direction of the boat well before the gate. The draw is initiated in the bow and gradually moves all the way to the stern. The draw is held long enough to allow the stern to clear the pole before the third and final stroke is started. If the outside pole is to be ducked, the second stroke or draw is cut short and followed quickly by the duck-under sweep stroke. This duck-under sweep stroke is a quarter sweep done in the stern on the outside such that water is scooped up (boat pushed down).

That is really all there is to an offset maneuver: a three stroke technique where the turn is completed before the gate. When properly done in a well designed course, there is no need to back ferry between gates. Timing and execution are both important and they both take lots of training. Practice on smooth channel flow before expecting it to work well in a big race.

The Canoe Offset Technique
Because of the unsymmetrical nature of canoe paddling, the offset technique is somewhat different from that of the kayak. For this discussion, let’s imagine a C-1 competitor paddling on the right hand side. The movement of the boat for turns to the right is the same as for a kayak. The turn is completed before the gate. The stroke for the right turn is simply a draw. Initiated in the bow, it continues all the way to the stern. For-

*refers to the technique of intentionally ducking the end of the boat under the pole—a recent addition to slalom racing made more practical by the new slalom boats with low volume ends—Ed
ward motion is also developed during this stroke. Recovery is done in-water and is followed by a combination draw and forward stroke. At the next gate, for a left turn, however, the turn is vastly different (see Diagram 2). In this case the turn is done exactly in the gate itself. It is hopefully, a rather sharp turn. The stroking for the left turn is such that the key stroke is made when the boat is in the gate. While still heading away from the next gate, a pry is placed just forward of the paddler and the boat should turn sharply in the gate. The paddle recovery is quick, and the following stroke is really straight ahead. For C-1, the entire turn is one stroke, a pry.

For doubles, the movement is similar to that for a C-1. Let us suppose the C-2 team is paddling bow right and stern left. Gates where right turns are required are done as right-handed C-1 paddlers would do them. Turn before the gate. Left turn gates are executed in the gate as with left turns for C-1 paddlers who paddle on the right side.

The stroking for the right turn gate is as follows: At the point well above the gate, where the turn is started, the bow draws and continues to draw up to the gate. The bow recovers in water sharply around the gate in a semi-circular pattern. On the other side of the gate, the bow continues the draw with a very strong forward attack, pulling the whole boat through. The stern starts with a sweep. When the outside is on the imaginary line upstream from the outside pole, the stern stops the turn with a pry, and quickly chugs* forward ending each stroke with a sharp, quick pry. The stern may need 1-2 strokes to get up to the gate. At this point he prys through, being careful to miss the outside pole with the stern tip.

For left turns, the paddlers chug forward through the gate until the bow is just past the gate. At this point the boat is at an angle in the gate headed away from the next gate. The bow puts in a sharp pry and when the turn is completed, moves to short forward strokes, *Chugging is very strong, quick and short paddle stroking.

USISCA
1974
I desire to support the United States Slalom and Wildwater Canoe Team.
Name (print)__________________________
Address_____________________________________
Date_______________________________
Type of Membership:
☐ $100 Sponsoring
☐ 50 Supporting
☐ 25 Contributing
☐ 10 Associate
☐ 5 Paddling
Amount enclosed $_____________________
Amount pledged $_____________________
USISCA
State College, PA 16801
Box 921
Contributors will receive a decal.
possibly leaning out of the boat. When the bow places his pry, the stern executes a pushaway (reverse sweep). Just before the completion of the turn, the stern switches quickly to a draw so as to stop the momentum of the stern preventing a hit of the outside pole. This must be a strong stroke. As the stern person slides the paddle around the left pole, he continues to paddle forward to the next gate.

Here again, as in the kayak maneuver, the technique requires precise timing. The need for much practice on smooth channel flow is quite evident.
1974 RACE RESULTS

COLORADO RACES

POUDRE DOWNRIVER, JUNE 1
1. Nat Cooper
2. Brian Fitzpatrick
3. Tom Ruwitch
4. Ron Mason
5. Mark Macon

POUDRE SLALOM, JUNE 2
1. Ron Mason
2. Tom Ruwitch
3. Brian Fitzpatrick
4. Nat Cooper
5. Mark Mason

SALIDA DOWNRIVER, JUNE 16
1. Gunter Hemmersbach
2. Art Vitarelli
3. Tom Ruwitch
4. Johnny Evans
5. Nat Cooper

SALIDA SLALOM, JUNE 15
1. Ron Mason
2. Tom Johnson
3. Mike Jones
4. Brian Fitzpatrick
5. Steve Ruhle

SNOWMASS DOWNRIVER, JUNE 22
1. Dave Nutt
2. Billy Nutt
3. Bill Stanley

SNOWMASS SLALOM, JUNE 23
1. Sandy Campbell
2. Ron Mason
3. John Holland
4. Billy Nutt
5. Steve Ruhle

COLO CUP DOWNRIVER, JUNE 29
1. Dave Nutt
2. Billy Nutt
3. Bill Stanley
4. Tom Ruwitch
5. Nat Cooper

COLO CUP SLALOM: K1 SR
1. John Holland
2. Billy Nutt
3. Nat Cooper
4. Ron Mason
5. Dave Nutt
COLO CUP SLALOM: K1 W 1974 U.S. NATIONAL KAYAK
1. Candi Clark  
2. Linda Harrison  
3. Carol Fisher  
4. Bonnie Losick  
5. Mary Hesslgrave

COLO CUP SLALOM: K1 JR
1. Steve Kohler  
2. Tom Vosburg  
3. Hans Hoefnagel  
4. Mark Mason  
5. Matt Eland

COLO CUP SLALOM: C1
1. Chip Queitzsch  
2. Rodney Flynn  
3. Drew Hunter  
4. John Lugbill  
5. A Eland

COLO CUP SLALOM: C2M
1. G. Lhota & R. Dentremont  
2. R. Lugbill & J. Lugbill  
3. M. Garvis & S. Garvis

COLO CUP SLALOM: TEAMS
1. Bill Nutt, Dave Nutt & Steve Ruhle  
2. Nat Cooper, Mark Mason & Bill Clark  
3. Candi Clark, Linda Harrison & Cardi Fisher  
4. Tom Ruwitch, Brian Fitzpatrick & Ron Mason  
5. Sandy Campbell, Chris Wilson & Peter Wilson

ATLANTIC DIVISION SLALOM CHAMPIONSHIPS
Esopus R., Phoenicia, NY, June 1-2

K-1
1. Fred Hesselgrave  
2. (? )  
3. Will Siegfried

C-1
1. Ed Bliss  
2. Richard Church  
3. Warren Yeisley

K-1W
1. Mary Hesselgrave  
2. Audrey Alexander  
3. Joan McIntyre

C-2M
1. Yeisley/Yeisley  
2. Hesselgrave/Hesselgrave  
3. Stemmler/Thomas

1974 U.S. NATIONAL KAYAK SLALOM
CHAMPIONSHIP RESULTS
Arkansas R., Buena Vista, CO, July 13-14
30-gate course, 9000 cfs.

K1W
1. Candi Clark  
2. Jean Campbell  
3. Carol Fisher  
4. Linda Harrison  
5. Cindi Goodwin

K1J
1. Dan Isbister  
2. Eric Furrer  
3. Bill Cardoza  
4. Mike Teery  
5. John Sessler

K1M
1. Bill Clark  
2. Tom Johnson  
3. Manfred Parker  
4. Dave Kurtz  
5. Monte Smith

1974 WHITWATER RACING PROGRAM
Contains complete race schedule as well as paddler rankings and information about whitewater racing, races, racers and rivers.

$1.50 + .35 postage

Bulk orders of 25 or more may be obtained at $1.25 each postpaid.

Quantities may be obtained on consignment for sale at races and club events; distributors may keep 25¢ per program for their club or individuals. Help is requested at the local level for distribution.

Also available: colorful U.S. Whitewater Team posters at 1.50 each + .35 postage. Profits on the above items go to support the development of the U.S. National Whitewater Teams, slalom and wildwater.

Order from: FRED YOUNG
P. O. Box 246, Roscoe, IL 61073

American WHITEWATER
THOSE OF US WHO KNOW THE SMALL, STEEP
Arkansas R., Buena Vista, CO, July 6-7
streams of the Cumberland Plateau were
shocked and saddened by the death of Martin Begun, who took his own
life on March 26, 1974. Martin was a
boater of unusual courage and skill. While
a quiet person, he seldom carried a drop.
He was a part of many of the exploratory
runs on what is considered to be some of
the most technically demanding white
water in the East. Although best known
as a cruiser, he was also ranked number
one in C-1 Wildwater for 1973. While none
who knew him can ever understand why
he chose to end his life, we all know that
we have lost a paddler upon whose
strength and friendship we came to rely.
His spirit remains in the rivers he paddled
and loved so well, and in the hearts of
those who knew him.

C. C. W.
Everybody knows that in a boating accident you rescue people first, boats and equipment later. Sometimes this happens simultaneously but on occasion, while the swimmer is being rescued, his boat goes on down the river — to almost certain destruction — unless a quick salvage effort is mounted.

Heaving lines and reach poles are useless in this situation. A tethered-swimmer would be quick and sure (if one is available), but it is more frequently the personnel in rescue boats who bring in the derelict. Any who have tried it know that it is quite difficult to coax a swamped boat from the river current into a sympathetic eddy. (These are the people who most appreciate a boat with maximum flotation; a boat that floats high is much easier to land than is the deep one.)

Tandem rescue boats have a slight advantage over the solo boats in that one of the paddlers (usually the stern-man) can grasp the end of the swamped boat while his partner paddles for shore. Without special equipment, the rescuer in a C-1 or in a Kayak needs three hands — one for the loose boat and two for his paddle. Without the extra hand, he can only use his boat to nudge the drifting derelict along.

In Figure 1, the rescue boat is shown outfitted with a special tow-line that serves as the third hand. This rig is similar to one designed by Frank Daspet of the Canoe Cruisers Association in Washington, D.C., which Frank has used effectively at slalom races. It would be equally useful in any boat-rescue effort.

The tow-line consists of a length of rope with a large, easy-to-handle, snap-hook secured at one end. It should be about 10' long to allow 3-4 feet of space between towing boat and derelict. To rig...
this on the boat requires only two things:  
1. A secure loop attached permanently 
to the boat to which the bitter end of 
the tow line can be tied (Detail A). 
2. A length of shock cord to hold the 
small, flat coil of line and snap-hook 
(Detail B). 
Both of these must be within easy reach 
of the paddler. 
The tow-line should not be threaded 
through the grab loop (or any other 
guide) at the stern of the towing craft. 
Doing so seems desirable at first glance 
but when towing a load from this point 
(stern) the attitude or direction of the 
towing boat is difficult to control. 
To use this tow-line, the rescuer paddles 
to the derelict, reaches back to grasp 
the snap-hook, frees it, quickly attaches 
it to the end of the derelict and lets go. 
With his hands free, he can then strike 
out for shore. 
In the event the rescuer cannot reach 
shore quickly and finds that he is drift- 
ing downstream into a dangerous situ- 
atation, he may need to be free of the boat 
he is towing. To release this tow-line he 
simply gives a sharp tug on the free end 
of the (modified) slip-hitch (Shown in 
Detail A). 
A derelict lying low in the water exerts 
a very strong pull on the tow-line. This 
causes the tow-line to angle downward 
from the deck of the towing boat and 
this in itself restricts the maneuver- 
ing of the towing boat. With practice, 
the paddler will learn that to move the 
sterne of his boat under this line from 
one side of it to the other, will require 
slacking the line and flipping it over the 
sterne by hand. 
Practice will teach many things: 
Speed in approach and in attaching 
the tow-line is important. 
The attitude of the towing vessel in 
the current is very important. 
The direction that the rescuer should 
take after the hook-up is important. 
The type of paddle stroke to use: 
Long, powerful paddle strokes ahead of 
the paddler, preferably on the 
downstream side of the boat, in- 
stead of the short, racing, "chop" 
stroke. 
Help at the shoreline is desirable. 
Awareness of the proximity of down- 
stream hazards is imperative. 
The slip-hitch (Detail A) may have a 
tendency to bind as the bight of the line 
emerges from the loop. As an alterna- 
tive, Frank suggests a new model snap 
shackle available at most sailboat hard- 
ware stores. This shackle (Detail C) is 
released by tugging the lanyard at- 
tached to the release pin. (An older 
model was faulty in that the end of the 
shackle still "hooked" after release.) 
Anyone who might be inclined to try 
this tow-line salvage should be aware 
that securing their boat to a derelict in 
any way can be dangerous. In the more 
difficult water it is imperative that he be 
able to release the line quickly if neces- 
sary. Frank considers this so important 
that he now holds the free-end of his 
tow-line in his teeth. This has resulted 
in some head snapping, but he hasn't 
lost any teeth, so far. 
One last point — in boat salvage efforts 
the idea is to get the job done with the 
least difficulty. There are occasions 
when the water, although fast, is shal- 
low. A different approach is suggested 
for this. Jump out (literally) of your boat 
and you have two free hands for the two 
boats.
WEST COAST RIVER TOURING, by Dick Schwind. Touchstone Press, Beaverton, Oregon, 1974. 224 pp, $5.95

This is not merely the first authentic guide book to California’s coastal rivers, it is the culmination of one person’s determination to systematically explore every boatable stream from Oregon’s Rogue River 500 miles south to the Nacimiento River near Paso Robles, including those rivers flowing east from the Coast Range into California’s Central Valley. The book details 174 runs on 43 streams covering 1700 miles of waterways—an incredible accomplishment! This represents five years of averaging 200 miles of driving on Friday nights during the season, kayaking as many miles of river as possible, and returning to spend week nights writing up notes and preparing for the next weekend. For the author’s wife, Jan, it meant many weekends camping in the rain, paddling C-2, or driving shuttle, to say the least.

It is the author’s conviction that each river had to be run personally, specifically with the intent of writing a guide book description, in order to guarantee accuracy, reliability, and a consistency in the ratings of difficulty and scenic beauty. The data at the head of each description not only give the standard information on the length and difficulty of the trip, but the flow in cubic feet per second on which the difficulty is based, date of the author’s run, an estimated optimum flow, notes on the suitability of the run for rafts and open canoes, and the type of seasonal flow (dam-controlled, snow-melt, rain-fed). This is in sharp contrast to several books by professional writers and would-be river runners that have relied on second-hand river information and have only a superficial understanding of the vagaries and critical importance of flow. Even when such books give the typical season, the reader has a good chance of arriving at a river that is dry or dangerously high.

The coastal streams, in particular, present a problem in seasonal flow that often cannot be expressed in calendar dates. Into a dozen pages that belie the work, Schwind has packed an original study of stream flow, and that alone is well worth the price of the book. Graphs and tables enable the reader to correlate rainfall at principal towns with the flows that can be expected and the number of days it will take for those flows to decline to reasonable river-running levels (this may not be applicable to other regions unless the climate, vegetation, and soil are similar, but the methodology is of interest). The wild and dangerous fluctuations of a typical stream where precipitation can alternate between rain and snow are illustrated with hydrographs (flow versus time) showing the striking disimilarity between two consecutive boating seasons.

A table lists many of the Spring-runoff (snow-melt) streams and the earliest, average, and latest dates on which optimum flows have occurred over a six-year period. Hydrographs for a dozen dam-controlled rivers show their yearly flow patterns and reveal a curious uniqueness to each of the programmed releases.

The information and research in this book would be a steal at fifteen dollars. It is available in soft cover, with top quality paper, printing, photo reproductions, and maps, at $5.95.

– reviewed by Carl Trost

RENEW BY DECEMBER 31!

If your address is correct on the mailing label, just send it and your check to:

WHITEWATER
P. O. Box 321
Concord, N.H. 03301

American WHITEWATER
Don't wince at the title and the usual blurb on the jacket ("First, it is a guide to...running our magnificent rivers by canoe, kayak, or raft"). First, it is a fascinating account of nine classic waterways and river systems — their histories, legends, tall tales, headwaters, early explorations, indian wars, river characters, wildlife, and scenery — 300 pages, with quality reproduction of the photographs. Some accounts give details on the rapids, each concludes with a page of guide notes: location, access points, length, difficulty, season. The author has canoed at least part of the Buffalo (in Arkansas), Suwanee, and the boundary lakes of Minnesota, outboarded the Yukon, and run a small raft down the Big Bend country of the Rio Grande. He apparently was a raft passenger on the Rogue, Main and Mid Salmon, Lodore and Grand Canyons, and (I would guess) at the very least he took extensive notes from his raft crews about the Gunnison, Westwater, Dolores, Canyonlands, and Cataract. There is an interesting account of the Tarahumara Indians and how the author and friends, a camera crew, and Indian porters packed into a spectacular canyon of the Sierra Madre and ran, lined, and portaged the boulder fields of the Rio Urique with inflatable kayaks while the porters carried their gear along the shallows and bars.

Then there are 60 pages describing 106 river runs from Alaska to Central America. This required a lot of painstaking research of agencies, guidebooks, outdoor magazines, and the back issues of AWW. There are no pretenses — a listing of these sources, state by state, is given in an appendix, and the reader is exhorted to consult them. There is also a fine bibliography for additional reading on the principal rivers in the main text.

How good is the book as a river guide? This would take a committee to guarantee. Boaters with several years of experience within a region are always concerned as to how to explain the vagaries of seasonal flow and how to establish the difficulties of each river in proper relation to the others. The guide notes in the main text seem surprisingly good in this respect, yet the limitations of a one-time-adventurer/researcher do at times show through. Admittedly, this is an almost impossible problem for such a broad scope and general readership. For example, a warning of the "dangerous drops" for "experts" on the Rogue is not exactly amiss. However, the four-thousand "experts" that somehow get themselves flushed down the Rogue (mostly class III) each year could be in for quite a surprise on the other expert runs. When the book substitutes a "favorable season" of late May and most of June for Bill Winn's 850 to 1000 cfs (The Animas of the Colorado, AWW, Spring, 1968) how many readers will grasp the significance of "80 feet to the mile" and that there may be a critical range of snow melt whose occurrence can vary by more weeks than it is long? The 106 secondary descriptions inherently can be no better in vital information and selection than the existing literature available for a given area.

The author's work apparently predates the quota and advance reservation systems now being imposed on many classic western rivers, so take note.

Chapter one, "River Running," looks like a publisher's afterthought. It consists of nine pages, mostly on camping and equipment (fine for the commercial raft passenger), but the novice that
needs this kind of advice finds little about the hazards of river running than the nonsense about being in a "great deal more danger" while driving to the river.

Wild Rivers of North America is good reading and a tantalizing introduction to what the other regions of our continent have to offer. It is a quick and easy way to the lore that will enrich your river vacation. It is a valuable reference book and list of sources. And that is exactly what I believe the author intended it to be. — Carl Trost

For Better Service in 1975 . . .

RENEW BEFORE DEC. 31

send to:

American Whitewater
P. O. Box 321
Concord, N.H. 03301

Now available!

AWA SAFETY CODES (1974 Revision)

A guide to safe river boating in canoe, kayak or raft. Prepared and published by the American Whitewater Affiliation. A must for your club, school or business. 100 for $1.00, 50 for $5.50

Send self-addressed, stamped envelope for single copy. AWA SAFETY CODE, Box 1584, San Bruno, CA 94066.

HERE COMES BURT REYNOLDS AGAIN!

*Covers cost of printing and mailing
During its first year of existence ARCC (American Rivers Conservation Council) has established an impressive record of achievements. As Chairman of ARCC’s Board of Directors, I am appealing to all those who love and enjoy rivers to join and support ARCC and help us continue these important efforts.

Here is a brief list of the highlights of ARCC’s work in 1973 and 1974 river issues:
- helped formulate and then secure the passage of strengthening amendments to the Wild and Scenic Rivers Act.
- aided in getting bills introduced to have several rivers studied for possible inclusion in the Wild and Scenic Rivers System and testified at Congressional hearings in support of this legislation.
- carried out the major conservation lobbying to beat back weakening amendments to the flood insurance bill which is now law, and prepared an action guide to help citizens implement this most important new tool for river protection.
- helped in the successful effort to have the Chattooga River included as part of the Wild and Scenic Rivers System.
- made vital input to those working on land use and strip mining legislation to make sure these bills would provide maximum protection for rivers.
- presented testimony to scenic river field hearings on the Obed, St. Joe, Gasconade, Upper Delaware, Salmon, various Colorado rivers, and the Rio Grande.
- spoke out at annual authorization and appropriations hearings against disastrous water projects of the Corps of Engineers, Bureau of Reclamation, and the Soil Conservation Service which threaten rivers and streams.
- helped compose the fact reports "Disasters in Water Development" and the 95 THESES which tell what the federal agencies are doing to destroy America’s rivers.
- sent out timely alerts notifying concerned citizens of important upcoming hearings and votes on rivers.
- involved in workshops on river preservation in a number of sections of the country.
- provided assistance to administrators of various state scenic river programs.
- published a quarterly newsletter dealing with a wide variety of river conservation issues.

If ARCC is to continue its work, financial support must increase. If you are not already a member, please complete the form below. ARCC members are to recruit new memberships or to send in a special contribution.

Brent Blackwelder
Chairman, Board of Directors
ARCC
324 C St. S. E.
Washington, DC 20003

YES, I want to help protect our remaining free-flowing rivers.

Enclosed is my contribution of:

[ ] $5.00 — Student Member
[ ] $10.00 — Regular Member
[ ] $25.00, or more — Founding Member

Name ________________________________
Address ______________________________
City ________ State ________ Zip ________
Concord, NH where the printing is now done. George has requested relief from this thankless task, so from now on Circulation will be handled at this end while George continues as Membership Chairman and Surfing Reporter. He deserves a huge thanks from all of us for the incredible number of hours he has spent on AWA Circulation.

Please don't forget that American Whitewater is still manned by a VOLUNTEER staff and that your support and cooperation are needed now more than ever. Keep those letters, photos, articles and drawings coming so we can still offer you the best. Help insure that AWA Safety Codes are distributed as widely as possible. Show paddling friends your copy of the latest AWA Journal and encourage them to subscribe, too. And SEND IN YOUR RENEWALS BEFORE DECEMBER 31 so we won't have to pull your name out of the computer list only to reenter it later on. You will save us valuable time and effort, and yourself much exasperation, by renewing promptly. Remember to send renewals to this address:

AMERICAN WHITETR WATER JOURNAL
P.O. Box 321
Concord, NH 03301

In the future, renewals and new memberships will be acknowledged promptly by postcard so that you will know we received your $5.00. – ILS
AWA Affiliates, continued

MASSACHUSETTS
Hampshire College Outdoors Program
Eric M. Evans
Amherst, MA
Appalachian Mt. Club
Berkshire Chapter
Janice Wolcott
1004 Stony Hill Rd.
Wilbraham, MA 01095
Appalachian Mountain Club
Worcester Chapter
John Dryden
Grafton Rd.
Milbury, MA 01527
Foxboro Canoe Club
Bob Hartin
Foxboro Co.
Foxboro, MA 02035
Appalachian Mountain Club,
Boston Chapter
5 Joe St.
Boston, MA 02108

MICHIGAN
Raw Strength & Courage Kayakers
Mr. John Dice
2022 Day St.
Ann Arbor, MI 48104

MINNESOTA
Cascaders Canoe & Kayak Club
Steven Parsons
313 W. Calhoun Blvd.
Minneapolis, MN 55416

MISSISSIPPI
Bayou Haystackers
Gary C. Thomann
112 Girod Street
Waveland, MS 36587

MISSOURI
Arnold Whitewater Assoc.
John J. Schuh, Pres.
490 Pine Ct.
Arnold, MO 63010
Maramec River Canoe Club
Michele McNalley
2100 River Rd.
Kirkwood, MO 63122
Central Missouri State University Outing Club
Dr. Bruce Hawkesley, Rep.
Warrensburg, MO 64093

MISSOURI (Cont.)
Ozark Wilderness Watersways Club
Frank Lane
6729 Kenwood Ave.
Kansas City, MO 64131
University of Missouri Recreation Committee
Read Hall
Columbia, MO 65201

MONTANA
Montana Kayak Club
Doug Abele
MT 59416

NEW HAMPSHIRE
Appalachian Mt. Club
N.H. Chapter
Wayne H. Huff
175 St. Anselm's Dr.
Manchester, NH 03102
Franklin Pierce College Outing Club
Anthony Rice
Box 54; Franklin Pierce College
Ripley, NH 03461
Ledibauer Canoe Club
Jas. Feneux
Hartland, NH 03755

NEW JERSEY
White Water Tigers
P.O. Box 180
Ocean Port, NJ 07757
Mohawk Canoe Club
Gerald B. Pufcoek, Rep.
Jobstown-Wrightstown Rd.
Jobstown, NJ 08041
Appalachian Mt. Club
New York Chapter
Helen Chapman
RFD 1 Box 573
Princeton, NJ 08540
Kayak and Canoe Club
of New York
Fred Alexander, Rep.
66 Winlock Ave.
Evanston, IL 60211

NEW MEXICO
Rio Grande River Runners
Back Curry
2210 Central Ave. SE
Albuquerque, NM 87106
Albuquerque Whitewater Club
Glen A. Fowler, Rep.
804 Warm Sands 137, S.E.
Albuquerque, NM 87123

NEW YORK
Adirondack Mt. Club
Schenectady Chapter
Bert E. Biddle
Scherer 16, Netherlands Village
Schenectady, NY 12308
Hadley Whitewater Club
Richard Lange
1339 Rowe Rd.
Schenectady, NY 12309
Ka-Na-Wa-Ke Canoe Club
Arthur Miller
407 Beattie Street
Syracuse, NY 13224
Niagara Gorge Kayak Club
Douglas Hird
41-17th St.
Buffalo, NY 14213
Adirondack Mt. Club
Genesee Valley Chapter
Smith Rep.
789 John Glenn Blvd.
Webster, NY 14580
Genesee River Paddlers
AL Corbin
RD. 2 Proctor Rd.
Wellsville, NY 14895

NORTH CAROLINA
Carolina Canoe Club
Tom Erickson
Box 9011
Greensboro, NC 27408
Nantahala Outdoor Center
Frank Kennedy
Star Rd. Box 68
Byron, NC 28713

OHIO
Columbus Council, AYH
Joe Feichtner
14730 Indigo Ave.
Columbus, OH 43212
Toledo Area Canoe & Kayak
John Dunn
5837 Eldon St.
Sylvania, OH 43560
Keel Haulers Canoe Club
1649 Allen Dr.
Westlake, OH 44145
Cuyahoga Canoe Cruising Club
Chuck A. Tummonds
10465 SR 44, Box T
Mantua, OH 44255
Wilderness Adventures
Charles Comer
256 Forrester Blvd.
Dayton, OH 45419

(Cont. on Back Cover)
## AWA Affiliates, continued

### OREGON

Oregon Kayak & Canoe Club  
Box 692  
Portland, OR 97205

### PENNSYLVANIA

Canoe, Kayak & Sailing Craft  
Douglas Ettinger  
2122 Wood Street  
Wilkinsburg, PA 15221

**Philadelphia Canoe Club**  
R. Steve Thomas, Jr.  
3509 N. Colonial Dr.  
Hopewell, VA 23860

**Penn State Outing Club**  
John R. Sweet  
118 S. Buckhout St.  
State College, PA 16801

**Appalachian Trail Outfitters**  
29 S. Main St.  
Downtown, PA 18040

**Philadelphia Canoe Club**  
Dr. David Knight  
4900 Ridge Ave.  
Philadelphia, PA 19128

### RHODE ISLAND

**Rhode Island Whitewater Club**  
Rivet Bonnefont  
10 Pond St.  
Wakefield, RI 02879

### SOUTH CAROLINA

**South Carolina WW Canoeing Assn.**  
Jerry L. Paul  
3412 Harvard Ave.  
Columbia, SC 29205

**Savannah River Paddlers**  
Explorer Ship 12135  
Sea Scout 404  
1211 Woodling Rd.  
Aiken, SC 29801

### TENNESSEE

**Tenne-Tucky Lake Canoe-Camping Club**  
Phillips, Jr.  
612 Shiloh Ave.  
Nashville, TN 37206

**Tennessee Scene Rivers Assn.**  
Box 429  
Nashville, TN 37219

**Sewanee Ski & Outing Club**  
Hugh Caldwell  
University of the South  
Sewanee, TN 37375

**Tennessee Valley Canoe Club**  
Geo. M. Martere  
Box NI25  
Chattanooga, TN 37401

**Carbide Canoe Club**  
Herbert Pomerance  
104 Ulena Lane  
Oak Ridge, TN 37830

**F. Tenn. WW Club**  
Tom Berg, Box 3174  
Oak Ridge, TN 37830

**Choto Canoe Club**  
Anne Phillips  
3811 Woodhill Pl.  
Knoxville, TN 37919

### TEXAS

**Down River Club-Dallas**  
Eugene W. McCallister  
1412 Oak, 75214  
Irvine, TX 75061

**Texas Explorers Club**  
Bob Burleson, Rep.  
Box 844  
Temple, TX 76501

**Explorer Post 245**  
Joe D. Giddens III  
4745 Aberdeen Dr.  
S. Worth, TX 77406

**Explorer Post 151**  
Tom Sogn, Scoutmaster  
2006 Bedford  
Midland, TX 79701

### UTAH

**Wasatch Mt. Club**  
J. Deswell  
503 S. 800 West  
Salt Lake City, UT 84107

### VERMONT

**Marlboro College Outdoor Program**  
Malcolm Moore  
Marlboro, VT 05344

**Northern Vermont Canoe Cruisers**  
Edwin Amsden, Jr.  
625  
Shelburne, VT 05482

### VIRGINIA

**Canoe Cruisers Assn.**  
John Sessler  
1623 Seneca Ave.  
McLean, VA 22101

**Blue Ridge Voyagers**  
8197 Hill Crest Dr.  
Manassas, VA 22110

**Coastal Canoeists, Inc.**  
Tom Frink  
316-65th St.  
Newport News, VA 23607

**Explorer Post 999**  
R. Steve Thomas, Jr.  
3509 N. Colonial Dr.  
Hopewell, VA 23860

### WASHINGTON

**The Tacoma Mountaineers**  
Kayak & Canoe Comm.  
Bob Hammond  
3512 Crystal St.  
Tacoma, WA 98466

**Whitewater Northwest Kayak Club**  
Box 1081  
Spokane, WA 99201

### WEST VIRGINIA

**Wildwater Expeditions Unlimited**  
Thomas Dragan  
Br. 35  
Thurmond, WV 25552

### WISCONSIN

**Sierra Club**  
John Muir Chapter  
Jim Senn  
10261 N. Sumner Dr.  
Mequon, WI 53092

**Kawakea Lodge**  
John Weil  
5980 Dixson Ct.  
Greendale, WI 53129

**Wisconsin Hoofer Outing Club**  
Wisconsin Union Directorate  
800 Langdon St.  
Madison, WI 53706

**Wolf River Lodge**  
R. Charles Steed  
Wolf River Lodge  
White Lake, WI 54211

### CANADA

**B.C. Kayak and Canoe Club**  
1606 W. Broadway  
Vancouver, B.C., Canada

**Federation Quebecoise de Canoe-Kayak Inc.**  
819 Boul. de Maisonneuve  
Montreal (J2), P.Q., Canada  
H2L L49

### AUSTRALIA

**Indoorooyilly Canoe Club**  
Box 53h. Indoorooyilly  
Queensland, Australia

### NEW ZEALAND

**Gisborne Canoe & Tramping Club, Inc.**  
Tony Geard  
Box 289  
Gisborne, New Zealand

**Palmerston North Canoe Club, Inc.**  
Box 265  
Palmerston North, New Zealand

### SWITZERLAND

**Kanu Club Zurich**  
Otto Kosma  
8008 Zurich Dufour Str. 3  
Switzerland