ABOVE: The Six Mile, one of Alaska's magnificent streams that holds a challenging run for every boater. Clockwise from left, Ben White of Kwik Kanoers and Kayakers sinks into a small drop; Bruce Stafford models his infamous "designer jean shark boat" (note paddle peculiarity); KKKer Bill Wise hits the Middle Canyon; and the Six Mile's "17-foot Ender Hole", awaits another southern paddler to come and try. (Bruce Stafford photos)

Looking to Boat Alaska?

Author Andy Embick and Mike Buck are always in search of skilled boaters with an adventurous spirit to make first runs of Alaska's untouched streams. If interested contact:

Dr. Andy Embick
Box 1889
Valdez, AK 99686

Read of their Kotsina run page 15
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To Submit Articles, photos, cartoons. Deadlines are: 1st of: Jan, Mar, May, July, Sept, Dec. For issues 1 2 3 4 5 6 respectively. This includes Advertising. All photos will be returned. All manuscripts are subject to editing unless otherwise indicated.

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COVER: Ultimate Canoe Challenger Verlen Krueger portages part of his 28,000 miles. See interview on page 20.
On February 12th in Chicago, the American Whitewater Affiliation received an exuberant infusion of new energy and leadership. AWA staff and Board of Directors gathered there from all of the country to determine our Affiliation’s future and her place in the ever-expanding paddling community. The meeting was set between visits to the vast National Sporting Goods Association Show in the Windy City’s McCormick Place. Charlie Walbridge, ACA’s National Safety Chairman, and Eric Leper, Director of NORS attended, represented their organizations.

The whole feeling from all sides was that we wanted to make more of the Affiliation. AWA was originally founded to unite those interested in “wilderness waterways and the ways of whitewater”. It has been our traditional goal to protect these wild waterways and encourage new and safe whitewater interest on all fronts. So it should still be. But all agreed that AWA and its affiliates have not been striving for these goals with enough scope or effectiveness.

Whitewater has broadened so vastly — not just in numbers, but in types of craft, geographically, commercially, sources of training, and methods of sport introduction. AWA is bound to encourage all these blossoming aspects of boating. Perhaps the only juggernaut, greater than our sport itself is the river-obiteration threat, against which AWA (nor anyone else for that matter) has not done enough.

These are the problems which the current AWA Board met with this combination of new programs and new people:

- **Newly Appointed Executive Director Charles Andre.** Andre, an ecologist for several Kentucky consulting firms, is a founding member of the enthusiastic Bluegrass Wildwater Association. A five-year veteran in open canoe, C-1, and kayak, he boasts extensive experience on all the popular Southeast runs as well as expeditions to all parts of the country. To readers of BWA’s “Bow-lines”, he is known as “Rudolf the Red”. Charles will bestep into Phil Vogel’s old office overseeing all — making sure the safety codes, the Journal, its advertising and circulation, the new conservation department, the finances, and all parts of AWA are being handled on time and efficiently. Fortunately, AWA is not loosing Phil Vogel. Though no longer an officer, Phil will continue to handle the Club and Business Affiliate membership rosters and several other thankless, but necessary tasks. Speaking for all of AWA, this editor would like to thank Phil for the sweat, worry, and countless hours he has sacrificed to keep AWA alive and flourishing. We all owe you a great debt, Phil.

- **Amend AWA’s Lopsided Membership.** As a national organization for a wide-ranging sport, AWA membership distribution and often general emphasis has been too heavily East Coast with a seemingly exclusive K-1 focus. Newly elected Board member Ken Horowitz will be spearheading membership and service drives in other, more-neglected areas.

- **Conservation Watchdog.** In addition to support of ARCC and continued announcement of environmental issues in the Journal, AWA Directors voted to hire a professional conservation watchdog to work with a volunteer corp for river protection. Recently, Delafield DuBois was selected for this position. Del’s first taste of whitewater came at age two, when his father, one of the founders of AWA, took him down the Saco in New Hampshire. Ever since he has been a fanatical kayaker and occasional commercial raft guide. For the past decade, Del has been an active campaigner in Southwest environmental battles. His credits include the New Mexico Wilderness Study Committee, the Committee for the N.M. Wild and Scenic River Law, and the Alaskan Coalition. Del has vowed to work through AWA to raise the unknowing to awareness and the aware to action.

- **Organization Cooperation:** After discussion with NORS and ACA representatives, the AWA board decided it would not be beneficial to unite AWA with either of these organizations. However, all parties realized that cooperation in certain facets could double the effectiveness of both groups, particularly in conservation efforts.
Marge Cline Elected New Board President. After four years of grinding service, Pete Skinner with glee and gladness, stepped out from under the AWA top spot and turned over the Presidency of AWA’s nine-person Board of Directors to CWA’s own River Mom. Marge first began whitewater six years ago, with the Chicago Whitewater Association, and now edits that club’s newsletter, The Gradient. Two or three times a week, she loads several of her kayaks and perhaps her C-2 on her car and runs to pool session where she practices and helps introduce newcomers to the sport. (This distinguishes her as the area’s only rural mail carrier with a kayak-loaded cab.) All possible weekends, from the first runoff right through December are spent on the river — sometimes with her eight year old son (the three elder kids could not be converted).

All in all, Marge Cline has just the verve and efficiency that AWA needs at the top. She has a devotion to boating and a devotion to this organization that should really help, as we all want, to make more of AWA.

Introducing AWA’s new Board President — Marge Cline, our own River Mom:

Several years ago, I used to take a young fellow paddling with me quite often, as his parents didn’t enjoy the river quite as much as I did. David and I became fast friends, and he was soon calling me his “River Mom.” At Christmas, he surprised me with a gift — a shirt emblazoned in bright red letters that read — River Mom. Soon others picked up the monicker, and I found myself with a new handle, and many new “River Children.” People I had never met came up to me and said they had met my son or daughter on the river, and I had a tough time figuring out who they were talking about. The other day, shortly after the news of this election was out, one of my paddling friends referred to me as the “National River Mom,” and the enormity of what had happened struck home! My friend wasn’t quite sure if all my present river children liked the idea of sharing their mom. As the saying goes, “True love has no bounds,” and as the sport has become a real love affair, I guess they’ll just have to get used to the idea.

I discovered the AWA JOURNAL shortly after starting to learn about whitewater, and many of the ideas contained in these pages were extremely helpful to me as a neophyte. It was a national newsletter long before I came on the scene, and it will continue to be the very valuable forum it has become.

The Board of Directors, Bart, I, and other volunteers plan to have things well enough in hand to keep it arriving at your doorstep promptly. We would also like to see many of the former disgruntled AWA members return to the fold, and in addition to helping the membership roster grow, continue to send in articles so others may learn from your experiences. Whether we like it or not, this sport is growing, and if we want it to remain as safe as possible, newcomers and all river runners must be made aware of AWA principles.

As in any other volunteer organization, volunteers are always needed. Pete Skinner has done a super-human job over the past years guiding the direction of AWA almost single-handedly. Without his effort, I’m sure you wouldn’t be reading this. Now however, some new blood is needed — specifically, a new treasurer and a new advertising manager. If you think you have a talent in either of these directions and could spare the time, AWA needs you. Drop me a note and volunteer!

I am looking forward to the coming months and seeing what progress the new Board of Directors will make. Also, and more importantly, the timeliness of THE JOURNAL will be re-established. But right now, I just heard by the grapevine the ice is out, so..... SYOTR.

— Marge
Affiliates, send your newsletters to our Editor to help AWA stay current with your club's activities and concerns.

PHOTOGRAPHERS:
The American Canoe Association is looking for good-quality white and flat water photographs for its media file. These photos may be selected to appear in national publications and to promote ACA-approved events. ACA will assure proper use and give the photographer credit. Photos can be color or black and white shots of special effects, racing, cruising, decked or open boats. Please identify clearly on back the location, explanation, people involved, and photographer. Photos cannot be returned. Send to Joyce Malone, ACA Office, Box 248, Lorton, VA 22079.

BOAT BUILDING MORALS
Just like crucifixion, being attacked by killer ants, or any experience entered with total fear and loathing, boat building holds several inherent lessons for its victims. Several of such morals were discovered by Conewago Canoe Club's Delta Boat Works crew, which they willingly pass on after a winter of laying up eight solo open boats:
1. Resin fumes are not good for you and produce a lousy high.
2. Fiberglass makes you itch — forever.
3. The average boat requires 25 yards of cloth, two gallons of resin and one case of beer.
4. Wives get testy when husbands return at 1 am reeking of resin, mumbling incoherently about lousy mold release and rib replacement — then get up at 7 am to start over again.
5. No helper in the world is skilled or careful enough with your hull. (Most will deliberately sabotage when you're not looking.)
6. What works for other boats from the same mold will not work for yours.

7th DAM FIGHTERS CONFAB
On April 2-4, in Washington, D.C. the most vocal and the most expert people on all aspects of U.S. water policy and river saving will convene for the 7th Annual Conference on Rivers, Dams and National Water Policy. This is the biggest water/environmental conference of the year with 34 workshops and lectures including: Law Suits — Winning and Loosing in Court, Grass Roots Organization, Grass Roots Fund Raising, All about FERC, and (developing a) Biological Monitoring System.
This will be your chance to talk to the nations top environmentalists and to learn how to fight that local battle in the best possible way. The Conference is sponsored by the American Rivers

HELP WANTED:
Professional River Lobbyist
Conservation Council, Environmental Policy Center, River Conservation Fund, and the Environmental Policy Institute. You can pre-register with a $25 check to the River Conservation Fund, mailed to National Conference on Rivers, 323 Pennsylvania Ave. SE, Washington, D.C. 20003. Or you can just appear at the American Institute of Architects, New York Ave. at 18th St. NW in Washington. Sleeping bag lodging for Friday and Saturday nights is available on a first-come basis at $14 per night. Include price with your pre-registration.

OPEN BOATERS REMINDER

The 1982 Open Canoe Nationals will be held on the Lower Dead River in Maine on July 28-31, with the downriver on Wednesday and Saturday, and the slalom on Thursday and Friday. Sponsors are the Penobscot Paddle and Chowder Society and the Pejepscot Water and Ice Co. So don't forget to get in touch with the Penobscot Paddle and Chowder Society or the Pejepscot Water and Ice Co. for more information.

The Kennebec Gorge is next door and the Rapid and West Branch of the Penobscot are within easy striking distance. For a couple of weeks up there, you can stroke around while you wait to attend The Wooden Canoe Heritage Association Annual Meeting in Orono, ME on August 12-16. If you are interested in joining this organization or attending the meeting, contact Jeff Dean, Box 5634, Madison, WI 53705. (What a mixture: wooden boaters, whitewater-ists, and moose!)

Sell it in AWA Classified

What's Flowing in The Boating Community

Conservation Notes

OCOEE SURVIVAL LOOKIN' GOOD

To those who have spent the new year reveling and rolling in the Ocoee's unexpectedly bullish 2,000 cfs releases comes a ray of hope: The odds for the Ocoee's survival are picking up. Paddlers will soon be joined by the State of Tennessee in their flight against the TVA and its riverbed diversion plan.

With its usual gift for enmity, the TVA alienated the state in the following manner: In December 1981, the Tennessee Commissioner of Public Health told TVA it would have to file a permit before diverting water from the riverbed. (The Commissioner cited the state's Water Quality Control Act which prohibits "degradation of waters of regional and national recreational significance". The State Attorney General backed the ruling.)

In response, TVA filed suit to remove the matter from District Court, pompously asserting that no state can claim authority over the TVA. They are above the law. Even the TVA's own board member S. David Freeman has asserted the idiocy of this claim to the state Commissioner.

In the initial U.S. District Court hearing on this matter, on February 11th in Chattanooga, the Judge gave no definitive ruling, but told TVA to go back and search for "discretionary funding" to keep the Ocoee open. TVA is expected to claim they have no such funds.

Meanwhile, they are resurrecting a 1913 wooden flume and powerhouse to qualify the site for the National Register of Historic Places and thus give them a free hand. The old powerhouse will
Fluvial News

produce 19 megawatts upon 1983 completion, while using $26 million of ratepayer's funds and drying up four and a-half miles of Ocoee River which produces three million annually.

It is obvious the TVA is really reaching for this one and their chances are waning. If you want to help, send a dollar or two to the non-profit Ocoee River Council, Route 1, Ocoee, TN 37361. Also write Congressman John Duncan, 2458 Rayburn Bldg., Wash., D.C. 20515; and "Your Senator" U.S. Senate, Wash. D.C. 20510; and "Your Congressman", U.S House of Representatives, Wash., D.C. 20515.

— Thanks to O.R.C. & Dave Brown

HOFFMAN ENTERS THE ARCC

This past Fall, the American Rivers Conservation Council's Dave Conrad left ARCC to continue the good fight with the Friends of the Earth. For years a long and strong supporter of AWA, we wish Dave much success in his new position. Dave will be lecturing on Hydromania at the April 2-4 Dam Fighters Conference in Washington, D.C., explaining the ins and outs of FERC and PURPA.

Now, just a little over a month ago, Director Howard Brown also left ARCC, taking with him a vast stockpile of leadership and energy. To fill this gap, Chuck Hoffman, an ARCC Board member since 1978, stepped in as new Director of River Conservation for the national river lobby. Chuck originally began his conservation battling as coordinator for the Kentucky Rivers Coalition, where he proved very successful at uniting varied interest groups into a single effort, (no mean trick). His organizing method of "dealing through the people who have the most to loose from any project" made him equally successful as he moved to more national battles.

Pat Munoz, who used to run ARCC's river trips, has now taken on the job of Administrative Director and will be handling the funds for the River Conservation Fund, ARCC's fund raising arm. She will be assisted by Ron Vlaskamp.

GAULEY UPDATE

The Army Corps of Engineers are running into such a mammoth wall of objection over its Long Tunnel Diversion program that by now they probably wish they'd found another way to keep busy. This proposed hydropower project on the Gauley involves diverting the water from Summersville Dam, through a long tunnel, to a downstream point near Pillow Rock rapid. This project would cut the flow to 100-200 cfs, destroying one of America's most challenging and popular whitewater runs.

Responding to this threat, the West Virginia Wild Water Association, Canoe Cruisers Association, and others combined to form the Citizens for the Gauley River. Their letters, plus those from individuals, forced the Corps to extend its public comment deadline. In addition, the Gauley Citizens are trying to plug into the West Virginia Heritage Association and get the 26 mile segment of river and beautiful surrounding wilderness named as part of "Wild and Wonderful West Virginia".

Meanwhile, the Corps is promising mitigation by building a troutfishery and developing with special high-flow runs for Whitewater raft companies and private boaters. Exactly how one "mitigates" the destruction of 10% of such a beautiful resource remains a puzzle however. Realizing the immensity of the resistance, the Corps is now negotiating with several environmental leaders to work out some sort of solution. Reports are that we may end up far better on this one then at first gloomily predicted.

To help make the outcome better, send your opinion or contribution to Citizens for the Gauley River, Box 7165, Cross Lanes, W. VA. 25213.

THEY DON'T GO AWAY

If it's not for alleged "flood control", for hydropower, for political barter, or water storage, it's for the sheer Sisyphean reason of keeping engineers and union workers busy. But whatever the reason, water that moves is always
under attack. And the sad part is that repelling the forces of Damer once is no guarantee that they won’t be back tomorrow. The battles to save many of our major streams still go on, though the spotlight has turned elsewhere.

The Poontok. This much fished and paddled section of New Hampshire's Androscoggin River and the surrounding land were originally donated to the state for recreational purposes. A local developer then proposed a hydro-electric project that would divert the majority of that water from the river bed. The Poontok Defense Fund, headed by Jim Sindelar, 264 East Side Dr., Concord, NH 03301 was formed in response and legally challenged the project.

Meanwhile, the developer applied to the FERC fora license. The Appalachian Mountain Club and the Society for the Preservation of New Hampshire Forest's intervened. So FERC has just gone ahead and granted the permit without a hearing. But now the question lies in the hands of the New Hampshire Supreme Court, and the report from Jim Sindelar is that all looks hopeful. The judges seem favorable toward the idea that a dam is hardly recreational. The current legal expenses are all paid off thanks to private donations.

Saluda. Just upstream of Columbia, South Carolina, the Murray Dam of S.C. Electric and Gas holds back the waters of the Saluda River. Flowage easements owned by the utility just below the city have kept the banks totally undeveloped except for a charming zoo. The unusually clear cold water flows downstream of the city over the Fall Line and creates some magnificent whitewater and a rich trout stream.

Now S.C. Electric and Gas wants to build yet another dam below Murray Dam which would destroy this unique urban resource.

The local citizens are staging a great fight against this project. To help, contact and contribute to Save our Saluda, Stuart Greeter Jr., 7912 Clearwater Rd., Columbia, SC 29204.

West Branch Penobscot. On one of Maine's most paddleable rivers, the Great Northern Paper Company seeks to put in yet another dam to power its mills. The land in question basically belongs to the paper company, but does owning the land include owning the river? Application for this power project has now been made to FERC. To join the fight, contact West Branch Penobscot Coalition, Sandy Neily, Box 1173, Greenville, ME 04441.

Black River. In northern New York the small community of Hawkinsville will soon be inundated if the Black River Regulatory Authority has its way. The Authority's plan to build the Hawkinsville Dam would destroy some nice boating water and also force over 1000 people from their homes. Further, the Uniform Relocation Act of 1971 would not apply, leaving these people without one penny remuneration. To help, contact People against the Hawkinsville Dam, Jim Granito, 290 Elmwood-Davis St., Suite 300, Liverpool, NY 13088.

Upcoming Expeditions

Gotta place you want to paddle? Looking for boating partners? Make the hook-up through our AWA Expedition Clearinghouse.

WANTED: WESTWARD TREKKERS

Any boater in or near New Jersey seeking to head West and taste some Colorado whitewater the last two weeks in June, has just found him/herself a paddling partner. Plan to re-run sections of the Arkansas and other Class III-V streams, but am very flexible. Friendly housing is available for us at several points throughout the state. Will share driving and expenses. If interested, contact Bart Jackson, 7 Holland Lane, Cranbury, NJ 08512; (609) 448-8639.

(continued on page 34)
AWA BOOK REVIEWS
SOME POSSIBLE ADDITIONS TO YOUR BOATING BOOKSHELF

AWA constantly seeks new books and films on boating, the environment, and generally related topics. We welcome outside reviews from interested readers. Or, if you would like a book or film reviewed, just send a copy to the AWA Editor. (Please include book price and author biography notes if not listed.)

Soon to Come
a new
Saltwater Kayaking
volume
by Werner Furer

Werner Furer, AWA author and long time veteran of ocean paddling, has just compiled much of his expertise boating knowledge into a new book. The manuscript is finished and AWA will let you know as soon as the volume is available. Readers interested in an advance copy can contact Werner through AWA.

RIVER RESCUE
by Ohio Dept. of Natural Resources, Watercraft Division
80 pages, 8½" x 11", illustrated, $6.40.
Available from Vocational Instructional Materials Laboratory, Ohio State University, 1885 Neil Ave., Columbus, Ohio 43210; 1981.

This is an instructional manual, not a canoeing book, per se. As a switch, the canoeist is cast in the role of villain/victim, with the rescue squad wearing the white hat. Despite this view, this volume gives a great deal of valuable information about canoe and river rescue. The diagrams and explanations of the types of river hazards, and how one might go about performing a rescue from the hazard, are generally straightforward. The diagrams are all drawn with rowboats or rafts being used as rescue craft, but this would not deter anyone from using a canoe or kayak in a similar way. However, I do question the diagram showing a rowboat being surfed across a standing wave! As paddlers we realize that a canoe can rescue its own, and that simply sitting in a canoe does not entitle one to the appellation "canoeist" — two minor facts this book has missed.

Unique to this book is its explanation of the use of lines in the rescue process. It is also particularly strong on its explanation of the hazards below low dams and how rescue may be accomplished below them. That the author understands the situation is best illustrated by the following quote: "Indeed, if an engineer set out to design an efficient, unattended, self-operated drowning machine, it would be hard to come up with anything more effective than a low-head dam."

For anyone interested in teaching river canoeing, and more particularly, if you are involved in rescue squad work in which moving water rescue may sometimes be called for, this book is most valuable. It lists step-by-step units of instruction, equipment and its use, and the organization of a river rescue team.

Among several important points, it stresses practice "mock rescues" for training personnel. I find this point to be most significant, because we, as canoeists, have learned through experience how moving water behaves, and experience will also be the only way rescue personnel will learn the same. It's only been a few years since two rescue squad men, trying to make a rescue below a dam, on the Neuse River, were sucked up into it and drowned. "Do not allow the situation to arise" the book states, "where the rescue commander has extensive command management experience but little understanding of moving water."

Though it is recognized that most accidents will occur during the high, cold water weeks of spring, the need for speed in rescue, before hypothermia turns the exercise into a body recovery,
is not addressed directly. Presumably the rescue squad already knows all about hypothermia and its treatment, but they may not recognize the rapidity of its onset in moving water. Even with its shortcomings, I can still recommend this book to you for instructional purposes.

— Reviewed by Tom McCloud

Wilderness and Canoe Camping
by Cliff Jacobson
240 pages, 6¼" x 8½", diagrams, b&w photos, $6.95.

Starting with ABS and working his way to Zip-loc bags, the author has made a real effort to cover all the bases. Almost everything a person might need to know from selecting a canoe, to cooking supper, to reading the compass is mentioned. Indeed, for anyone totally ignorant about canoeing this book would serve as an excellent manual, and if Mr. Jacobson's instructions were followed, it is probable a successful trip would result.

This book is, in fact, one of the best comprehensive texts I've seen, due in large part to the fact that he sticks mostly to those topics needed by a person who wants to do wilderness canoeing, as the title states. Many times the treatment of a subject is short when more could have been said, and don't expect to be enlightened by his discussion of paddle technique. He stays almost completely away from white-water, which seems quite appropriate based on what is there. But the real strength of this book is that it tells you how in detail. From tying a non-slip knot to rigging a cooking tarp to portaging a canoe with the aid of a tumpline, there are many good hints learned only through experience, which the author clearly demonstrates he has.

The author, being a Minneasotan and having done most of his tripping there and north into Ontario, seems to have an upper-midwestern view of canoe tripping. His book could be improved if this restricted outlook could be overcome. We all develop certain prejudices and preferences based on our canoeing experiences and in some cases, I definitely disagree with the author. But if a book's value can be judged by the number of times it gets picked up after it's once been read and used as a reference, then I anticipate this volume to be quite valuable indeed. I consider it a most worthwhile addition to my library.

— Reviewed by Tom McCloud

WHAT'LL PACK 'EM IN AT CLUB MEETINGS?

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That's right. AWA now offers Affiliates, clubs, and individuals a list of 125 WHITESTATER BOATING FILMS covering such subjects as:

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Rescue Race Events

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THE BARK CANOE
A Labor of Love and Craftsmanship
by Ralph Frese

The canoe as a recreational toy or a platform for athletic performance represents only the tiniest fraction of the craft's history. In its incredible and vast varieties, the canoe has been the major water transportation for man ever since he had goods to carry. Few people are so vividly familiar with these varieties as Ralph Frese, expert canoe historian, blacksmith, and owner of Chicago Canoeeland. In his shop, smithy, and premises, Ralph houses over sixty-five antique boats (ranging from Polynesian dugouts to Voyager bark originals), and replicas, many of which he made the traditional way with traditional tools. If you saw television's version of Mitchener's Centennial, you saw Ralph Frese's magnificently crafted replicas. (Bet you never noticed Hollywood's ruination of his historically accurate touches.)

In 1973 Ralph was asked to create a replica of the bark canoe used by Jolliet Marquette for an re-enactment of his trip. With an astounding sense of artistry and attention to detail, he produced the boat shown above. Here's how he did it — and the others that followed.

"30 some odd years ago, I was developing a canoe building program for the local Scouting scene, when a thought occurred to me, "How can one make a canoe that is different?" I am sure that every builder or manufacturer has had the same idea at one time or another. Originally I had acquired a bark canoe built by Hafeman of Big Fork, Minnesota, and the concept began to grow of developing a realistic likeness of the historic canoe of old. It was only through the production of several such boats that all the techniques were honed. But a process now exists that is historically true and repeatable.

The first challenge was to create the bark design onto fiberglass. Initially, I applied the pattern by a silk screen process to a fine glass cloth and laid it into the mold. However, the slick finish of a glass boat did not look like bark, so, to achieve a slightly irregular surface, the craft was built without the bark pattern as a design overlay. Instead, panels of "bark" were cut and used, each corresponding to the panels used in the construction of a real bark craft. Each panel was shaded light to dark and varied in shade from each other.

To heighten the realism, pitch was
applied over the seams for an additional three dimensional effect. The canoe was trimmed out carefully following information gleaned from The Bark Canoes and Skinboats of North America and other sources, utilizing sitka spruce for gunnels, seats and thwarts. All gunnels were lashed with genuine artificial split spruce root lashing made from a vinyl extrusion. The thwarts were mortissed into the gunnels, Indian fashion, and lashed into place. The overall effect was getting better.

Later, I was asked to build a 20 foot Canadien for Tom Thalman of Green Bay, Wisconsin. He wanted a "bark" finish and, as he lived in a historic area first visited by Jean Nicolet, I thought an early type of canoe would be appropriate. I decorated the craft in the old way by simulating "winter bark" designs. When traditional builders of these canoes took the bark off birch trees in winter, the reddish winter bark came off also. They would then create designs along the boat's sides by scraping away the rough reddish bark to expose the lighter summer bark. Thus, the pleasing patterns and pictures were made. I attempted to duplicate this effect by adding the reddish brown rather than removing it.

The canoe above is pictured along the North Branch of the Chicago River. Later, I also built replicas for the 1973 Jolliet Marquette Tri-Centennial Re-enactment and the 1976-77 LaSalle Expedition II. Each craft, in accord with traditional loading, carried four men and 1000 pounds of gear. Because the two expeditions were extensively photographed and documented, those canoes had a hull thickness approximating that of a real bark canoe. Structural integrity was provided by hand split and shaped white cedar ribs and planking. Gunnel caps were pinned onto the gunnels with hard rock maple pegs. Details even included root-lashed stems and headboards, in case someone checked closely.

This attention to detail and the attempts to reproduce the historic bark canoe of the North American native and the early European explorers paid off. These eight craft (all replicas of the craft seen above) were paddled by our modern day voyageurs over 1000's of miles of Midwestern waterways, calling attention to the fact that our history began with the bark canoe coming out of the North — not by the covered wagons rolling West or the flatboats coming down the Ohio."
Andy Embick, a rock-climbing MD and his paddling partner Mike Buck, an *ex-National* water ski jump champion and top wrestler, truly represent the Alaskan exploratory spirit which calls for paddlers "more fit than cautious": They started paddling in the spring of 1980, learning out of a book since the nearest paddlers to their Valdez home were 306 miles away in Anchorage. In two seasons they have honed their skills to handle Class V+ competently on the remote northern rivers. In this article, Andy describes their paddling turf and a typical exploratory trip.

"Nasty, brutish, and short" — for Thomas Hobbes, this described life, and for the Alaskan paddler, this describes the Wrangell Mountain's rivers. Storms churn year round in the Gulf of Alaska. slam against the encircling Wrangell, Chugach, and St. Elias peaks, then rebound carrying foul weather as far south as California. On a winter's day up to 12 feet of snow can fall on the slopes; in summer 56 inches of rain will drench down in fifteen days. Vast glaciers and icefields seasonally grow, then melt creating rivers by the score.

Most will add their water to the Copper River which, upon reaching Cordova, dumps 300,000 cold, silty cfs into the sea. Dropping five feet per mile at nine to 12 mph. Its 200-mile length is navigated annually by a couple of dozen boaters downstream and several hundred million salmon upstream.

A few major tributaries feed the Copper, like the Chitina which drains 19,000-foot Mount Logan's western flank, but the real exploratory paddling challenge lies in the scores of smaller ones — thin blue lines on the map that run from the May breakup until the snow begins in October. Most of these drop out of the mountains, often springing full grown like Athena from Zeus, from the snouts of glaciers. They course down the foothills at 50-100 feet per mile and racing at 10,000 cfs, murky gray with glacial silt, cut vertical-walled canyons and rumble boulders along their beds.

**Can they be run?** Many can't for miles at a time. Rock walls close in and squeeze the water to a few feet wide. obstructed or even hidden by boulders. They typically run unrelentingly for miles, with none of that pool-and-drop security. In three hours of scouting such
tributaries by air, Mike Buck and I found only one less than Class VI. (Another appeared likely except for the near-guarantee of a 12-mile swim through VI+ for the paddler foolish enough to start and unlucky enough to dump near the top.)

But new runs in this area are being pioneered all the time by kayakers who are more skilled and fit than cautious. Four new runs on Copper tributaries were discovered and made in 1981 and several more were scouted by air for 1982. The Kotsina is an example of the wealth of first-runs available to the energetic.

Mike Buck found it. First on the map, then on a winter trip south of Mount Blackburn. After checking, we discovered that the Kotsina was accessible 22 miles upstream from where it joined the Copper at Chitina. A miserable old mining road led us 15 miles into the foothills and down to the river from McCarthy Road. The short section we could see before it disappeared into a canyon was not extreme, but luckily we decided not to run it until we'd had a chance to scout it by air.

So later, from a steeply banking Super Cub, I got some views of it hundreds of feet down while the pilot twisted through the narrow Kotsina canyon. If you ever try to fly over and record all a river's trouble spots by shooting on one side of plane, then the other, with two cameras, you will find it very hard to get any feel for the streams overall difficulty, and even tougher to pick out landmarks.

After my high-flying once over, the trip team got together for my scouting report. Mike and I would be running with Jim Lokken and Steve Jordan from Fairbanks. Jim is a chemistry student and top cross-country skier at the University of Alaska, and Steve, our group's most experienced paddler, is an Alyeska pipeline technician. The only thing I could tell them was that there were no waterfalls and that the middle section of the 22-mile run seemed the most difficult. The three rolls of film I shot never got back in time, so we went blind, relying on what I remembered from the air and the sketchy map.

We rendezvoused on a drizzly Friday night at Silver Lake on the McCarthy Road, Jim having hitched with his boat to get there. Loading the boats into Mike's FWD truck, we bumped and ground up the Kuskulana-Nugget Creek Road closer to the southern flanks of Mount Blackburn. Finally we saw the put in. The river having risen a couple of feet, raced by at twenty miles an hour, grey not just with silt, but with gravel in suspension. The rumble of boulders moving on the bottom could be heard above the roar of the river, and a light rain was starting, bringing some fog with it. We got ready as best we could, with full wet suits, quarter-inch is favored for farmer johns) and wire cage face pro-
Our nerve was no longer in tact, we were cold and getting slower to react.

tection for Jim and Steve. I'd put three-eighth-inch bunjie cord in my spray skirt, expecting violence.

Butterflies and trots churned within but at some point it was now or never and we pushed off, heading for the first blind turn. The river started with a moderate pace but over the next two hours it picked up speed and steepened to 100 feet per mile. (The average is 46 fpm over 22 miles). The canyon walls rose to 700 feet and narrowed this 5,000 cfs river down to twenty-five feet in places.

The increase in difficulty was steady but unrelenting. Soon we were looking for eddies but not finding them or else being unable to get to them. There was just no way to stop. How much harder was this going to get? We rocketed around a series of almost 180-degree turns and then felt the river drop out beneath us. Suddenly, in a distance of 50 feet, we plunged down 20 into a maelstrom of riverwide holes, boat-high waves, and froth.

With no spaces between rapids, we churned through five miles of almost uninterrupted difficulties. We ran downstream out of sight of the others, unable to stop or pull out except at a couple of places, getting pinwheeled through the air by breaking waves, and being thrashed in holes only to roll up and get blasted again. Mike’s paddle popped out of one hand as he was partway through a roll. He finished with a hand roll, then regrabbed.

I was hanging on upside down at one point, felt quiet water, and, at the outside of a turn half way down a drop, rolled up in a microeddy, grateful to have stopped there rather than smash against the wall further down. We did stop once, to rest, exchange horrified glances, and conclude that if it got harder we would abandon the boats and climb out.

We squatted down and ate, searching the map to figure out whether we were starting or finishing the difficulties. We just couldn’t tell one way or the other. Our nerve was no longer intact, we were cold and getting slower to react. We tried to do some scouting, but working through the bushes along the cliffside was slow and tiring and the foggy drizzle blotted out visibility, so we went back to the boats.

We chose to paddle on, and shortly faced the final major drop. Steve charged ahead, slammed into a hole, and got thrashed unmercifully. His Hollowform filled with water and he was unable to maneuver well. He soon lost his boat, but clung to his paddle as he swam a half mile. Climbing out of the steep canyon, some hard scrabbling forced him to abandon his paddle. Fourteen hours later he reached the road, wetsuit bottles trashed, backs of his knees rubbed raw, and hungry. He had tried to stop to sleep but had gotten too cold.

The rest of us finished the run, with steadily lessening tension as it appeared that the difficulties were easing off. We hit the takeout grateful we’d gotten through and with a stroke of luck found Steve’s boat intact on a gravel bar where the Kotsina joins the Copper. After a quick change and a blow-dry in the chilly wind that comes up the Copper River valley, we took in some of the folk music, burritos and beer available at the Chitina Festival, topped it off with Jack Daniels, and crashed.

The postscript to this run is that a month later, in August, Steve Jordan and I came back to the Kotsina with none other than the AWA’s Pete Skinner, who was touring Alaska. The level was down somewhat lower, so expecting less difficulty I reluctantly agreed to try it again. I was wrong. Many of the holes and rocks, washed out on the previous run were now exposed. Pete, after the first particularly bad section, pulled out and asked me, a little querulously, whether I was planning to run any more similar sections without scouting. I said something like "I lose my edge if I spend much time getting cold and tired scouting", just wanting to get it over with. He said he’s going to spread the word to

(continued on page 35)
Trish Bowen is the wife of World Champion C-2 paddler Steve Garvis. Less than a month before they were married, Trish and the entire Garvis entourage traveled to Bala, Wales for the 1987 World Championships. She spent July watching her future husband and his twin brother Mike train and then capture the individual C-2 World title as well as a bronze in the team event. She graciously allowed AWA to excerpt this small section of her spectator's diary which includes the moment of triumph.

Twins, friends, partners, and champions. That's the stuff of which our World Champion two-man canoe team is made. Steve and Mike Garvis, 22 year old twins from Great Falls, Virginia, have been a team from the start. Their 9 years of C-2 training paid off on July 22nd when they captured a gold medal at the World Championship in Bala, Wales. 

Competing against the best paddlers in the world, the twins coupled their talent and drive to excel on the slalom course. In slalom racing, time is the essential factor in determining a winner. According to team coach Bill Endicott, any paddler at the World's is capable of winning. The World Championship is a biennial event, and as Steve Garvis said, "For each paddler, those few minutes on the race course represent two years of his life".

In slalom racing, precision as well as speed is needed to navigate a series of 30 sets of poles hung over a race course approximately a half mile long. The gates must be navigated in correct sequence and direction. Some gates are downstream, some upstream (battling the current), and some reverse, requiring the stern to enter before the bow. Five penalty seconds are added for each pole touched, and 50 seconds for a gate missed or navigated in the wrong direction.

The "Garvi," as the twins are called by their teammates, landed in 12th place after their morning race. France's Calori...
brothers had taken the temporary first. In the critical hours before the second and final chance at the gold medal, they prepared for "the ultimate run". A paddler's ideal is not only to win but to know that he has done his best on the river. The twins studied the course, analyzed their morning contest, and discussed every detail which would help them achieve "the ultimate run".

As the Garvis brothers lined up for their second run, the Calori's first run still claimed the best time. The twins' family and friends watched the boys start and make a fast run which appeared to be very good. As they crossed the line all listened anxiously for the results of that telling second run.

Then came cheers from the crowd as the announcer stated there was "a new leader on the score board". With heightened anticipation, all eagerly awaited the name of Garvis to flash up as new first place C-2 champions. At last it came, and the spectators screamed, shouted, and hugged each other.

But the race wasn't won yet. The reigning World Champions, Dieter Wellsink and Peter Czupryna of Germany, friends of the twins, had not yet completed their second run. Neither had the Calori brothers.

The spectators and members of the U.S. team watched in anticipation as the Caloris approached gate 26, one of the toughest on the course. The tense moment came as they negotiated the gate in the wrong direction, adding 50 seconds to their time. Thus, their first run time would surely be their best. And the Garvis brothers had already beaten that. The crowd surged to the result board as the final times came in. Wellsink and Czupryna placed second, just seven seconds behind the twins. In the excitement of victory, the mud, rain, and cold were forgotten. The Garvis' winning time was the fastest of any C-2 on the course. They had made it — The Top of the World.

In addition to the gold, the twins won a bronze medal for the U.S. C-2 team race. For Mike and Steve, the gold and the bronze came as the reward for a long history of training. The twins took their first family canoe trip at age 13 and soon after began training and competing. From the start of their paddling career, they constantly strove to design and build better boats while rising through the ranks by winning races all across the United States.

The Garvis' first international race came when, at age 17, they competed in the World Championships in Spittal, Austria. There they took the paddling world by surprise as they combined innovative boat design with boating skill to take fourth place. The 1981 Worlds U.S. C-2 was a team-design effort which all paddled and won the U.S. members first, third, eleventh, and nineteenth. With this performance and a team bronze, the design was immediately sought after by several European boat manufacturers.

This gold was the highest of many boating firsts for the twins. Steve and Mike were the first team ever to rank high with the new close-cockpit design they used in Spittal. Theirs was the first U.S. boat ever to win a Europa Cup race. They were also the first U.S. C-2 ever to medal in an individual or team event at the Worlds.

Interestingly, though they have been ranked first in the United States for the last four years, the twins have not yet ever won the U.S. Nationals Championship. That's a first which must wait for another year. But above the triumphs, it has been Mike and Steve's dedication and hard work that has made us proud to have them represent this country and bring home the gold.

(To add a final touch of romance to an already incredible tale, on that race day last August, 1981 in Bala, Wales, Steve Garvis married his high school sweetheart, Trish Bowen. And rumor has it they are living quite happily ever after.)
Personal Profile:

VERLEN KRUGER

An interview with the Ultimate Canoe Challenge's Elder Half

Few journeys made today can be aptly labeled epic. But right now, Verlen Kruger, with his son-in-law Steve Landick, is stroking his way through an expedition whose scope and difficulty rival those of Jason, Xenaphon, or Captain Cook. The Ultimate Canoe Challenge, Steve and Verlen's 28,000 mile odyssey through North America, is the longest known trip ever made by canoe. Yet unlike most legendary voyages, the travelers planned their venture out of personal choice, strictly for the sake of the experience.

The goal of Steve and Verlen's ultimate challenge was to "rediscover North America and to express our deep love of freedom...and adventure found in traveling by canoe. For Verlen Kruger, adequate expression of this love will require over 24 million paddle strokes, 653 portages totaling 523 miles, and a three and a-half-year journey longer than the Equator.

The expedition began in April, 1980 at Red Rock, Montana when they put in near the source of the Missouri. They shoved off, setting a speed record downriver along the Lewis and Clark Trail to St. Louis, then up the Illinois River, through the Great Lakes, down the Erie Canal and Lake Champlain. They then paddled up across the St. Lawrence and circuitously across Maine out into the Bay of Fundy. Once out on the Atlantic, they followed the entire east coast south, down around through the Everglades and up along the Gulf coast where they turned right and spent the next 83 days plowing up the Mississippi to its source at Lake Istasca, Minnesota.

Leaving the Mississippi, they paddled and portaged northwest across Canada, along the old fur routes through Winnipeg and Great Slave Lakes—down the McKenzie River into the Artic Ocean to the northern trip-point at Tuktoyuktuk, Northwest Territory. Then onward, south across Alaska, down the Yukon River, and smack up against the torturous Chilkoot Pass, separating them from the Pacific Ocean.

It was here, at the end of 1981, after 17,260 miles, Verlen and Steve took their first rest. They returned to their homes in Lansing, Michigan to see their wives, raise some much needed funds, and take the first real layover from a canoe trip whose length has already exceeded all others. During this winter respite, AWA got in touch with Verlen Kruger and he graciously consented to give us this interview. Instead of finding some paddle-crazed adventurer who'd try anything once, we met a very warm, modest gentleman full of a quiet, spiritual joie de vivre and a tremendous boating and outdoor expertise.

That Verlen launched this incredible journey at age 60 seemed to bother him a lot less than others. Throughout his life there are few trades and adventures he's left untried. He grew up as one of 11 in an Indiana sharecropping family, entered the Army in 1942 becoming a tank driver, an Air Force Cadet, then a fighter pilot. Since his release from service in 1947, he and his wife Jenny have co-founded the Church of the Open Bible in St. Johns, Michigan. He has been farmer, lecturer, salesman, and currently owns his own plumbing business with son-in-law and paddling partner Steve.

But since 1965, long-distance canoeing has been his full time avocation. With Steve as partner, he has won the 500-mile Texas Canoe Marathon, The Canadian Pro Championships and several others. For pleasure, he has made dozens of expeditions through the Boundary Waters and Canadian Wilderness area. One of these included The Cross Continent Canoe Safari: a 7000-mile jaunt from Montreal to the Bering Sea in just 176 days. That the Ultimate Canoe Challenge is attempted at all is an
amazement. But if it must be tried, few indeed could bring more expertise, experience, and will to the task than Verlen Kruger and Steve Landick.

**AWA:** Verlen, every paddler who has read of your exploits in AWA or your newsletter has lain in bed at night and fantasized about taking your journey. How did you, above all others, bring this dream to fruition?

**Kruger:** Well, so many people have said to us 'Boy, I wish I could afford that trip, I'd love to do it.' Actually, most of them could 'afford it' a good deal better than us. They just weren't willing to cash in the insurance policy, the stocks, and sell the business. We were and we did — we really went to the wall for this trip.

**AWA:** I'm sure the rewards have matched the sacrifice. I understand that just before you came home in October for your winter layover, you and Steve got a little separated and your boats now lie either side of Chilkoot Pass, near Skagway.

**Kruger:** Steve and I are a team. We had paddled every section together right up until Headwater Lake at the top of the Yukon River. At that point, Sarah, Steve's wife (flew in and) joined us and she and Steve had planned to backpack the area for a short while. I finally started out from the small town there, thinking Steve would soon follow — even within a half hour. After a while, I waited, but Steve stayed in town.

All this while, Phil Pemberton and the crew of his independent film company were following me in a large freight canoe. They, of course, wanted the two of together. But it got a little rough and they flipped and I spent the rest of that day helping them patch their boat. The next day came with still no Steve, so I and the film crew moved slowly into Bennet Lake. It was getting rough, a storm was brewing, I didn't know that meanwhile Steve was waiting in town waiting for the storm to end, the locals were telling me to get through Chilkoot or it would soon be too late. It was a tough decision, but I started out over the pass. It started to rain, but I got through the pass and carried my boat down to Skagway. (33 miles often so windy that the boat had to be dragged because it couldn't be lifted.) It started to snow, but...
"A double blade demands more energy than you can supply for the long haul at high speed. A canoe is better and faster."

Steve at last came across Bennet Lake and began the carry. His boat now lies within five miles of the Chilkoot summit.

**AWA:** Obviously, a journey with this kind of challenge is the type of thing not undertaken on a bar bet. What first planted the seed for such a trip?

**Kruger:** Well, about 1975 I had the idea for the trip planned: I wanted to paddle a very big trip — maybe a year — covering the north and south tips of the continent. Then, I talked with Steve and we decided to do it together. Different plans blossomed and together we came up with a pretty thorough tour of North America by canoe.

**AWA:** And your goal became this rediscovery of the continent?

**Kruger:** The real goal and challenge was the experience, the voyage as a whole. Seeing if you can physically do it and trying to see records for certain sections are part of it, but just the frosting on the cake. When I get home, I want to feel what North America is like today — not the official slant, but a real and frank view.

**AWA:** And what special perspective has the canoe brought to this rediscovery?

**Kruger:** The canoe is a tool with immense enjoyment potential for everyone in our society. It is also a very legitimate means of getting around. It's a shame people think of 'real' transportation as something only with a motor. Also, when I travel by canoe, it is a novel experience — I feel like an alien coming in from outer space. I have a much greater overview. It's interesting, the people you meet by canoe are wholly new. They show you different dreams and philosophies that you'd never learn on the street.

**AWA:** Did you have many boaters accompany for portions of the trip?

**Kruger:** Some. At first we thought we'd have too many. But as it has turned out, our company has been rather scarce. Some were probably afraid of the pace. But I might add we have always had the most agreeable kind of folk travel with us. The fishermen and tourists generally don't want to tag along. We love to have people paddle with us.

**ASA:** Has anyone accompanied you for a long section of the trip?

**Kruger:** Shortly after we entered Canada, Mark McKorkel joined us for several weeks. We met at International Falls and he was heading for 'somewhere in Alaska.' His plans were indefinite and he altered them to go with us.

**AWA:** Is your pace really that fearsome?

**Kruger:** Oh no. Our pace isn't that fast, we just go longer hours than most. But we are very flexible. When Mark was with us, he said he was having trouble, so we asked him to set the pace. Almost everyone has no trouble going with us.

**AWA:** But you do claim long hours. Give us an example of your average daily schedule. How much of it is paddling?

**Kruger:** We really don't have a standard schedule. We are very flexible. Sometimes we paddle straight for 24 hours if the weather is right. But then we might lay off entirely for the next 24 hours. It depends on weather and mood.

**AWA:** Why not a kayak, then, or at least a double blade. Two blades are faster than one, right?
Kruger: No they’re not. A double blade demands more energy than you can supply for the long haul at a high speed. A canoe is a better and faster paddling system over great distances.

AWA: There are a lot of racers who would disagree with you.

Kruger: In a canoe, I can catch any Olympic kayaker. It may take four hours to all day, and of course they’ll take the start. But the canoe will catch up.

In the Texas Marathon, a 400-mile race, you can enter anything you want, even a rowing shell or K-4. The kayaks started first, with us in a 17-foot aluminum canoe one hour-and-a-half behind. Within 12 hours we had passed every kayak and speed canoe because we didn’t sacrifice any energy to discomfort or balance or try to plow the craft past hull speed. We probably would have caught them anyway, but it is surprising how fast an aluminum canoe with a single blade can go. In a canoe you go more miles and are less tired in a long day than in a K-1 with a kayak paddle.

AWA: Have you ever tried a kayak yourself?

Kruger: I have and can never paddle a kayak more than eight hours high speed, constant. By canoe, I can go for 30-40 hours. Steve handles a kayak longer than anyone I’ve ever seen and his max is 12 hours. Actually, for the first 3000 miles of the trip I carried a kayak blade, but realizing it was unnecessary, I left it behind.

AWA: More about the Loon. What are some of its best features?

Kruger: It’s really tough. It’s an S-glass and Kevlar layup with a special Dow vinylester resin. The 12 percent elongation flex in the resin makes it bounce over rocks and hit without even a white spot.

AWA: After Skagway, I understand Steve will be trading in his old boat for a new Monarch which you designed and Mad River built recently. What’s the difference?

Kruger: It’s got a bigger volume, straighter gunnel lines. It’s generally
Hip-booted Verlen hauls his 50 lb. "Loon" up the Yukon Territory's rocky Rat River.

more sleek and tougher. It has the drop-in rudder and everything. But I'm going to stick with the Loon. I'm attached to it and I want to show it can make the whole trip.

AWA: I believe the boat is durable, what about you? Has the Challenge dealt you many injuries?

Kruger: Not really. Steve had some elbow problems a while back and had to change his paddling style to work around it. I've had no trip-related injuries. In training for the Texas Wildwater Safari, I developed a muscle inflammation from paddling in the cold and wet. It lasted through the start of the trip and I spent the first month and a-half fighting it with aspirin. That was when we were going for records down the Missouri, so I couldn't stop.

AWA: Did you devote a lot of special training to this trip?

Kruger: No great special physical training. We were racing right up to the start and we typically train for that all year round.

AWA: Now that you've covered more than half the mileage, are you somewhat saddened by the destruction of the North American wilderness?

Kruger: No, I'm not. I feel we must live

(continued on page 36)
# RACE CALENDAR

If you would like your race or training clinic to receive national publicity, send the race date, type, location, and specifics to AWA Race Calendar, 7 Holland Lane, Cranbury, NJ 08512. Be sure to include name and address of your registration contact.

<table>
<thead>
<tr>
<th>MAY</th>
<th>RACE TYPE, NAME, LOCATION</th>
<th>CONTACT</th>
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| 1-2 | **SL, WW** - Stilliguanish Race  
NW Cup Race #2, Verlot, WA | Clive Lister  
3136-A Portage Bay. Place E  
Seattle, WA 98102 |
| 1-2 | **SL** - U.S. Slalom Team Trials - Europa Cup and Pre-Worlds A & B Racers  
West River, Jamaica. VT | Kenneth V. Fisher, Jr.  
RFD #4  
West Brattleboro, VT 05301 |
| 1-2 | **SL, WW** - Lower Arkansas Races  
Canon City, CO | Koji/Orlicky/Steitz  
7078 S. Bryant  
Littleton, CO 80120 |
| 1-2 | **DR, Run** - Tuckaseigee River & Road Races. DR and 6 Km Run  
Cullowhee, NC | James Jackson  
Cullowhee Outfitters  
Cullowhee, NC |
| 1-2 | **SL, DR, OC, Decked** - West River Races - C & D Racers  
Jamaica, VT | Kenneth V. Fisher, Jr.  
RFD #4  
West Brattleboro, VT 05301 |
| 1-2 | **SL** - Wolf River Slalom  
Langlade, WI | John Craychee  
38 W. Monterey Road  
Batavia, Illinois |
| 2   | **WW** - West River Wildwater Race  
Jamaica, VT | Kenneth V. Fisher, Jr.  
RFD #4  
West Brattleboro, VT 05301 |
| 8-9 | **DR, OC** - Berks County Canoe Regatta. Open Canoe  
Reading, PA | American Red Cross/Berks Co. Chapter  
701 Centre  
Reading, PA 19601 |
| 8-9 | **SL, CL, OC, Decked - Genny S. Geneganstlctk 2nd Race, Empire Chall. Cup, McDonough, NY | Judy Brown  
R.D. #2, Lakeview Rd.  
McDonough. NY 13801 |
| 8-9 | **Triathlon** - Andrews to Nantahala Spring Triathlon. Bike, Run. Paddle  
Bryson City, NC | Nantahala Outdoor Center  
Star Route, Box 68  
Bryson City. NC 28713 |
| 8-9 | **Chilliwack Race**  
NW Cup Race #3  
Chilliwack, B.C. | Sport B.C.  
1200 Hornby St.  
Vancouver, B.C. Canada V6Z2E2 |
| 8-9 | **SL, WW** - Swift River Race  
Conway, NH  
Conway, NH 03813 | Joe Bruce  
8AC0 Bound Center |
| 9   | **WW** - Pilar Races  
Rio Grande River  
Taos, NM | Koji/Orlicky/Steitz  
7078 S. Bryant  
Littleton, CO 80120 |
| 15-16 | **SL** - Apple River Slalom  
Somerset, WI | Chris Frish  
909 Summit #2  
Minneapolis, MN 55403 |
| 15-16 | **SL, WW** - Crystal River Races  
Carbondale, CO | Koji/Orlicky/Steitz  
7078 S. Bryant  
Littleton, CO 80120 |
MAY
15-16  RACE TYPE*, NAME, LOCATION              CONTACT
SL, WW - Schroon River Races
Chestertown, NY
Bob Cooley
1159 McClellan Street
Schenectady, NY 12309

SL - S-Turn Slalom, Great Falls, VA
Middle State Divisional Slalom Championship
Steve Draper
26-D Ridge Road
Greenbelt, MD 20770

SL - Hack's Slalom Clinic
Al Blanchard
61 Sunset Terrace
Unionville, CT 06085

SL - Westminster Slalom
Farmington River
Tariffville, CT
Kenneth Stone
Westminster School
Simsbury, CT 06070

SL, WW - Stillwater Slalom &
Wildwater, Absarokee, MT
Bruce Fishburn
Box 1778
Billings, MT 59103

SL, CL - Ramapo Slalom, 3rd Race
Empire Challenge Cup, Ram River
Tuxedo, NY
Ramo Registrar
P.O. Box 173
Scarborough, NY 10510

SL, WW - Trinity River Races
Big Flat, CA
World of Whitewater, Race Chairman
P.O. Box 708
Big Bar, CA 96010

SL - Keystone Slalom
Reading, PA
Barry Kline
826 Columbia Ave.
Sinking Spring, PA 19608

WW - Sauk Wildwater Race
Darrington, WA
John Day
5215 37th Ave. NE
Seattle, WA 98105

SL, WW - Poudre River Races
Fort Collins, CO 80120
Koji/Orlicky/Steitz
7078 S. Bryant
Littleton, CO 80120

Rio Bravo Spring Slalom and
SL, WW - Rio Bravo Spring Slalom
and Wildwater Races
Bakersfield, CA
Bob Thomas
3607 Eton St.
Bakersfield, CA 93306

JUNE
5-6  SL - Esopus Slalom, Phoenicia: NY
Atlantic Divisional Slalom Championships
Sandy Johns
Box 284
Denville, NJ 07834

SL - Salmon La Sac Races
Cle Elum, WA
Peter Rumrnel
12206 SE 12th St.
Bellevue, WA 98005

SL, WW - Snowmass Races
Roaring Fork River
Aspen, CO
Koji/Orlicky/Steitz
7078 S. Bryant
Littleton, CO 80120

11, 12 & 13  SL, WW - Southeastern Championships
Nantahala River
Bryson City, NC
San Andreas Racing Committee
4700 Good Ct.
Carrmichael, CA 95608

12-13  SL, WW - Kings River Races
Koji/Orlicky/Steitz
7078 S. Bryant
Littleton, CO 80120

12-13  SL, WW - Steamboat Springs Races
Steamboat Springs, CO
Koji/Orlicky/Steitz
7078 S. Bryant
Littleton, CO 80120
13 DR, OC - Tri-Boro Lehigh River DR
Open Canoe
Northampton, PA
Ken Kilareski
Box 112A RD #2
Macungie, PA 18062

19-20 SL, WW - FibArk Salida Races
Salida, CO
Koji/Orlicky/Steitz
7078 S. Bryant
Littleton, CO 80120

19-20 SL, CL - Millbrook Slalom
Chuctanunda Creek, 4th Race, Empire
Challenge Cup. Amsterdam, NY
Appelrine Race #4
146 Church St.
Amsterdam, NY 12010

26-27 SL, WW - Blue River Races
Silverthorne, CO
Koji/Orlicky/Steitz
7078 S. Bryant
Littleton, CO 80120

26-27 SL - Wausau Slalom #1

27 SL - Dunsmuir Slalom
Sacramento River

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Address ____________________________
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Club Name _________________________

Detach & mail to American Whitewater, Box 1483, Hagerstown, MD 21740.
THE BOAT SHOP

The Yakima Tower
You can always tell a boater’s car. Even with the racks off, the digs, gouges and ensuing rust marks they leave bless the car roof forever. Now Yakima has come out with a lockable, screw-on car top rack made out of Zytel ST — a reinforced nylon guaranteed not to corrode or harm your boat buggy’s finish. It fits into any rain gutter and clamps with a turn of the screw wheel. A set of four clamps to be used with 2 x 4 crossbeams costs $37 and the full rack set with aluminum crossbars goes for $67.

But in our opinion, the most innovative feature of this rack is that it can be locked onto your car, by means of a little inset device in the screw wheel. Although this optional device raises the full rack price from $67 to $82, it does allow you to confidently secure a boat by merely chaining it to your roof rack. Not a bad cost for keeping your best boat and rack out of the hands of some ripping-off yahoo. Contact: Yakima, 820 N St., Arcata, CA 95521.

E-Z Arm Paddle
How do you paddle a canoe with one arm? It’s a joke, right? Not if you are a stroke victim who has suddenly lost his sport or a fly fisherman who wants to keep his craft moving while holding a fly rod. At last the question of the one-armed paddler has been answered by Dave Bennett, who has invented just the thing. By extending the paddleshaft into a broad contoured board that fits against the forearm and by cutting a wide hand grip in it. Bennet has developed a multi-use sculling/paddle blade which he claims is unmatched by any other manufacturer in the industry. We are confident he is correct.

These one-piece, 42 inch long, hard-wood construction paddles are each custom made for $9.95 and for only a dollar more, Dave will carve your name in the blade. There is also a 53 inch model for $12.95. If interested, contact E-Z Arm Paddle Company, Box 781, McKinnville, TN 37770.
Survival Knife

If you ever have to chop away a kayak deck in a pinning situation, you’d better pray you have a knife as sturdy as the Tekna T-2200. This five-ounce, seven and a-half-inch blade claiming a tensile strength of 200,000 psi, is a current favorite of rescue squads for extricating crash victims. Designed by a weapons engineer, this knife features a saw-tooth serration at the blade’s top and a standard blade below, guaranteed to hold a long edge. The five handle holes provide place for a tie or lanyard, and a positive lock into the sheath.

This tough, never-rust survival knife is not cheap, but quality never is. With plastic sheath and velcrostraps, it retails for $44.95 and comes in either silver or black — whichever you think would be easier to spot in water. Contact: Tekna, Box 2363, Menlo Park, CA 94025.
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The Graduated Width Method
A Method of Kayak Instruction for Casual Participants
by Jim Sindelar

A decade and a half ago virtually all kayakers were "hardened", but the sport has boomed and today it is narrow and foolish to assume that finely sinewed fanatics are the only ones to step into kayaks. It must be honestly admitted that the majority of boaters now just starting out seek not a place on the U.S. Team, but merely the goal of paddling occasionally on intermediate water, with confidence. The question is can these novices learn under the same program as the potential hair boater. Or would they, as Jim Sindelar suggests, be better served by their own program. Jim has patented his GWM method, patterned after skiing's GLM, and used it with success.

Clubs or schools seeking more information on Jim's GWM method may contact him through AWA. We are also asking AWA readers for their comments, criticisms, and additions to this instruction program.

Different Strokes
It is common knowledge that different people learn things in different ways, and that certain methods of instruction work better on some groups of people than on others. Most present kayak instruction courses are designed and run by expert kayakers to whom an Eskimo roll is the most natural and essential thing in the world. Thus most courses focus on rolling as soon as possible, then progress rapidly to a river section where the other aspects of boating can be practiced along with the roll-under-fire which will doubtless soon be required.

For the aggressive learner with good athletic ability, this works wonders. But, for casual participants, the less athletic, and family members who are not sure they like the sport to begin with, it can be a disaster. Imagine yourself in the position of a person who can't manage the Eskimo roll. Since most of the others in the class have succeeded, you obviously have failed; strike one. Then off to the river. You try a maneuver or two and immediately find yourself swimming, getting boat to shore, bailing, and getting back in (while the class and instructor wait patiently).

Another swim or two tire you, and you quickly decide that you don't care to do another, so you quit trying things and wait in an eddy, hoping the others won't notice. No fun, right? Then maybe you flush through a rapid after a capsize — a frightening experience for many people which is not lessened at all by the assurance of the instructor that "nothing bad can happen to you as long as you wear your lifejacket". How often do we encounter wives or children in boating circles who no longer have any interest in whitewater after a few such experiences?

Two decades of boating, teaching, and observation have pointed the way.
My feeling that the joy and the beauty of our sport can be enjoyed at many levels for many reasons prompted a new look at the teaching process. First, it is essential to recognize that the learning and the initial experiences must be pleasant and FUN, or the chances for lasting involvement in the sport are very low. The FUN, of course, comes on the river. A warm, comfortable trip with family or friends with a few minor thrills thrown in is a memorable experience that would leave most people longing for more. A capsize on a warm day might be acceptable, but certainly not a lot of them, for it is essential that the lingering flavor is one of pleasure rather than misery and/or failure.

A second cornerstone is the recognition that difficult skills can usually be handled more easily by isolating the basic elements and teaching them singly. Concentrate on each in turn, then put it all together later. The basic elements...
of whitewater kayaking can be categorized as follows:

Elementary boat control: knowing what paddle motions will cause the boat to move right, left, forward and backward.

□ Reading water and rapids: which routes are safe and good, and which lead to disaster.

□ Stability in moving water and waves: bracing, leaning when crossing eddy lines and entering jets, etc.

□ The Eskimo roll

Elementary boat control in a kayak is easily isolated by starting in still water. One or two sessions will usually suffice, since only two strokes are really required. A forward stroke and back stroke on each side will do it all if you don’t have to worry about stability or winning the race, (much simpler than comparable control strokes in a canoe). And the Eskimo roll of course can easily be isolated in pool sessions. OK, these things are already common practice in kayak courses. But, the realization of how further isolation could be easily achieved came much more slowly.

Initially, I noticed that youngsters of up to age 11, running Class II (even III) rivers in standard slalom kayaks rarely tip over in spite of doing everything wrong. They bounce over rocks, run the wrong chites, go sideways over drops, and generally flush harmlessly through rapids where their elders dump and swim. The reason of course, is simply the physics of a low center of gravity in a (relatively speaking) wide boat. These kids get all the fun and thrills while simultaneously learning to read water and to control their boats in moving water. Stability is built into the boat. Thus leaning, bracing, and rolling are simply not needed in any waters appropriate to these activities. They are spared most of the pain of capsizing and swimming and the embarrassment of failure; if the rivers are chosen wisely to avoid the possibility of a bad swim or discomfort from cold or fatigue, they are often hooked for life.

The first indication that this system could serve adults as well came several years ago when I purchased an inflatable kayak, a Klepper Skate, which was 29 inches wide instead of the normal 24 inches. I noticed that I could get away with murder in it without tipping over, and that even without leans or bracing strokes I could spin, cross eddy lines and bob over waves with confidence. I put some beginners in it at the top of various rapids and much to my amazement, they all came through upright and smiling!

It was then that I looked back to the early days of kayaking when the roll was a circus stunt done only by Eskimos, a European named Pawlatta, and a few select others. I found that the kayaks in general use back then tended to be 28 to 36 inches wide! As with the telemark turn in skiing, when technique passed on to new horizons, the reason for the old ways was forgotten, but the basic reason kayaks got narrower was simply because narrow boats are easier to Eskimo roll. If one can’t roll, however, the advantage lies with a wider boat that probably won’t tip over in the first place.

GWM Instruction.

If beginning skiers use short skis, why not wider kayaks for beginning kayakers? The wide "learners kayak" allows the beginner to concentrate on boat control, reading the water with minimal concern for stability, leaning, and bracing. Novices can enjoy first hand the joy of rapids and river trips. Meanwhile, the beginner can work on the Eskimo roll using a regulation width kayak in pond or pool as opportunity permits. By the time the roll is mastered, the bracing strokes will be pretty well developed. The water reading and boat control learned with the wide boat on river trips will serve in either boat, and the transfer to a regular width boat is easily accomplished. If the roll never comes, well, who