

American

WHITEWATER

the Journal of the American Whitewater Affiliation



NOV/DEC 1977 Vol. XXII, No. 6

A EULOGY AND WARNING

Bob Taylor —

To those that knew him well, no words are adequate. He was such a vibrant personality. So full of energy and enthusiasm. He always gave his full **meas-**ure to his family, to his running, to his paddling, and to his job. Each morning he would be up at five so he would have time to do all he wanted each day. He lived and did as much in his **35** years as most of us **wiil** do in our life times.

On the river he was a true expert; daring but master of every situation. To some it may seem that he took chances. Maybe he did, but I feel that he knew the risk involved with everything he did. He will be greatly missed by all his friends. I won't feel the same without him. Paddling won't be the same.

Bob loved West Virginia. He loved the woods, the mountains, the rivers. And the river he loved the most was the Gauley. It was his river if any river was. Yet Bob was claimed by the Gauley on August 27, 1977. He was paddling with companions at moderate flow when the accident occurred. It was one of those things that never should have happened. It never happens to us or anyone close to us, does it? Except this time.

We must try to learn from this tragedy. To me, the most important lesson is that it was not a freak accident. It was inevitable. Not inevitable for Bob, but for someone. I realized **3** or **4** years ago that I was paddling increasingly more dangerous waters routinely to find challenge. When we were learning, we took all precautions on Class **3** water because it was difficult for us then. Now, some paddle Class **5** water nonchalantly and yet the danger is **signifi-**cantly greater. Yes, it was inevitable. Yes, it will happen again. The vast number of paddlers now guarantee that it will. Let us be more aware of our surroundings to make sure that we are not the one.

— Ward Eister —

American **WHITEWATER**

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The American Whitewater Affiliation

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COVER: This issue is dedicated to Bob Taylor, who lost his life recently while paddling the Gauley River in West Virginia. He is pictured here paddling C-1 on the Savage River (MD) about 1973. Photo by Arnout Hyde.



The late Bob Taylor with his family: Lucia, Bobby and Christopher. Photo by Arnout Hyde.

DEDICATION: TO BOB TAYLOR

by Tom Daniel, KCCNY

On Saturday, August 27, 1977, Robert A. Taylor died on the Gauley River. The detailed account of how the accident happened will appear elsewhere. Therefore it is sufficient to say that it occurred at the bottom of "Lost Paddle Sequence" at a medium water level. The Gauley was Bob's favorite river, and he knew it better than anybody.

When friends learned of his death, this is what some of them said. "HE WAS A GOOD FAMILY MAN," "HE WAS ONE OF MY FAVORITE PEOPLE," "WE LOOKED TO HIM FOR GOOD JUDGMENT," "BOB LOVED

THE GAULEY. . . YOU COULD HEAR IT IN HIS VOICE WHEN HE TALKED ABOUT IT," "THE RIVER DOESN'T CARE WHO YOU ARE IF YOU MAKE A MISTAKE," "I USED TO THINK THIS SPORT WAS PRETTY SAFE," "I FEAR FOR THE FUTURE OF THE GAULEY. WHO WILL LOOK AFTER IT THE WAY HE DID?" And from a man I'd never heard swear before: "OH DAMN!"

Bob had spent four years in New Jersey, where he paddled with KCCNY. During that time he made many friends, became cruising chairman, and inspired many with the wonderful trip reports of "hairy" runs. If a river was in flood, Bob was on it, and loving every minute. With experience he became a superb boater with both great skill and good judgment. When he moved back to his native West Virginia, he did most of his paddling in that state, but remained in contact with friends all over the country. Bob was widely regarded as the best paddler in West Virginia, and one of the best river cruisers in the country.

This issue of the *American White-water Journal* is dedicated to Bob Taylor, who for so many people epitomized all that is fine about our sport.



Dear AWA,

Bob Taylor was a super friend. The rest of us may still go boating, play the river, laugh and have fun; but there will always be something missing.

Bob was an extraordinary person. I really can't express the feeling of loss.

Thank you,

Carl Lundgren
620 Meigs St.
Rochester, NY



Bob Taylor running First Drop in Iron Ring Falls on the Gauley, 1976.

Photo by Ward Eister.

FATAL ACCIDENT ON THE GAULEY RIVER **Lost Paddle Rapid near Summersville, West Virginia** *August 27, 1977; Mid-day*

SUMMARY:

About mid-day Saturday, August 27, during a run of the Gauley River between Summersville Dam and Peter's Creek, Robert A. Taylor, a well-known and much respected expert from Elkview, West Virginia, came out of his boat in a hole in the middle of Lost Paddle Rapid. Despite rescue efforts by other members of his party he was swept downstream into a boulder sieve where he was forced underwater and trapped. It took rescuers several days to recover the body.

DESCRIPTION:

The Gauley River below the Summersville Reservoir is large and power-

ful, as best indicated by the fact that 2700 cfs, the flow in the river at the time of the accident, is considered "moderate." It is without a doubt the finest expert run in the East, characterized by drops containing huge rocks and brawling currents. There are at least 12 rapids between the dam and Swiss of grade IV or greater difficulty; *Wildwater West Virginia*, the guidebook for the area, rates many of these in the V-VI category.

Bob Taylor, 34, was considered by his peers to be the finest boater in West Virginia and one of the best in the East. Being an amateur runner of no small achievement as well as someone who took his boating seriously enough to train for it, he was in top physical con-



Bob enjoying another of his avocations.
Photo by Arnout Hyde.

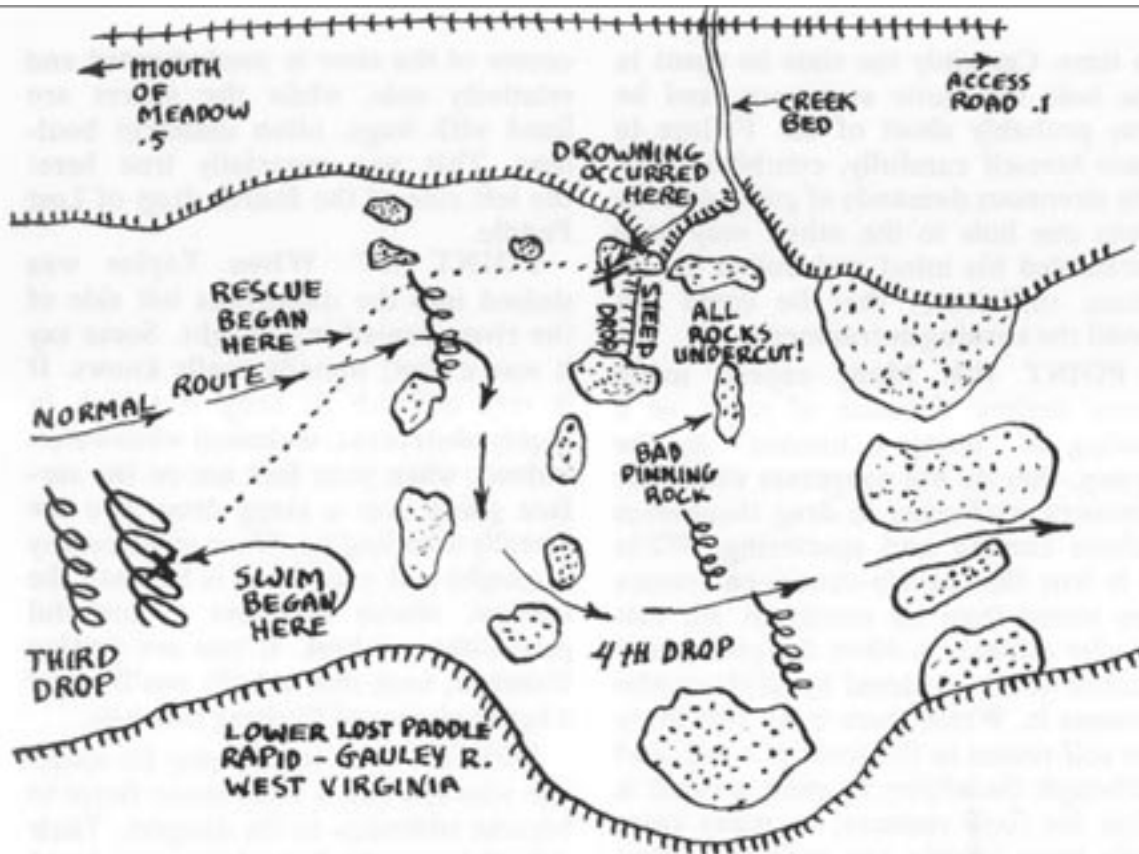
dition. He had a reliable roll, good technical skills, and a fine feel for the water. He was experienced on both small and big rivers, and during the past ten years had made many noteworthy runs throughout the East. The Gauley was his favorite river; he had run it many times at all levels and knew each drop intimately. Those who have boated with him praised his judgement, and looked to him for leadership in this area. Others who had not paddled with him but knew him by reputation questioned the propriety of some of his exploits, but such judgements are common in our sport.

Lost Paddle Rapid, where the accident took place, lies just downstream of the mouth of the Meadow River. It is a long, tricky class IV-V rapid requiring numerous tight turns in a powerful, pushy current. But most ominous is the reason for its name: many of its rocks are undercut, and numerous paddles have disappeared beneath them. "Paddle this one at low water," they say, "and you'll never want to paddle it

again." Boaters have often speculated when it would claim its first body.

Taylor's party on the day of the accident consisted of five people, all solid paddlers and including several who knew the river almost as well as he did. Bob was in fine form, paddling the river aggressively, joking with his friends, and surfing waves and holes as they came up. Above Lost Paddle, the Meadow's flow brought the level to 3100 cfs. Entering the rapid, they ran the first two drops without incident. At the bottom of the second drop, part of the party continued ahead while others remained to watch Taylor surf the smaller of two holes. Bob was well-known for his surfing ability, so no one thought it unusual when he moved on to the second, and larger, of the two holes. Here he got a very rough ride: he flipped and rolled; ended, flipped, and rolled, still maintaining fair control. Following the third flip, he may have decided that the smartest thing to do was swim out; he may have lost his breath. No one knows. He recirculated once in the hole, then flushed out.

Bob was a strong swimmer, and did not mind swimming in rapids. Even so Leo Bode, a strong paddler who knew the river well, immediately went to Bob's rescue. He extended his stern grab loop, and started to pull him over to an eddy on river left. About four feet from the eddyline, Taylor let go to swim for safety. As he did, he forced Leo to take an obstructed path to avoid hitting him, and as he did this Leo lost sight of Bob. At the bottom of the rapid, they collected his boat and paddle as they waited for him to walk down along the shore. When he did not appear, they began searching the riverbank, a task made slow by the ruggedness of the terrain and the density of the undergrowth. About a half hour later, someone spotted a faint orange blur beneath the surface of the water.



Although his body was quite close to the bank, it was almost impossible to get to due to the speed and power of the water. With the realization that Bob was beyond help, the group sent for help. State Police divers and volunteers got a rope attached to his body late that afternoon, but had to stop as darkness approached. That night the water level dropped to around 2100 cfs. In the morning, the officers were able to remove a log 3 feet long and four inches thick. When this was done, Bob's body floated free and was subsequently recovered.

ANALYSIS:

This accident shows that you don't have to make one big mistake to die on a river; a number of minor errors can gang up on you with the same effect. Since few of us can boast that we have not made the same errors that Bob paid so dearly for making, it will pay us to

analyze our habits in the light of this accident.

POINT #1: It is often assumed that experts of Bob's caliber "can take care of themselves." People who paddle with them don't watch them as closely, or take the same precautions that they normally would with lesser paddlers. This attitude may have delayed reaction time to Bob's predicament enough to make a difference in this case.

POINT #2: The hole Bob was playing was in the middle of a major rapid. Although boat rescue was possible, self-rescue by swimming would have been next to impossible. This added a considerable element of risk to the move, and additional precautions would certainly have been justified.

POINT #3: Those familiar with Bob's paddling style know that he played the river intensely, and despite his excellent physical condition, extended himself to exhaustion from time

to time. Certainly the time he spent in the hole was quite strenuous, and he was probably short of air. Failure to pace himself carefully, combined with the strenuous demands of going directly from one hole to the other, may have scrambled his mind and dulled his reflexes sufficiently that he could not avoid the ensuing entrapment.

POINT #4: Many experts make lousy victims. Because of pride, or a feeling of "being a burden" on the group, they do not cooperate with their rescuers, preferring to drag themselves ashore cursing and sputtering. While it is true that poorly-conceived rescues are worse than no rescue at all, this macho attitude is often dangerous and should be reconsidered by all those who possess it. While there is no substitute for self-rescue in the form of a roll, and although the ability to swim a rapid is vital for river runners, in many cases help from outside can spell the difference between routine and tragedy.

POINT #5: Bob was an expert swimmer, capable of surviving the most difficult water. He had said many times, "I can take care of myself; just go after my gear." This reversal of priorities is becoming more common, and may have caused others who could have helped him to be out of reach when tragedy struck. The maxim "SAVE PEOPLE FIRST" is vitally important, for while we can get a new kayak, we will never replace Bob.

POINT #6: This was the most serious, and perhaps the fatal, error. Bob was reached by a rescue boat, and was within a few feet of an eddy when he chose to let his rescuer go and swim for safety. Because he was tired, and since the river there is so powerful, he did not make it. While there are times when a victim should let go to improve his or her safety (such as above a big hold, or at the top of a steep, rocky drop), this was not one of them. On all rivers, the

center of the river is unobstructed and relatively safe, while the shores are lined with huge, often undercut boulders. This was especially true here: the left side of the fourth drop of Lost Paddle.

POINT #7: When Taylor was sluiced into the dangerous left side of the river, something caught. Some say it was a foot; nobody really knows. It is *very difficult* to keep feet high in highly obstructed, technical whitewater. Indeed, when your feet are on the surface going over a steep drop, you are literally standing up. Once an extremity is caught and your head is beneath the surface, rescue becomes a doubtful proposition at best. If you are getting thrashed, tuck into a ball; you'll stand a better chance of flushing through.

POINT #8: It is very easy for someone who has run a river many times to become oblivious to its dangers. Their "play" may take them into unexplored channels which hold far greater dangers than the main chutes, but without the cold calculation which marks a first run of the main river. Experts must be careful, when "cutting loose" on a river, to fully calculate each move. Otherwise, they risk getting more than they bargained for. I am sure Bob had played that hole before; I don't know why it got him on that day at that water level. Whether he would have done differently had he observed it more closely, I don't know. But it would certainly pay all of us to be more careful.

CONCLUSIONS:

This accident is bound to affect the thinking of all expert paddlers. No longer is a life vest, helmet, training, and the presence of other boaters a license to do whatever we want on a river. We must assume that all difficult rivers such as the Gauley contain dangerous traps, and adjust our actions

accordingly. We must reemphasize teamwork; become more adept at rescue; and be ever alert to the possibility that someone, including ourselves, may be making the first of a dangerous series of errors. Always leave a margin to allow for miscalculations as you paddle.

Prompt rescue is essential. Paddlers must always keep track of the person behind them, and be in position to be of help. In serious cases, the victim should be instructed to let go of his or her gear, and to assist the rescuer by swimming. The victim is not rescued until he or she reaches shore; if you dump someone in an eddy, the combination of cold water and physical exhaustion may cause them to be swept back out into the main current. Experts should cooperate with rescues even when they don't need them; after all, how else are others going to get the practice they need? Bear in mind that rescues can be quite dangerous, as anyone with much experience can attest. Here, as in other aspects of boating, you have to calculate the risks. But an error, while unfortunate, will be far easier to understand.

Submitted by: Charles C. Walbridge
ACA Safety Chairman

I am indebted to Ernie Kincaid and Bob **Burrell**, who supplied accounts of the accident, as well as to dozens of people who called to comment on my first draft, which has been published in several canoe club newsletters.

POSTSCRIPT ON ETIQUETTE AND RESTRAINT:

Whitewater sport has a long history of regulating itself in matters of safety. Helmets and life jackets are worn routinely, and anyone who does not is bound to be "reminded" by those around them. But events this past fall have suggested that there may be more

to policing our ranks than that. And since no one is perfect (this author included), now is a good time to consider some of the consequences of our activities.

When a scheduled water release brings out a heavy turnout, such as the Sept. 16 release on the Gauley River, the river is going to be crowded. Accidents can and will happen if we don't start watching for each other, and adjusting our plans accordingly. Overcrowding in Class V rapids, doing **enders** without regard for the "backlash," traveling in large, unwieldy packs, crowding those ahead all this can lead to big trouble, and regulations all of us would rather avoid.

Look out for the other guy. Look upstream before peeling out of an eddy so you don't cut someone off. Consider the effect that an "ender" will have on the people behind you and those running through the rapid above, and wait for a clear shot. Don't pick an experienced paddler as a leader and tailgate him so closely that if he gets into trouble, your bow will spear him seconds later. Break up large groups into several, self-sufficient units prepared to take care of their own. Bring rescue gear. Scout when in doubt rather than imposing yourself on others. Only you are responsible for your safety, and only you can keep from becoming a moving projectile, more dangerous to other people than anything on the river.

It should be said that all paddlers present at this release showed a surprisingly high level of skill, leaving behind a hope that they will all eventually learn some manners.

If etiquette is hard to define, restraint is even harder. A good number of top-flight river runners are attempting to run drops previously considered **unrunnable**. While I will defend their right to try anything they like, I must point out that when the drop lies in a populated

area (such as Ohiopyle Falls or Great Falls), some restraint is in order. Otherwise less knowledgeable people will surely try to emulate these antics and get **badly** hurt or killed in the process.

The answer is simple: runs of Class VI water in populated areas must be done at off-peak times, such as early in the morning, late evening, or on week-days. Most true experts understand and respect this, but a few hot-dogs like to have an audience. Now I say to you: if you need an audience to risk your neck, you probably ought not to be making the run in the first place. For one thing, putting your life on the line is a very heavy proposition, and does not need to be complicated by delusions of grandeur. Secondly, consider the negative publicity which will accrue to the sport should the crowd spoil your judgement, and cause you to screw up. In addition, even if **you** make it through unscathed, you risk having an uninformed layman try to duplicate your feat, and may become a direct factor in his death.

Think about it. Carefully. See you on the river!

Charlie Walbridge
Safety Chairman, ACA

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Bob Taylor Memorial Plaque

A fund has been started for a memorial plaque for Bob Taylor, to be mounted at the Gauley. Contributions may be sent to:

Ward Eister
Rt. 1, Box 97
Ravenwood, WV 26164



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Bob Taylor doing an ender at "Put-in Rapid" on the Gauley, 1976.

Photo by Ward Eister.

PRESIDENT'S SOAPBOX

MENTAL PREPARATIONS FOR CLASS V WHITEWATER

Peter N. Skinner, P.E.

Bob Taylor did more for our sport than just being a friend to us all and an energetic defender of our rivers: his confident presence pervaded our parties, helping us to conquer our fear of the unknown. His judgement about the dangers of souse holes, fast jets, big water, and technical drops enabled us to test the limits of technique and equipment. He was always the last to leave a wave or hole, extracting the penultimate experience from each river formation. Yes, we will miss him greatly.

Although Bob is gone now, the mental preparations he taught us should be reviewed once more. Five important concepts helped Bob become one of the giants of our sport:

1. Aggressive commitment to experiences
2. Accurate river reading
3. Concentration
4. Confidence
5. Humble respect for the River.

Commitment

Development of river skills needed for Class V whitewater requires a strong

commitment of effort. Boaters found on this kind of rapids all possess a certain kind of mania for the **sport** which drives them to accept a high degree of challenge. Lazy or tentative boaters are those people often found swimming beside their boats in even innocuous whitewater. Class V rapids forbid swims. Without the commitment to travel long distances and withstand cold wet hikes through puckerbrush to frightful put-ins, the boater can never hope to develop the portfolio of experience in varied and difficult situations common to Class V water. This type of experience is necessary for learning to judge the dangers associated with high-class water.

River Reading

Given a strong commitment to the sport then, the next mental hurdle is development of river reading skills. Each rapid at every river level has differences in dynamics, velocity, and power. Predicting the impact on boat control and danger due to these characteristics of Class V water is one key to mastering the rigors of whitewater.

The superior boater like Bob Taylor concentrates on honing his or her predictive capability. Like a chess match, each route down a rapid has an infinite number of possibilities for dangers and enjoyment. Some **possibilities** can be very hazardous, necessitating pinpoint accuracy in boat placement. Others are a breeze if weight shifts and boat angles are manipulated properly. Accurate perception of the quickly changing high power currents is necessary for survival in this type of water.

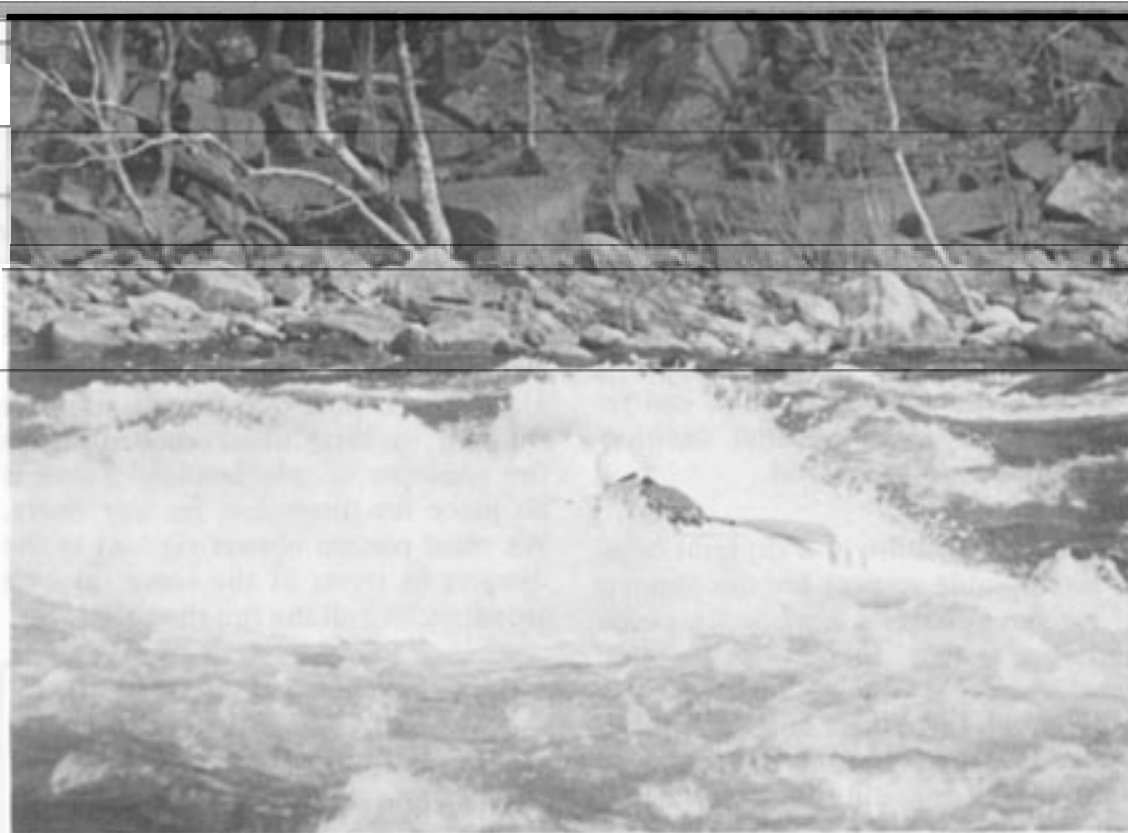
To develop these skills, the boater must first understand the capability of his or her body and mind and then how properly to react to the effects of each wave, rock, and hole. Knowledge of the dynamics of the interaction between the two systems of **person-and-boat/river-and-boat** can be gained only through

analysis and experience. Boaters should analyze each rapid and develop a proposed battle plan. After running the rapid, that boater should review what actually happened. If all the things that happened in the rapid can be explained, fine, try the next one. However, if you could not stay on the line you had picked out, run it again until you can do it right. Pillow Rock on the Gauley is a good example of a difficult rapid to predict your route on. Running this rapid several times while you are on the river will hone your skills at boat placement and prediction. Every rapid represents a hydraulic laboratory — experiment in it.

Concentration

No sports person ever succeeds in an endeavor without developing an ability to concentrate. This ability eliminates extraneous stimuli which will distract a boater, allowing the river the upper hand for a moment. Recovery from a loss of control can often be impossible in Class V water like the Salmon's Upper South Fork or the Meadow.

concentration grows out of mental discipline developed by exercises like meditation and practice of rational decision-making during periods of stress. The safety of a motorcyclist in city traffic depends entirely on concentration. While away from the river, boaters can practice underwater exercises, drills, or tasks requiring thinking and holding one's breath longer each time. SCUBA and Skindiving courses stress this kind of mental awareness discipline, and skills needed to provide a clear mind for rational thinking underwater. A boater properly prepared for Class V water must expose himself to stress levels which hone his technique and responses. Concentration provides the key to development of the fourth and most important aspect of Class V boating. . . confidence.



Bob surfing "Ender Waves" on the New, 1977.

Photo by Ward Eister.

Confidence

Confidence graphically separates the intermediate boater from the expert; both possess essentially the same techniques, but the intermediate still fears the unknowns of rapids the expert has experienced and survived. The novice who is courageous always learns faster than the timid one, also demonstrating the importance of confidence. However, confidence based only on guts is not enough for survival in Class V water. There is no substitute for the judgement which comes from real experience and perception of the dynamics of water movement.

The essential attribute of a superior boater, confidence, can be developed by practice in and out of a river along with the other concepts already discussed. The fear of drowning is an involuntary response to immersion in water. This natural response can be

controlled to some degree like any other fear. We all know how fast the air in our lungs runs out when we get scared. The longer fear can be sublimated, the more time is available for staying underwater and for rational thinking needed for self-rescue or a roll. Practice underwater in a pool will help you push fear to the back of your mind, out of trouble.

On the river, you can build your confidence by following your innate curiosity and courage into holes and rapids which just are a little bit bigger than those you tried the trip before. The rest comes from the knowledge that you survived each experiment. Watching other boaters accepting similar challenges also helps convince the boater that survival is possible and in fact enjoyable. While in the river the boater should constantly practice underwater exercises such as rolls on both sides,

paddle twirls, etc. which demand more of your stored wind each time. In tight situations in Class V water, you will need all of this wind and perhaps a little more than you thought you had. Many times in the depths of violent holes I have wished for just one more second's worth of lung capacity. A number of bad swims could have been prevented by better preparation of this kind. With adequate lung capacity and a lack of fear, your mind can remain clear for the rational decision-making needed for survival.

Respect

The last attribute of a superior boater is a humble respect for the dangers of a river. All rivers have water power and obstructions: therein lies the danger. Regardless of how many times you run a rapid, the danger still lurks there. I often find myself on the Housatonic at Bulls Bridge repeating the run successfully at flood and trickle levels. This success on a river inevitably increases your level of confidence, sometimes to the point of flippancy. This attitude

reduces the boater's level of concentration and prevents complete analysis of water flows. In essence, the innate dangers of the river seem to disappear. This syndrome will surely lead to unnecessary tragedies. Boaters at all levels cannot allow their guard to drop. Every rapid possesses the capability to trap the unwary boater.

We must as a large AWA family enjoying the whitewater experience make a pledge to warn our friends who are slipping in their observance of these five concepts of safe boating. There is no place for disrespect for our rivers. We must remain always vigilant to the dangers in rivers at the same time we are extracting all the fun they offer.

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I REMEMBER.. .

. . . A SANDY HAired KID WITH EYES BIG AND SHINING BRIGHT WITH MEMORIES OF THE RIVER.

He wasn't really a kid. He was in his late twenties at the time, but with that zest and energy and enthusiasm usually associated with the very young, and he had just discovered the joy of the river.

. . . A TRIP DOWN SENECA CREEK. THE FIRST FOR BOTH OF US.

It's usually just a tiny, rocky trout stream that you could wade across. But it was swollen with the icy snow melt of late March and the current had power—twisting, turning, churning around rocks and over ledges. At the end we both left the stream on such a high of non-stop excitement as we had never experienced before.

. . . A BRIGHT RED C-I.

It was heavy, and it didn't have the sleek and lacquered look of the manufactured boats of today. But he had made it with his own two hands, and it was his ticket to the river.

. . . ANOTHER BOAT BUILT ESPECIALLY FOR ME.

It had been delivered to Petersburg for me to pick up on race weekend. He saw it and wanted it. And I couldn't say "no."

. . . A PROMOTION AND MOVING TO NEW YORK.

And again the little kid excite-

ment. I couldn't share his enthusiasm for the city and we all hated to see him go. But we wished him well and hoped the change would live up to his expectations.

. . . BUSINESS TRIPS AND AN OPPORTUNITY TO RENEW FRIENDSHIP OVER DINNER.

He spoke of weekly pool sessions all through the winter and running the upper Hudson, and I knew that he had far surpassed my mediocrity of technique and that we would seldom paddle together in the future.

. . . HIS PLEASURE AT A TRANSFER BACK HOME.

His enthusiasm had waned for the city but not for the river. He was glad to be back.

. . . AN EXPERT ON THE RIVER.

Confident and sure of himself and his ability, he had switched to K-I, and was always looking for a higher level, a bigger wave, a greater challenge.

. . . HIS HAPPINESS.

Talking about his latest run at a new and higher water level. And describing as "Thoroughly Delightful" what to me and many others could only be "Horrendous."

. . . A FRIEND AND A MAN.

But still with an infectious, little boy grin.

. . . YES, I REMEMBER.. . BOB

— Bill Riley —

"HELLS CANYON" OF THE SNAKE RIVER

by

John Garren, 01008 S.W. Comus St., Portland, OR 97219

This is not the usual river story that details rapids, portages, campsites, sunsets or the excitement and experiences encountered on Wilderness river trips. It is rather a chronology of river management, that is typical on Western rivers. Certainly everyone is familiar with the Colorado River. The public dissatisfaction evidenced by law suits, protests by letters, or during public hearings, are common knowledge. Nevertheless, it would seem worthwhile to discuss a specific instance to show the Colorado is not unique and that the "cozy relationship" between river outfitters and river managers reflects a national policy for outdoor recreation. This will continue unless some major change is initiated. There are several strategies available to private boaters for attempting change, and the Snake River shows methods that were tried, the success of which only time will tell.

Oregon boaters became openly concerned with river management in **1973** when it became apparent that commercial "concessionaire" development of Oregon rivers would follow patterns used on such rivers as the Colorado, Middle Fork of the Salmon, and others. It appeared that unsatisfactory river management on these rivers would simply be transferred to Oregon. Oregon boaters decided that, in particular, the unjust permit system would be opposed when it was presented for public comment. The Rogue River was considered a prime candidate for use regulation and Oregon boaters waited and watched for this regulation as the unworkable four agency groups (Forest Service, Bureau of Land Management, Scenic Waterways and State Marine

Board) bickered and fought internal political battles that resulted in gross mismanagement and continued commercial exploitation of the Rogue. Commercial outfitters increased from about 13 to **47**; power boat use increased on the "wild" river section. The moratorium on commercial use was ignored, as the Rogue steadily went the predicted preplanned way of other Western rivers.

While boaters were watching the Rogue, an inconspicuous document called "Interim Management Plan for Hells Canyon of the Snake River," was issued in July **1976** by the U.S. Forest Service. During the time boaters were preoccupied with the Rogue, the Forest Service was implementing a carefully-laid plan for commercial exploitation of "Hells Canyon." The Forest Service and Western River Guides Association had been meeting for years, yet strangely they declare that no private boaters were included in these talks, nor could the architects of this plan even find any private boaters.

This interim plan was appealed through regular administrative procedures, in what has become a major exercise in letter writing. The appeal complaint was the unfair permit system. In the appeals process, the Forest Service brought out every outfitter argument used on other rivers to justify why public rivers should be dominated by outfitters. It was interesting to see Forest Service logic calling for environmental protection of the endangered fragile ecosystem while allowing a 450 percent increase in commercial river use. Or why there were no outfitters operating float trips under permit in **1972**,

but after the meeting with the Western Guides Association applications increased from zero to 18 in 6 months. River capacity was related more to 18 guides and 16 trips on a 6-day turn-around for the 100-day season than to "ecosystem." There were dozens of instances where the Forest Service documented fuzzy thinking and totally side-stepped any reference to the appeal basis which is: The fair, individual, equal-odds opportunity to participate in whatever river use is available.

An Oregon boater was denied a permit to boat the Snake River on August 7, 1977, while spaces were reserved for nonexistent commercial passengers and commercial trips never taken. The Forest Service never intended that private boaters be denied permits at present when river use is actually only a small part of that allowed. Nevertheless, their own blind following of impractical rules excluded any judgement. If access was denied, it would come later when a so-called commercial "historical" use record could be developed to verify a management policy already in force. Historical use of the Snake River has always been private, until after the joint Forest Service and Western Guides Association meetings.

What does a person do who has exhausted every administrative remedy and the agency has refused to even address the complaint? Appeals are a form of public "hoop jumping" that must be done sometimes before other alternatives can be considered. In my case I decided to continue boating the Snake as I have for years. Some people might call this civil disobedience, particularly when it is a criminal offense with a maximum \$500 fine and six months in jail. The river use rule on the Snake River is so obviously unjust that I cannot accept it. On August 7, 1977, I boated the Snake River without a

permit and with full knowledge of the U.S. Forest Service. No citation was issued. What the Forest Service has failed to recognize is that they cannot enforce unjust rules unless the public will accept them. The private boater would be foolish to accept anything less than equal odds in gambling with the commercial passenger for river use.

In a slightly different set of circumstances, another Oregon boater boated the Snake River without a permit, although he did have a valid reservation for a permit. For refusing the citation Tom Lindsey was taken from his home in handcuffs and lodged in the Boise drunk tank overnight. The Forest Service is selective as to whom they will cite and whom they will ignore. Actually in issuing use permits they ignore hikers, horse packers, power boaters, and even float boaters who launch at locations other than Hells Canyon Dam; but there is no point in belaboring Forest Service logic or fairness.

The private boater has waited long and not so patiently in his hope that some sense will come from river management. No help seems in sight as river managers side with their "eezy" partners to **outwait** the public. I think it makes just as much sense to ask the commercial passenger to wait while the problem is studied. They have studied the Colorado River endlessly and still there are no studies on a fair **permit** system. Certainly, I cannot change the Colorado situation or even Idaho, but to me Oregon is the boundary line.

Someday, a little later, maybe I can devote all my time to letter writing, protest, or wringing my hands. For now I want to run rivers and have a fair opportunity to get on the river with anyone else. This is a gauntlet of sorts, and who knows what the outcome will be. I think that Oregon is a good place to find out.



The The old 'State of Maine,' plus bicycle wheels for portage, during the 1973 Great Race of Boston. **Sternman** Bob Waddle's experience at navigating lobster boats in Maine's **Harpwell** region helped his crew win the race, the last part of which was on a foggy ocean. Note Bob's relaxed, supervisory stance, so typical of **sternmen** — his paddle isn't even in the water... but the rest of the crew members are working like slaves!

(Caption written by a bowperson)

BUILDING THE 'STATE OF MAINE,

by Fern C. Steams

When I answered the phone one day last November, the caller's first words were, "Did you know that the 'State of Maine' is in two parts?"

"Yes, I know . . ." I replied, with more than a trace of bitterness in my voice, ". . . the white men's part and the Indians' part."

The caller (my husband) laughed, even though I didn't see anything funny about the situation (I still don't).

My husband, Bill, went on to explain that the 'State of Maine' *he* was talking about was the 25' war canoe by that name owned by Bob Waddle. Bill had phoned to announce the demise of the

canoe — it had blown off its storage rack at the Waddles and broken in two.

The Waddles had grown rather attached to the old war-horse; since 1969, when they bought it from a boys' camp, they and their friends have won many races in it: The Great Race in Boston '72, '73; The Great Race of Maine '74, '75, '76; the Shelburne Free-For-All on the Androscoggin for several years.

The Great Races in Maine and Massachusetts are free-for-alls for bicyclist, runners, and paddlers. In the 25-mile Boston race, the paddlers had to portage across and along the freeway at one point in the course. The race **start-**

ed at 4:00 in the morning so that auto traffic wouldn't be too heavy; still there were a few poor souls on the road even at that hour. Picture one of them groggily wheeling along the freeway at about 5:30 a.m. when suddenly ten wild looking men dash in front of the car hauling a war canoe. INDIANS??? Pink elephants must seem tame in comparison!

What will the Maine paddlers do for a war canoe now?

Well, shortly after the old one broke in two, Neil Phillips of Portland started spending a lot of time in his cellar workshop. He had a dream—that of building a new war canoe, one in which all wood used would be native Maine wood. The design? Bill suggested to Neil that he use a war canoe design available from the United States Canoe Association. "Nope," said Neil, "I want even the *design* to be native Maine. I'd like to use a blow-up of your design for the 'WS'." ('WS,' which reads either "Whitewater Special" or "William Stearns," is an 18'6" racer designed by Bill and manufactured by Lincoln Canoe Co.)

Bill thought that sounded like a reasonable idea, and Neil went to work on his 27'11" canoe. He denies having had the usual legendary troubles of Men Who Build Ships in Cellars, but admits that he did have to move a cellar post to make room for construction and that he removed a window moulding to make an exit for the 'ship.' He also admits that when he, Ed Mendes, and Bob Waddle stepped back to celebrate after putting the final touches on their fiber-glassing job — patting each other on their backs, congratulating themselves on a job well done — one of them chanced to give a close look at the work of art. Horrors! The glass cloth had started to slide!

What could be done with 28' strips of 60" wide gooey, slippery cloth???



Maine Indians in general are suing for ownership of more than half of the state of Maine. One Indian in particular claims part ownership of the above canoe, the new 'State of Maine.' In the latter case, the claim is well justified — the canoe's builder, Neil Phillips, is a Penobscot Indian.

Photo by Bill Stearns.

Should they sit on them to hold them in place?

The celebrating came to an abrupt halt while they put their heads together in an attempt to come up with a solution. They decided to mix some 'hot' resin and coat the whole surface. Luckily, it hardened everything in time to prevent a calamity.

Back to celebrating.

Neil never did say how he persuaded his wife, Carole, to put up with all the sawing and resin fumes in the house. The direction books don't offer any advice on the subject To each his own. . .

Whatever Neil tried must have worked—he and Carole are still on speaking terms. His only problem now seems to be that of deciding on a crew. With war canoes, it's often a problem finding *enough* men to man them; Neil's difficulty is that he has twenty eager crew members—twice as many as

he needs! They'll probably rotate so that everyone will get a chance to paddle in at least a couple of races before the season is over.

The big boat should be quite an attraction at the races; it's wider than most canoes (52" beam compared with 38" for the old canoe) and lighter—it weighs just a little over 200 lbs. How come so light? That's a little gem of information I've purposely saved for last . . . it's a *strip* canoe (Eastern cedar, $\frac{3}{8}$ " x 1 $\frac{1}{2}$ "-2").

We in Maine are throwing out the claim that this war canoe is THE LARGEST GLASS/WOOD STRIP/GLASS CANOE EVER BUILT: 27'11" long, 52" wide, 18 $\frac{1}{2}$ " deep from rail to bottom, built for a crew of ten men.

Now we realize that there is no way to prove a theory like this, just as there is no way to prove that all snowflakes have six points, but until someone produces a counter example to *disprove* our theory, we'll flaunt it about!

Consider that a challenge.



The new 'State of Msine' being launched for its maiden voyage on March 12, 1977. "Sleek and fast" was the verdict.

Photo by Nancy Stearns.

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READER'S SOAPBOX

KEEPING YOUR HEAD

Recently I had an accident while kayaking in the main section of the Delaware River near Scudder's Falls. I was wearing full safety equipment (helmet, and flotation device rated about 15 lbs.) . While playing in very easy water (Class I), I went over, and while setting up to do a roll, my head hit a rock, giving me a deep cut just above the right eyebrow, and knocking the right lens out of my glasses. My HIPP helmet, a normal plastic type with a chin strap, came off my head and sank. I bageled (came out of boat), not wishing to meet any other rocks which may have been below. When the boat had washed down to a relatively shallow and calm area, one of the two kayakers I was with lined her kayak next to mine, with her paddle across the rear of the two cockpits for support. This method worked well, as even with the boat swamped, I was able to get into it, and paddle to shore. The cut was deep, bled a lot, and required four stitches. There may be a slight bone chip fracture.

This incident led me to some observations on safety:

1. An accident can happen anywhere, at the most unexpected time. (I had been playing all day at Scudder's Falls itself, a Class 2 or 2½, and had rolled several times with no problem, then I had a serious accident in Class I water!)
2. It is important to read not only the water, but the river as a whole. Perhaps extra care should be taken not to go over where the width of the river, and speed of the water point to the likelihood of shallow areas.
3. Most importantly, being able to do a consistent roll should not give a false sense of security. Every time the head and body are underwater there is danger of hitting something (unless the water is known to be free of obstacles). Therefore it may be wise to develop a better brace, and rely more on that, rather than considering the roll as the end of a hot dog maneuver that started because the kayaker read the water wrong and then missed his brace.
4. Why didn't the helmet stay on? The chin strap was fastened comfortably tight (although not as tight as possible as that gives me headaches). Apparently when the rock hit me, my head snapped back, and the strap slipped easily over my chin. If there had been a second rock, my head would have been completely unprotected.
5. The front of my head and face was completely unprotected by my helmet. The only way I see to protect the face is a strong clear shield of a material such as Lexan polycarbonate, or bars such as those used on football helmets. As the helmet would have to be light and vision unimpaired, possibly bars of Kevlar or graphite reinforced plastic could be used. I am not familiar with any helmets sold today that have these features, but they should be available.
6. If I had been knocked unconscious I probably would have died. A personal flotation device is not a life jacket, and I doubt very much that the normal 15 lbs. flotation would have floated me on my back with my face out of the water. An idea for a life jacket device: If, on the outside of a normal flotation device, there were attached an elastic inflatable

vest similar to that used for buoyancy compensation in scuba diving, this would be quite helpful. The vest would have a small 3 inch CO² gas cartridge with a pull string. In an emergency, when extra flotation is needed, such as when a kayaker feels he is going to pass out, he could pull the string which inflates the vest immediately. The vest would be designed to float the kayaker face up. The scuba vest I had, had 80 lbs. flotation! If the kayaker were unconscious, another boater could easily pull the string for him. It may be of use to a boater in a nasty hole, or someone with hypothermia. If well designed, this vest would be very light, and have no bulk at all, so it would not interfere with paddling.

I would enjoy hearing from anyone who knows of helmets or vests on the market such as those I've described. Also, from anyone interested in designing such devices, or interested in buying one if someone does produce them.

John Spillane
R.D. 1 Box 138
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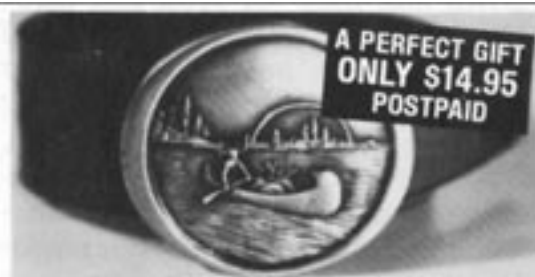
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BIG BEND: THE NORTH FORK OF THE FEATHER RIVER

Photos by Joe Bauer; text by Joe Bauer and Carl Trost

*An old German tale tells of a young man who was hiking through the countryside when he came over the crest of a hill and found a small village nestled in a pretty valley. When he entered the village, he found it was in the midst of some special celebration. He also met a beautiful maiden with whom he toured the festivities. Of course, they fell in love, but just **before** midnight she hurried him from the town and made him promise to wait on the hill until morning. When he awoke the next morning, the village had vanished! When he told his story in the next town, he learned of Germelshausen, a community so wicked that God had banished it from the earth, but then relented a bit, permitting the village to return for one day in each 100 years.*

*This fall, kayakers found their own Germelshausen, a run on the North Fork of the Feather River so **magnificent** that the Dept. of Water Resources banished it beneath the waters of Lake Oroville. Three special conditions are required to make the run reappear: Lake Oroville must be exceedingly low, as it was in this second year of drought; still, there must be enough water in the mountains for **P(acific) G(as) & E(lectric)** or natural **runoff** to put water into the run; and the **runoff must** last long enough to **flush** the silt out of the stream bed.'*

This has been a lousy year for **white-water** in California. After two years of drought, almost every river in the state has dried up. The notable exception is the great Klamath River in the extreme northern part of the state.

So I was surprised when an expatriate Tomales Bay Kayak Club mem-

ber, Tim Yarish, called and asked me to join a trip to a run I had never heard of, on the North Fork of the Feather River. This was a surprise because I didn't think there were any runs left on this river.

The North Fork of the Feather River is one of California's most spectacular and beautiful canyons. It is also one of the most developed. Small diversion dams and power plants stairstep the entire river from its headwaters, the huge natural Lake Almanor, down to the backwater of Lake Oroville, the 3½-million-acre-foot reservoir backed up by 770-foot Oroville Dam. This kind of development leaves a hop-scotch pattern of slack backwater behind the small dams alternating with dry riverbed where the river is run through a pipe to the next power station. And this is all plainly seen from Highway 70 which follows the river most of its tortured length. Except, that is, at Big Bend, where the river sweeps away from the road in a beautiful ten-mile oxbow. The only reason this section hasn't been developed like the upper part of the river is because it's normally under Lake Oroville. This is also why I had never heard of the run.

*The conditions that brought us the run were a 43%-of-normal **runoff** on the Feather River in 1976 (revealing about three miles of river in **October**) followed by a 20%-of-normal year in 1977 . . . With the lake down 23.5 feet below its maximum level, the river run consists of six miles of Class 4 rapids (**International scale of six**).[■]*

The put-in is right below the last powerhouse on the North Fork (Poe powerhouse). After a short paddle



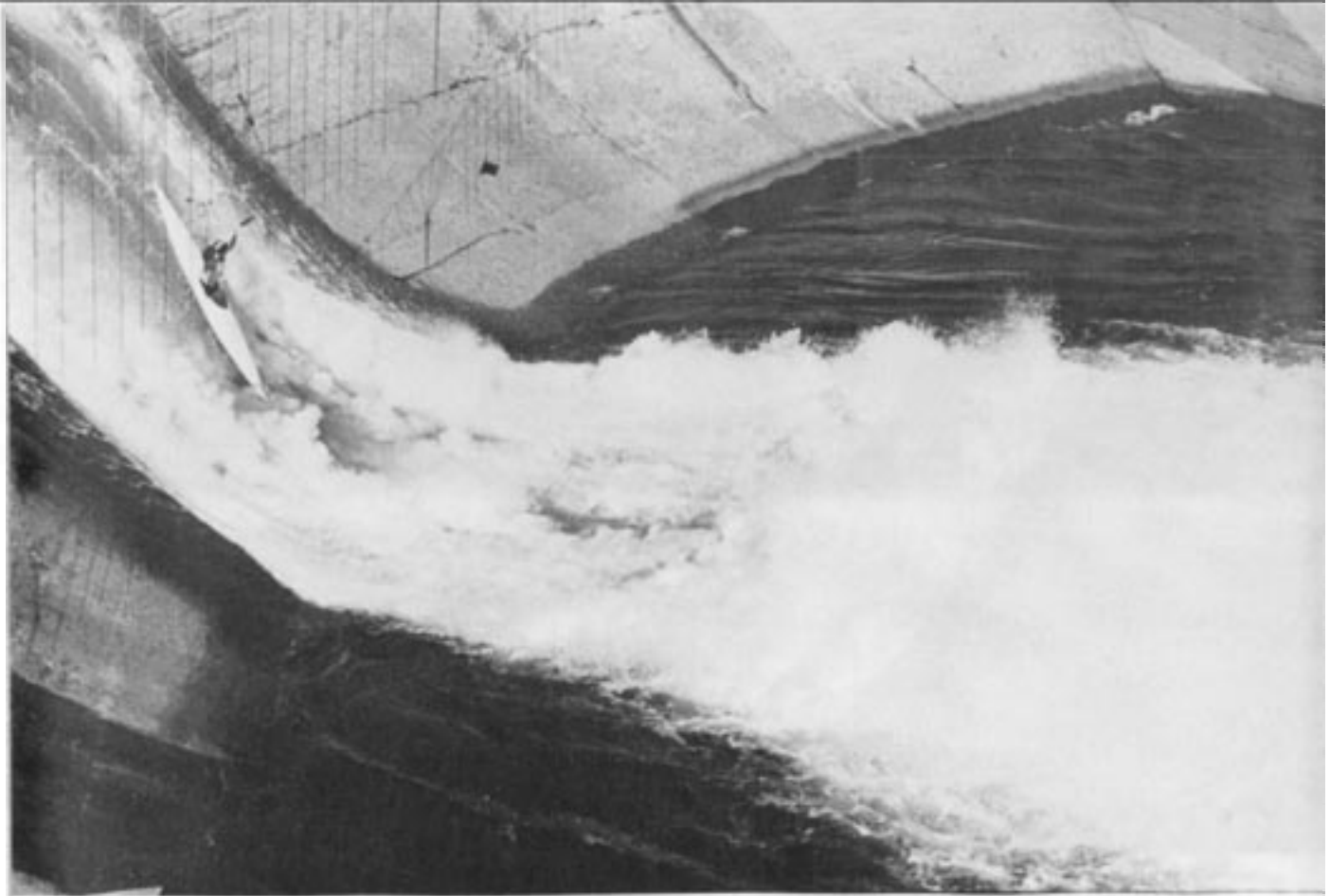
About to take the Big Plunge. The chains hanging from the cable are actually a good distance above and in front of the drop and are of no danger to the boater. They are visible from upstream and probably meant to be a warning.

across the slackwater formed by a 24-foot dam just downstream lies the most unique aspect of the run. The dam is runnable! There is a notch in the middle of the dam six or eight feet wide which concentrates the flow, and the bottom of the dam curves out so that the water and the boater shoot outward instead of down.

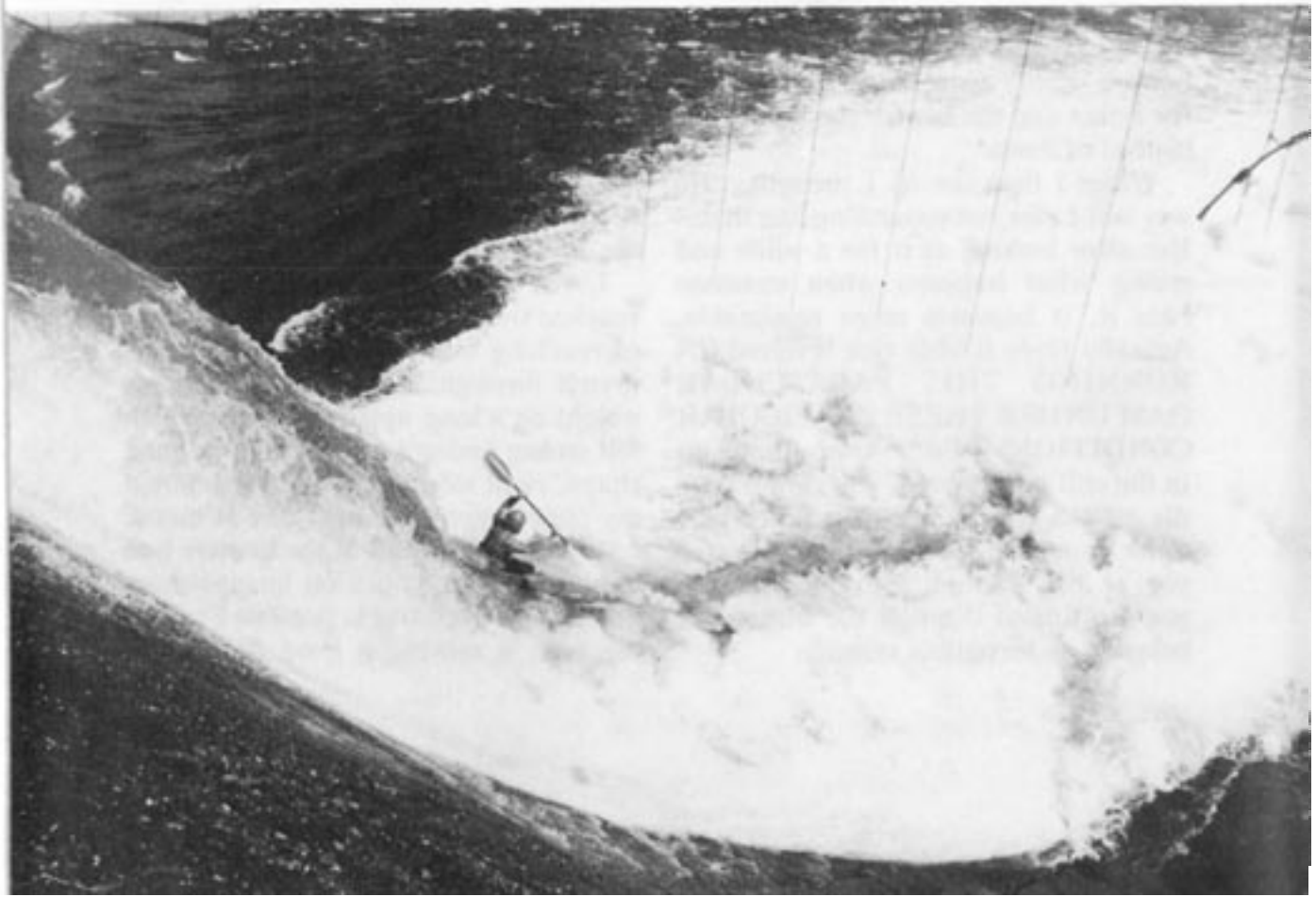
When I first saw it, I thought, "No way will I ever run something like that." But after looking at it for a while and seeing what happens when someone runs it, it becomes more reasonable. Actually there is little risk involved (IN RUNNING THIS PARTICULAR DAM UNDER THESE PARTICULAR CONDITIONS—Ed.). After lining up in the still water above, you simply paddle off the falls. The rest is taken care of for you. There is no hydraulic to stop you at the bottom. On the contrary, you are hurled through the whitewater below at an incredible velocity.

At the spillway, the water drops twenty-four feet in a smooth ogee and then explodes in a ferocious wave that appears as if it might tear apart kayak, paddle and paddler. Steve Rock, in a C-1, is believed to have been the first to attempt it, proving that the wave is largely air, and all of the forces obligingly propel the boater through without trouble (so they tell me). The alternative is a short but wicked portage up over the dam abutments.³

I was surprised to notice that as I reached the bottom of the drop, instead of reaching into the whitewater to pull myself through, I instinctively put my weight on a long upstream brace which felt strong and got me through in good shape, right side up. When I examined my photographs the next day at home, I found that most all of the boaters had done this—ride it out on an upstream brace. This of course is possible because the boat is moving a good deal faster



ABOVE: Kayaker in free fall. **BELOW:** John Bauer "shoots the chute" of the 24-foot dam below Poe Powerhouse on the North Fork of the Feather. The dam is runnable because its unique shape shoots the water outward at the base rather than forming the deadly reversal characteristic of dam runouts.



than the water (which was the fastest water I've been in). After hitting the whitewater, the boater completely disappears for a good 25 ft. When next seen, they are inevitably sporting an ear-to-ear grin.

It's an incredible thrill, but I feel that I should emphasize that **IT IS THE VERY SPECIAL SHAPE OF THIS PARTICULAR DAM THAT MAKES IT RUNNABLE**. Most dam spillways are **EXTREMELY DANGEROUS** because of the reversal at the base. The hapless victim is recycled back into the falling water over and over until exhausted, and drowns. A good general rule is **ALWAYS** to portage a dam unless it has been proven safe. And I don't think there are many safe ones. Remember, it doesn't have to be a big drop to form a dangerous "keeper." The shape of the drop has more bearing than the height.

The run from here on down is a **rompin,' stompin'** Class 4 — lots of

steep drops are hard to see from the boat and should be scouted. But with the 1500 cfs that we had on our trip, most of the drops were clean.

At the bottom of the whitewater run is the biggest rapid. Large drops in close succession and incredibly turbulent water make this a challenge for the bravest boaters. Reports of broken boats and injuries from the rocks just below the surface reinforce my original feeling that this one should be portaged. Shortly below here you reach Lake Oroville and the long flatwater paddle to Dark Canyon, the takeout.

One of the diversions in the flatwater paddle is the chance to boat through an old railroad tunnel, if the lake level is just right. The tunnel is 0.2 mi. long, and a 90-degree bend leaves the center section in darkness. Boating in pitch black and banging into the tunnel walls is an eerie experience. ■

Yes, the drought has made this the worst year for kayaking that I have

Tim Yarish runs a series of big drops on the North Fork of the Feather River.



ever seen, but it also made the Big Bend run possible: a very special run indeed.

*How long will the run remain? A rough calculation shows that if the outflow of Lake Oroville were shut off at the 600-ft. level, a normal winter could easily refill the lake and all of the upstream hydroelectric storage reservoirs by next spring. However, the lake is but a part of a fantastic plumbing system involving downstream after bays, diversions, pumped storage, and evaporation, in which the total inflows, outflows and storage are measured in millions of acre-feet per year. It all depends on winter and the downstream releases.*³

I would also like to mention that the California Dept. of Water Resources has been very helpful to river runners in

making flow data available. It has been a long time coming and is appreciated.

—Joe Bauer

¹Carl Trost, "Carl's Column." *Sierra Club River Touring Paddlers' News Bulletin*, Nov. 1977, Vol. 9, #11

²Ibid.

³Ibid.

⁴Ibid.

⁵Ibid.

AT RIGHT: John Bauer rips off a nose stand in his short boat.

The way the river has cut through the accumulation of silt on the reservoir floor and the naked hillsides make a strange landscape.





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AMMO TO USE IN FIGHTING FOR CALIFORNIA'S WILD RIVERS

By *Steve LaPrade, 1903B S. Woodland, Amarillo, TX 79103*

California residents are in such desperate straits as the result of drought that it is necessary to abolish the state's wild river system and dam these free-flowing streams: the Eel, Smith, Klamath, Trinity, Lower American and Van Duzen.

That is the claim state senators from the Central Valley and Southern California, headed by Ruben Ayala of San Bernadino, are making (see *American Whitewater*, July-August 1977).

But two recent publications—*The Wall Street Journal* for **Aug. 29, 1977**, and *Outdoors* for July (published by Mercury Marine, an outboard motor firm)—have revealed ammo river runners can cite to defend their wild waterways.

And the threat from Ayala's forces is real. The May 1977 *Sierra Club Paddler's News Bulletin* quoted the club's chief lobbyist in Sacramento as saying, "It's a real threat. The pressures are very strong."

Ayala is head of the state senate Committee on Agriculture. The implication is that farm production is dropping along with lake and reservoir levels due to the drought. That is supposed to be the reason why the wild river system, established in 1970, must be abolished. The theory is the rivers must be dammed to provide needed water.

But let's look at the facts reported by the *Wall Street Journal*.

The article reported no sharp drop in crop production. In fact, record cotton and grape crops were reported along with crops of many fruits, nuts and vegetables that exceeded 1976 production levels.

The California Department of Food and Agriculture reported crops by the end of the year will be near or above 1976 levels.

And all this production occurred, the *Wall Street Journal* reported, even though there was a major drought and agriculture accounts for 85 per cent of California's water use.

The article reported total planted acreage was down only 3% over 1976. Drops of up to 10% had been anticipated.

Crops needing heavy supplies of water showed some decline. Rice production dropped 18 per cent as farmers switched to less thirsty crops. But, the article reported, rice production was so good worldwide that if California farmers had stuck with rice, they might have encountered a sagging market for their goods.

The article reported that farmers countered the drought by shifting crops, digging new wells and using more efficient irrigation systems.

So California's farmers showed they have the spunk and pluck to counter drought without damming the state's wild river system.

Now pardon me while I get on my soapbox.

If the bill to kill the river system fails (and let's pray it does), the failure will come largely because farmers—the state's biggest water users—showed they could get by without the proposed dams. So conservationists need to reward these hardworking tillers of the soil.

Conservationists must urge the legislature to enact special farm legislation.

For example, if a farmer changed to a more efficient crop watering system or drilled new wells, he should be exempt from all state income taxes next year and should be allowed to deduct all costs of the improvements from his 1979 state income taxes.

Conservation groups should offer one-year free memberships to members of farm families. The Sierra Club might consider allowing discounts on its wilderness outings for members of California farming families.

Conservation groups should urge support of opening crop trade with foreign countries, even Russia, to encourage that farmers will have a good market and a fair price for their wares.

Finally, California river runners should buy only local fruits and vegetables instead of nationally advertised brands.

Now **I'll** get off the soapbox and back to the *Wall Street Journal*.

In the same issue mentioned above, another article showed urban California residents could meet the drought challenge.

When San Francisco residents were asked to cut water usage by **25%**, they astounded city fathers by reducing consumption **40%**

Sales of toilets using less water jumped from 13,000 in 1976 to an expected **55,000** this year. And, the article reported, **12,000** sets of toilet dams, to reduce water used, were sold in a **six-week** period.

In addition, the story reported, business has coped with the drought by hiring consultants to determine most efficient water use.

At this point, Ayala and his allies may cite declining lake and reservoir levels as reasons for damming wild rivers.

But *Outdoors*, the Mercury Marine publication referred to earlier, has an

article in the July 1977 issue showing the lake situation isn't all bad.

The article reports that Lake Almanor in **Plumas** County is so full as to set water level records unreached since the 1950s.

Eagle Lake in **Lassen** County was reported to have been rising in past years because the lake has no outlet. Why isn't Ayala examining this lake as a source of water?

The article reported of Lewiston Lake in Trinity County that there is "no water shortage here."

The water level of Thermalite **Forebay** and **Afterbay** in Butte County was expected to remain high through summer.

And Trinity Lake in Trinity County was reported to have large quantities of water for pleasure boaters.

Copco Lake in Siskiyou County was reported in the article to have high water levels in mid-summer.

You may have noticed Copco Lake is in the same county as part of the threatened Klamath River. And you may also have noticed that Trinity and Lewiston Lakes are in the same county as parts of the Eel, Trinity and Van Duzen rivers. But Ayala has made no move to draw water from these lakes.

The *Outdoors* article indicates some lakes are available as relatively unused water sources.

After all, why dam a wild river to form a lake when you already have a lake?

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BOOK REVIEW

BOAT BUILDER'S MANUAL,—Building Fiberglass Canoes and Kayaks *for* Whitewater, 3rd ed. (1977). Wildwater Designs Kits, 230 Penllyn Pike, Penllyn, PA 19422. 103 pp. \$5.

The first edition was almost required reading for anyone planning to build a whitewater boat; the second edition improved upon it (and was subsequently used extensively by clubs and builders in the U.S. and even translated into Italian by the Milan Canoe Club). The third edition is a fatter, updated improvement on the second. Most notable is new material by Steve Rock on epoxy and vacuum bagging techniques, and by Gary Myers on health and safety aspects. Perhaps even more valuable to the one-time builder is the information on vinylester resin and recommendations (based on actual observation and performance reports) on **layups** using the new miracle fabrics. Best of all, even tells where to order the stuff. Also tells how to make spray skirts, bracing and fittings, open canoes, molds, and various other things. A practical man: "A repair-compulsive type might want to smooth off any small rough edges on the patch, but I'll let the river do the work. Cheerio!" I like his style.

Single copies are available from the author at cover price plus 50c postage. It has to be a bargain.

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"Whitewater, PA"

A 28-min. film for general audiences, "Whitewater, PA" will be broadcast by PBS on Wed., Jan. 4, 1978 at 10 am E.S.T. (Check local listings as PBS scheduling sometimes varies.) This film was produced by Penn State Television, with the Penn State Outing Club serving as advisors. A 37-min. version of this film is available for sale or rental in 16mm film or video cassette. For information write:

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