

the news

the journal of Grand Canyon River Guides. Inc.

volume 6 number 2

summer 1993

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Common Misconceptions About Big Boats

Shane Murphy

ommon misconceptions about big boats: They can go anyplace, anytime.

This weird 'thing' seems to argue that big boats are easy to drive, because of their motors, and can bust through any wave on the Colorado River with an easy, stupid-minded aplomb.

False. They ain't easy to maneuver. For starters, they're huge. Except in Grand Canyon rapids, where they get very small, like everything gets in a Grand Canyon rapid, a place where small boats become absolutely tiny. No. Big boats get pushed around by waves just like any boat gets pushed around by waves. The bigger the wave, the bigger the push. Big boats frequently get pushed someplace they don't want to get pushed. They surf, just like little boats.

Horn Creek Rapid is a fine place for surfing big boats when the Colorado is low. In low water the run is on the left, after entering from the right, and requires a tight move while sliding down a smooth, quick slick of fastwater, past a pourover, and ahead of a mammoth lateral which awaits at the end of the slick. In a big boat it is a tight squeak between them. It is a move you've got to make. Slipping downstream and hitting the lateral will shoot you, at warp speed, into a round black rock, huge and very hard, the Bowling Ball, which is, oddly, on the right side of the river at the bottom of the drop.

Short story: I know a guy. Been driving big boats for 10 years, minimum; well over 100 trips. One of the best on the river. A respected gentleman who is married, does not smoke or drink, and, rarely swears. Outside of running the hole at Granite Park a couple of times many trips back when, he never had a problem; he has hardly ever dinged a prop. This guy is good.

One day, he did not make the cut at Horn Creek. It was the same day a helicopter and fixed wing airplane collided below the South Rim on the Tonto Platform, but that is another story... Anyway, that same day he didn't make the cut. He, and his big boat, were dispatched post haste into the Bowling Ball... BOOMMM!!!

AND...the front of the boat was damaged beyond recognition. That is a tough act to follow in a rubber boat. A miracle: Nobody lost any arms or legs or feet or anything. (continued on page 25)

the news

...is published more or less quarterly by and for Grand Canyon River Guides.

Grand Canyon River Guides

is a non-profit organization dedicated to
Protecting the Grand Canyon
Setting the highest standards for the river profession
Providing the best possible river experience

Guide Membership is open to anyone who has worked in the river industry.

General Membership is open to everyone.

Membership dues:

\$20 per year \$100 for 6 years \$195 for life \$277 Benefactor

Please save us trouble and renew before you're due.

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We *need* articles, poetry, stories drawings, photos, opinions, suggestions, and more.

Written submissions should be 1500 words or less and, if at all possible, be sent on a computer disk. PC or MAC format; Word Perfect or Word are best but we can translate most programs.

Deadlines for submissions are the 15th of January,

Deadlines for submissions are the 15th of January, April, July and October.

GRAND CANYON RIVER GUIDES
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Why We're Here

People, usually our moms and dads, often ask us just what *is* it that we're doing with our lives. It's a damned good question; one we often ask ourselves. Some of the clues I've gotten toward the answer have come through those I've run into along the way...

Early seventies: I was a young, gangly, relatively clueless boatman, leading 7-day motor trips through the Canyon. I confess, my interpretive skills were minimal, but I got the folks to Pearce Ferry every time. Well, all but once, but that's another story.

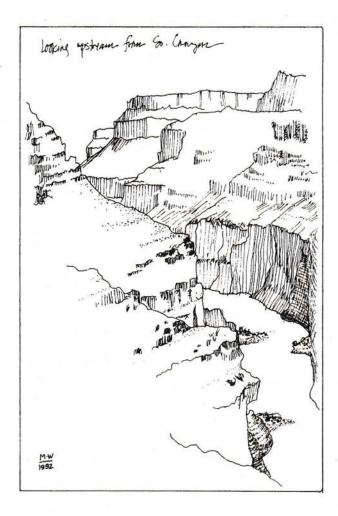
I'd been doing this for while when I ran a trip with an old Sanderson boatman called Giant. The man blew my doors off. He was a school teacher in real life and he really knew how to teach people things, how to convey things. A performer. A bit of a ham, too, but you know what? On the last night, around the campfire, when he wound up his spiel, people cried. The whole group was so moved with what had happened to them, what he had helped happen, that they cried. I mean, people always have a good time and all, but he made it into a much more accessible thing, helped them to get so much more out of it. And they cried.

I studied. I changed my whole approach. My trips become a bit more of an experience than a tour.

Later: The early eighties and I was rowing a trip for Wilderness World. At the damsite Jimmy Hendrick, trip leader and famous wildman of the river, took us all into the tunnel for a talk. Again, my doors were blown clean off the hinges. He told the story of Brower's fight against the dams, and how Brower won by mobilizing the nation. He told them this in the pitch black with no flashlights. He told them that it was up to them now to keep up the fight, to keep informed, to not be *in the dark*, to join conservation organizations and write letters. He told them it was their duty and they believed it because he was right. We entered the tunnel with a bunch of plain folks and left with a group of conservationists.

Again, I studied and worked on how and what I can do down there.

So then I was up in Desolation Canyon, rowing into Rock Creek and saw my old best pal from High School standing there. Bruce Hamilton, the guy who sent me out west so long ago. I hadn't seen him since, but I'd followed his career: he was already a very big wheel in the Sierra Club, out there saving the world. And I was still a lowly boat-schlepp, pissing my life



away, having a good time floating down the river. I told him this and I apologized for it. He looked at me, puzzled, and said something like" You don't get it, do you? You're the ground force. You're the one connecting with people, changing lives, motivating them, pointing the way. What you're doing is every bit as important as what I'm doing. If not more so."

Now it's 1993 and I've been trying to write this essay for several months, trying to figure out how to say what I want to say. And suddenly I don't have to because this letter arrived that says it all, far more eloquently and genuinely than I ever could. Read this:

March 22, 1993

GCRG:

A few months ago, I noticed in the Newsletter that you asked the guides for any interesting stories they had received from clients. I tried to write a letter explaining how my Grand Canyon Experience changed my life, but it was quite long and I got all philosophical and mooshy.

My favorite movie director and writer, Lawrence

Kasdan, said this on the radio recently: People have one of two reactions when they see the Grand Canyon; one is to feel small and insignificant, the other is to realize how short of a time we are here and that we need to start doing something with the time we have left – something valuable and worthwhile.

To make a long story short, when I got back from my "vacation" (a trip so unlike any other, it's difficult to classify it as just a vacation), I assessed my life situation while bulldozers pushed dust and noise and the highway closer and closer to my little pink house at the end of the cul-de-sac. I was one month away from 30, had lived in California my whole life, and worked as a secretary in the same office since I was nineteen.

I decided to quit my job and move to Alaska.

Since that decision, five years ago, I have changed my career, changed my friends, quit wearing high heels and make-up, I write to my congress representatives all the time stating my opinion about one thing or another, I started recycling, I became a volunteer firefighter, I sang in a rock band, I was a d.j. with my own radio show, and most recently, I organized a pro-choice organization in an area where about 1/3 of the voters are anti choice and another 1/3 just doesn't care one way or another, about anything... well maybe one thing... conquering the wilderness.

I can't say that my adventure in the canyon is completely responsible for my new life, but it did awaken something in me that had been smoldering, just waiting to be ignited by the spirits of the blowtorchey corners, the shocking icy droplets, the caress of cool green ferns, the secrets of ancient red and orange and purple rocks, the illuminating turquoise waters, and the smooth brown skin of the young Indian boy who quietly joined beside me behind the waterfall to sty on the unsuspecting river rats frolicing below.

I guess I can't help getting philosophical and mooshy; my memories of the Grand Canyon are inspirational and sentimental.

Thanks for everything you have done to protect the Grand Canyon. One of your river guides is indirectly responsible for my writing of the enclosed letter. [urging British Columbia to spare the Tatshenshini from development]

You guys/gals care about things that are important! Keep up the good fight.

Sincerely,

Deborah Gilcrest Soldotna, Alaska

Yeah. What she said. So get in the boat. We've got a job to do.

Brad Dimock

Dear Eddy

[regarding Lew Steiger's article on Martin Litton]
Now- I note a comment, "Met the Hatch boys up
in Utah around '52, when they were teenagers learning
to be guides", when Litton found us in Dinosaur.

I was 25 years old and had been guiding for 9 years - rowing most of my life - when I rowed Litton through Lodore- (his first trip).

History is great and often tough to dispute - if you weren't there. It's like a pretty woman in a whore house. The temptation is to over-dress, embellish and over paint a good thing.

Now mind you I've never done this...

Don Hatch

We don't need no stinking signs up at Marble Canyon where we clean up the highway. Ed Abbey condoned cutting them down. Who are we to put 'em up?

Mike Boyle

An Issue, Not a Crisis

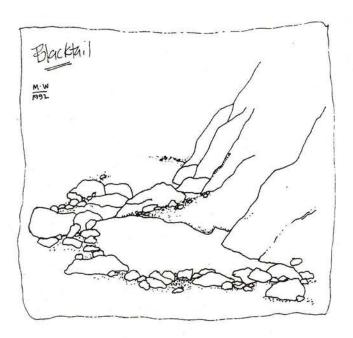
omething shouldn't have to reach a crisis before people take notice. In fact, we've found that by the time it gets to be a crisis it takes a hell of a lot of time and effort to get anything done. And crises often don't even address the most important issues. We've found it a lot more productive to develop lines of communication that avert crises, to work things out ahead of time. And this is just such a case.

Grand Canyon National Park is in the process of developing a General Management Plan. It's hard to

To request a copy of the Scoping Summary and get your name on the mailing list write:

General Management Plan Grand Canyon National Park P.O. Box 129 Grand Canyon, AZ 86023 overemphasize the importance of this document. It will reaffirm the basic management philosophy of the park, and it will outline ways to achieve management objectives over the next 10 to 15 years. Some of the more controversial issues include development on the North Rim and the range of services that should be offered just outside the Park

at places like Tusayan and Cameron. The Colorado River Management Plan, revised only a couple of years ago, will be folded into this new, larger document.



The important thing is that this is a <u>public process</u> which means you can and should be involved. The process began with public "scoping" meetings in Arizona and Utah in late 1991. They led to a Scoping Summary, which was sent out in early 1992. Due to the scale of the project and the number of issues that need to be addressed, the planning process takes a long time. Further public meetings are planned for fall of 1993. The final document is expected to be approved sometime in 1995. We'll keep you informed when meeting dates come available but in the meantime we recommend you become informed on the issues. There will never be a better opportunity to make a difference.

Tides

e'd like to give another hearty thanks to the Tides Foundation, specifically the Grand Canyon Conservation Fund, for their continued support of our efforts. Last year Tides bought us the snazzy computer that the newsletter is created on. This year they have awarded us \$3000 towards publishing, the Guides Training Seminar and other projects.

The Grand Canyon Conservation Fund, for those of you who don't know, comes from those passengers of participating outfitters who choose to add a dollar a day to the cost of their trip, to be used for causes benefiting the Canyon. We're very proud to be considered such a cause. Thanks one and all.

The Board

A

few have asked just what it is the board, your board, does. You elect us and you get the Newsletter, but what do we do?

Lots. Most of it's invisible. Some of it's pretty tedious. Some of it's a lot of fun.

Board meetings:

We try to have these twice a month in the off season, and occasionally during the summer. They last about 2-6 hours. We analyze issues, decide on appropriate action, eat pizza, tell stories, assign each other to head up committees and projects, and tip an occasional beer. Lately we've been working with Dan Davis on improving Guide Park relations, struggling with the First Aid issue, preparing the GTS, recruiting material for the next newsletter, and so on. Big fun. Some of the most energetic folks are often not even on the board- it's an open group. You should come.

Other meetings:

We go to a lot of meetings with the NPS, the outfitters, the Constituency panel, The GCEIS folks and more. They often seem tedious, but more often than not we end up providing a perspective that wouldn't have been there without us. Want to go to one?

Projects:

The newsletter, the GTS, First Aid, Oral History, Recycling, Archives, Adopt-A-Ḥighway, and so on. All need someone to spearhead them. All require a tremendous commitment to keep them going. So next time you think of something those guys at GCRG ought to do, think about heading up the committee to do it. We need your energy—there's so much to do.

Retreat:

In March we held a Board Retreat at Shane Murphy's, way out in the cinder hills near Roden Crater. We started from scratch on what we want to stand for and came up with the three things that have stood as our goals for several years:

Protecting the Grand Canyon

Setting the highest standards for the river profession

Providing the best possible river experience and we identified two more:

Maintaining a unified voice for the guiding community

Fostering and savoring the unique spirit of the guiding community.

The long and short of it is that we still really believe in what we are doing. We are working to make thinks simpler and delegate out more of the burden of responsibilities.

How can you help?

Well, in takes a while to get up to speed. The best thing is to start coming to board meetings, getting involved with projects, and taking an active part in GCRG's direction. Before you know it you'll have a full time job!

We don't meet much during the summer for obvious reasons, but if you want to get involved call, write or collar one of us on the river. We'll talk. See you there!

Canyon Monitoring: Do the Guides Want to be Involved?

he DRAFT Glen Canyon Dam Environmental Impact Statement is being released this July for public comment. It is imperative that you thoroughly review it and provide Reclamation with your comments and concerns. Within the EIS document you will see reference to a Long Term Monitoring plan and Adaptive Management. At GCES we are working closely with the research community, the National Academy of Sciences and the resource managers to design a workable, effective and scientifically credible long-term monitoring program. Our goal is to have this program developed this year and begin to implement portions of it next year. We would like to integrate the GCRG into the long-term monitoring plan. Brad has graciously offered to begin working with GCES to identify specific components of the longterm monitoring plan that the guides could assist us with. Bob Melville is soliciting guides interested in participating in the program. Our objective is to get a small group of committed guides who are willing to be trained in certain areas and who are willing to maintain good records and documentation for us. The work could range anywhere from taking pictures of significant events to maintaining remote cameras and sampling stations. The specific work will be dependent on the interest of the guide and the time available. The opportunity will be unique and will help us reduce the number of researchers and trips that we have to have in Grand Canyon. Please contact either Brad, Bob, or GCES if you are interested in participating. Thanks.

Dave Wegner

What's That I Hear?

s the controversy over air traffic and the resulting noise pollution flies on, our industry may want to step back and look within as well. There are sections of the Canyon where the solitude for the boater, hiker and even the rim visitor is routinely broken by over-flights. This solitude is also routinely broken along the river corridor by motor boats.

Now don't get your dander up — this is not an anti-motor campaign. I'm a motor boat driver myself and have been for 14 years. Motor rigs account for a hefty percentage of the total user days and provide trip schedules that fill a need. But they do make noise, and maybe more than they need to.

Since motor rigs aren't likely to go away anytime soon— and if we are offended by aircraft noise— it seems we should examine our own impact on tranquility as well. But noise reduction is not as simple as it may seem.

Three main factors work together to determine noise levels. First is the engine itself; a two-cycle engine is inherently noisy because of the reed valve system. Some brands seem to be a little quieter than others, but that has little effect on the other two factors. Second is the boat design; different boat designs have different noise damping or amplification qualities which vary depending on the frequencies generated by the engine. An engine that is quiet on one boat design may not be on another. Third is the operator; generally speaking the operator can make the

So the solution is simple: Take the reed valve out of the engine, dispose of the metal frames and break the driver's arm so he can only turn the throttle half way. But since that probably won't fly — what will?

greatest difference: the more throttle the more noise.

An easy first step is for us drivers to BACK OFF. Think about throttle control when passing another trip or camp. A small reduction in throttle on some boats has a dramatic effect on noise reduction. We owe those we pass that courtesy and a few minutes at a little lower speed shouldn't effect our schedule.

The steps beyond that are not as simple although not impossible. As a group we have a tremendous resource base to draw on to attack this problem. Some of you have been working on this issue individually for years. There are engine covers, sound dampening foams, baffles, props, etc. But what items, or combinations of items, really work and are cost effective is not generally known.

This is where you can come into the picture. If you have worked on this problem, with or without success, let me know what you have done. If we put our collective resources together, hopefully we can reduce our impact on the Canyon and save what hearing we have left. Write with your experience and ideas c/o GCRG or give me a call at (602) 585-6943.

Tom Vail

Share Your Membership

s GCRG worthy of the membership of your passengers on the river? Would they enjoy being members? You bet it is, and they would! More than any other group, we speak and act for the protection of this special place. These folks are having the time of their lives and they will treasure these memories forever. Many of them will be flattered to be asked if they would like to join the guides' association, and they will be excited to do so. Especially when they find out that they will be receiving the news 4 times a year, with all the news that anyone could wish to know about Grand Canyon. It is a way they can keep in touch with the place, the guides and the Canyon Spirit. Let them know it's an option, and that we appreciate their membership and their participation.

Remember, it's great for us to have a larger, more effective membership: more influence when we need a response to our calls for assistance in letting the authorities and politicians know what needs attention, and more revenue from dues. So give your passengers an opportunity to join. Carry a bunch of the GCRG membership folders (brown, three panel, folded, 3.5" X 8.5" flyers) which describe who we are and what we do. Supplies of these folders are being sent to each outfitter; so ask for them and stick them in your ammo box. At some appropriate moment tell the folks about GCRG and then ask them if they would like to join. Carry your last issues of the news to show them what they will be getting. Try to hang onto your issues, but if they disappear just give the office a call and we'll send you some more. Tell the folks that we don't trade our mailing list to anyone, and we don't solicit money in any of our mailings. And most important of all, we are effective in protecting and improving the quality of the experience of a river trip through the Grand Canvon.

Bob Melville

Soap Issue Continues to Be Slippery

A

s you may know, I installed a soap dispenser in the Ladies Room at Lees Ferry this summer. In less than 24 hours, I was asked to remove it by the Park Service. This has been an on going THING with me. Why are the Concessioners expected to follow Federal Regulations and the National Parks seem exempt?



January 8, 1993

Allison Good, Safety Manager Glen Canyon National Recreation Area

Dear Allison,

After attending the Seminar at the South Rim on Safety and Health for Grand Canyon Concessioners I realized you may be helpful in solving a potential health problem for those of us who frequently use the restroom facilities at Lees Ferry.

Commercial Guides as well as the many visitors to Glen Canyon have been asking the Rangers for soap to be available in the public restrooms since they have been constructed. In July 1992 a letter was written to the River Unit concerning this matter. The letter was referred to Superintendent Lancaster, who stated, "...reasons why we do not, which includes improved personal sanitation, the maintenance of soap dispensers, added cost of soaps, liability of soap products, vandalism to dispensers, theft of bar soap, etc."

Isn't all that irrelevant when the Code of Federal Regulations states, "Hand soap or similar cleansing agents shall be provided." Please refer to 29 CFR 1910.141 (c) (2) (iii); concerning this matter.

Sincerely'

Patty Ellwanger

Patty Ellwanger

March 11, 1993

Dear Ms. Ellwanger,

This letter is written in response to your correspondence dated January 8, 1992, requesting handsoap in the Lees Ferry restroom facilities. You stated that commercial guides as well as Glen Canyon visitors have asked rangers for soap to be available in the public restrooms.

Problems such as the maintenance of soap dispensers, added cost of soaps, liability of soap products, vandalism to dispensers, theft of bar soap, and effect on a leach field that is at capacity are factors which have lead to our policy decision.

In Addition, you cited 29 CFR 1910.141 (c) (2) (iii) as the regulation that requires handsoap be made available. This is the Occupational Safety and Health Administration regulation which governs industrial operations. The Lees Ferry restrooms are for public use, and our personnel do not use these facilities to address their sanitation needs. It is our recommendation that if commercial guides consistently request soap to be available, that they carry soap on their trucks to be used at their convenience.

We hope you understand our position on this matter, and we appreciate your continued interest in Lees Ferry.

Sincerely,

John O. Lancaster Superintendent

Well?

Peg Bartlett, guide and school teacher, sent us the following question from the 5th grade
Stanford Achievement Test, Science section.
As she says, "One of them *must* be right."

- 44 Which job would a geologist most likely do?
 - F Use a large machine to mine coal
 - G Sell petroleum products to stores
 - H Hunt for new places to find uranium
 - J Teach people how to carve marble

The EIS Alternatives: Send One Boat Down the Other Run

hen you stand on a rock at the top of a really mean rapid for the first time and stare down into its foamy waters, what you really want is some folks you can trust up there with you. When you contemplate the options, you'd like everyone to agree on the run. The trouble is often guides will choose different runs, each absolutely confident in their choice and equally adamant against the others. And when one tells you that you can't miss that hole if you try that run, well, you're very concerned. You hate to leave that rock until all agree.

Such was my fear of the outcome of the Glen Canyon EIS. I was afraid that, like so many confident boatmen, the EIS Cooperating agencies (NPS, BuRec, WAPA, AZ. Game and Fish, US Fish and Wildlife Service, and 5 Native American tribes) would arrive at the choice of a preferred alternative with a difference of opinion as wide as the Canyon. But to their credit that is not the case. As Steve Carothers pointed out in the last issue of The News, the nine alternatives have been narrowed to two: Seasonally adjusted steady flows, and Low-fluctuating flows. In fact all but one of the cooperators have agreed to support the Low Fluctuating alternative. It seems like a good run, so why the split opinion?

Its not sediment. For beaches the twin goals are to restore the dynamic processes of erosion and deposition to the Canyon's beaches and make sure there is enough sand stored to feed that process. Both alternatives are designed to provide a net gain in total sand storage over time and the annual habitat rebuilding flows will attempt to periodically replenish the beaches and backwaters. It's not vegetation, or trout, or cultural

resources or recreation either. All are well addressed by both alternatives. And if you guessed that the objector represents the power

resource you'd be wrong.
The lone dissenter is the U.S. Fish and Wildlife Service, the agency charged with the welfare of the Canyon's native fishes and the Humpback Chub in particular. The debate centers on the benefits of warm backwaters and goes something like this:

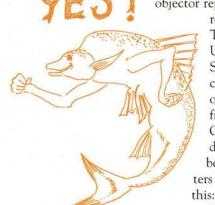
Many native fish

biologists believe that in pre-dam times quiet pools were created behind many large beaches during the receding waters of the Colorado's big spring floods. And that these provided a valuable food resource and nursery for the juvenile chub. These pools, or backwaters, warmed by the summer sun, became the home for algae which protected the small fishes and provided the base for a rich food chain. Sedimentologists believe that annual habitat maintenance flows provided in all alternatives can physically recreate these backwaters. Biologists feel that the necessary biological habitat and ecosystem can best be reproduced by releasing steady or near steady flows from the Dam. But potential downsides exist as well. First of all, the chub may not use the backwaters. Second, even if these warmer backwaters do help the chub these quiet pools may also be beneficial to the exotic species which prey on the chub. And increasing numbers of predators may do more harm than good. And finally, seasonally adjusted steady flows severely limit the hydropower resource. This uncertainty of benefits is what the debate is all about. The majority of the cooperators are skeptical. But fisheries biologists believe its important to test this hypothesis before supporting any fluctuating flow alternative.

Are they right? No one knows for sure. Given the Canyon's well-known summer heat, there is little doubt that the quiet backwaters will warm. Strong evidence supports the historic importance of backwaters to the chub. And since many of the predators we are concerned with today existed in pre-dam river as well they may not gobble up the young chub. The question is what will these post-dam backwaters look like biologically? Biologists argue that the hypothesis can only be tested under steady flows because it takes time for the biological community to form. (It's important to note that there is no expectation that this will lead to a second population of chub in the mainstem, an important component to ensuring the endangered species' future in the Canyon. To create the conditions necessary for large-scale spawning in the mainstem may require considerably warmer river temperatures and simply adjusting operations cannot provide that change. Studies separate from the EIS will be made on the practicality and advantages of taking warmer water off the upper levels of the lake with a multiple-level intake structure.)

One possible solution

There is really no reason it has to be one or the other, no reason we cannot operate the dam according



to our present knowledge of the system and test the backwater hypothesis. The EIS team, scientists and cooperators have done a commendable job of finding agreement out of confrontation. We are not charged with determining all future operations of Glen Canyon Dam. There will be a mechanism, called adaptive management, for adjusting operations based on information collected by further studies and the long-term monitoring program. The Low fluctuating flow alternative can be adopted with the stipulation that experimental steady flows be provided over the next 3 or 4 years so that backwater productivity be analyzed. Since the most critical time is during the summer, it's possible that experimental steady flows need only be instituted during that period. Not only could this analysis answer the question of backwaters, but it could provide valuable information for the longer-term attempt to establish a second population of chub in the mainstem with further efforts to seasonally warm the river. And by testing steady flows instead of implementing them, any adverse effects like increased predation can be carefully watched.

Certainly those skeptical on the importance of backwaters need to have confidence that the question will be addressed and answered in a timely fashion. To ensure this I suggest the fishery biologists design and submit a specific study that will allow backwater productivity to be analyzed before the EIS is completed. And that criteria be established on which a management decision will be made at the conclusion of the study period. With these completed I urge that the Low fluctuating flow alternative with a 3 to 4 year study of summer steady flows included be forwarded to the Secretary of Interior as the Preferred Alternative. The Grand Canyon Protection Act determines the direction of the EIS. It's mandate is to operate Glen Canyon Dam in such a way as to minimize damage to the resources of Grand Canyon National Park. And while I agree that downstream resources should have priority, the goal should be to find a balance that maximizes all resources. As one who feared the worst, that we'd end up split like a twig figurine over the preferred alternative, the process has been a real success. The fact that we have come so close to consensus is proof that diverse interests can come together.

It's not surprising that we have some differences of opinion. After all these rapids have not been run before. And we need not commit ourselves to a final run now. We can send most of our boats down the low fluctuating flow run that seems best to most of us now. And still send one boat on steady flows to see what that does for the chubs.

Tom Moody

Dam EIS Dilemma: A Proposal

riends of the River (F.O.R.) has been working to protect Grand Canyon since the early 1980's. We are concerned with the lack of sufficient studies on "steady state" flow regimes for the Glen Canyon Dam EIS. In a recent letter to the EIS study team, F.O.R. proposed that, as the first task of the Adaptive Management Plan, a well-planned, 3-5 year, research program on "seasonally adjusted steady" flow regimes be implemented starting in 1994. At the completion of the studies all of the new information can be put into context and reviewed to determine which flow regime and structural improvements are "best" for Grand Canyon. Guidelines should be established for making the final choice on a flow regime. If, at the end of this study, a team of preselected scientists determines that a steady state flow regime does not provide greater benefits to the downstream canyon, then the Bureau's Preferred Alternative would go into effect with F.O.R.'s support.

The Bureau is presently developing the "Low Fluctuating Flow" regime as their Preferred EIS Alternative. However they are mandated by the Grand Canyon Protection Act of 1992 to provide a flow regime which is best for the Grand Canyon downstream. We feel that if "base load" power would benefit the Canyon more than fluctuating flows, and did not impinge upon other authorized priorities of Glen Canyon Dam, the 1992 Act requires that this flow regime be implemented. Power production is clearly secondary to the protection of the Canyon downstream.

Only a limited number of "steady state" flow studies have been completed so far and many scientists agree that to make a sound decision, 3-5 years of the various steady state flows should be observed. Studies have shown that, during steady state flows main channel and backwater eddy temperatures increased. Temperature is critically important to the habitat of the juvenile chub and to spawning. Present fluctuating flows decrease the possibility for backwater eddies to warm substantially. The proposed in-depth research would determine, among other things, whether warmer water would also have an unexpected negative effect by allowing predators of the chub to flourish. By beginning in 1994 the study, along with possible studies on a temperature device and sediment bypass systems at Glen Canyon Dam, could be completed and considered in the final decision.

> Kevin Wolf and Andrea Gates Friends of the River

Trails and Tribulations

ou have this problem. As a boatman, you like to take your folks to special places. You like to seek out the new; the novel. You want it to seem like a wild and remote area, not a heavily cairned and constructed route. But time passes and you find more and more stabilized routes, more steps, more cairns.

What do you do?

Kick the cairns? Find a new trail route? Grumble and complain?

The Park, too, has a problem. People go places. They use their feet. They make tracks. As more and more people find out about more and more obscure places in the Canyon, they go there. They take their folks there. Tracks appear. Trails form. Lots of them. If enough people use the route, even the most environmentally sensitive routes will begin to show impact. Sometimes the sites themselves begin to suffer. That's a problem.

What can they do about it?

Monitor the situation. Try to decide if damage at a given site is occurring through multiple trailing or resource damage. If it is:

Try to establish and stabilize a designated trail with cairns or trail construction. Block access to the more destructive routes and revegetate them.

If damage continues, close the area.

Hold it. It's not us and them. These aren't two different problems. It's one big problem and we all need to work to a common solution. How can you help?

Prevent multiple trailing. Improve passenger education. Teach folks how to stay on rocks and off cryptogams; how to recognize *the* trail as opposed to a blocked off trail; how to walk softly.

Realize that the cairns are there because some people really *don't* know the way. Kicking them over creates a worse problem.

Be especially, super, ridiculously careful to find low impact routes when you're off trail. Don't create a new route that the next curious person will follow. And the next, and the next...

Sign up for the October 24 resource management trip; learn more about the hows, whys, and how-difficults of restoration. Put your two cents in.

It's like with everything else. You can be part of the problem or part of the solution.

Brad Dimock

Helping an Old Friend

Take only pictures, leave only footprints.
That's been the credo of Grand Canyon boaters for at least the last 25 years. And we take rightful pride in the fact that the Canyon's beaches are so clean that even a cigarette butt stands out. But we've found that even footprints can have an impact, and, over the years, the footprints can add up. Short of restoring 100,000 cfs of rolling, muddy water to the river each spring we can't depend on Mother Nature alone to heal her wounds. She can use some help....from us.

I'm sure nearly everyone is aware of the work done by the Park's Resource Management office over the past several years in the river corridor. Led by Kim Crumbo, crews have worked each winter to eliminate multiple trailing, stabilize eroding trails, protect vulnerable cultural sites, and revegetate sensitive areas. The work has been good and usually very subtle, the object to do as little as necessary and let the Canyon heal itself. Now its a team effort.

This year the outfitters are initiating an effort to make this program even more effective. The outfitters unanimously support it. The Park from Superintendent down endorse it. It's a natural partnership of outfitters, guides, and the Park, a chance to work together to solve the problems we all share. And naturally enough, our part is on the river.

We are the eyes, ears, and hands of the program. Our participation is critical in a variety of ways. First, it's our home and this is an opportunity to take even better care of it. Second, we can learn from the techniques used and educate our friends and passengers in ways to further limit impacts. And perhaps most importantly, the work done to campsites, trails, and attraction sites must be done carefully and with sensitivity. The techniques are constantly evolving and our opinions and sensitivities are necessary in determining what is acceptable and appropriate. A forum to discuss appropriate and effective techniques will be held at the South Rim on October 2. Guide, Outfitter and Park input is needed. You are all encouraged to attend.

The first trip is scheduled for Oct. 24 - Nov. 10. The 18 day row trip will be divided into two at Phantom and is limited to 13 guides on each half. Don't kid yourself, it'll be *work* but it will be rewarding as well. Those interested in the trip can sign up by contacting either Laurie Lee Staveley at Canyon Explorations (602) 774-4559 or Bill Gloeckler at Arizona River Runners (602) 527-0269.

Tom Moody

Passages

Wallace Stegner

The Dean of Western conservation thought.

Stegner's interest in the southwest began with a few Glen Canyon trips with Nevills in the 1940's, when he was writing Beyond the Hundredth Meridian, the definitive biography of John Wesley Powell. In 1955 he was tapped by David Brower to edit This is Dinosaur, the first coffee table conservation book. It was this project that first brought together the powerful conservation coalition that defeated Echo Park Dam and came near defeating the entire Colorado River Storage Project. Stegner wrote many great books on the West, winning the Pulitzer Prize and the National Book Award along the way, and becoming a great chronicler, proponent and conscience for conservation thought in the Arid West. He died April 13 at the age of 84.

Once I said in print that the remaining western wilderness is the geography of hope, and I have written, believing what I wrote, that the West at large is hope's native home, the youngest and freshest of America's regions, magnificently endowed and with the chance to become something unprecedented and unmatched in the world.

I was shaped by the West and have lived most of a long life in it, and nothing would gratify me more than to see it, in all its subregions and subcultures, both prosperous and environmentally healthy, with a civilization to match its scenery...

But when I am thinking instead of throbbing, I remember what history and experience have taught me about the West's past, and what my senses tell me about the West's present, and I become more cautious about the West's future. Too often, when they have been prosperous, the western states have been prosperous at the expense of their fragile environment, and their civilization has too often mined and degraded the natural scene while drawing most of its quality from it.

So I amend my enthusiasm, I begin to quibble and qualify, I say, yes, the West is hope's native home, but there are varieties and degrees of hope, and the wrong kinds, in excessive amounts, go with human failure and environmental damage as boom goes with bust.

from:

Where the Bluebird Sings to the Lemonade Springs: Living and Writing in the West Wallace Stegner Random House 1992

Maribeth Riffey

Many of us knew and loved the Riffeys, long time, nay, permanent fixtures on the Rim at Tuweap. After more than 40 of years rangering there, John died in 1980. Maribeth, who married John in 1965, was a well known naturalist and split her time between Tuweap and teaching at Western Washington University. She earned a Doctorate in Ornithology from Washington State University.

She was often along as an interpreter on Grand Canyon Expeditions trips and one of her treatises on the biology of the Canyon is included in the latest Belknap guide.

Meribeth died on April 15 and was laid to rest at Tuweap next to John. May their spirits ever watch over us.

a night a river and a friend

As high above on rocky crags, the snow began to melt, I searched to find the words to say, exactly how I felt.

It's evening here on river side, the water rushes past, We wish there was no outside world, We wish this time could last.

The beauty of the canyon walls, the beauty of your face, Reminds me why I'm here with you, to share this sacred place.

We have no inhibitions,
down here there are no lies,
I pause to watch the setting sun,
reflected in your eyes.

The canyon wren, gives one last song, I hold you tight, as night comes on.

Otis Willoughby

Harry Aleson, River Pioneer

John Weisheit

During trips to Salt Lake City from my home in Moab, Utah, I found time to visit the Utah State Historical Society. My favorite reading material came from the collection of Harry Aleson, one of the pioneering river guides of the Colorado Plateau. Space does not permit a detailed narrative, so please allow me to share with you this brief review.

arry LeRoy Aleson was born on March 9, 1899, in Waterville, Iowa. In 1918, while in high school, Aleson enlisted in the U.S. Army and served in Europe during the first World War. Upon his return to the United States, he resumed his education and in 1920 graduated from a high school in Minnesota. He then entered Iowa State College to study for an electrical engineering degree, which was not attained. Instead he worked as a farm laborer, U.S. Forest Service fire look-out, salesman, tax reformer and oil company surveyor, etc.. He tried selfemployment as well, repairing or installing anything that used electricity. In the state of Indiana he married Thursa Winona Arnold on April 7, 1928. In March of 1940, the couple legally separated without children. In 1961, while conducting a river tour through Glen Canyon, Aleson met Dorothy Donaldson Keyes, a social worker from San Diego County. In 1962, they were married at a place called Little Eden with river historian Otis Marston and fellow outfitter Ken Sleight as witnesses. They lived in the beautiful town of Teasdale, Utah, between Capitol Reef National Monument and the Aquarius Plateau.

Aleson's first encounter with the Colorado River came in 1939, when he toured Lake Mead for five days in a rented motor boat. He traveled to the end of the last rapid in western Grand Canyon. Impressed by the experience, he later established a hermitage at Quartermaster Canyon in 1941 and called it "My Home". Aleson conducted small lake tours as a guide for a touring concession in Lake Mead National Recreation Area. Eventually he purchased his own boat and called it the "Uplake". The "Uplake" was a 16 foot hard hull powered by a 22 h.p. outboard motor. In 1943, river runner and patron Julius Stone, hired Aleson for a special trip, wishing to replace the bronze plaque at Separation Canyon honoring the men of the 1869 Powell Expedition who had left the trip there. Lake Mead filled in 1941, inundating the original plaque. During this time, Aleson also monitored the U.S. Weather Station at Pearce Ferry. On one occasion, he was fortunate to converse with a visiting Lake Mead fisherman, William H. Edwards. Edwards

was a member of the Robert Stanton Expedition (1890) and the James Best Expedition (1891). Edwards was also the pilot for the steamship "Major Powell" on the 1893 voyage from Green River, Utah to Spanish Bottom in Cataract Canyon. Interestingly, both Aleson and Edwards have stone inscriptions at Rapid #15 in Cataract Canyon.

Aleson was fascinated with using power boats to up-run the rapids above Lake Mead. At first, Aleson began using company power boats to up-run the rapids. His first up-run occurred in July, 1941, after towing the Norman Nevills Expedition with kayaker Alexander Grant to Boulder (Hoover) Dam. Aleson ascended to the foot of Bridge Canyon Rapid (mile 234.5). Probably using the "Uplake," in June of 1943 he ascended to the foot of Diamond Creek Rapid (mile 226) and in October of 1943, to the foot of 217 Mile Rapid. In February of 1944, Aleson and Ed Hudson ascended as far as Granite Spring Rapid (221 mile). Ed Hudson is credited with the first hard hull down-run of the Grand Canyon in 1949.



Aleson and Friend.

Aleson was very serious about completing an uprun of the Colorado River to Lee's Ferry. The Grand Canyon river swims with Georgie White-Clark from Mile 218 in 1945, and Parashant Wash in 1946, to

courtesy of Utah State Historical Society and John Williams

Lake Mead were partly to determine a possible means to access established food caches downstream, a safety concern for Aleson if the "Uplake" wrecked during an up-run. He made detailed by-the-mile notes concerning the river's gradient to Lees Ferry. Due to a lack of financial and technical support, however, Aleson did not achieve the first Colorado up-run and the honor went to Jon Hamilton in 1960.

Harry Aleson's experience on the Colorado River extended into the upper basin as well. In March of 1945, Aleson up-ran Glen Canyon from Lee's Ferry to the mouth of the Escalante River. He would repeat this trip in June of 1947 with Georgie White-Clark. And again in April of 1948, with Mrs. C. Ruess - mother of Everett Ruess, the artist/writer who in 1934 mysteriously disappeared in the Escalante River wilderness. Aleson took Mrs. Ruess to the stone inscription, NEMO 1934, suspected to have been carved by Everett. In July of 1945, after helping United States Geological Survey (U.S.G.S.) employee Don Harris install the cable at Hite Crossing, Aleson up-ran the Colorado River to the foot of Dark Canyon Rapid in Cataract Canyon. Later in 1945, Aleson up-ran the small rapids above Moab, Utah, for a distance of ten miles. In July of 1947, he motored from Green River, Utah to Moab, Utah. When at the mouth of the San Rafael River, Aleson visited the home of river sage Bert Loper and his wife Rachel.

In October of 1947, Aleson's interest moved to the World War II surplus inflatable boats for use as a river touring craft. With Georgie White-Clark, the two completed a float trip from Green River, Utah to Hite Crossing, using a 12 foot, 7-man neoprene inflatable. In 1948, from his then residence in Richfield, Utah, Aleson hoped to start a touring company called Colorado Up River Expeditions. His proposed charge for a combined float tour of the Grand Canyon and motor boat tour of Lake Mead was \$550.00. The trip never materialized, but there is reference to a trip accomplished in May of 1948 down the Escalante River in surplus 7-man rafts.

In July of 1949, with a surplus 10-man named the "Mae Bee", Aleson joined a Don Harris Grand Canyon pleasure trip. He carried a passenger named Lou Fetzner. It was on this trip that riverman Bert Loper died. Later that year, Aleson joined Charles Larabee in a business partnership. Their company was called Larabee and Aleson Western River Tours. Although Larabee was a river enthusiast, having previously been a customer on the Norman Nevills 1940 expedition with Barry Goldwater, he was a silent partner leaving operations to Aleson. Aleson mostly conducted San Juan River trips to Lees Ferry and through Glen Canyon from Hite to Lees Ferry. The 9 to 12 day

tours cost from \$125 to \$175. James R. White, second husband of Georgie White-Clark, worked as a second boatman with Aleson during this time. Aleson eventually bought Larabee's interests and ran the business as a sole proprietorship. His longest commercial trip was made in 1951 from Green River, Wyoming to Hite, Utah. In 1951 and 1952, he completed two Grand Canyon trips with three surplus 10-man rafts. Aleson's written records don't indicate if these rafts were triple-rigged or not. The triple-rig design is credited to Georgie White-Clark during a 1954 Grand Canyon trip.

1959 found Aleson working for the U.S.G.S. monitoring the Bright Angel gauge/cable car near Phantom Ranch, Grand Canyon. On March 27, 1972, while fighting cancer, Aleson died in the Yavapai Community Hospital at Prescott, Arizona. The burial was performed in Oceanside, California, with the eulogy given by Otis Marston.

I would like to dedicate this article to the river runners of the Colorado and Green rivers who, like Harry Aleson, use planing river craft for touring: a craft that has come of age.

Good Luck, Bad Taste

ver the last several years the involvement of the Native American groups in the Glen Canyon Environmental Studies has increased tremendously. Today ten tribes are directly affiliated with the GCES work, bringing to us a new understanding of the importance of the Grand Canyon to their cultures and religions. We have learned a great deal from them as we have explored the archeology and cultural significance of many of the areas of the Grand Canyon. As we have been educated by our Native American colleagues it has become apparent that some of the things that we do in terms of superstition and good luck are often looked upon as offensive to the tribes. One of the concerns mentioned is the placement of "mementos" on Vulcan's Anvil. According to Loretta Jackson, the Hualapai consider the placement of good luck symbols and other paraphernalia sacrilegious. This is one example but is indicative of the impact that our actions may have. We are now beginning to better understand the significance of the Canyon to the Native Americans but have a long ways to go. We request that all of us begin to look upon our actions with a different perspective in regards to how we might be affecting others. Thanks...

Dave Wegner

Scourge of the West:

The Natural History of Tamarisk in the Grand Canyon

Larry Stevens

xotic tamarisk, or saltcedar, is ubiquitous ■ throughout the Colorado River drainage ✓ below elevations of about 6,000 feet. This small Eurasian tree is now the dominant phreatophyte (streamside) species along river banks in the American Southwest and in central Australia. Tamarisk was brought to the U.S. as early as 1805, and it was widely available as an ornamental on the West coast by the 1870's. Used for ornamental and bank stabilization purposes by 1900 in the lower Colorado River and Rio Grande rivers, tamarisk appeared in the Grand Canyon between 1922 and 1938. Its broad tolerance of drought and inundation, its enormous fecundity and wind-dispersal of seeds quickly allowed tamarisk to spread. It now occupies much of the new high water zone and pre-dam terraces, and it has invaded most of the river's tributaries as well. Today, tamarisk occupies more than a million acres of riparian habitat in the West where it is widely reviled by habitat managers.

Significant research has been conducted on water consumption and methods of control of tamarisk, but surprisingly little attention has been published on its natural history in the West. Over the past twenty years, I've spent a fair amount of time trying to understand how and why this exotic plant species has been so successful, and how its distribution may change in the future.

Taxonomy

The common, weedy, deciduous, five-stamen, white to red-flowering, small tree we call tamarisk in the Grand Canyon is one of 54 described species in the genus Tamarix in the family Tamaricaceae (Baum 1978). The Tamaricaceae are native to southern Eurasia and Africa, and contain three other genera: Holoachne, Myricaria and Reaumuria. The family history parallels our own, dating back to the Oligocene epoch along the waterways of Africa. The Greeks knew tamarisk as Myrica, and Linnaeus formalized the genus name in 1753. Our common tamarisk has been variably referred to as T. chinensis, T gallica, T. pallasii, T. pentandra and T. ramosissima; the confusion arising from obscure details of floral structure and the resolution of which will require studies of genetic relatedness to the Eurasian taxa. Revision of the Arizona Flora next year (we hope) will supposedly reinstate our taxon's identity as Tamarix pentandra.

The anthel (Tamarix aphylla) is the only other common tamarisk in the Southwest. It is a large (to

100 feet high), ornamental shade tree that rarely escapes cultivation and occurs at elevations below 3,500 feet in Arizona.

Reproduction

In the realm of reproduction, tamarisk is outstandingly successful. Tamarisk flowers are almost wholly insect-pollinated and it is not a self-compatible species. Tamarisk on higher terraces bloom from mid-April to mid-June in the Grand Canyon, and some plants along the river bloom throughout the growing season. The tiny flowers range in color from red to white between plants, and produce up to 32 seeds each. Consequently, a large, mature plant can produce more than 250 million seeds per year. These minute seeds are shortlived, surviving an average of about 45 days during the summer. Because an individual plant may live more than a century, 50 plants may produce a trillion seeds. Seedling densities of 15,000 seeds per square yard have been reported in the "green lawns" of tamarisk seedlings that line the Green and upper Colorado rivers, and the headwaters of southwestern reservoirs in midsummer.

But seed production is remarkably variable, even between individual tamarisk growing in close proximity. Approximately 10 percent of the plants around Lees Ferry are "duds", producing few or no flowers over a ten-year observation period. This may be a result of alteration of allocational strategies related to competitive interactions early in life, or to poor linkage between intra-plant maintenance (survival and growth) and reproduction functions in some as-yet-unexplained permutation of Darwinian logic.

Ecological Importance

Although tamarisk is fed on by more than 250 species of invertebrates in the Old World, as well as camels and livestock, few North American organisms use it as a food source. The only two common insects that feed on tamarisk are host-specific exotic species from the Old World: an eighth-inch green, browntipped cicadellid leaf-hopper, Opsius stactogalus; and a sixteenth-inch, white diaspidid scale, Chinonaspis etrusca. The leaf-hopper is readily visible on the plants in the summer months. It feeds on sap, "hoping" for amino acids but getting mostly sugar water, which it excretes in tiny droplets. Leaf-hopper densities are often so great that the ground (and often the shade-craving river recreationists) beneath tama-

risk, experience a gentle rain of leaf-hopper exudate.

This genus of leaf-hopper has a biblical history. When the Israelites ran out of food on their desert trek, Moses prayed for food and the Lord sent them manna. Manna is the sugary coating of the ground exuded by Opsius leafhoppers feeding in tamarisk. (An aside to the adventurous, it tastes reasonably good.)

Although our large, green, native Shoshone grass-hopper Schistocerca shosoni occasionally feeds on tamarisk foliage, its depredations are erratic.

Hippomelas sp., a beautiful metallic green (and usually golden-pollen coated) metallic wood-boring beetle is attracted to the sweet sap of new tamarisk foliage in mid-summer, but no wood-boring beetles feed on live tamarisk wood. Native termites avail themselves of some fallen tamarisk wood, and rare web-spinners (Embioptera) occur in tamarisk litter.

Several vertebrates feed on tamarisk. Beaver (<u>Castor canadensis</u>) commonly gnaw lateral branches that are about one inch in diameter, but rarely take down large tamarisk trees. Additionally, deer and bighorn sheep occasionally browse tamarisk. Red-naped sapsucker (<u>Sphyrapicus varius</u>) feed extensively on tamarisk sap during the winter months.

A Strategy of Tolerance

The success of tamarisk in the American Southwest is attributable to its wide range of physiological tolerance to moisture availability. Although tamarisk attains the stature of a small tree (up to about 35 feet high), it has a deep tap-root that may extend 100 feet or more in depth, with lateral roots that reach out 150 feet. Its roots anchor the plant firmly, and its dense, hard wood is resistant to battering during floods. As a phreatophyte, its roots are in contact with the water table or in the adjacent capillary fringe. Tamarisk can survive prolonged flooding better than any other woody riparian species in the Colorado River corridor. For example, a few plants lived more than 500 days with their root crowns inundated by the cold Colorado River water from 1983 to 1986.

Tamarisk is also an extremely drought tolerant phreatophyte, living in a range of water stress comparable with that of catclaw (<u>Acacia greggii</u>). In addition, tamarisk is a halophyte and is exceptionally tolerant of high levels of soil salinity. Tamarisk germinate readily along the Little Colorado River (LCR), and there are tamarisk saplings growing on the halite seeps above and below the LCR confluence. Tamarisk has a wider range of tolerance to moisture availability than other native riparian species.

If tamarisk is so successful, why are seedlings so rare in Marble Canyon? By limiting sediment transport, Glen Canyon Dam has created a stable, rather coarsegrained environment. Plants like tamarisk that

reproduce virtually only by seed simply can't germinate on Canyon sand bars, particularly those above the Little Colorado River. Species like coyote willow (Salix exigua) and arrowweed (Pluchea sericea) that sprout up from running roots can quickly dominate these habitats. Because tamarisk seedling growth and reproduction is strongly reduced by shading and chemical interactions with willow, it simply cannot become established. Even though a billion seeds many reach a beach in a year, no establishment is possible. Therefore, tamarisk remains dominant through a strategy of tolerance: although it is a good colonizer if conditions are right, it is not much of a competitor.

Management

By 1970 tamarisk occupied more than one million acres of riparian habitat in the West, attracting the disgruntlement of land managers on three counts. First, tamarisk transpires the weight of its foliage every hour at 80° F. This is a lot of water to lose to an exotic species. Second, tamarisk provides poor wildlife habitat in the lower Colorado and Rio Grande basins. In contrast, many of our Neotropical migrant birds along the Colorado River in the Grand Canyon nest preferentially in



River regulation in the Canyon is resulting in succession from tamarisk to clonal species, such as coyote willow (lower right corner)

tamarisk. Tamarisk in the hot, lower basin elevations typically exist in a water-stressed condition that apparently prohibits it from supporting leafhoppers. Leafhopper populations provide food for reptiles and obligate riparian birds during the middle and late summer months in the Grand Canyon, but apparently not downstream in the lower Colorado River basin. Third, tamarisk takes up space that native plants might otherwise occupy. Cottonwood has been largely displaced by the drought- and disturbance-tolerant tamarisk in the lower Colorado River and Rio Grande basins.

Tamarisk is used as a nectar source for honey producers; however, the dark, overly aromatic honey is used mostly as a food source for overwintering hives. The sugar potential of the sap has not been explored. Good chop sticks but poor fuel.

loto courtesy L. Stevens and Hazel Emergency Services



Our chef, the lovely Martha



Mel Telakte





Superintendent Bob Chandler



audience on the lawn

Spring Meeting

pleasant afternoon on the lawn at the Old Marble Canyon Lodge was the backdrop for the latest general meeting. Brad Dimock brought us up to date on the doings and thinkings of GCRG, and a we discussed a few issues such as air traffic, bridge construction and insurance/investment. We broke up into three work groups at that point to brainstorm on Professional Guide Education, Utah Boaters, and Boatmen in Transition. Then it got cold so we quit, ate dinner, drank beer, and went into the tent and watched Bob Rigg's slide show. Fabulous.

Guides Training Seminar

t was fun to see you all at Marble Canyon. GTS is a big project. For every body. It means lots of highway or air miles—or both—to a lot of people, weird logistics and all. This means you, whoever you are, however you participated. Thanks. Many, many thanks. The pay-off was when everybody showed-up and hung on for dear life. That is the best part ever.

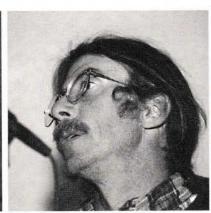
We done good, too. The land-based GTS was informative. Colorful. Clean. A bit, uh...breezy?! One of the best, especially when the Bigtop came down for the first time, on Sunday afternoon. The seminars were varied, slide shows colorful, and presentations professional, even when the going got rough, and...well, not exactly on schedule (as predicted, which was just as well). Thank you, hanger's-on, for being there when the brown blizzard blew worst. Thank you everybody. Thank you Jane Foster and Marble Canyon crew....the gale wasted our camp; we didn't



Brad Ilg, metamorphosing



Brad Dimock



Chairman Shane grand canyon river guides

page 16



Jeri, who makes it all work



A tough question for Larry Stevens



Jim Traub extricating a sinking truck



Thank you, Martha, for the chow, Dust Bowl and all. Thanks also to your crew (who failed to get mentioned to the crowd, individually; all my notes blew away in the blizzard). The food was great, and everybody got fat because of it.

Thanks also to AzRA and Canyoneers for supplying kitchens and trucks and toilets, and to the NPS for the audio-visual equipment.

And, sorry to be so brief with what follows, but, special and many thanks to our speakers (with apologies if this list isn't in alpabebetical order—or even if somebody didn't show up; that is beside the point. Since my notes blew away I've only got the original outline in front of me, and that predates GTS prehistory, if you copy my ferry angle): Bob Rigg, Gay Staveley, Bob Chandler, Kim Crumbo (I will walk softly, I promise), Mark Law, Jim Traub (great demonstration), Charly Heavenrich, Karen Shinkle, Dave Wegner, Dan Davis-and-Dan Davis, Tad Nichols, Don Harris, Roger Clark, Loretta Jackson, Richard Begay, Mel and Alice Telakte, Lanie Sutherland, Larry Stevens (both presentations were excellent, even the second one), Mike Sredl, Brad Ilg (special award for Most Flexible Speaker), Tim Randle-Dave Harpman-Larry Riley-Gordy Lind-and the lady...I'm sorry, I..uh...misplaced your name; Jack Schmidt (I didn't know that), Noel Eberz, Andre Potochnik (good show, Andre; excellent handout also), Ivo Lucchitta (Boatpeople, remember this: Ek=1/2mv²!), Jeffe Aronson, Jan Balsam, the participants of 83' Night-AND-Morning whoever you are and whatever really happened to you, and, Biscuit (who attended every seminar and never once snored very loud). And thanks for trying, to those who meant to come but couldn't make it: Barry



Fritz, Dirk Pratley, Dick McCallum: the Orange Menace



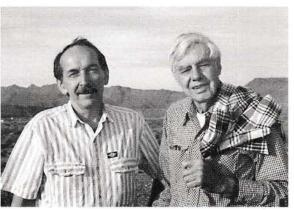
GCRG meeting: Education conference



Dan Davis, Canyon Dist. Ranger '53 - '60



Don Harris, 54 years later



Bob Rigg and Tad Nichols, Mexican Hat Expeditions

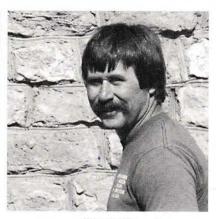
the news



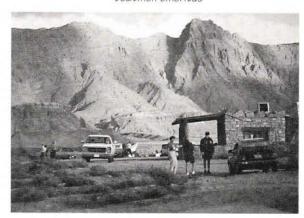
boatmen emeritus



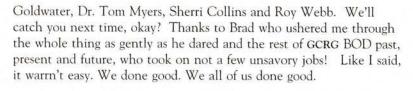
alice telakte



kim crumbo



i'll huff...



.....When the Bigtop roared to life—literally; a Grand Canyon-sized gale swept the place clean, and *kept* sweeping it clean—well...you had to be there when Dimock lost his hat and everybody else lost everything else. After that we waited someplace, occasionally with a bottle in hand (what is a good river guide to do?), for the breeze to lay low. Then we put the tent back up and kept going. Next day, Monday, ator-about lunchtime (sorry, I can't help it; it is the detective in me), the Bigtop nearly blew away—again. Thank you, Ellis Richard and Jeffe Aronson, for allowing us to waste your audio-video equipment as best we could.

And, Workman, thanks for coming. You forgot—or lost—the bottle I tried to give you. I drank it. Then I wrote all this down. Enjoy the islands.



and i'll puff...

Best wishes and....Thanks, Everybody.

Shane Murphy, GTS Chairman

P.S. A camera was found after all was dead and stunned. Dan Hunting has it. Call him at (602) 495-1493 if you think it's yours.



and i'll blow your house down. (murphy's law)



ha-haaaaaaaa!



bob gruse grand canyon river guides



ivo interfingering



nautiloiditorium



cecil and his squirming friends

GTS River Trip

s the crowds thinned out after the land-based GTS, the last stragglers headed down to the river to climb aboard an odd assortment of water craft - two motor snouts and two row boats donated by the National Park Service, an Arizona River Runners' motor rig, an AzRA paddle boat, and a dory.

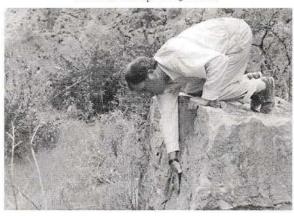
Sponsored the Grand Canyon outfitters and participating freelance boatmen, the 1993 GTS river trip was a cooperative project of the National Park Service, (special thanks to Mark Law for his support), and Tom Vail of Grand Canyon River Guides. Simone Sellin did an outstanding job of organizing the food and the kitchen crews. Participants in the program represented nearly every outfitter, plus a handful of freelance boatmen.

Martha Clark commanded the paddle boat, trying some innovative runs at times in an attempt to elicit need for rescue efforts, but to no avail. Would-be victims had to fling themselves overboard for NPS Ranger Jim Traub's river rescue sessions.

Brad Dimock rowed his dory, managing to hit only one rock (in the treacherous Deer Creek rapid). At night he told bedtime stories around the campfire - tales of John Hance, the Great Kaibab Deer Drive, and racy constellation characters.

Park Ranger Nancy McCleskey, new to motoring, ran one of the snouts with instruction by Jim Traub. Dick Clark ran the second snout rig, Trish Hawkins and I rowed the other park boats, and Tom Vail drove the big rig.

Some speakers came and went, by foot or by helicopter; others



bob melville & his brachiopod



"you see that devonian channel up there?"



chuck barnes



write Tom: P. O. Box 5198, Saipan, MP 96950





remained on the trip for the duration. Guest appearances by helicopter pilot Jerry Bonner, Archaeologist Jan Balsam, and GCES' Dave Wegner gave credence to the unsettling question we sometimes find ourselves asking: "Have you been on the trip all along?" Kim Crumbo joined us in the darndest places to discuss his trail work projects.

Ivo Lucchitta and Chuck Barnes covered everything from Geology 101 to the brink of our ability to digest. Brad Ilg joined the trip at Tanner to describe just what all that shist means anyway. With the proper dose of Al Diaz' special breakfast coffee, it all became clear.

Cecil Schwalbe, herpetologist, snared countless lizards in order to show us their markings, and if the mood was right, to display their most intimate parts - both of them. He instructed Lynn Roeder on the fine art of holding several lizards in oral suspension while leaving the hands free to catch more. But we only got to see her put one in her mouth, and it didn't stay there long.

Patti Hodgetts and Lisa Kearsley were on hand to distinguish "just what kind of bird is that and what's the bush it's hiding in?" Working and playing with Ron Moulton of WAPA's EIS team, we all got a better understanding of the people behind our respective organizations.

Canyon District Ranger Dan Davis accompanied us for most of the trip. He led an open forum on ways to enhance the cooperative atmosphere which is so vital to protection of Grand Canyon and the river experience.

At Phantom Ranch most of the participants exited the trip, leaving a skeleton cre w to finish the distance. They stopped here and there to do trail maintenance, and collected a mountain of flotsam from the Little Colorado's winter floods of 17,000+ cfs.

We thank all those who made the trip possible. Generous contributions of funds, gear and time, and the volunteerism of accomplished speakers and enthusiastic participants, all merged to make the project a huge success.

Ieri Ledbetter

Potty Humor

This should be a great year for stories, pointers and good safety tips on the new toilet systems. Send in any good tales and tips on *dealing with it* for the news.

Here's one to start out with:

For the day use can -

Don't use waxed paper bags. They won't decompose. Use plain brown lunch bags.

Photograph Requests

The Blue Lagoon

The Glen Canyon Environmental Studies Office is requesting a little photographic help from any GCRG member. We are in the process of mapping the surface elevations of the Little Colorado under varying discharges from the Colorado River mainstem. The problem is interpolating outside of the normal range of flows (i.e. 5,000-20,000 cfs). Therefore, we are very interested in getting our little grubby hands on any photograph taken during the periods of 1983-85; showing the confluence area or upstream embayment of the LCR blue waters. Artistic shots from high vantage points are wonderful, however, shoreline detail is somewhat obscure. We will use these photos to pinpoint the actual surface elevation. It important that the photographs show impoundment landmarks and shoreline characteristics.

In order to back calculate actual mainstem discharge we will need *accurate* photo dates/time. Speculation and guess work after the fact is not of any use. If there is some interest in this project please contact Michael Yard at (602) 556-7363. Thank you........

Women of the 70's

Louise Teal needs great action or other slides of 70's woman guides in the Canyon. No dough but big glory. Call her today at (303) 247-9364, as she goes to press any day now. Thanks

83 Pix

Greg Reiff, a Nevills grandson, would like to get a couple nice shots of the 83 big water for a high school environment class he teaches. Write: Box 568, Jackson, Wyoming 83001

Havasu Again Askew

Yes, it happened again. This time a dam failed in the upper reaches of the Havasu drainage and ripped on through the village to the river. The harbor is full of gravel, the lower parking is no longer in much of an eddy, and the hike around Beaver Falls is pretty sketchy. Approach with caution this season. Be adaptable.

Low Flows

In order to get good photos of the new sediment brought in by the Little Colorado floods this winter, a 72 hour release of 8,000 cfs will be released beginning 12:01 AM May 29th.

Utah Boaters: What About Us?

couple kinds of input keep trickling in from the some of the Northern boatmen:
A) that Grand Canyon boatmen living in Utah feel excluded from the "Flagstaff Boatmen's Club", and B) that the tributaries of the Colorado and those that boat them need the same attention that we are focusing on the Grand Canyon.

Let's start with the first one. The reason that GCRG was formed and remains in Flagstaff is simple: Shear numbers of boatmen. It takes a critical mass of human energy to get things moving and keep them moving. Of the more than one hundred boatmen in Flagstaff, roughly 10% form the active working core of GCRG. Even with such a large pool of people, we're terribly understaffed. The next largest batch of Grand Canyon boatmen are in Salt Lake—about 35. So, since we've got to be somewhere, Flagstaff is the logical place.

This leaves us with the problem of how to keep in touch with, and best represent, our northern brethren. We do have board members from Utah, and we occasionally have general meetings up there. We do try. But it's got to be a two-way street. We have some Utah members who never miss a meeting. Their input is consistently presented to us. To be involved, you've got to make an effort. Just like the Flagstaff locals who still haven't joined, you won't be involved unless you try to be. Call. Write. Grab a board member on the river and let him/her know what's up. Come to Moab this Fall. We need your input.

Regarding the San Juan, Cataract, Desolation, the Yampa, Westwater, Lodore, the Dolores and those who boat them: Yes, we want to help. But no, we can't do it ourselves. We are over extended as it is and feel we'd lose what focus we have by diluting ourselves further. We've learned a lot of lessons, though, and know a lot of tricks we can share. We've been talking to several instigators up in Moab, and we are planning a Fall Meeting there to fire up a sister organization. We feel if we can get a critical mass together using GCRG as sourdough starter, we can get something pretty incredible rolling. It will also be a good time to get more northern Grand Canyon boatmen more deeply involved with GCRG. So spread the word-November 13 at Pack Creek Ranch. BE THERE. And ask not what your guides organization can do for you. Ask what you can do for your guides organization. If you're intereseted in helping organize the event, or have input, write: Utah, c/o GCRG

Fall in Moab

es, we're going to Moab this November to have our Fall Meeting and to help form an upper basin guides organization. Ken and Jane Sleight have most incredibly generously offered to let us hold it at their notorious Pack Creek Ranch in the high country south of town. We'll start the evening of the 12th, run all day the 13th, and wind things up the morning of the 14th. We expect a lot of

old timers to crawl out of the woodwork, so there'll be some world class storytelling at night.

We can camp in the nearby Forest Service Campground, or if you like, Ken and Jane are making us a bare bones deal on lodging in the cabins at about \$30 per night, per person, for the nights of November 12 & 13. If you want to reserve one of



the 50 beds, you need to send a \$20 non-refundable deposit in to us today. Be sure you mark it "for Pack Creek deposit", so we don't think it's for dues.

Lunch at the Trust

The Grand Canyon Trust is hosting another brown bag lunch from noon til 1:30 on May 19. All interested guides should wander out that way and get up to speed on current conservation issues. See you there.

Hyding Photos

And still we have no ID for the two Hyde Photos we printed last winter. Pass them around the boat on the lower end of your trip. Be a detective. Send us a matching photo and fame will be yours.

Carbon/Lava: New Trail

Keep your eyes open if you do the Carbon Canyon/ Lava Canyon hike. That tricky up and over spot has been rerouted to a much safer, lower impact path. DON'T try to do it the old way. Leave the cairns up til we all readjust. Thanks.

Professional Guide Workshop

one are the days when Grand Canyon boating was a wild and crazy summer job we did for just a season or two. Over the years, we've learned that leading folks safely and enjoyably through the Grand Canyon requires us to wear many hats. To do it well, we have to be boatmen, trail guides, first aiders, counselors, entertainers, mechanics, teachers, good leaders, good followers....just to name a few. Our expertise comes from a wide variety of on-the-job experiences, most of them gained in the school of hard knocks. So far, we've learned things in a somewhat haphazard way; from books, from others, and from the canyon and river. Collectively, there's one helluva lot of knowledge, savvy, and wisdom in the guide community. But... what exactly does it take to be an excellent guide? We ran a workshop at the spring GCRG meeting to begin defining what that ought to be. We talked of establishing a professional guide credential of some sort. Why? Some reasons are to:

- * encourage further professional growth.
- * provide better service to our guests.
- * gain better recognition and compensation for our expertise.
- establish an ongoing forum to communicate these ideas.

Following, are a few of the thoughts and concerns expressed during a lively and intense brainstorm session with about 30 boatmen and a few manager/outfitter types.

- "this credential should be created by boatmen for boatmen: collectively, we know what the important skills are."
- "a higher wage isn't the main factor here, professionalism is, we want to do it for ourselves."
- "mentorship to newer guides should be worked into this program."
- "suggestions: three different ways to gain this certification:
- intensive workshops held at convenient times (e.g., GTS meetings).
- "basic college courses that can be taken most places.
 - -workbooks/videos available by mail."
- "keep it focused on skills pertinent to Grand Canyon boating, don't become too general."
- "let's make it tough, a real achieve-

- ment, something to take pride in and be an incentive for excellence."
- "it should be voluntary."

The various skills suggested by guides fell into four general categories.

- 1) interpretation: natural and human history -geology, hydrology, animals and plants, ecology, astronomy, landforms, archeology, ethnology, geography.
 - -human and river history
 - -water politics and conservation issues
 - -interpretation skills
 - -storytelling
- 2) appropriate conduct
 - -river and backcountry ethics, taking care of the
 - -congestion and other difficult situations
 - -garbology (recycling)
 - -courtesy with other river groups
 - -knowledge of Commercial Operating Requirements
- 3) people skills: crew and clients
 - -training new boatmen
 - -leadership skills
 - -group dynamics, dealing with oddball guests or crew
- crises and emergencies: how to avoid, behave and proceed
 - -boat wrecks
 - -medical crises
 - -food crises (faking a meal)
 - -equipment repair

This is a great start, but we need your input. Where should we go with this? What should be included? Richard Clark and Grant Simonds of the Idaho Outfitters and Guides Association have been spearheading a similar idea with their Professional Guides Institute for the past couple of years. They are interested in opening a dialogue with us for our mutual benefit. We will have another workshop at the fall GCRG meeting in Moab. Bring your constructive feedback to the workshop or write us at:

Professional Guide Workshop c/o Grand Canyon River Guides

-Andre Potochnik and John Toner



page 22

"If I'd Wanted To Sell Diesel Fuel..."

I, and welcome to the 2001 Marble Canyon GTS. Glad you could all make it; the traffic was pretty bad out there today. Here's the scoop: there's no camping allowed, but you can get good rates over at the Motel 6. We can't cook out here, but Denny's has cheap food, and they're cutting us a deal. Jane Foster sends her love from Utah - she likes the town, says it's just like the old days. Please don't go near the demolition site, the old Lodge is coming down with some protests, and a worker was hurt in a blast just yesterday. We'll be trying out a little Z-drag exercise at the Ferry later on a sightseeing bus that got stuck in the shallows trying to turn around. Now onto the program...

Sounds pretty far-fetched doesn't it? But this is the kind of scene that just might greet us in Marble Canyon in a few years, if a current plan proposed by Arizona Governor Fife Symington is approved and implemented. The plan, variously known as the I-17 corridor, the I-17 extension, the NAFTA Freeway, and a few other choice names too colorful to print, would see a 4-lane, divided interstate highway wend its way north across Arizona, using I-17 from Phoenix to Flagstaff, then following Highway 89 north to either Page or Marble Canyon, to connect up eventually with I-15 in Utah.

The purpose for this highway is to be competitive with our neighboring states in a bid for the international trucking, shipping and tourism that will be generated should the North American Free Trade Agreement pass. NAFTA lowers the restrictions on trade between the United States, Canada and Mexico, and will (the Arizona business community hopes) spur communication and commerce between these countries. A major north-south interstate that connects all three countries would be a boon to the states through which it passes. This we are told by Governor Symington and the members of the Arizona Town Hall, a coalition of Arizona business people. The idea of an "extension" of I-17 was suggested by the Town Hall at a meeting at the South Rim last October.

At the end of his State of the State address, Governor Symington mentioned the proposal to expand I-17. He spoke of it as a "done deal", although few people at that time were aware of the plan. At that time, there were two favored routes for the corridor. One went through Page, across the river near the dam, and then into western Utah. The second would cross the river near Marble Canyon, follow along the Vermillion Cliffs and up House Rock Valley, to western Utah. Despite the amount of new road construction needed, the latter route is shorter and,



some say, more economical. Uh-Oh.

The Arizona Trade Corridor Study is scheduled to be completed and presented to Congress in September, 1993. It is exploring the possibilities of railways and airways, and is currently investing almost \$200,000 in the Interstate 17 Extension Feasibility Study. The study is guided by three main questions:

Is there a place to put a road?

What are the environmental impacts of putting a road in?

What will it cost? The bottom line.

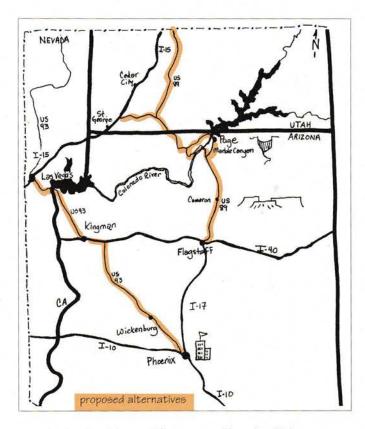
In the preliminary stages of the feasibility study, ADOT designated several broad corridors across Northern Arizona. From 26 possible alternatives they have narrowed it down to about 11 segments, based on several criteria. These include: existing roadways, surface land management (what agencies do you have to deal with to get across the land), topographic features, threatened and endangered species, cultural resources, wilderness areas, visual criteria (aesthetics), and hazardous material transport.

Dale Buskirk, the ADOT project leader for the I-17 Extension Study, pointed out that there are several ways this road can be constructed. Existing roadways can be widened to 4 lanes, or the two lanes already there might become the two one-way lanes of a 4 lane freeway. Or a new road could be built. Because the study is in a preliminary stage, he could not determine if towns like Cameron or Page would be bypassed, or if the route would utilize the existing roadways. This is an important issue. When I-40 was built to bypass the towns of Seligman, Peach Springs and Ash Fork, the towns began to wither. Former roadside businesses went belly up, and people left to find work elsewhere. Crime increased and family-owned enterprises gave way to chains of motels and fast-food joints.

James Peshlakai, President of the Cameron Chapter of the Navajo Tribe, says that he and the town of Cameron would like to see the NAFTA Highway come through. He says tourism is their only industry anymore, and the increased revenue from trucking and Grand Canyon traffic would help the community's

stellar unemployment rate. But there is no guarantee that the road will come anywhere near Cameron, and the community may be left high and dry. In addition, an official offramp is required to exit a freeway. There is no guarantee one would be provided for Cameron.

When the I-17 extension was proposed, Mayor Carol Anderson of Kingman rallied her town around an alternative proposal to run the route along Highway 93 through Wickenburg to Kingman, and from there to



I-15 at Las Vegas. This proposal has finally begun to be taken seriously by ADOT and the AZ Trade Corridor Survey. They have initiated a US 93 Development Study to determine the feasibility of this option.

Roger Clark and the Grand Canyon Trust sent a letter to Governor Symington at the outset of this issue, outlining some important considerations regarding the route chosen for this corridor.

Which route is the safest and most dependable with respect to weather?

Which route is the most energy efficient in terms of distance and grade?

Crossing the high elevations of the Colorado Plateau in winter is risky business. The Kingman route stays at lower elevations and bears fewer hazards. Coming up onto the Plateau increases fuel consumption, and the route is a less direct connection to I-15

than the Kingman alternative.

Which route best serves Arizona's multiple economic needs, especially those of rural communities?

Kingman is already a hub for interstate trucking. Wickenburg mayor Dallas Gant says the town wants this route, as it appears there will be no need to bypass the community. The connection at Las Vegas could bring economic help to the small communities in Nevada and southwestern Utah. By comparison, many of the communities on the Marble Platform are extremely opposed to this road. Both Jane Foster of Marble Canyon and Roger Dewitz of Cliff Dwellers have no desire to see what would happen to the land and their lives if a freeway passed through their front yards.

In contrast, Mayor Gary Scaramazzo of Page would like to see the road come through their town. He says they need the improved road to handle the tourism they already have. A shipping route would make movement of goods and services into Page easier. This would help develop a stronger economy based on light industry instead of tourism.

Which route would minimize negative impacts to air quality, natural and cultural resources, and other public resource values?

Grand Canyon had over 4 million visitors last year. This year it is expected to receive 5 million. Those who have visited the rim lately know that the park cannot handle the number of tourists it currently receives, much less the additional number that would be attracted by a new and improved corridor. Additional traffic would increase air pollution, and likely spur more air traffic. If the highway is built across the Navajo Reservation, and Marble Canyon and up House Rock Valley, it will carve through one of the most incredible landscapes on earth. The BLM has recently designated the Vermillion Cliffs as a wilderness area. It makes no sense to put an interstate through the region.

The US 93 route requires fewer miles of new construction to widen the road between Wickenburg and I-40. The route across the Colorado River at Sugarloaf Mountain has been designated by BuRec, the NPS and the Arizona and Nevada Highway Departments. According to Mayor Anderson of Kingman, this route has less impact on the land than either of the other choices, although the environmental impacts still need to be considered carefully.

Although attention has recently been shifting from the I-17 route to Highway 93, Mayor Anderson says she's not going to hold her breath. Why? The I-17 Extension Survey is on a "fast track"; it is scheduled to be completed by mid-summer, for presentation to the Federal Highway Administration. The city council of Flagstaff and many members of the local business

community are overwhelmingly in support of the I-17 Extension, presumably because of the business it would generate. What kind of business? More truck stops, fast food restaurants, perhaps some clearing houses and light manufacturing. Many roadside businesses in Flagstaff, Cameron and Page will be lost. Do we want this? And do we want a four lane freeway blasting across northern Arizona, curling around the base of the Echo Cliffs? Do we want to see a third bridge built just downstream of the as-yet-unbuilt second bridge across Marble Canyon? We should consider what that traffic will do to the quality and character of the region – its greatest assets.

US 93 to Kingman and Las Vegas seems to be a safe and sane alternative to the I-17 Extension. It will keep the trade corridor within the state, which will benefit all of Arizona in the long run. Flagstaff has a healthy growth rate, and the Grand Canyon and Lake Powell will continue to attract tourists to Cameron and Page until they erode to the sea (or Lake Mead). The fragile desert and riparian ecosystems which we love and work so hard to protect could be in jeopardy. Trucking is not an appropriate economic base for a region that makes most of its living from visitation to natural and wild places. Perhaps other alternatives can be explored for those communities that want to augment the tourist industry with something more meaningful. We should consider all the options.

There's still a lot to be decided. We're not even sure NAFTA will pass. But they have been poking around in the back yard, checking out the Colorado Plateau and Marble Canyon as possibilities. Even if US 93 is developed, they might still come back to the Marble Canyon-Page option in the future, according to Dale Buskirk. It could happen. Be aware! Just wanted you all to know.

NOW IS THE TIME TO DO SOMETHING. If you live in Arizona, or any state other than Utah, please address your comments to:

The Honorable Fife Symington Governor of Arizona 1700 W. Washington, 9th Floor Phoenix, AZ 85007

AND:

Flagstaff City Council Flagstaff, AZ 86001

If you're hanging out in Utah, please write your governor, and local representatives.

Christa Sadler

Misconceptions (continued from page I) There were other problems on that trip. Someone, a woman I think, was evacuated for a bleeding ulcer; somebody else hiked out Havasu Canyon and called the shop to let us know a boat was coming in ahead of schedule because it didn't have a snout anymore. When the frame finally made it back to town and was got off what remained of the rubber it took 8 people 10 hours to repair. We tinkered and clanked loud, all eight of us, knee deep in hamburger wrappers and welding torches and sledge hammers and rivet guns, long into the night on that one. And, because it was so badly damaged, we shipped the rubber off to Maryland, which cost \$1000 in express freight charges.

Common misconceptions about big boats: There is not much finesse involved in driving 'those things'; nearly anybody can do it, and without much practice.

Wrong. Way wrong. The best training somebody can get to be a 'motor pilot' is to be a paddle captain in a tiny boat on a small river. Same-same. A big boat is paddleboat, too, but with a different configuration; not to mention, again, that it is huge and, for that reason, won't fit a whole lot of places tiny boats fit. This ignores the fact that, IF you started-out much enthralled with the notion of becoming a big boat pilot, you should have many, many trips before being given command of such a beast. They are unruly creatures. There are some things a big boat won't do. A big boat has a big mind of its own. Period.

Short story, my own: I had been 'on the river' for years, mostly small California rivers in oar and paddle boats. I came to work in Grand Canyon after a Utah love affair fell apart and I needed another river to work. I worked hard in Grand Canyon and, after 6 trips (we are talking 'good old days' here, folks), was awarded my own command, my own manifest of 20 passengers.

Stupid me. The first thing I did was rip my 30 horsepower Mariner engine in half on a rock at Badger Creek, Grand Canyon's first rapid, 8 miles downstream from Lees Ferry, the put-in. After that I had my spare engine (and that alone, thanks), and, 272 miles to go. I was new to engines; I did not know much about them. That is a harsh reminder right off the get-go.

I had a good run through Hance that trip, although it was raining so hard I couldn't see the bottom of the rapid when I entered up top. I had to run Hance in the first place because the rain was so extreme that rocks were falling out of Grand Canyon's black sky; boulders were falling into the river all around us, sounding like cannonballs when they struck the water. To park next to a wall and wait it out would have meant death for everyone aboard. That is why I ran Hance that way

that day.

Next, after a passenger exchange at Phantom Ranch and an introductory lunch for the tinhorns below Monument Creek, I parked in Slate Creek Eddy.

This is still, easily, the most terrifying thing that has ever happened to me on the Colorado. Condensed short story: I hit Crystal's top lateral, what people call 'the feeder wave'—I hit it, that was my first mistake with a slight in-stream ferry angle-my last mistakeand...ZOOM! I was parked in Slate Creek Eddy. I remember turning and bending and loading the engine's reverse lock mechanism and giving her all the gas I could, and I am not kidding when I say that 5second span of physical action took more than one hundred infinities to live through. We slid into that place with a thunderous crash of spring-loaded rubber (having pumped the boats at lunch) AND SLAMMED LIKE A BIG DOG...BA-WHAMMM! There followed a tremendous, continuing, shudder through all quarters rent by rock walls, severe hydraulic turbulence and screaming passengers. And, then, we began to wrap Slate Creek Corner. I called "High Side!" and everyone, each of them, all twenty, jumped-to immediately. When the boat stopped rising up the wall and made itself fast at 45 degrees to the wall-God, it was not stable at all; it was shaking and moaning and twisting all up like mad; my only engine was getting thrashedscreamed for everyone to get off. That took about 3 seconds and qualifies still as a bona fide, historic, mass exodus...and, they all got off in the same place, straight off the bow, because that was the only place to go.

During that long afternoon all of us worked hard at getting the boat stable and pulled up into the eddy and laid flat on the water. And we waited for the water to drop. We waited there in the hot sun for hours. We waited and waited and waited. And, we waited...

In the middle of dinner, an entirely abbreviated edition of hamburgers, hotdogs, buns, many fancy trimmings, fresh cucumber salad, coffee, cobbler and all that, served at the confluence of Slate Creek and the Colorado River, river mile 98, Grand Canyon National Park, Az, the water started to go. We banked the fires and loaded the boat. We loaded the boat—and it took forever. More slow-motion photography. Later, suddenly, somehow: we were all aboard and I was speaking. I thanked everyone for their patience, understanding and labor. I told them it was harder for me to get on the boat than it was for them; I said I was more terrified then they could ever be. I told them we still (humor, please...) had to get past Slate Creek corner but that we could easily end-up in the same circumstance we'd been in all afternoon—and—possibly worse: we had a sure chance of flipping. Did they all understand? They did. I called quarters and fired-up the engine. We got high in that little tiny eddy, and with

a ferry angle only the Almighty could have lent. The river swelled. I goosed the engine. Away we went, smooth as silk, the best left-side run I ever had at Crystal, the *only* left side run I ever had at Crystal.

Camp was at Tuna Creek, shortly downstream, where I consumed an entire bottle of whiskey all by myself. I also decided to serve breakfast at 3AM. Camp the next night was at Olo Canyon where a still-terrorized passenger *shit in the handwash bucket*, completely unaware of the nearby toilet. Lava went fine; the water was so low it could only take the boat on one run, and did. A couple of days later I ran out of gas on Lake Mead. This small enterprise required a 6-mile hike-swim-hike-swim-hike in the middle of a mid-summer Mojave desert bright-sun afternoon to Scorpion Island, arriving long after sunset, for reinforcements. All told, it is not much to think about.

Common misconceptions about big boats: They're not easy to flip; flips are a result of pilot stupidity.

I have never flipped a big boat. Not yet. That is what I tell people, if they ask. I tell them, also, that there are two kinds of pilots, those who have and those who will. It does not matter how very smart you are just now, or will ever be.

I say that I have picked-up the pieces a couple of times after a big boat has flipped. I say that. With winches and pulleys and miles of static line I have picked-up the pieces. I have done that.

Crystal, for instance. Crystal is famous, infamous, even. Crystal flips all kinds of boats. I have seen plenty of small boats in trouble there. Usually they get sucked down the middle, through a mammoth hole or two, and flush out upside-down before getting funneled left of the island. Swimmers end-up on the island, and have to swim some more. Swimmers off big boats tend to be all over the place, but not until the end of the rapid.

Believe it or not. People survive flips. Nearly always people survive flips. I know of 15 or 16 big rigs that have gone over. In all that mess—*mess*, that is the correct word—two pilots and only one passenger died. There are always, and to be sure, broken bones and missing teeth and shattered dreams, but, not dead passengers.

Megapicture: Ugly to horrible, depending. Depending on how you visualize a 37' x 14' x 3 ton raft after it has gone through a bigtime grinder. Try this: a twisted mass of steel and aluminum and contorted rubber wrapped around itself all twisted out of proportion and cut up. That is what you should be seeing. Everything that remains on the boat is hanging upside down, floating in the water nearby...spooky, real spooky. When walking around on its upturned hull the boat seems much smaller than it does right-side-up, loaded

with 20 chattering passengers. The big boat now looks like a little teeny tiny boat, comparatively. There is gasoline running out of its tanks into the river, and you see this rainbow chemistry trailing into the main current.

Here is how it is. *Immediately it is you upside down*, underwater, unable to breath, trapped in what you think is your pilot's compartment. You hear the hard scrape of submerged boulders as they destroy the metal boxes in front of you; the rocks are coming your way. Suddenly there is a body on top of yours, suffocating you more, hiding the daylight; she is somehow tangled with you, her hand is ripping at your face, your eyes...there is NO AIR...the rocks are coming, the rocks...

How is it that, later, you find yourself sprawled on a beach, shivering-coughing, your shirt gone, your leg cut and bleeding, an ugly red bruise hung off your elbow?

One more: He is a large man, 250 pounds trim running weight, bare bones and all. He is stout: the tiller has broken off in his hand; the engine's driveshaft housing has smacked a submerged rock and gone bust. Completely. The impact has not budged him an inch. He is at the helm, in big trouble, and sees what comes next: Big Red, the biggest rock in Crystal. Sideways. At 28,000 cfs. There is a mammoth 'rooster tail' flushing wild into the air off Big Red; deadly rainbows cloud the sky. He knows, during that space-time-warp-vacuum, what any pilot sees and thinks and feels when he realizes he's going down. He knows: I will hit it. And he hopes: Maybe I will wash over.

He does not. CRASH!! The big boat bounces hard, then rushes the rock again fast...BOOM!!! On impact, the boat's upstream tube gets sucked underwater. The boat rolls over, which takes about five seconds, max. Presto—and—goodbye.

WHEN it is turning over, the large man, El Pilote Grande, tries to exit out the back. The raft comes down on him, pushing him underwater where his face hits something hard. Brief synopsis: 1-each broken ear drum, 1st-2nd-3rd molars (right side), shattered—and I mean shattered—Zygomatic bone and Maxilla (as above), (much later...) a swift ride in a white gurney on a cement floor with *four Meds all over you right now*; many sharp and severe nightmares which will visit, occasionally, for the remainder of your life.

Meanwhile, back at Crystal...

Enter O'Steen, crewmember. Second Year. He is tall, trim, healthy. O'Steen cuts a steely-eyed, confident figure wherever he goes; mostly it is the strut of his chin and cool humor that do it. When the boat hits Big Red, O'Steen falls off his seat near the pilot and onto Big Red.

(We are not talking tiny, small, or, even, infinitesi-

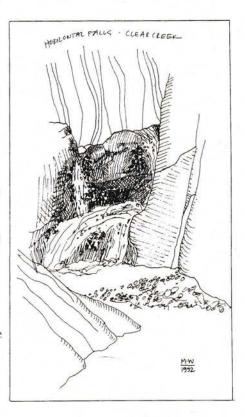
mal; we are talking...microcosmic.)

O'Steen: I was standing there. The boat backed-up and came in again, real fast. Blew me backwards, but I was still on my feet—hey, I ain't goin' anyplace. The whole thing started to rise; it started to ride-up the rock. There was a terrible noise, lots of wind, metal scraping... It still had air in it...... It rose; it rose up, it kept rising. It was going over... Unbelievable...

...then he describes the raft *sideways in the air* in front of him. Him standing on Big Red, about to be washed away. The raft is raining people. They are screaming; when they hit the water they quit screaming, for they need air. The raft comes down in a tornado's WHOOSH!! with a tremendous WHAMMMM!!! People are screaming; they are all screaming. They are clutching for air and screaming. O'Steen is there, right in

front of this—at arm's length—and can't do one thing to stop it.

The overturned raft settles briefly in front of Big Red, right up against it. The rooster tail dies; O'Steen is safe on the rock. People start popping up near the boat. He sees a young boy trapped in the pilot's compartment. They reach for each other...O'Steen is talking to the boy, pleading, his arm extended. The raft moves, the boy disappears... O'Steen swims, picking up pieces as he goes. He does not see the boy until later, at Tuna Creek, when the helicopters come.



thanks...

...to all of you for your incredible contributions and energy. Keep it up. Thanks to Mary Williams, Barbara Rusmore and Dave Edwards for the drawings. For the photos: GTS land Dave Edwards

GTS river trip
Water Tower

Christa Sadler

Text and Editing: Brad Dimock, Tom Moody, Tim Whitney and others as credited.

Printed on recycled paper with soy bean ink by really nice guys..

Mr. Babbitt Goes to Washington

ecretary of the Interior Bruce Babbitt closed his Welcoming Remarks to the Department of the Interior in January with the following lines:

"Lastly, as we begin anew again in this extraordinary process of American political renewal, I just want to emphasize my sense of excitement about the possibilities and my recognition that I can't do it alone. But we can do it together, and I want to read to you a paragraph that was written by a British writer named J. B. Priestly who was traveling around looking at America and writing about it and he happened to visit the Grand Canyon and walk down in the bottom on a winter day in 1935. And I think what he wrote could be said equally well about the Great Smoky Mountains, about Yellowstone, Acadia National Park, a monument under our jurisdiction on the Mall, any park of this extraordinary natural and historical heritage that we share. So as we read it, think about one of those places that has touched your imagination, or that you might have

occasion to visit in the course of your duties or your next vacation. Here is what he wrote; it's about Grand Canyon. He said:

'The Colorado River made it, but you feel when you're there that God gave the Colorado River its instructions. It is all Beethoven's nine symphonies in stone and magic light.

Even to remember that it is still there lifts up the heart. If I were an American, I should make my remembrance of it the final test of men, arts and polices.

I should ask myself, is this good enough to exist in the same country as the Canyon? How would I feel about this man, this kind of art, these political measures, if I were near that Rim? Every member or officer of the Federal government ought to remember and remind himself, with triumphant pride, that he is on the staff of the Grand Canyon.'

Thank you very much"

Beach Closures

he exceedingly rare Southwestern Willow Fly catcher is back for (we hope) a little breeding in the Canyon this summer. In order to give them the best chance for success and let them do their thing undisturbed, two beaches are being closed until July 15th. (Longer if the birds stay)

The two areas are: the left-hand beaches between 50 mile and Nankoweap, and the Cardenas Marsh area around mile 71, left bank.

Maybe when we're old and rare, we'll get a special beach set aside to breed on too. We can only hope.

Wuddyathink?

yathink? Dyacare? We've heard great screaming matches on the subject of trimming the tamarisk. But we get virtually no response to print in our clever and amusing little column. Like all the stuff we do, we won't get anywhere without your input. So jot down a few words or give us a call and leave a message.

Should we trim the tammies? Should we plant more? Should we just leave them be? Are they edible?

Wuddyathink?

Send or call your 25 words today. Dammit.

GRAND CANYON RIVER GUIDES

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