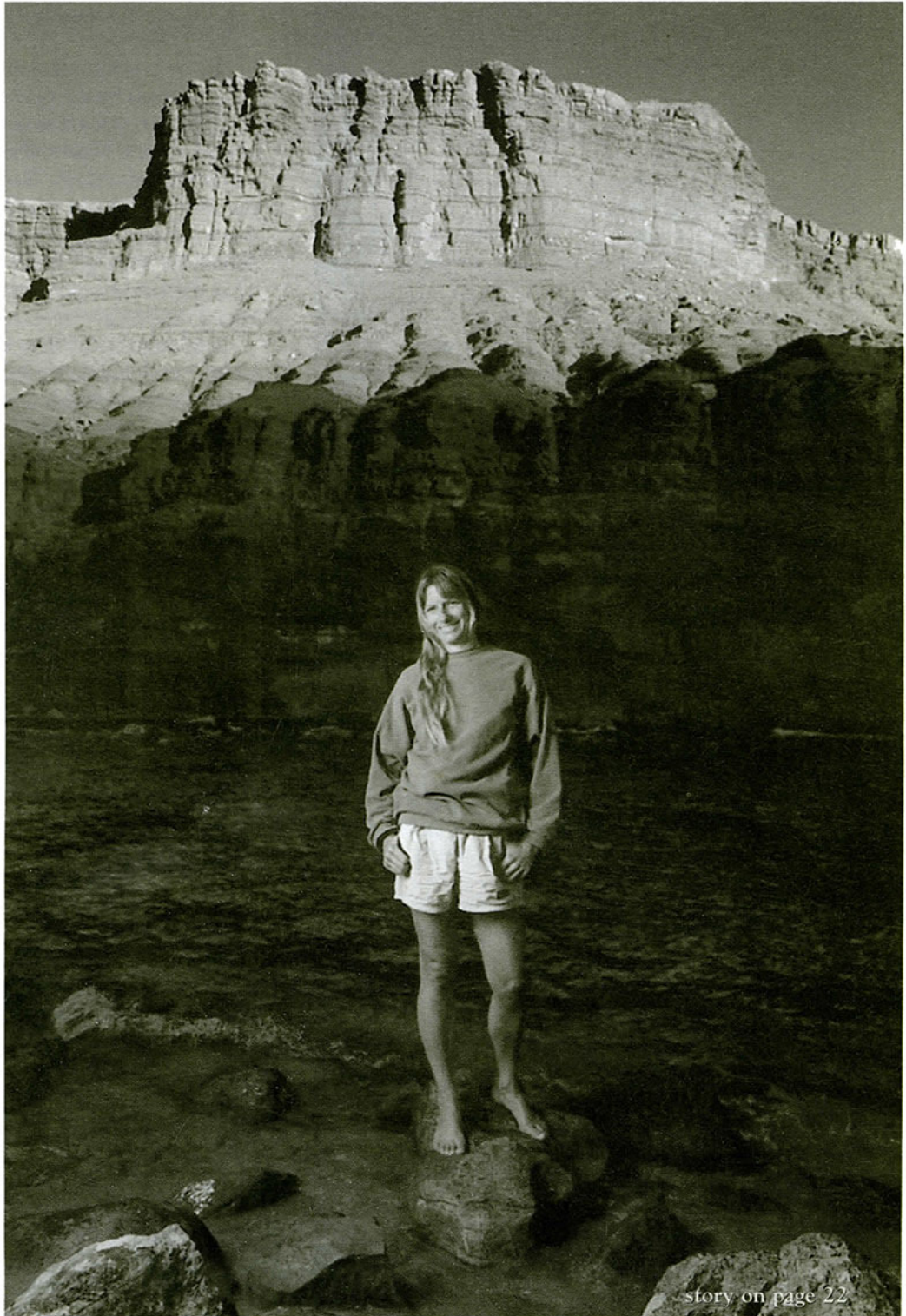


# boatman's quarterly review

the journal of  
Grand Canyon River Guides, Inc.  
volume 13 number 3  
fall 2000

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# CONNIE TIBBITTS

## boatman's quarterly review

...is published more or less quarterly  
by and for GRAND CANYON RIVER GUIDES.

### Grand Canyon River Guides

is a nonprofit organization dedicated to

*Protecting Grand Canyon  
Setting the highest standards for the river profession  
Celebrating the unique spirit of the river community  
Providing the best possible river experience*

General Meetings are held each Spring and Fall. Our Board of Directors Meetings are held the first Monday of each month. All innocent bystanders are urged to attend. Call for details.

#### Officers

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BQR Editors KATHERINE MACDONALD  
MARY WILLIAMS

Our editorial policy, such as it is: provide an open forum. We need articles, poetry, stories, drawings, photos, opinions, suggestions, gripes, comics, etc. Opinions expressed are not necessarily those of Grand Canyon River Guides, Inc.

Written submissions should be less than 1500 words and, if possible, be sent on a computer disk, PC or MAC format; Microsoft Word files are best but we can translate most programs. Include postpaid return envelope if you want your disk or submission returned.

Deadlines for submissions are the 1st of February, May, August and November. Thanks.

Our office location: 515 West Birch, Flagstaff, AZ  
Office Hours: 10:30-4:30 Monday through Friday

Phone 520/773-1075  
Fax 520/773-8523  
E-mail gcrg@infomagic.com  
Website www.gcrg.org

## Looking Back Upstream

AT THE END OF A RIVER TRIP take a moment to stand by the river and give thanks. Look back upstream while you think about where you came from and what you've just been through. Look out at the river; think about where you are and how the river as changed your life. Finally, before you turn and walk away, look down river, cast off your self doubts, let them go, think about where you are going, what the river has given you, and what you can give back to the river.

This past year I have tried to look at my term as president of GCRG as a river trip. As it is with all good river trips the end comes much too quickly. Looking back, it has been a rewarding year. There have been good rapids along the way. We addressed a variety of issues such as those facing the working guides in Grand Canyon, changes in the COR's, the halting of any further work to merge the planning process for the CRMP and the draft Wilderness Management Plan, and trying to understand everyone's point of view regarding the private boaters allocation issue. It's really not an easy run. There are a lot of rocks out there to get hung up on and no two boatmen will ever agree on what is the best run. All anyone can do is wish for the best, hope that we all get through and back together at the bottom of the run. Our strength is in Education, Communication, and most all, Camaraderie.

I'm at the end my run here and a bit relieved to be at the end of my term. Believe me I'm just like most of the rest of you out there. I would rather be out running the river than sitting here writing about the way things are. Certainly, it has been a challenge and an honor.

Now I'm putting my gear away at the end of good season, still hungry and looking forward to next season. But, you know, there are a lot of good river guides out there with good energy, good ideas and perspectives. Get involved.

Thanks everyone. Good luck Kenton. See you all down river.

*Bob Grusy*

Cover photo by Doug Meriam



## 2000 Fall Meeting in Flagstaff, November 4

COME ONE, COME ALL to the 2000 GCRG Fall Meeting! This year's event will be held on Saturday, November 4th at the Professional River Outfitters (PRO) warehouse located at 2800 West Route 66 in Flagstaff (across from Woody Mountain Road). The meeting will go from approximately 9:00 AM to 5:00 PM with an extra special Grand Canyon River Guides premier showing of the latest John Wesley Powell expedition remake by National Geographic entitled *Grand Canyon: The First Journey*. Not yet released, this film features guides we all know and love: Lars Niemi, Stuart Reeder, Brad Dimock (as the three sweep boatmen), Scott Davis, etc.... Come listen to Dimock and the other guides-turned-actors (as well as production assistants, Brian Dierker and Jen Kunde) talk about the making of the film. Amazing whitewater footage features the Powell boats that languished up at the IMAX theater in Tusayan for so many years, made river-worthy once again in GCRG's backyard! It should be loads of fun so we hope to see you there. Mark your calendars!

## GCRG Election Results

Vice President	Richard Quartaroli
Board of Directors	Clint Anderson
	Dave Christensen
	Chris Geanious
	Chris McIntosh

## Announcements

### Help Wanted

PRO is looking for a full time office person. River experience and computer skills are needed. We will also have two positions open in food services. All positions are open as of March 1, 2001. Wages commensurate with skills and commitment. Please submit resume to Box 635, Flagstaff, AZ 86002. Call if you have any questions.

## New Phantom Ranch Boatman's Mail Address

IF YOU MISSED IT LAST ISSUE, here it is again. And if you don't use the PO Box, your letters will be returned and that's a bummer after you went to all the trouble to write one, or if your relationship is hanging in the balance and no letter at Phantom might just tip it over the edge this time.

PO Box 1266  
c/o Phantom Ranch  
Grand Canyon, AZ 86023

## The Whale Foundation

(502) 773-0773  
donations  
The Whale Foundation  
7890 S. Ave. Bonita  
Tucson, AZ 85747

*"To him who has once tasted the reckless independence, the haughty self-reliance, the sense of irresponsible freedom, which the forest [river?] life engenders, civilization henceforth seems flat and stale... The wilderness, rough, harsh, and inexorable, has charms more potent in their seductive influence than all the lures of luxury and sloth. And often he on whom it has cast its magic finds no heart to dissolve the spell, and remains a wanderer and an Ishmaelite to the hour of his death."*

The Conspiracy of Pontiac and the Indian War after the Conquest of Canada, II, pp253, Vol XV of Francis Parkman's works. Boston 1901.

*Earl Perry*

## Dear Eddy: Buttals and Rebuttals

Regarding *River Rage*, by Bob Grusy, BQR 13:2

I WAS INTERESTED in Bob Grusy's introduction to the *Spring 2000* BQR. In his *River Rage* article Bob expresses surprise that private boaters would sue the NPS over the long private river runners' waiting list. He writes, "It's tragic to think that someone had to come to the conclusion that a lawsuit is the best course of action." Come on Bob, it is the only course of action left. In the 1970s there were very few private boaters in the Grand and the commercial outfitters got hold of the user days like grabbing the Golden Goose, and they have been using the golden eggs to keep the status quo ever since. I have been watching the situation for years and have not seen any sign of the commercial outfitters or the NPS wanting to change the situation.

The situation is not fair. The analogy I like is this; I take my family to visit the national monuments in Washington D.C. and as I stand in line to see the Washington Monument it looks like a several hour wait in the sun. I keep seeing busses drive up with people who paid for a tour, and they jump to the head of the line and see the monument. Is this fair? Of course not. Just because they are in a tour bus means nothing. They should wait in line just like me.

I took my family of four on an 18-day private Grand Canyon trip in the summer of 1998 and it cost me \$1,600 for my family, with fees, food, and shuttle. Now I am on the waiting list and it looks like it will be many years until my number comes up. If I were rich, I could go next month at \$200/person/day or a total 18-day trip cost of \$14,400 for my family. I could go whenever I wanted if I had the money. If I were ultra rich, I could essentially live on the river in the Grand Canyon. What is the factor that makes the difference? Money of course.

Things must and will change. To be fair, try this: Tex from Texas and Mark from Colorado want to do the Grand Canyon. Tex wants to go commercial; Mark wants to go private. Both send in \$100 application fee to the nps to get on the list for a 16-person trip. Both Tex and Mark send in a "Continuing Interest" letter every year or they get struck from the list. Both have a long wait and must adjust for changes in family, jobs, age, and health. A year before their numbers come up they pay the non-refundable administrative fees to the nps and declare their intention to go commercial or private. They are given a launch date, Tex calls an outfitter and Mark organizes his trip. Each boater, private or commercial, has an equal chance.

The application fee should enable the nps to set up

the computers to administer this huge list. They seem to be good at this as witnessed by the private boater's list.

It may be that the commercial outfitters are right about the demand for their trips, and I may indeed have to wait longer for my trips. If they are right about the commercial demand, then their share of the allocation will grow! I will take my chances on a system like this because it is equal to all and fair!

Bob should get off his laments of "why can't we just get along?" and see the light that things are not fair, they are unlikely to change, so the lawyers must now get involved.

Mark Leachman

Regarding *River Rage*, by Bob Grusy, BQR 13:2

MY NAME IS BOB WOODWARD. I'm a private boater from Flagstaff. I've been a member of GCRG for several years and enjoy the BQR for the same reasons that many do—the wide spectrum of coverage from historical narratives to having a finger on the pulse of what is currently happening along the River. I'm also a board member of Grand Canyon Private Boaters Association (GCPBA), but what I am about to write is strictly my own personal opinion and is in no way associated with or affiliated with GCPBA.

I am very troubled by the editorial on page two of the *Spring 2000* BQR entitled 'River Rage' written by Bob Grusy. I do not know Bob Grusy—I am sure he must be a first rate boatman and probably a helluva guy, but this editorial is quite disturbing.

There has been controversy along the River in the past as there is controversy now.

What is the problem now? Plain and simple—the problem is with allocation of user-days. Mr Grusy does not address this in his editorial. Do the concessionaires have a problem with the Park Service? I think not. They have always enjoyed a cozy relationship with the Park Service. Don't get me wrong—I think the concessionaires provide a valuable service to the people of the world. Not everyone wants to be a private boater and for those that don't, from what I've seen, the concession services available in Grand Canyon run first rate trips that provide people with a wonderful lifetime experience. The problem lies in the fact that if someone wants to take a trip with a concessionaire, they can make a phone call to a 1-800 number and probably

be on a trip within a few weeks or certainly less than a year, whereas if someone wants to put together a private trip with family and friends, they have to get on a waiting list that may take twenty years. Twenty years!

It's not tragic that "someone had to come to the conclusion that a lawsuit is the best course of action". It is more a measure of how untenable the situation has become for people trying to get private permits. What other course of action has been effective? Again, twenty years! And not only is the wait that long, but thanks to the current set of rules in place—those on the waiting list are effectively banned from the river for the entire time they are on the waiting list. Two trips and you lose your place. Imagine telling the first 7,000 people that sign up for commercial trips that if they take the trip they will be banned from the River for the next twenty years. Of course no such restrictions are in place for commercial passengers or employees.

I don't see bitterness and hatred. I do see this type of editorial being exactly the thing that will promulgate that, though. I have nothing but respect and admiration for the commercial guides that I have met in the Canyon. I've never had a bad experience with a commercial guide and I feel confident that they can say the same with regard to the trips that I've been on. I personally have no bitterness or hatred—I have a problem. The problem being "Why does Randy Rafter from the East Coast who has been warming up on the Gauley and wants to do his Dream Trip down the Canyon have to wait twenty years to get a permit?"

Mr Grusy writes "Where is the understanding?" Well, where *is* the understanding?

Mr Grusy poses two questions. The first has nothing to do with the problem. The second addresses progress in managing the Park. What progress has been made vis-a-vis the private boater? How has the private boaters situation improved (progressed) in the last twenty years? If the Park Service is doing such an outstanding job of managing the Park, why are private boaters waiting twenty years to get a permit? Maybe they're managing the Park very well in most areas, but private access to the River is not one of them.

Mr. Grusy writes that "each and every one of us must be big enough and strong enough to share." Does that mean that the concessionaires are willing to share some of the lion's share of the allocation pie? The queue for private permits grows longer and longer. Are the concessionaires willing to share?

We all do love this Canyon—I do. We all do want to protect this place of beauty. I think there is a strong inclination to attempt to sweep the "private problem" under the rug. In my opinion, this editorial has something of a "head in the sand" nature to it. We're not going away and there are more and more of us every year. The status quo has been very good to the conces-

sion services for many years. It will be uncomfortable to upset it. No one wants to kill the golden goose, but maybe it wouldn't be too bad if the goose got taken off full feed.

With all due respect, I think if Mr. Grusy and GCRG are earnest in their ideology of working together and understanding, then it would be more productive to come forth with ideas and suggestions on how to address the real problems that confront *all* the user groups.

*Bob Woodward*

#### The Author Responds:

**T**he problem with the private boater's waiting list is a very complex and complicated one. It is frustrating for anyone wishing to do a private trip to think of waiting twenty years for a chance to go down river. But to think that the only way to resolve the length of this wait is to sue the Park Service is a huge mistake. It is a reflection of just how bad the situation has gotten. That is the tragedy of river rage. Litigation will end not in the desired conclusion between private and commercial uses, but rather a change only for the sake of change. Not for everyone's best interest, not even for the best solution for the problem, designed by lawyers, not by private boaters. It will end up no more fair or unfair than the current system. But at least it will cost someone a lot of money, time, and wasted energy. That is what I think is sad.

There is a huge misconception out there that all a commercial river passenger has to do is call up, sign up and send in their money and they can go anytime they wish. As hard as it is to believe, this statement is not true. There is one and only one reason the commercial waiting list is not any longer than it is: the simple fact that the Park will not allow any outfitter to book more than two years in advance.

There is another misconception, and that is that the commercial passenger is paying for access to the river. This also is not the case. They are paying a price for a guided river trip outfitted by a professional river company. These outfitters are restricted to a set number of user days as well as a set number of launch dates. These outfitters in turn outfit the trip, pay guides, carry insurance, buy equipment, and pay a concession fee to the Park Service in order to run these trips. Right, most of them make a good living at it. Most of them have been doing it for over thirty years. Their reputation speaks much louder than their profits.

Believe me, I agree there are a lot of problems with

the current system. But the lack of management by the Park Service has not caused these problems. It also has not been caused by the perceived greed of the outfitters. In fact, a fair share of the problem lies in the hands of the private boaters. People are on that list by choice. Although I know that I will offend a lot of private boaters by writing this, the fact is that there is more than a fair share of dishonest boaters out there contributing to the length of the waiting list. People that place names of other people, friends, relatives, anyone with a social security number on the list. Some of these people have no idea what the trip is all about. These names are placed on the waiting list in order to secure a spot for someone else to run the trip for them. In turn, these boaters run one or more trips each year. Over the course of a summer, I see a lot of the same faces on private trips over and over. I'm not saying this happens a lot, but it does happen. Not that there is anything wrong with this, but it does inflate the list. I think a person should be allowed to go down river as often as she or he can. The only thing is, let's face it, in doing this under the current system you are denying other honest folks on the waiting list a chance to go down river. Private boaters that know how to work the system are not having any problem with the system.

There are, as hard as it may seem to believe, entrepreneurs out there that know how to work the system and are running "pirate" trips, not private trips: trips run as private trips for profit. These trips destroy the integrity of the system and increase the length of the waiting list. This practice has to stop.

Currently, there is a thirty percent cancellation rate in the waiting list. Right, there are a lot of reasons for this, why wouldn't someone cancel if they are going to have to wait ten years and after ten years find out they may have to wait another two or three years due to over demands on the current system. This is sad.

There are a lot of loopholes in the current system. To many, it seems as though it is not a fair system. But the solution to this problem is not through a lawsuit. This lawsuit is a waste of time, money, and energy. Nor, is the solution to just live and let live with your head in the sand. The answer is to put our energy into a coalition for reform: a coalition made up of folks on the waiting list, folks from the Park Service, river guides and outfitters. It would be all the same folks that are going to be in that courtroom anyway. Why not work together to improve the system rather than fighting over allocation?

There are a lot of good folk out there that want to get down river on their own private trip. They deserve a fair chance to get down river. There are ways to streamline the current system. Use computer modeling to update the current database in order to learn more about the people on the waiting list and to make the system a lot more user friendly. Increase trip size from 16 to twenty for those who want more folks on their trip. Look at user

days for private trips (not all private trips use their full 16 days in the summer). Putting these days back into the system would allow more private use. These are just a few ideas: there are a lot more workable solutions to this situation.

Let's work together to build a better system.

*Bob Grusy*

I'VE HAD SOME THOUGHTS regarding the GCRG association for quite some time. After attending the past meeting at Marble Canyon I thought I might as well share my feelings with the powers that be, so to speak.

I caught the end of Joe Shannon's talk about Glen Canyon Dam and the effect it is having on the river. At the end, he threw out some questions aimed at Grand Canyon guides asking, "Where is your voice?" Andre then rebutted, speaking about time demands and lack of resources and the officers of gcrg being spread so thin with so many issues that at times he also wondered where the voice of the guides was himself.

I've been a Grand Canyon guide for the last 16 seasons and in that time I've done my share of B.S.ing with other guides, and while I'll not be so bold as to say I speak for anyone else, I do think it important to impress upon the association the growing feeling of discontent in regards to the direction that GCRG has taken these past years.

It seems that the focus of GCRG has become purely political. While I understand that the political arena is important, as a guide I don't feel that political issues are the only concerns facing GCRG. If the voice of the Grand Canyon guides has become somewhat "muffled" I feel the reason for this is the fact that the support the guides expect from their own association has been lacking. Retirement plans, health plans, consistent pay rates based upon experience, just to name a few. I understand some companies within Grand Canyon have implemented policies to benefit their guides, i.e. profit sharing, 401k's, but the majority of the concessionaires view guides as being, "a dime a dozen".

As guides we've made a conscious decision to spend our lives in the outdoors. Turning people on to the world we live in, and in doing so hopefully opening their eyes to the political issues our environment faces. We realize our voice isn't enough. Public outcry has always been and always will be the motivating force with politicians. Maybe if some of the concerns directly affecting us are addressed, we would pay more money to gcrg in the form of dues or whatever to help offset the financial burdens. I know I would. It seems a shame that anything done to benefit a guide always seems to

come post-humously.

Again, just my thoughts, take them as you will, do with them as you will.

*Michael "Coach" Caifa*

A Response:

**A**S ALWAYS IT'S GOOD to hear what's on the minds of the river guides, even if it's not all that flattering. Your concerns are important and you are not alone in feeling that in the past GCRG has been way too political on some issues that ultimately are not all that important to the working guides. I understand and have to agree with you. That is why for the past year and a half, I, as well as everyone else at gcrg, have been working hard to focus on guide related issues. Really the best way to deal with this is to get in there and make the changes yourself, or get someone you trust in there to work for you. The organization is your voice but like any voice it is only heard if you speak up. Get in there, and take some action.

*Bob Grusy*

Regarding the book review of *Day Hikes from the River: A Guide to 75 Hikes from Camps on the Colorado River in Grand Canyon National Park*, BQR 13:1

**T**HE GOOD NEWS IS that a revised Edition is forthcoming this fall. The bad news is that the present book gives little guidance for low-impact traveling in the Canyon. BQR staff pointed out that lack in their review, however, I think it needs to be strongly reiterated. Anyone who travels, or encourages or facilitates others to do so in the Grand Canyon, should take full responsibility for trackways up dunes, spider trails at attraction sites, trashed vegetation, or damaged archeological sites; all from "innocent" hikers and river runners. Isn't it the job of guides and guidebooks to show others how to care for the Canyon? Let's hope the new book gives better guidance in that respect, thereby preventing resource damage and saving a lot of repair work!

*Greg Woodall*

Regarding *Let the Camelthorn Grow* by John Middendorf, bqr 13:2

**T**HE GRAND CANYON NATIONAL PARK reveg/deveg program did a ranking process of all the river corridor non-natives to determine those that would be feasible to eradicate. Given the root depth and

structure of camelthorn, it was determined that shy of backhoeing up every infested beach, a nps eradication program wasn't doable. That said, however—"Weed-a-Beach" program, anyone? If you've got a favorite sleeping spot or unit trail you're concerned about, clip away! Trauma shears work great and repeated clipping of the green stuff will eventually result in root (and plant) death. Just remember to dispose of the remains responsibly.

*Greg Woodall*

## Georgie Rapid

**O**N JULY 12, 2000, the Arizona State Board on Geographic and Historic Names approved a name change decision to rename 24-Mile Rapid to Georgie Rapid. Rosalyn Jirge, a former friend, passenger, and crew member for Georgie, was the name change sponsor.

The application for this name change has now gone to the U.S. Board on Geographic Names. They will be considering final approval over the next month or so. If you have sentiment for or against the name change, please send your comments to:

Mr. Roger L. Payne, Executive Secretary  
U.S. Board on Geographic Names  
U.S. Geological Survey  
523 National Center  
Reston, VA 20192-0523  
e-mail: rpayne@usgs.gov



## Downstream News

Mary Williams (GCD) and Chris “Naked Man” McIntosh (CANX, GCD) were married on July 6th, by “Reverend” Allen Haden (Expeditions). The private ceremony was followed later by a party at the couple’s home in Flagstaff.

## GCRG Yard Sale

THE GCRG YARD SALE successfully raised over \$300 for the organization. Thanks so much to those who donated time and items to the sale. Some “best buys” not found at many other yard sales included a wide variety of recreational equipment and the highly desirable “Kaplinski Juicer” (below).



## Changing of the Guard and We’ll Miss ‘Em

CHAPPENING within the faces of Grand Canyon National Park. This time we’re losing a couple favorites—Ed Cummins, who contributed greatly to making our time at Lees Ferry a pleasant one, and Dave Trevino, river ranger extraordinaire. It’s not every day you get to work with Park personnel like these two guys.

Ed is moving on to Oklahoma and Dave’s new post will be Washington, DC. Good luck gentlemen. We’ll miss you both.

## A Note To Superintendent Arnberger

IT IS DISAPPOINTING TO LEARN that Superintendent Rob Arnberger is leaving Grand Canyon National Park (he’s been appointed regional director for the National Park Service’s Alaska Region). It does seem as if the National Park Service, in its divine wisdom, has a way of transferring its personnel just when we are starting to get to know them. Not that we have always seen eye to eye on every issues over the past six years, but Superintendent Arnberger has been helpful and responsive on many of our concerns from the Coast Guard threat to overflights. At times his job must have seemed like an endless river with one difficult rapid after another. GCRG would like to say thanks for taking the time to listen to and speak with everyone on the boat. Hopefully the new Superintendent will share those same concerns and be willing to work well with us on upcoming issues. Best wishes, see you down river.

## GC Online Bibliography

IF YOU’RE DOING any kind of research on the Grand Canyon or Lower Colorado River, you’ll want to bookmark this URL—[www.grandcanyon.org/biblio/](http://www.grandcanyon.org/biblio/) This online bibliography is an indispensable resource compiled by GCRG members Earl Spamer, and co-contributors Dan Cassidy and Richard Quartaroli. It’s definitely worth checking out.



# In Memorial

TAD NICHOLS

TADITO, THE TADPOLE, e.t. There he is in his shorts, balanced on one leg, his other foot resting against his knee—a stork with a cup of coffee—camera on tripod beside him. He’s gazing out across the river, silhouetted against a deep blue sky full of tatting. It is just after dawn and he is waiting. Waiting for sun to rise and fulfill what he demands in a perfect photograph. Waiting while he drinks in the beauty that surrounds him, drinks his coffee and sighs with contentment when the river sighs. He lifts his left hand to twiddle the hair at his cowlick—an unconscious gesture of contemplation and idle happiness he’s had most of his life. He is euphoric! This day is the perfect day to be at his favorite camp in Glen Canyon, on the bar above Hidden Passage.

And that is how I will always see him.

To have a friend, a buddy, a pal for sixty years is a rare thing. To have one lead the way to a place that would grip the rest of our lives, is a gift beyond calculation. Tad took me to the Colorado river and its canyons, as he did many. Tad taught me how to photograph those places, as he did others—though none as perfectly as he. And maybe he didn’t know it but I learned how to “feel” light from Tad; light that could never be photographed. Yet, it must have reached out and touched him as well.

The proof lies—thank God it lies—within our grasp. A year ago, at this very time, his long awaited book *Glen Canyon—Images of a Lost World*, was published. Every photograph in it is proof of what he “felt” about that lost world. With power, it rises from the pages. What he felt was *love*.

*Katie Lee*

MATT THOMAS

June 9, 1956 – March 19, 2000

MATT THOMAS HAD A PASSION for rivers and friendships. The combination of these two traits led to an abundance of memorable times on just about every runnable western river. The Colorado River through Grand Canyon was his favorite.

Matt and I met on a 1984 Grand trip, Matt’s first. The Canyon captured his heart, bringing him back



seven more times. We married in 1990 and rafting together became the best part of our lives. We ran many rivers, but the Grand was always special. Matt and I shared our love for it on trips in 1991, 1997 and 1999.

Matt was a long-time member of Grand Canyon River Guides. I would like to thank our many friends and family for their

generous contributions to GCRG in Matt’s memory. We all miss you, Matt. The river gods are with you on your downstream run.

*Love,  
Annie Thomas*

MICHAEL ARCHENHOLD

WE AT GRAND CANYON RIVER GUIDES were saddened to hear of the passing of Michael Archenhold, an active member of GCRG since 1997. Michael’s personal notes over the years and his continued support of our organization were always appreciated. GCRG is extremely honored to be a recipient of a significant IRA distribution from the estate of Michael Archenhold. In doing so, Michael has bolstered GCRG’s financial health thereby allowing us to continue to pursue our mission of protecting Grand Canyon and the river experience. Thank you Michael. We will miss you! Our thoughts are with your family and friends.

MARC REISNER, writer and conservationist who wrote the seminal text on the West's perennial water wars, died July 21st of cancer. He was 51 years old.

Marc Reisner wrote and lectured extensively on environmental issues, but was best known for his 1986 book *Cadillac Desert*, an angry indictment of water depletion in the American West. The book was a wake-up call about destructive dam-building, pork barrel water subsidies, and the general frittering away of the West's scarce water resources.

In 1979 he began the research on water policy that ultimately resulted in *Cadillac Desert*. That book was a finalist for the national Book Critics Circle Award in 1986, and the basis for a \$2.8 million documentary film series which was first shown on PBS in 1997. *Cadillac Desert* was ranked by the Modern Library as 61st among the 100 most notable nonfiction English language works published in the 20th century.

In recent years, Marc Reisner devoted much of his time to promoting solutions to California's environmental problems. He was a consultant to the

Pacific Coast Federation of Fisherman's Associations on removing antiquated dams that were interfering with anadromous fish runs. He also co-founded the Rice-lands Habitat partnership, a coalition of farmers and conservationists that worked to promote environmentally friendly agriculture, improve waterfowl habitat on crop land and minimize the negative impact on fisheries caused by water diversions.

Marc Reisner managed the Vidler Water Co., which promoted environmentally benign groundwater storage and water transfer programs as an alternative to dams. He also worked with a group of California river farmers and engineers to make fiberboard and other products from compressed rice straw.

Among Marc Reisner's many awards, he received a special commendation from the American Whitewater Affiliation for his efforts to promote river conservation.

*excerpted from online edition  
of the San Francisco Chronicle*

## Bill Beer

BILL BEER MADE HIS MARK in Grand Canyon in 1955, when he and friend John Daggett swam the river clad in life jackets and rubber shirts, towing army surplus river bags. Daggett was nearly killed when he was dragged beneath President Harding rock, but the two persevered in what Beer later termed, "a cheap vacation that got a little out of hand."

The next year Beer and Daggett tried rafting. Several miles above Phantom, with a dead motor and two broken oars, they jumped overboard, Bill's hound dog Sam barking furiously, and towed the raft the remaining miles to Phantom.

In the next two years Beer joined Dock Marston, twice piloting ChrisCrafts through Grand Canyon. Tired of his reputation as "one of those crazy guys who swam the Colorado" Beer pulled up stakes and moved to the Virgin Islands, where he made a living for the next thirty years piloting the charter yacht *True Love*. His passion in later years was flying his ultralight aircraft. Wherever he went, whatever he did, he had fun, and he had more of it than anyone around him.

Beer finally came back to the Canyon on a commercial trip in 1985, then in 1994 ran a private trip down the Colorado with his family. At a subsequent Guides

Training Seminar, Beer narrated his hilarious film of the swim, introducing his story and his joy to a whole new generation of boaters. His enthusiasm, optimism, and contagious laugh infected all who met him.

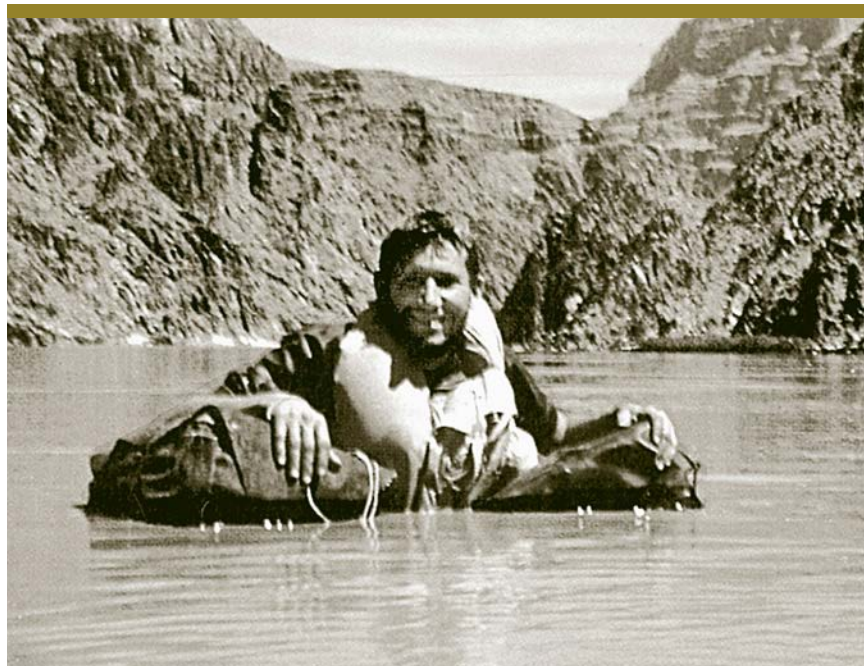
Last month Bill Beer, 71, was flying his ultralight near Kayenta. A witness on the ground saw the plane's nose rise briefly, then plunge. "It looked like Bill fell forward onto the control bar," said Bill's wife Sue. "He was ready to pull the ballistics chute, but he didn't." A heart attack or a stroke are the most likely suspects. His last sight was the spiraling kaleidoscope of the red rock desert he loved.

We will miss Bill Beer's unquenchable spirit, his fierce intelligence, his utter joy.

"He was the original adventurer. His spirit taught me a lot of life's important lessons," said Maxine Lavitt, who for ten years captained *True Love*, "Bill was bigger than life. When a man like Bill dies, it leaves a void that big too."

*Brad Dimock*

**A great part** of the happiness of any human being is measured by their accomplishments and nothing else. And accomplishment is not defined by somebody else, it's defined by yourself. You find an objective, you set a goal, you achieve it, and you're proud of yourself, and you're happy. I take pride in what we did in the Grand Canyon. I think we did a damned fine job of doing what we set out to do. Not a very significant accomplishment, but it was ours.



**You play the hand that's dealt you.** That's a favorite saying of mine. But I think my only philosophy of life, and I try to teach it to my children—I think I've succeeded in teaching them—is “What's to be afraid of?”

Fear is a healthy thing, of course, when it's protecting you from something you ought not to do. But fear is something that comes from inside. It's almost always fear of the unknown. You're not afraid if you know what's going to happen, in most instances. But a lot of people create too much fear for no reason, they're afraid to do something. I don't know whether they're afraid to fail, or they're afraid they're going to get hurt, or they're afraid they're going to lose money or some other thing. But I think that you examine all these alternatives, try to be as accurate in predicting it, as careful in calculating what you are going to be able to do and what you're not going to be able to do, what the consequences are, and then damn the torpedoes—Go!

I want to do something, I find out everything I can about it, and then—Why be afraid?—Go! If the other guy can do it, you can do it. It makes life much more fun.

My daughter said to me, “Dad, you've always done exactly what you wanted to do.” And I always have—I've done what I wanted to do. I don't think you can ask for a better life.

**You're evangelists.** You're taking the world down into that temple of ours, and you're not destroying it. And someday the world's gonna recognize you for what you are. But I want you to know that right now, I do...

And I see that you have problems—I live in a parallel world. I run a boat through a national park, and I have the Coast Guard on my back all the time. And they're good guys, these bureaucrats, every one of 'em. But they're bureaucrats. And you know, dogs bark, and bureaucracies grow...

So I would say this only—Respect yourselves. You've got a lot of trouble coming, I predict this... But if you want to, you've got the resources—and I see a lot of power and a lot of clout here. There's no organization like this—no national park in any country has an organization with the efficiency and the intelligence that you guys have. I'm astounded at the quality of people here. And I say to you—if you don't want to use it, that's up to you—but don't underestimate yourselves.



# The Changing Rapids of Grand Canyon: Granite Rapid

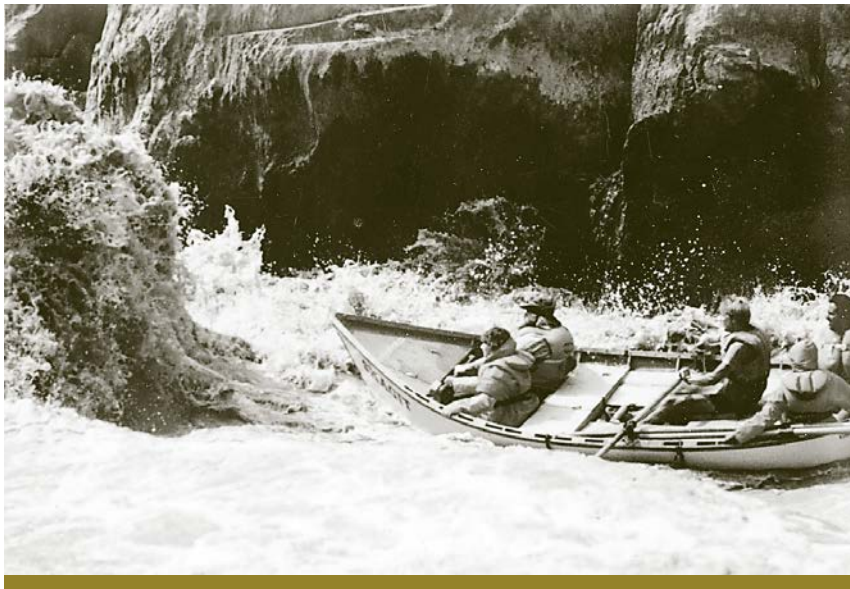
I HAVE ALWAYS THOUGHT of granite rapid as a big sleigh ride. You crest the top, ride some enormous, stationary rollers, and then suddenly what seemed to be a frozen slope turns very wet and lands in your face. To most river runners still boating in Grand Canyon, Granite Rapid represents a relatively confined entry at the top right and then a move to the left, with goals of staying off the right wall and staying out of what some boaters call Forever Eddy on the lower right. It's a big ride with a high probability of flipping for smaller oar boats.

John Wesley Powell seems to have been fascinated with Granite Rapid. He had his photographer, Jolly Jack Hillers, take three photographs of the rapid in 1872, which means Hillers took more photographs here than any other place on the river except the mouth of the Little Colorado. Powell featured a drawing of his boats running what he called Granite Falls in his fictionalized account of his first river trip in 1869. The problem is that Powell only ran rapids when his men couldn't portage easily, such as at Sockdolager Powell definitely portaged Granite (see accompanying photographs). Bill Belknap made the drawing well known by featuring it on the cover his river guide.

Later river runners photographed the rapid as well. Stanton took three photographs of the river in 1890. Raymond Cogswell took seven photos of the rapid in November 1909. The Kolb brothers attempted to match Hillers upstream view along the edge of the rapid in December 1911. By the middle of the 20th century, photographs were regularly taken. One of the reasons is that the rapid was regularly lined and the photographers had a lot of time on their hands. One of the first

women to go through Grand Canyon, Lois Jotter Cutter commented on how boring it was to walk around all the rapids in 1938. In 1994, on her second trip, she was quite happy to be riding in a boat instead of walking around Granite Rapid.

Granite has changed considerably since 1872. My information comes from matching 15 historical photographs of the rapid and examining another dozen aerial views or photos that couldn't be matched easily. Also, I've been observing this rapid closely since 1984. Probably the most striking change is the reduction in the



Brad Dimock running the rouge wave in Granite Rapids, July 27, 1984. Photo courtesy of Brad

size of the sand bars at the foot of the rapid. Once one of the best beaches in terms of size in the Inner Gorge, these sand bars have been reduced to almost unusable to river runners now. The beach on the left above the rapid is a pale shadow of its former self and at times resembles a mud wallow.

But the rapid itself has changed several

times, and some of the changes were rather dramatic. The rapid that Powell and Stanton saw was wide with a shallow, rocky left side. Hal Stephens matched two of Hillers' photographs in 1968. In one from high above the river, a debris flow issuing from Monument Creek has clearly changed the upper part of the debris fan (Webb and others, 1988, 1989). We narrowed down the year of this debris flow to between March 1967 and September 1968 (Melis and others, 1994). This one was small but the first indication of what was to come.

A debris flow on July 25, 1984, caused major changes in Granite Rapid. The debris flow, which started at a large avalanche in the headwaters of Monument Creek, covered most of the debris fan and entered the rapid. Two distinctive holes on the upper left were eliminated by boulders. Brad Dimock was there on July 27, and the



September 1, 1872. In 1872, Powell's men rested at on the beach below the rapid to repair boats damaged during the lining of Granite Rapid. The water level is probably 60,000 to 80,000 cfs/s, and most of the debris fan is under water.  
(John K. Hillers, courtesy of the National Archives)



September 16, 1968. In 1968, despite at least one small, 20th century debris flows, the rapid was relatively wide and rocky down the left side. (Hal Stephens)



January 30, 1990. The effects of the 1984 debris flow area readily apparent on the left side of the narrowed rapid. Most of the beach, which is greatly reduced, is covered with driftwood. (Tom Brownold)



March 12, 1999. The surface of the debris fan has risen about six feet above its level in 1872. The once sandy beach is studded with rocks. (Dominic Oldershaw)

debris flow was still oozing and calf deep in places. He had to run a rogue wave that he hadn't seen before or since in the rapid, and a photograph shows the wave towering about 6 feet above his dory. My first river trip in Grand Canyon took me to Granite Rapid in early August 1984. I remember walking on the by-then hardened surface of the debris fan, seeing my first definite proof that debris flows did indeed occur in Grand Canyon. The 1984 debris flow increased the fall through the rapid and increased its speed, leading to the rapid that most of today's river runners know so well.

Much of the 1984 debris-flow deposit was washed downstream towards the island during the high water years between 1984 and 1986. The rapid became stable for a decade, until the flood in March and April, 1996, moved some three to six foot boulders around on the edge of the debris fan. Another debris flow, on July 15, 1996, added a lot of relatively small boulders to the surface of the debris fan, but few of the boulders

entered the river at its typical dam-controlled levels except above the rapid, where a splay of cobbles and boulders entered the upper pool. This deposit may have helped slow the erosion of the upper beach. Now, when you walk over the surface of the debris fan, the 1996 deposit is what is most apparent. Monument Creek is a frequent producer of debris flows, one of the most frequent producers in Grand Canyon. Expect to see more changes in the sleigh ride, probably in the near future.

*Bob Webb*

Melis, T.S., Webb, R.H., Griffiths, P.G., and Wise, T.J., 1994, Magnitude and frequency data for historic debris flows in Grand Canyon National Park and vicinity, Arizona: U.S. Geological Survey Water Resources Investigations Report 94-4214, 285 p.

Webb, R.H., Pringle, P.T., Reneau, S.L., and Rink, G.R., 1988, The 1984 Monument Creek debris flow: Implications for the formation of rapids on the Colorado River in Grand Canyon National Park: *Geology*, v. 16, p. 50-54.

#### Mile 75.5: SOS

For two days now I have been thinking  
about the silence of the rocks, their mute  
looming presence by light of sun growing  
toward Solstice fullness, light of moon  
waning at its cycle's end, & light of stars,  
Polaris so clear, bright at turn of night

For two days now I have been wondering  
how such ancient rocks might speak to me,  
in what language, with what song, & how should I tune  
me ears to their key or fix my eyes on their profiles  
& shadows

But now I know you do not listen  
to Tapeats Sandstone or calcified Travertine,  
nor do you learn their hard lesson by seeing  
a fault line or wind abrasions—you feel their psalms  
in your broken skin, seep of blood, coming bruises  
when Little Colorado River current sweeps  
you away to green water pastures—or into those

stronger arms of the holy boatmen,  
my confluence of buoyant angels

*Karla Linn Mayfield*



# You Think 8,000 CFS Is Tough? Find The Runs Here!

ONCE EVERYONE who hadn't seen low water before learned the runs, it wasn't so bad...and it was kind of fun to scout all those rapids you hadn't scouted in years, wasn't it! Wasn't it?

In order to fully appreciate having water at *all* to run on, here's some Bill Belknap shots of boating on *really* low water. These were taken on the low water sportyak trip in August, 1963 during the time Lake Powell was filling and Glen Canyon Dam was releasing just 1000 CFS for the better part of a year and a half.

If you don't recognize these rapids we all know and love, look on the bottom of the page.



- 1) Dubendorf (NAV.PH.96.4104.37)
- 2) Hance (NAV.PH.96.4103.37)
- 3) Ruby (NAV.PH.96.4104.13)
- 4) Lava (NAV.PH.96.4.57.21)
- 5) 75-Mile (NAV.PH.96.4.57.6)



## Davy Crocket: King of the Sockdolager

THE INVENTION of Grand Canyon tall tales didn't die out with John Hance. River guides have proven good at it, sometimes unintentionally. One tale that circulated for years was that 'Matkatamiba' was the Havasupai word for "girl with a face like a bat". One day a guide repeated this folklore to a Havasupai, who was quite amazed by this news, and disclosed that 'Matkatamiba' was a Havasupai family name. An inquest into the origin of this lore turned up a guide who confessed he had simply invented it. In the meantime, Paul Simon had gone down the river, heard this lore, and put a line about a bat-faced girl into a hit song. At least, this is the version of events I heard; maybe you heard another.

Recently I was amazed to discover that I too had invented a bit of canyon folklore. Somehow I got the idea that the word 'Sockdolager' was Swedish in origin. I had repeated this a few times, until one day I repeated it to a Swedish woman in an eddy below Sockdolager, and she said "Huh? Never heard of it." At a loss to explain where I'd gotten this notion, I consulted the Facts on File Encyclopedia or Word and Phrase Origins, and was informed that the word Sockdolager was coined by Davy Crockett himself. Crockett had also invented the word "ripsnorter" and the sayings "quicker than hell can scorch a feather" and "like singing psalms to a dead horse."

Thinking that this was a marvelous addition to canyon lore, I set out to discover just how Davy Crockett had come to coin the word 'sockdolager'. Not having done much research into Crockett since watching Disney as a kid, I little suspected what I was getting into. Crockett biographers have spent years trying to sort out the facts from the Crockett legends, if indeed they wanted facts at all. In his own lifetime Crockett was already being turned into a mythical character like Paul Bunyan. Crockett did have the stuff of folklore in him, but this folklore image was shrewdly promoted by the Whig political party, which needed its own populist frontiersman to counter the appeal of Andrew Jackson. To prepare Congressman Crockett for the Presidency, the Whigs ghostwrote an autobiography and other books for him, books full of frontier idiom and heroic bear hunting and Indian fighting. Crockett's death at the Alamo unleashed a long flood of pseudo-biographies, potboiler dime novels, and Crockett Almanacs, which inflated him into a superman who could wrestle tornadoes and ride lightning bolts.

I dutifully read the autobiography, and indeed there was a "singing psalms to a dead horse". But while there was lots of fighting in it, there was no sockdolager, not

even an ordinary sockdolager, not to mention a ripsnorter of a sockdolager. I read the most scholarly biography, but there was no sockdolager. Then I read the 1831 New York hit play *The Lion of the West*, which featured the Crockett-based Nimrod Wildfire, who spouts backwoods witticisms like "You might as well try to scull a potash kettle up the falls of Niagara with a crowbar for an oar." For a duel, Wildfire chooses rifles for weapons, and brags about the deadly effect of his rifle: "He'll come off as badly as a feller I once hit a sledge hammer lick over the head—a real sogdolloger. He disappeared altogether; all they could ever find of him was a little grease spot in one corner". This play did more than anything to spread the Crockett legend, and biographers started stealing lines from it and putting them into Crockett's mouth. In his text, the playwright put quotation marks around "sogdolloger", as if it was an unfamiliar word, and indeed the earliest citation for it in The Oxford English Dictionary is dated 1830. This play may have been the first time most people heard the word 'sockdolager'.

In the 1880s appeared a dime novel called *Sockdolager! A Tale of Davy Crockett, in which the Old Tennessee Bear Hunter Meets Up With the Constitution of the United States*, a tract against government spending, which the state of Virginia found useful to reprint, at taxpayer's expense, when Kennedy assumed the Presidency in 1961. The same author wrote *The Bear-Hunter; Or, Davy Crockett as a Spy*, which contained the line: "I gave the fellow a sockdolager over his head with the barrel of my gun". This line was soon quoted in a dictionary to define usage of the word 'sockdolager'.

I checked many dictionaries, and they agreed that 'sockdolager', in its various spellings, was an early 1800s American slang, meaning "knockout punch" or "something ultimate". But no one else cited Crockett. Most were content to say "origin obscure." The venerable Oxford English Dictionary made no attempt to cite an origin, saying only "probably a fanciful formulation". But several American dictionaries repeated the idea that it was a combination of 'sock' and 'doxology', or the closing of a sermon. But this theory doesn't convince me. It's a big jump between a rousing church hymn and a gun barrel smash on the head. Even the wordplay-loving Shakespeare probably wouldn't have risked baffling his audience by leaping from 'doxology' to 'dolager'.

But I doubt that Crockett coined 'sockdolager'. His talent was delivering sockdolagers with his rifle butt. It was probably Nimrod Wildfire, who graced American stages for thirty years, who was the major popularizer of this backwoods word. It did pass into widespread usage. Huck Finn spoke it on his raft: "The thunder would go rumbling and grumbling away, and then rip comes

another flash and another sockdolager.” John Wilkes Booth waited for it outside Lincoln’s door at Ford’s Theater, for he knew that the line “you sockdolagerizing old man trap” in another play drew the biggest laugh, loud enough to cover the sounds of an opening door and a gunshot. Nimrod Wildfire so thoroughly linked ‘sockdolager’ with Crockett that they ended up linked in a dictionary 150 years later. *The Facts on File* citation

is likely just another episode in the never-ending Crockett legend. By the way, *Webster’s Dictionary* says that ‘ripsnorter’ originated in 1840, four years after Crockett’s death.

*Don Lago*

Mile 95.5: I Do

I awoke to face Hance Rapids at this day’s start,  
a serious run that required seventeen recitations  
of Psalm Twenty-three, you know, about some great  
shepherd, valley of the shadow of death & so on  
until you’re dwelling in the house of the Big One; stirred  
in a few tears, too, for good measure against unalloyed terror.

But that was hours ago, twentysome miles ago,  
Horn Creek, Granite & Hermit Rapids ago  
all behind me, & lordamercy, I’m still alive:  
taking photographs, washing my hair, cussing  
sand caught in my shorts, & laughing again  
at my husband’s old jokes—all because  
I put myself in the hands of a Zen master

In that glassy stillness in those heaving tongues  
of those rapids, great and small, comes the moment  
for deep commitment: I put my hand in the hands  
of the man who rows the water—my new friend,  
the one whose concentration speared me in the spine.

*Karla Linn Merrifield*



# Ballot Comments 2000

## GOOD THINGS GCRG IS DOING

Quarterly newsletter, GTS (on river), spring & fall meeting.  
Adaptive management of the dam. It's critical to stay involved & provide insight and direction to that process. Also the GTS & Adopt-a-Beach program.  
Lynn Hamilton.  
Boatman's Quarterly Review.  
Keep Lynn Hamilton, she's great! Offering the gts land and river trip. Even though I haven't gotten a full time/part time guide position, I've learned so much on the trip.  
BQR, GTS, participating in TWG & AMWG  
GTS land and river.  
Newsletter.  
GTS, BQR, trying!!!  
Everything! Keep it up. BQR is fantastic.  
Bqr! GTS!  
Sharing information about the history, ecology, and political issues surrounding the Canyon. Providing a forum for guides. Advocacy.  
Thank god for Lynn Hamilton and all the good work she does!!  
Keep up the great work.  
An outstanding newsletter! Great work! Great educational and historical work too.  
Very fine newsletter.  
Oral history/interviews. Keeping fairly unbiased considering all the opinions out there.  
Everything! Don't stop!  
Keep up the good work.  
Grand Canyon Youth. Super quarterly reviews.  
Quite a few; more than can be named here.  
The BQR! The interviews! The photos!  
Being positive about other Grand Canyon groups & supportive of so many different viewpoints. No mud-slinging is great!  
The BQR! The GTS!  
BQR. Trying to get the NPS to see reason.  
Ensure or work towards getting GCNP to hire a long-term Superintendent.  
The old-timer interviews are awesome.  
Newsletter. Keeping us updated. Allowing us to vote.  
Improving communications between boaters  
Most everything. Publishing the BQR.  
GTS—but needs improvement. Supporting NPS managers.  
Adaptive management.  
Providing guides a "voice." Brings us up to "snuff."  
Guides training & oral history. BQR is better than ever!  
Keep up with the great quality in the BQR! Love the interviews.

Putting energy towards a special place.  
Can't thank you enough for the BQR. It provides a very professional perspective – diverse outlooks/current and future management issues, but best of all, a historical and cultural record. In short, a historical and cultural record that is to become our heritage.  
BQR is awesome! GTS—keep it going. Letting everyone speak their minds.  
Newsletter, oral histories  
Continuing the tradition.  
GTS trip this year was awesome!

## MISGUIDED THINGS GCRG IS DOING

How about some women on the board?  
Any support whatever for draining Lake Powell.  
Ignoring the private demand for trip equality (i.e. access).  
It won't go away.  
Not fighting illegal and unconstitutional drug testing.  
Not supporting wilderness. Not supporting a post-dam ideology.  
Not doing more! Tho' it'd be tough to figure out how to squeeze it in. And don't bother scouting issues... Just run 'em!!  
Not coming out strongly in favor of decommissioning Glen Canyon Dam.  
Being anti-motor.  
How can we get guides involved?  
Being polite to Tom Martin—it's wasted on him and he's out to destroy us and everything we believe in.  
Perpetuating the myth that the commercial/private ratio is somehow fair.  
Not supporting an increase in the private river permit allocation: guides are private boaters too.  
Not addressing the huge unfairness of access of private boaters in GCNP.  
Entrenched in the current Canyon status quo. Not advocating for Wilderness designation.  
Supporting science trips that are bogus science. Get rid of tamarisk? Please! 8,000 CFS so we can see if the chub do better? When we don't know how many there are to begin with? What's going on?  
I do want Glen Canyon Dam and cold clear water and released lake with the run-off—like a river.  
Do not become involved in adding certificates that cost money for river guides to obtain. Many river guides or guides in general make less money than I did in the '70s with no benefits.  
Writing in the BQR is worse. Design, photography & graphics improved.  
Not many.

Offering membership to the general public.  
 Supporting any changes to the current guide licensing procedures.  
 Decommissioning the dam? Aw... come on! Outfitters ain't (necessarily) the bad guys.  
 Flagstaffcentric.  
 I am an oar-head but GCRG should not be opposed to motors as it splits the organization. Need to support all boatmen.  
 Going along with the Park Service too easily! We need to fight them on some topics that we know are misguided.  
 With so many opinions, when GCRG takes a stand on an issue, there will always be someone who unfortunately is offended.  
 Not bringing U.S. Federal Labor Laws to bear upon companies that compel guides to work for free before being paid. To not act on this existing law that forbids any company from forcing labor to work for free means that you, our representatives, are what?  
 Supporting changes in Grand Canyon wilderness that adversely affects continued use of motors. Support of any regulatory changes that only provide more hoops for the guiding community to jump through.

#### THINGS GCRG SHOULD BE DOING?

Fundraising from our loyal membership to support Adaptive Management. Develop a vision of how we want the river ecosystem to look in the future. Have serious discussions and build consensus on "who gets to go and how often."  
 Continue conserving & protecting the Canyon and surrounding plateau lands.  
 Expanding the Boatman's Quarterly Review.  
 Be proactive in pushing for illegality of drug testing, health insurance from outfitters.  
 More in-depth articles—look to cprg "Confluence" rag.  
 Encourage grumpy old boatmen to move on and make room for young enthusiastic guides.  
 Supporting wilderness.  
 Trying to restart (or resume) the crmp process.  
 GCRG should support the lawsuit brought by gcpba and others demanding the park re-start the management plan process.  
 Accurate polling of membership to develop the organization's political positions. Advocate for Glen Canyon Dam decommissioning.  
 Conserving soil of the Colorado River watershed.  
 Gaining benefits and better pay for river guides.  
 Take a stand against NPS helicopter rescues of incompetents. Help solve the waiting list.  
 Put pictures of the annual t-shirts on the website (nag, nag, nag).  
 Stronger promotion for de-commissioning Glen Canyon

Dam. Letting the Park Service know that we know more about the Park.  
 Working to eliminate drug testing. Earlier mailings of the BQR. I get mine after the "upcoming" events have already happened!  
 Get me a job!  
 Convincing the nps they don't need jet skis in the Canyon. Even in emergency or rescue situations.  
 More for the guides: insurance, wages, guidelines.  
 Integration of private boaters into training. Stand up on issues. Don't waive.  
 GCRG might want to do a strategic plan facilitated by a professional.  
 More philosophical/nature writings and art in the BQR.  
 We need to keep working on keeping the GCPBA (private boater) folks objectively enlightened.  
 Move the rubber magnet in Hance.  
 Fewer user days or hold status quo.  
 Accomplishing their goals.  
 Support planting of Fremont cottonwoods and hog wire them from beavers.  
 Continuing the fight.  
 More guide get-togethers throughout the year/season.

#### WAYS TO BE INVOLVED IN GCRG?

Speak, write, email, etc...  
 Attend meetings, write articles, vote down narcissists, vote in visionists, do away with dogma.  
 A couple of big mid-summer picnics when a majority of board and officers are off river. An email network.  
 Get to Flag more often.  
 As I don't live in the Flag area, submit to the BQR.  
 Living out of state it's hard, but I could do emailing or phone calling. I try to attend spring and fall meetings but would like to see a wider spectrum of the guide community there.  
 I don't really know how to be involved when I live in Moab. You'll have to let me know how. I do have plenty of room if guides are traveling and need a place to stay while in Moab.  
 I wish I could tell ya, but I don't know. You have an open platform and that's appreciated.  
 I am a long ways away and my involvement would mean more paper usage. Keep up the good work.  
 Attend Spring & Fall meetings.  
 Recruit more passenger members.  
 Call me!  
 Just doing the best I can!  
 Join and pay dues and read the BQR. Attend the GTS.

# Letters From the Grand Canyon: Nuts and Bolts, Part I

## It's About Time

No discussion of geologic history, least of all that of the Grand Canyon, can be undertaken without first touching on subjects that are not part of routine human experience. These subjects need to be converted into something that can be grasped in everyday terms. Human experience is far too limited in time and space to visualize directly, instinctively, the stately succession of events, landscapes, and lifeforms that have followed each other in geologic time. It is precisely this traveling through time, this going far beyond what any of us can actually experience, this reconstructing things stranger even than the imaginings of science fiction, that is the true pleasure of a historical science such as Geology, a science whose home is Time.

## Rivers and Rocks

A common impression is that the Grand Canyon and the rocks through which it is cut are closely related, perhaps by being born at the same time. But nothing could be farther from the truth, whether for the Grand Canyon, the Colorado River, or nearly any river. The rocks are merely the stage upon which rivers carve their will.

As we shall see, much of this “stage” is up to ten times older than the earliest possible age of the Colorado River, and is more than 100 times older than the carving of most of the Grand Canyon.

As the “stage” was being set, the landscape of the region had no resemblance to what we see today on the Colorado Plateau. Instead of tree covered uplands and grass- or scrub-covered flats, one might have seen something rather like the Bahama Banks: a warm, shallow sea teeming with life. Later, in Mesozoic time, the area was alternately shallow seas and dry land. Only when the Colorado River was born (probably some 60 million years ago), when the seas were completely gone, did the landscape start evolving recognizably toward what we see today. So the Colorado River merely flows through, and cuts into, rocks deposited long before its birth. The only connection between river and rocks is that these rocks, some tough, others easily eroded, all mostly flatlying, give the Grand Canyon its characteristic architecture of horizontal entablatures and vertical cliffs, and the Colorado Plateau its tablelands and great escarpments.

## A Matter of Time

For a geologist, one million years is small change, the unit of currency, a dollar payable at the treasury of Time. It is not so hard to get a good feeling for what one dollar

represents—little enough nowadays—but one million years? How do we fathom a span of time that so greatly exceeds our life span, the stretch of our experience? The only way is by playing games of analogy.

Consider one centimeter. Now let us envision a great fault, like the San Andreas, along which rocks move horizontally. Let us then make the reasonable assumption that rocks on one side of the fault move past those on the other side at an average rate of one centimeter per year. After one million years, points that initially were right next to each other across the fault line will be one million centimeters apart. This is equal to ten kilometers (six miles). Respectable. Rocks displaced at the same rate along a fault that moves vertically would form a mountain comfortably higher than Mt. Everest in the same time interval.

Many people find a biological analogy more workable than a physical one, because biology relates more directly to our human experience. So, think of a human generation as being twenty years, which is not far off the mark. How many such generations are there between us and the time Christ was born? One hundred, that is all. And how many between now and the time—about 1300 bc—when Helen's face launched a thousand ships to besiege Homer's Bronze Age Troy, home to kingly Priam and lugubrious Cassandra? One hundred sixty-five. And how many in one million years? Fifty thousand. Perhaps the stately pace of geologic change begins to make sense after all: there is *so much time!*

Let us now establish an analogy between the space of one centimeter and the time of one million years. We can use this yardstick to map out the time entombed in the rocks of the Grand Canyon, which reaches back some 1,750 million years (give or take a few million). At one centimeter per million years, Grand Canyon time measures nearly 17 1/2 meters (58 feet). And in this 1,750 million years, our Mt. Everest, still rising at the rate of one centimeter per year, would reach the notable altitude of 17,500 kilometers, (10,200 miles) while 85 million generations would be born and die. Impressive stuff, but it is well to remember that Grand Canyon rocks are pretty young as Earth goes: rocks elsewhere are twice as old, some even more. Just to keep things in perspective.

## The Ticking of Clocks

We've been tossing around millions of years with much abandon, but the hard-eyed reader may well ask: how do you know something happened 500 million years ago, not 200, or 900? In other words, what sort of clock do geologists use to measure these times? And how reli-



able and accurate is this clock? Fair questions.

Traditionally, geologists have used a time scale that tells us that one rock layer is older than another—a relative time scale. This scale is based chiefly on superposition (in a stack of rock layers, the youngest layers are on the top, and the oldest ones are on the bottom), and on the orderly succession of gradually changing life forms. The result is that one can state, for example, that rocks from anywhere in the world containing fossils of certain large, carnivorous, lizard-like reptilians are of Jurassic age, but one cannot tell precisely when the Jurassic Period began and ended. Getting precise numbers depends on finding a clock that can measure the vastness of geologic time. This is a tall order, whose filling had to wait for the deeper understanding of nuclear chemistry and physics. We now know that certain elements are radioactive and decay into other (daughter) elements at a rate that is absolutely fixed and unaffected by anything that might happen to the parent element, including melting. So, all one needs do to read the clock is, measure the amounts of the parent and daughter element contained in a rock. If one knows the rate at which parent decays into daughter, one then knows how long it took to generate the amount of daughter present, which in turn gives the date of when the rock was formed. Simple, yes? Well, not quite. In the first place, these elements are often present in concentrations of only parts per billion, which makes them difficult to measure, and raises the possibility of contaminated rock samples. One must also establish the decay constant very accurately, which is not easy. Finally, one must make sure that no daughter element was present in the rock when the rock was formed, and none was lost since then. But all this has been worked out by refining techniques and learning what chemical systems work best for specific applications. The consequence is that we can now determine the age of a rock with a gratifying degree of precision if we are careful, select a suitable sample, and encounter no undue difficulties. Many people have read about K-Ar (Potassium-Argon), Ar-Ar (Argon-Argon), U-Pb (Uranium-Lead), <sup>14</sup>C (Carbon 14), <sup>10</sup>Be (Beryllium 10), <sup>26</sup>Al (Aluminum 26) and the like. All are chemical systems that make up clocks based on the concepts outlined above and in general use today. The result is that we now know rather well when rocks were formed; in turn this gives us good insights into geologic history, and the rate at which many geologic processes take place.

### Canyon Calendar

Winston Churchill divided his wonderful “A History of the English-Speaking Peoples” into “books”—“The Birth of Britain”, “The New World”, and so on—each corresponding to a particular set of historic circumstances, each covering a specific interval of time. Similarly, the development of the Grand Canyon is divided

into books that correspond to major geologic scenarios succeeding each other in time. Starting with the oldest:

1840–1660 million years ago (M.Y.): Outward building of the growing continent’s edge through deposition, then metamorphism (change) resulting from heat, pressure, chemical agents, and intrusion of molten rock. *Rocks of the Inner Gorge*.

1400 (?)–1250 (?) M.Y.: Erosion.

1250–850 M.Y.: Deposition of sediments in shallow sea that occupied sinking trough; intrusion of basaltic magma (sills); eruption of basaltic volcanos. Very minor metamorphism due to burial. *Grand Canyon Supergroup*. Best exposed at the bottom of the eastern Grand Canyon between the Little Colorado River and Hance Rapid (between river miles 61.5 and 76.5).

850–570 M.Y.: Tilting of blocks of the Grand Canyon Supergroup, erosion.

570–250 M.Y.: Deposition in shallow seas or on land close to sea level, interspersed with intervals of erosion. *Paleozoic rocks*: the conspicuous horizontal layers that form most of the Grand Canyon walls visible from the rim.

250–50 M.Y.: Deposition mostly on land; inland seas, gradually retreating and shrinking into residual lakes at end of time interval. Broad areas of sand dunes common. Erosion intervals. *Mesozoic and early Tertiary rocks*. Absent from Canyon, but common nearby (Vermilion Cliffs, Echo Cliffs, Painted Desert, etc.) and throughout Colorado Plateau.

50–5.5 M.Y.: Some uplift; erosion. Establishment of ancestral Colorado River.

5.5 M.Y.–present: Uplift, deep erosion, canyon cutting. Establishment of present course of Colorado River.

*Dr. Ivo Lucchitta*

*This is the second in a series of “Letters from Grand Canyon” by Ivo Lucchitta, that will appear in future issues of the bqr.*

## Connie Tibbitts

I STARTED TO SKYDIVE as soon as I got to Arizona. I just remember that echo in my head from my mother, “Join clubs, meet people.” And here on a street post was a sign for “the nau Skydiving Club is starting up and looking for members.” (laughs)...

Thinking back, it was just mostly.... It hadn't evolved to the sport that it is today—back then we were just jumping out of an airplane. We heard that you could jump out and touch each other. That was our goal in life as skydivers, to jump out in the sky and just... I think Bob Hallett and I made over a hundred skydives just trying to touch each other in the air as we went past each other. I remember my log book entry has, “We were two feet apart!” (laughs) And yeah, people were doing it, but... Like in the old days, remember, there were no books on how to ski, there were no books on how to rock climb, there were no books on how to run a boat through the canyon. Remember when you just had to just go do it? That's what we were doing... The revolutionary thing was when we learned that if one person stayed still (laughs) the other person could fly in. That was when it went nuts for us. That's when we realized how to do it, one person goes “base,” and everybody else just flies in. The one person just has to go base...

Anyway, Myron Cook called me from the hospital. He was skydiving in Salt Lake, and called me out of the blue because I had a little apartment with a telephone. He said, “You don't know me, but I'm a skydiver and I'm hurtin' in the hospital. I need a hand. They won't let me out of the hospital unless somebody comes to

pick me up.” He had tweaked his back, bad opening shock. Back then we had those old round parachutes and those old sloppy harnesses that would beat the crap out of you...

Anyway, he just needed somebody, and would I be interested in helping him? He was living at the bat caves in Marble [the old Hatch warehouse], which I knew nothing about. He asked me if I'd come and get

him out of the hospital. He had heard through the network back then... I used to let everybody passing through town crash there at my house, my apartment—anybody. You know, skydivers just would come through and it was an open house. So, I said, “Yeah.”

The next day I went up and got him out and took him to my place. He stayed there, I don't even know how long, it might have been a week, maybe more—I don't remember. But that's how I learned about Grand Canyon and the boats. He was telling me he was a motor boatman, and he was telling me about trips. I'm going, “I think that's pretty disgusting going camping with twelve people you never met before.”

No, it didn't sound good. As a matter of fact, I teased him about it all the time. I just made fun of him for doing it, 'cause he was so into it. Then he decided to pay me back—would I be interested in coming up and seeing Marble Canyon? He turned me on to some pretty country.

It was winter in Marble Canyon and everybody was closed down. It was so incredibly quiet. I just fell in love with the place. “Mouldy” [Dave Moulton] was



Early days of sky diving. Photographer unknown.

caretakin' v.c. [Vermilion Cliffs] and when you wanted gas, you'd just pull up and start wandering around until you found Mouldy. He'd be out back watering trees or inside keeping the fire going. They had a big ol' fireplace in there at v.c. Anyway, so I drove up there. I remember driving my little Datsun station wagon up across the Res for the first time, and seeing that road after you turned off. You didn't go to Page, you went straight, and you see these two cliff lines about to collide, and I'm driving along, thinking, "Where am I going? This is the most incredible scenery I've ever seen." I just loved it, I just fell in love with the place. I thought it was beautiful.

Myron spent a few days driving me around on the Paria Plateau. He put me on the roof of his International. He had a rack up there that was flat, and he gave me a little headset, little stereo, and I just sat on the roof of his rack and he just drove around the Paria Plateau. He just turned me on to Marble Canyon in like, the most incredible way you could ever show somebody the place. I really, really was turned on to it.

Then I went back to work in the bar [in Flagstaff]. The lady that owned the bar took me aside and she said, "Connie, you're getting pretty hard. This life is not good for you. You ought to do something else. You're too young to be confined to a bar. I've got these friends that own a...." She didn't tell me what they did, but she said, "I've got these friends that need somebody to work for 'em in their trading post in the summer, and you ought to meet them." Kathy Johnson introduced me to Fred and Carol Burke [who founded Arizona River Runners], and I waited on their table....

I don't know, but I doubt if I was very impressive. But they, over the course of the night, I remember them asking me—I'm not sure how it came down, but eventually they asked me if I'd be interested in working for them. And it was like, "No way man, I am so happy with my life, I'm not going to leave what I'm doing." Then they said they owned Vermilion Cliffs in Marble Canyon. That just totally turned my life around, when I said, "Yeah, I'll do that."

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Connie Tibbitts has been a part of the Grand Canyon community since the mid-seventies and is still going strong. She started out a bartender at good old Vermilion Cliffs and worked her way up first to ace Mercury motor mechanic, then on to running her own boat for Arizona River Runners. She ran a zillion motor trips for Fred and Carol Burke and has since branched out to motor and row for ARR, GCE, Hatch, AZRA, Moki, CanEx, and OARS, to name just a few.

In her spare time she became, among other things, a commercial airline mechanic and pilot with multi-engine and instrument ratings. In order to unwind and



Bailing out of the DC-4.  
Photographer unknown.

have a bit of r&r after those grueling river seasons, she flew off to haul cargo in the wilds of Alaska, Guatemala, and South America.

This interview was conducted in 1999.

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I was working all day cleaning houses for people and all night in a bar. I was saving money, and every time I had money for a lesson, I would drive to Sedona and take a flying lesson there. Then I got my pilot's license—I just decided I wanted a pilot's license. I got that license the day before I loaded everything in my car to move to Marble.

Yeah. I loaded everything in my little Datsun station wagon. I just remember coming home from taking my check ride, I was so excited and I went up to Bruce Mills', Peter Weiss, and Irv Callahan's house—those three lived together—and drank some beers with them and went home and packed my car, and left the next day for Vermilion Cliffs. I took on a summer job, working in the store with Pam [Manning, now Whitney]. Me and Pam to run that little store, keep all the trees growing, (laughs) feed Boots, and just do the river trip deal.

Steiger: Do you remember taking me and Dave Koch for a ride? (laughter)

Tibbitts: We're lucky we lived through that! (laughs) I mean that was a classic student pilot. \_\_\_\_\_ (laughing obscures comment).... Yeah! Yeah! I had just gotten a license and I went up to Page and they let me



rent one of their airplanes. I was lucky to live through some of that. You guys were pretty stupid to get in that airplane with me. Wasn't Whale in there too? I mean that airplane was heavy.

Steiger: Yeah! Me and Whale and Dave Koch and you, and I don't know if there was anybody else or not.

Tibbitts: What did we decide to do? Fly under the bridge?

Steiger: Well, I remember it was like "Wahoo, let's go for a ride!" and we took off from Marble Canyon.



Connie and her dog, Langdon,  
after flying a load of sky divers, 1980.  
D. Clark photo.



Connie working on a Beech-18.  
D. Clark photo.

There wasn't a plan, it was like, "Let's fly under the bridge." So okay, we did. You got right down in there, and boom, we're under the bridge. Then we're going upstream.

Tibbitts: [Most people] fly under the bridge going downstream, because you might need all that extra room.

Steiger: That extra room, yeah. But we flew under the bridge and that was amusing and then we said, "Well heck, let's go buzz Lees Ferry." (laughter) I remember that. We were right on the deck going around Lee's Ferry, and that was extremely amusing. Then we turned up Glen Canyon.

Tibbitts: That was a mistake.

Steiger: What I remember is that everything was pretty fun and all that was great, (Tibbitts laughs) and then we were flying up Glen Canyon and all of a sudden that little horn kept coming on. I didn't know what that noise was—your stall warning or somethin', 'cause you were tryin' to pull it up and it didn't have the power.

Tibbitts: I wanted to go up, and that little plane didn't have much power with all of us in it.

Steiger: You figured it out, though. I remember the horn was beeping, and I remember sitting in the back seat frowning, going "I don't think this is a good thing that that horn is beeping." (laughter)

Tibbitts: I remember the stall warning going off, and I remember being really scared.

Steiger: We flew up. I remember we silently calculated as we're going along, this thing doesn't want to [climb], and we've got fifteen miles and then we are going to be at Glen Canyon Dam. You just sort of leveled it out and kept low until you got enough speed and then kind of slowly...

Tibbitts: I think we just got over the rock. I think I figured it out to get up off of the river and next to the cliffs.

Steiger: Oh, and got the lift that way? That was what it was?

Tibbitts: I don't know if I figured that out, or if it was just an accident or what. Providence protects fools and drunks and stupid pilots.

Steiger: Boy, those were the days.

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Tibbitts: I remember that I got to do one trip that first year—two trips—one early and then one later in the summer. Because we were answering the phone a lot, it was a very small operation. It was a big family. Remember? Everybody answered the phone.

Steiger: Everybody did everything.

Tibbitts: They wanted me to know what was going on with the river so I could answer questions and be helpful. So, they sent me downriver, and I remember swamping for—who was boatin' that year? From

California, a guy with his wife, she swamped: Chris Hogan and Barb Hagen. Chris Hogan was one of the boatmen, and I think Dennis Mitchem was the other. I sat behind a rock almost every night and cried because it seemed they were always asking me to do things I couldn't do...

One of them was pull up the beer bag—they'd send me to the boat for a beer. And they'd put two cases of beer in a gunnysack and hang it from a rope off the back of the tube. I wasn't strong enough. For the life of me, I couldn't pull that thing up, and I didn't want to fail on my mission. I remember sittin' on the back of the boat crying my eyes out, and I couldn't get the bag up, but I couldn't go back and tell them I couldn't get it out. Maybe I was trying to pull it up between the doughnut and the tube, and jammin' it. Maybe they had five cases in it, and I couldn't physically do it, I don't remember. But I finally did get them their beers. I wasn't going to go back and tell 'em I couldn't get their beer up. (laughs) I don't remember who I swamped for the second trip that summer, but that was when I just said, "Hey, I want to come back, and I want to swamp next year."

You know, I don't think I did have a good time, but I fell in love with the river and the canyon.

Remember, that summer I was working in the store. At night I'd go over to "Wide Load," and I'd change the lower units on them old Mercs and the saddles and stuff. I really didn't know what I was doin'. I was making motors out of spare parts. (They usually worked).

Steiger: 'Cause somebody had to do it, and probably nobody else wanted to.

Tibbitts: And I did. I mean, I loved it! I think that's what helped me with Fred.

Steiger: That you were a good mechanic.

Tibbitts: Because remember those Merc 20s, you had to know how to rig a boat, and you had to know how to patch 'em, big time; and how to put motors together when you've broke all your motors, and you still had to make one out of all the pieces.

Steiger: What I remember was everybody got their own set of equipment. My recollection was, "Here's your two motors, here's your boat, here's your side tubes, here's your frames." That was it, and that was yours, and you had to take care of 'em on your own. If anything went wrong you had to fix it. That was it. Motors, I do remember the "Wide Load..." just a little construction shack—it said "Wide Load" on it, and



Connie Tibbitts during her early ARR days in Grand Canyon.

they had gotten a deal on it, and plopped it down, and then all the motors were on a rack in there. There were a bunch of 'em. I remember growing up that we were supposed to fix our own motors. (Tibbitts: Yeah.) But I do remember you workin' on 'em. We all knew that you were a good mechanic.

Tibbitts: I liked to... Remember how we hoarded the brass reverse and throttle gears out of the older models and put 'em in the new ones in lieu of the plastic ones? ... So I'd go dink with 'em, change out plastic parts, save the old brass parts and put em in. But then I wanted to swamp the next year, and Fred just said, "No, I can't have..." You know, remember we'd just all sit around that table where we all ate dinner in the back room there? (Steiger: Yeah, uh-huh.) Fred said, "No, Connie, I can't have you swampin' on the river." I pushed really hard.

Steiger: What was Fred's theory on that? Because you're not strong enough or somethin'?

Tibbitts: I don't know if I wasn't strong enough, or because I was a girl. He did say at one point—and I don't mean this to belittle Fred in any way. I totally honor the man. It was just he said, "I can't have a girl on the river." They just didn't do that. You were somebody's wife or the girlfriend, but there were no just single working girls down there.

Steiger: Yeah, I remember. I think you were the first woman that ran a boat for arr, weren't you?

Tibbitts: Well, yeah, probably. (Steiger: I think so.) But there were other women doing it—Sue Billingsley... Juan Leachman was swamping for her husband, Greg.



Remember her? She had fifty trips on a motorboat before I even came on the scene. Once, she got to run a boat. But they wouldn't put any passengers on it. (laughter) She could only run a boat with gear. It's the way it was. But she was a hot boatman.

Steiger: Well, how did you make the jump from, "Connie, I can't have a woman on the river," to running a boat?

Tibbitts: First, somehow, they let me swamp. I mean, my heart was in my throat the day Fred said, "Okay, you can swamp." I remember saying, "I want to train to be a boatman," and he said, "No, don't, I'm not going to let you be a boatman."

Steiger: "You can just forget it."

Tibbitts: But, I was lucky and I got to swamp for you and Whale. (laughter)

Steiger: Real lucky. Then you did all the work! (laughter)

Tibbitts: Yeah, but you guys let me drive your boats.

Steiger: I remember that year. You did all the work.

Tibbitts: Anyway, the end of that summer, remember, Fred had four boatmen and five boats. Once in awhile, he'd put a fifth boat on. And he needed a fifth boatman, and it was the last trip of the summer. Fred sat down at the table and said, "Who do you guys want to hire for the fifth boatman for our last trip?" He had

a whole list of names. Somebody said, "Fred, you're chicken shit if you don't hire Connie." And Fred just went (spluttering) And he hired me... So then I got to drive a boat, and then he couldn't take it away.

My first trip was with Steve Viavant. He gave me a patch kit. He especially packed it, and I didn't rip my boat so I didn't use it, but I looked in it at the end of that trip, it was just a bottle of tequila. (laughter)

Steiger: Are you kidding? (Tibbitts: No.) He said, "Here's your special patch kit."

Tibbitts: "I packed it for you." He made this big deal about it, you know, because we had to pack our own boxes and stuff you know, and I'm scared and I'm takin' off on my first boat and any help is appreciated and "Here's your patch kit." (laughter)

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Steiger: So, what's memorable about those years? I wonder what we need to say that's historically significant.

Tibbitts: I wish there was some way that we could bring back those years at v.c., all the boatmen that used to come through that place in between trips, the parties, and the people, the characters—from Ken Sleight to the Quist brothers to... who's the... Oh... Kloepfer! Dave



Connie and Georgie, checking each other out at the Ferry.

Photographer unknown.





Young Connie in a serious moment before trip departure.  
D. Clark photo.

Kloepfer. And Paco [Jack Kloepfer], too, would come down with his black bag full of prickly pear wine that he made (laughs), that would just make us all drunk and then sick for a couple days.

Steiger: Yeah, it really was a little Shangri-La, wasn't it?... So tell me, did you have any wild adventures in those days that we can put on tape? (laughter)

Tibbitts: That we can talk about? Oh, you know, I was pretty careful. Plus, I had a nylon boat... I had the only nylon boat in the world. It was a really good boat.... I did work on [the seams and valves a lot] too, but it was worth keeping that sucker floatin', because all the other boats were cotton... What a lifesaver... You just touched a rock with those cotton ones [and you were toast].... And I had all the leeway and the room with that nylon boat—I could bounce off of stuff.

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*Connie worked for Arizona River Runners through the mid '80s, until Fred and Carol sold the company to Bruce Winter and Bill Gloeckler. Along about that time she hooked up with a one-man-band named Jim Blumenthal who had a big old four-engined C-54 cargo plane. As Connie puts it: "He just had one airplane, and the shirt*

*on his back, and enough money to buy gas one more time to get to Alaska."*

*Together, with Jim's plane and piloting skills, and Connie's mechanic and co-pilot credentials, they became a two-person airline. They had six or seven years worth of adventures, hauling fish in Alaska, bridge-building materials in the jungles of Guatemala... all kinds of crazy stuff. Connie moneyed-up and bought herself a dream piece of property halfway up the base of the Paria Plateau, overlooking all of Marble Canyon. With Jim's help she built a house there. It's a stunning location, with a two-mile driveway straight out of a Roadrunner cartoon.*

*The flying was swell, but in the end, the river kept calling her back. She missed the Canyon and the boating world so bad she had to come back and make it a bigger part of her life again.*

*Today she free-lances for all those companies named above and commutes to Page in her little plane—a tiny old Luscomb out of a '50s movie—in order to do mechanical work for the air tour companies up there in between river trips.*

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Of course I'm gonna do this for the rest of my life. One way or t'other...

I like to call myself a boatman. I don't want to be a "guide." I don't want to take responsibility for somebody's everything. I want to run a boat and keep everybody safe, feed 'em good food, show 'em everything I can think of that will work. But this thing about bein' a doctor, and a psychiatrist, and a nurse, and a best friend... To me, I've ended up makin' a lot of friends with passengers—don't get me wrong. But, I prefer the title of "boatman" over "guide."

Steiger: Are you able to pull that off in this day and age?

Tibbitts: Yeah. Maybe. I like people and I think that they know that. I think I can pull it off because I can be a boatman... I've become a lot more human, as a boatman, guide, whatever you want to call it. Because, when I was younger, I had to play games, I had to pretend I knew what I was doin' sometimes when I didn't. Now, when I don't know what I'm doin', I just tell 'em, "Hey, I don't know what I'm doin'." (laughter)

I just say, "Hey, we're in this together." It's not like "I'm gonna carry you through." This is an adventure. "We are embarking on an adventure, and we are on an adventure together." That kind of thing...

You remember what Pam Whitney used to say? Pam taught me this, she'd just say, "There's a whole trip goin' on, on the beach, that we don't know anything about"—that the crew doesn't know anything about.

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Steiger: Are you still skydivin'? What are you doin' for excitement these days? What about that time, you ought to tell me real quick about when you guys went and jumped off El Capitan. Or was that even that unusual for you?

Tibbitts: (laughs) ...Al Arnold. He's back. He's a skydiver that's workin' for OARS now. Al and me and Vern, the three of us were in between trips, lookin' at each other at that kitchen table, back behind V.C., and someone came up with the idea to jump off El Cap. So, we said, "Okay!" We all piled in trucks and started drivin' that way, Stuart [Reeder] wanted to go see his girlfriend in California. So he thought he'd just tag along... He was gonna be our getaway vehicle, because it might not be legal. He ended up helpin' us find the top.

Steiger: Because he had been there. He knew the way.

Tibbitts: Oh, because heck, if you're ever walkin' somewhere in the dark that you've never been, take Stuart Reeder. That guy is good. We ended up climbin' that waterfall in the dark with our parachutes disguised as backpacks so we wouldn't get caught. And so we ended up spendin' the night up there, and Stuart just decided to stay and watch us go. He was supposed to be our getaway driver, he was supposed to be down there



Jumping off El Cap.  
Stuart Reeder photo.

with the truck, but for some reason I guess we decided we didn't need it... I had a magazine that said how to jump off El Cap, with me. (laughs) I had the instructions. (laughter)

Steiger: Oh, yeah?! And what were those?

Tibbitts: Well, jump out as far as you can, without tippin' over—you know, you want to stay stable—and count to ten, get into a track as soon as you can, so you fly away from the rock. The important thing was to count to ten, because in a track, that would get you far enough out, because you had the sheer face and then a

bunch of talus. If you didn't get out past the talus, you didn't have enough altitude to get... Well, if you had a malfunction, theoretically, lookin' at it, I felt that if my first parachute didn't open I had a chance—not a good one—but there was a chance I could get my other one out and open. If you didn't get out past the talus, you didn't have a chance if your first one didn't open, you're puttin' all your eggs in one basket.

Steiger: So, get runnin', take off...

Tibbitts: But the rock was only the size of this table. You could only go like three steps, you know, launch off, and then....

Steiger: And then it was Straight-off-Adolph?

Tibbitts: You wanted to go like a swan dive, because you are in dead air, you want to keep your head up. Skydivers aren't used to dead air. (Steiger: You're comin' out of the plane.) Yeah, at a hundred miles an hour of air to work with. So, goin' off in dead air was the concept to make sure you stayed stable.

Steiger: And so, it obviously worked out okay for everybody.

Tibbitts: We all lived, and no one saw us.

Steiger: And so, it was so much fun, you ran right up there to do it again, huh? (laughter)

Tibbitts: Well, you know, I don't think we had it in us... Yeah, that was wild. It's hard to tell that story because I've told it so much.

Steiger: Well, it's a good story, it's an amazing thing to even think about doin'. It's scary.

Tibbitts: I got a lot of adrenaline. Probably the greatest thing I've done since then was that winter in Antarctica....

Steiger: Antarctica. What the heck?

Tibbitts: Once upon a time, in a land far away... Well, I was home and decided I wanted to go work in Alaska flyin' the DC-6s for Northern Air Cargo, and they hired me. I went up there and worked for the summer, and all of a sudden they just said, "We're furloughin' you. There's no more work." It was August. So, no problem, I ran down and I got on a river trip. It was a science trip, a really fun one. Just before I left on that trip, my phone rings and it's this voice from far ever away. It was a lady in the southern tip of Chile, Punta Arenas, calling me up and sayin', "Northern Air Cargo gave us your name. They told us they just furloughed you. We called 'em lookin' for an engineer, and we wondered if you would be interested in working for us." What Northern Air Cargo trained me to do is be a flight engineer. Actually, I wasn't the pilot or the co-pilot—I sat between the two and operated the airplane. The airplane is complex enough to require one person to operate it, to keep the fuel systems—there's like ten gas tanks on the plane, four engines and lots of systems. One person runs all that. (Steiger: Wow.) And that's my job, and I loved it because it fits right in perfectly with my mechanical interests. So, I thought

that sounded pretty cool! “What are you doin’?” She said, “Well, we’re flyin’ down into Antarctica and we’re haulin’ mountain climbers into a base camp down there.” The only privately-owned anything in Antarctica. We’re not talkin’ a state or a country, we’re talkin’ a friggin’ continent. (laughs) Huge! And so, I got all the information and I said, “Yeah, I’ll do it.” And she said, “By the way, we’re not really flyin’ by the book.” This is all in one phone call, right? I mean I just was out diggin’ in my yard and I pick up the phone and all of a sudden I’m talkin’ to this....

Steiger: To Chile!

Tibbitts: And she goes, “You know, I would like you to talk to the captain and let him fill you in, and see if you still are interested.” I said, “Sure, put him on.” So this guy gets on the phone and he was just tellin’ me what they’re doin’, and they’re flyin’ down—it’s an eight-hour flight down, and we’re landin’ on this patch of blue ice. He said, “It’s pretty okay, you know, and then we load up the same day and come back. It requires a long day because it’s sixteen hours of flying, not countin’ the four hours on the ground there and the few hours before to get the flight ready, and blah, blah, blah. So, it’s a long day, you’ve got to be into long days and once in awhile we might, you know, stretch some rules.” I said, “Well, are you keepin’ it safe?” He said, “Sure.” So, I said, “All right, send me a ticket.”

Steiger: And they wanted you for a season, or just for one....

Tibbitts: Yeah, for three months. There’s only three months that you can get in there, that the weather permits.

They wanted me as soon as possible, and pushed hard, but I was committed to that river trip and Georgie’s birthday party was comin’ up. I got off the trip, and there was a day, and then Georgie’s birthday party. So, I agreed that I would fly out the next day after Georgie’s party for Punta Arenas. I got all loaded and geared up and I always take my toolbox when I take a job like that, because you usually do a bit of field maintenance I kind of guessed what I was gonna take, and it was such short notice, I told ’em I had to bring my dog. So Spark went.

Steiger: Your Dalmatian?

Tibbitts: (laughs) So off we went...

Spark and I go on, and we get to this little town on the southern tip of Chile, right on the Straits of



*“I can’t remember if I was taking the picture or driving the truck.”*

Magellan. They pick me up at the airport, and I’m pretty rummy from flyin’ for days and days. They take me out to the airplane and they just look at me and they go, “Hope you can keep it runnin’, here it is.” And they walk away. And I said, “Keep it runnin’? I’m a flight engineer, what do you mean ‘keep it running’?!” I mean, it was just the way they said it, it wasn’t right. And I sort of questioned the guys that were there who were the co-pilot and the flight engineer already hired. They said, “You’re a mechanic, aren’t you?” I said, “Well, yeah, I’m a mechanic, but this is a four-engine plane, and I’m not capable of maintaining a four-engine airplane by myself. Besides I’ve never even uncowed this particular engine.”

Steiger: What kind of plane was it?

Tibbitts: It was a Douglas DC-6. It was very similar [to Jim Blumenthal’s C-54.] That’s what saved my butt, because I knew the airplane and similar engines. I’d gotten some really good training up in Alaska from those guys. But I didn’t feel competent to take on a job as the only mechanic. What it was, was the people that hired me were Canadian. Canadians called airplane mechanics “engineers.” In America, a flight engineer is a person that just operates the airplane. There’s mechanics, engineers, pilots and co-pilots. So, they thought they were hirin’ a mechanic. They brought me all the way down there, and I’m a flight engineer. Not



really, I mean, yes I do a lot of airplane maintenance. But, one person. It takes a hundred people to maintain one of those things correctly, much less...

Steiger: But you [had done that before with two people]...

Tibbitts: We did, but we started out with a known airplane on a maintenance program so that we knew what we had and we worked with. But just to show somebody an airplane and say, "Keep it runnin'," when I don't even know anything about the history or anything, and no one did. That was quite a handful. Anyway, as flight engineer, I'm sittin' there and goin' on and on, "We got a problem, there's a communication problem here. I don't feel capable of takin' on the maintenance of this airplane." And the flight engineer guy says, "Well, are you a flight engineer?" And I said, "Yeah." And he goes, "Do you have a good luck charm?" I said, "Yeah," (laughter) "My little split twig figurine." He goes, "That's good because I quit. I'm gonna get killed if I stay doin' this shit, and I'm leavin'." Since there was now a replacement for him, he just went and got on a plane and left. He never even said goodbye, he didn't even take his clothes. He just got on the next plane and left.

Steiger: Oh my God! Did he show you what was what with it?

Tibbitts: No, unt-uh. People that own the company are goin', "Oh boy, now we have a mechanic and a flight engineer." And I'm goin', "No, you guys don't understand." But they're just lookin' at me, and they couldn't understand how come because I had the certificates, I didn't just have the confidence to just bullshit my way through or somethin', which blew me away. You know bullshit and airplanes, it goes together.

Steiger: Well, you're only flyin' down to Antarctica. (laughs)

Tibbitts: So, anyway, I quit a few times. I talked to the captain, you know, tried to figure out how he was justifyin' some of the stuff he was doing.

Steiger: What made you decide to stay?

Tibbitts: Well, it was turning into an adventure. (laughs) Besides, I really wanted to go to Antarctica. (laughs) Well, it became quite a moral issue with myself, because I didn't think it was very safe and we were takin' passengers that didn't know what they were doin'. But, the more I got to know mountain climbers, man, those guys are risk-takers.

Steiger: They didn't care.

Tibbitts: Yeah. I mean, they wanted to climb this mountain. So, we worked on the plane. We hired another guy from Alaska: I said, "I need help." The co-pilot wasn't very competent at all, so we got another co-pilot from Alaska, from Northern Air Cargo, too. So I had somebody I could work with. The two of us worked on the plane, and worked on the plane, and it took about two or three weeks before I felt it would

make its first flight.

Steiger: It took two or three weeks to go over it, and make sure it was all good?, or you had to fix stuff too?

Tibbitts: Oh, we had to fix stuff. We never even knew what was wrong, right? We're just lookin' at it sayin', "Well, this is fallin' off" kind of thing. We didn't even get into anything. I mean, we were just doin' the most obvious stuff. So, we fill it up with gas finally, and we take off. We did, we got it off the ground and we took it down to this runway in Antarctica. It's not a runway, but right on the lee side of this mountain, the wind had blown the snow off a patch of blue ice. It's like eighty-one degrees south in Antarctica. It's just like, nowhere.

Steiger: They had just found, "Oh here's this spot where there's not too much snow."

Tibbitts: Or "You can land your plane on wheels here," because to put a C-130 on skis would be your only other option. That is quite expensive. Okay, go back to the runway. This is a long story.

Steiger: It's okay, it's a great one.

Tibbitts: This lady that I was workin' for, that hired me, had just gotten back from Antarctica. Her husband, who had bought this plane and who had brain-childed this idea of—he was the mountain climber, and also a pilot—he had brain-childed this thing. And so he had been flyin' around Antarctica in a little gyrocopter tryin' to find a route for a bunch of climbers that were stuck in a crevasse field. Something went wrong. He crashed and was killed. So she had just returned from this incredible adventure of riding on a boat down to the ice shelf.

Steiger: This is after she called you?

Tibbitts: Before she called me, we're goin' backwards.

Steiger: She'd already lost her husband?

Tibbitts: This is some company history. She hired me right after she'd gotten back from goin' down to the ice shelf, crossin' the ice shelf, gettin' to the continent, finding her husband. With her she took a carpenter, and some wood. They built him a box and they put him in it. They made a little crude grave for him. And she comes back from this determined she's gonna start this company. And she was the toughest little lady I ever met in my life.

Steiger: How old was she?

Tibbitts: I'd say she was in her early thirties. Beautiful little girl. I don't want to belittle her in any way, but she was small. She was just an incredible woman. Annie Bancroft was her name. She had just buried this guy, who was a phenomenal hero, Giles Kershaw, he did a lot of work with National Geographic on Antarctica... Anyway, she and some good friends were determined to make this thing go. They had taken a bunch of money down, and if they could get through this one season, they'd have the profits enough to continue the thing.

But, if they just had to refund everything, well, they couldn't do it because they had already spent a bunch.

Steiger: It was disaster. They would be bankrupt.

Tibbitts: Well, yeah. And so she just decided to do it, and she had a lot of really good people supporting her.

Steiger: So, she had a good recommendation for you from that Alaskan outfit.

Tibbitts: Yeah, she had called Northern Air who has the best reputation for those kinds of planes.

Steiger: And she obviously didn't have any qualms about dealin' with a woman.

Tibbitts: None! And no one did. None of those mountain climbers ever batted an eye twice. None of 'em gave me any flack. It was a little hard, a little diffi-

look at each other and go, "We're goin' to a barbecue today." (laughs) It's gonna be our own. Because, behind us, behind the bulkhead from the cockpit, were fifty 55-gallon drums of gas. Chilean drums, and they all leaked. But only on top. The gas was kind of dancin' to the vibration of the airplane.

Steiger: Oh my God, you're kiddin'?!

Tibbitts: No, fifty of 'em! Have you ever tried to tie an upright barrel down so it won't move?

Steiger: Not to mention, one that's leaking, full of gas!

Tibbitts: (laughs) Didn't know they were leaking till we were up in the air! (laughs) And we had fifty of 'em, and the wings [are] full.



Flight crew for Antarctic Air.

cult with the Chileans, the Latin men. We hired two of 'em to work under me. They were like my crew. (Steiger: For mechanical stuff?) Yeah, I would just line 'em out on stuff to do every day. They were in charge of fueling and oiling and stuff like that. They were good, but I knew it was hard on 'em, takin' orders from me. They tried hard and did well. I tried to be as gentle as I could. So what we were doin' is taking this old beat-up plane, and loading it up heavy...it was a barbecue. Every trip, me and that Alaska co-pilot would

Steiger: Was that gas to get you guys back?

Tibbitts: Yeah, because we had to fly eight hours on an average of two hundred gallons an hour over, and then eight hours back.

Steiger: And they figured by the time you got over there, your original gas load would be about empty. All you had to do was get off.

Tibbitts: We'd use up the wings, and we had to pump from the barrels. We had enough to get there, but we didn't have enough to get there and come back

in the wings. So, we had a point...

Steiger: You had to land to refuel?

Tibbitts: Yeah.

Steiger: And there wasn't any other place.

Tibbitts: There was no other place to land.

Steiger: You mean you're flyin' eight hours over the ocean?

Tibbitts: Over ocean full of icebergs.

Steiger: Over nothin' but ocean.

Tibbitts: Well, pretty soon you hit the ice shelf and you're flyin' over ice.

Steiger: Big deal.

Tibbitts: (laughs) That's what I mean.

Steiger: How flat was that?

Tibbitts: Who knows, the definition was terrible...

Both the Chileans and the Americans came to the airport to tell us, the crew, that if we went down, if we had any trouble out there, they would not come help us.

Steiger: They took it upon themselves to come and tell you that? Why was that?

Tibbitts: Because if we went down, that's the first thing we were gonna do is call the U.S. government and say, "Hey, you have some Americans that are gonna freeze to death on the ice down there."

Steiger: And so they saw you comin' and they said...

Tibbitts: "You guys are too screwy. What you're doin' is too far out there, and we are not gonna support it." They only had one plane at that time that could go to the South Pole, and it was too expensive to risk. I mean, they couldn't afford to. That would put all those people in the South Pole in jeopardy; not bein' able to get in to them. And we were landing on this ice...

Steiger: Who was at the South Pole? You mean like government...

Tibbitts: There's a crew there all the time.

Steiger: A scientific outpost or somethin'.

Tibbitts: Yeah.

Steiger: So, your very first flight, you're way overweight?

Tibbitts: Every flight, we were.

Steiger: Because of the gas.

Tibbitts: Or whatever. I know we had about ten, twelve people.

Steiger: How long were those guys stayin' over there for?

Tibbitts: Two weeks. For \$25,000 a piece, they bought two weeks on the ice. The trip down, two weeks there, hopefully they would get to climb Mt. Vincent, which was pretty much determined by the weather, whether or not they could summit or not.

Steiger: Was that a real mountain?

Tibbitts: Yeah, that's the tallest mountain on the continent. Right? And there's the seven summits.

Steiger: So you had these "big bucks" guys that were gonna... Wow! So, how did it work? How did the season work?

Tibbitts: We pulled it off. I think I made ten trips down there in that old thing. Every trip was just an epic. I mean, one little decision made, say the day before the trip left, I'd say, "You know, I just didn't like the way one of these pumps sounded," or somethin'. And so I'd take it apart and clean it out. We didn't have a whole lot to work with for spare parts. We had some stuff. And I just worked on it every day, and went to bed every night with the manuals. I thought in my sleep. For three months, I just thought in my sleep of things, and came up with ideas that would later be the difference as to whether we came back or not. We worked it out, this co-pilot and I. The captain was pretty much out there, running on ego and very little knowledge. But this guy and I, we did this incredible job—I never worked so hard and put 100 percent into so much. It was just amazing, just one little thing you do.... Like one time I just said, "I don't care what he said, I'm putting in more gas." And I put 200 gallons of extra fuel on board. Comin' back, we lost access to one of our tanks. One of the controls failed, so we couldn't get gas out of one of the tanks, and we didn't know it until we landed; but if I hadn't been running on that extra 200 gallons in this other tank that I had just put in because I just said, "I want this cushion," we would have been out in the ocean, swimmin'. It was time after time, it was somethin' like that.

Steiger: Did you have a life raft and survival suits and all that stuff?

Tibbitts: Yeah.

Steiger: It must have been so cold.

Tibbitts: But you're not gonna... I mean, who's gonna find you? There's nothin' out there.

Steiger: And they already said they weren't gonna come get you.

Tibbitts: Yeah. Maybe they'd send a boat, if we could have contacted 'em. I found some wild shit on that plane, in between replacing the parts that fell off, routine inspections revealed awful scary stuff. I suspect it had been previously used for smuggling, flown without regard for future use. By the time I learned how rough it was, the job was over. We had come to an agreement by this time that once the job was over the plane was not to fly again without serious work. I wrote a letter to the feds in regards to this to insure no one else got ahold of the thing and put anyone in jeopardy. Basically I condemned the airplane.

Steiger: So the company didn't operate the next year—they just got out of it?

Tibbitts: No! they did it again! We got 'em through that year, and the following year they somehow came up with a C-130, and they're still in business today, doin' a really good job.

Steiger: Wow. They got it together.

Tibbitts: Yeah, it's unbelievable what they're doin'.

Steiger: So, your flights, though, were relatively



uneventful? Nothin' too scary?

Tibbitts: Oh no, they were very scary! We'd have all sorts of disasters goin' on all the time...it was unbelievable, just the landing in Antarctica. There was no way they could mark the landing area. If you put anything black, anything colored down on the ice, the sun will warm it up and it will eat a hole through the ice and then you have a hole. So they didn't want to mark our landing field in any way. They tried to verbally tell us what the winds were.

Steiger: Was is really smooth ice, was the ice good?

Tibbitts: No. No, no. They told me before we landed to just pack everything soft you had, around you. And I did the first time, but not good enough. I didn't take 'em serious enough. It was so rough, that all the overhead—this airplane has a whole panel over here of all the instruments—warning lights, and everything. All the lenses, all the light bulbs, everything just comes... (makes a crashing sound) Everything's a blur. You're gettin' all shook up. And everything falls down, because this plane has bookshelves and racks with thermoses and food. Everything falls down, and you're just gettin' so shook, that I mean even your seat belt won't hold you tight enough—you're just gettin' shook like a rag doll. Meanwhile you're tryin' to control this thing. (laughs) It was so incredible, it was so rough, that you're tryin' to ignore the fact that you are gettin' rained on with debris. My job is to run the engines on landing, and what we do is we throw 'em into reverse to stop. That's the only way, you can't touch the brakes in that cold of a climate.

Steiger: On the ice you mean?

Tibbitts: Yeah, you generate any heat, and you're a dead duck. Because water will form and then you'll never get the brakes off. You just can't touch the brakes. I mean, they're not gonna do any good anyway, because it's ice.

Steiger: So these guys knew that anyway.

Tibbitts: Oh yeah. That's common, when you know you're flyin' on ice, real cold. I learned that in Alaska. You just can't, so you've got reverse. So, you reverse your props. Only on this old plane, right, you pull 'em all in at the same time, but one goes on one wing, and the other one's still in forward.

Steiger: So now you're turnin'.

Tibbitts: We did a 360 in that airplane.

Steiger: Oh my God.

Tibbitts: (laughs) And we're doin' 360s! (laughs) It was so wild.

Steiger: And you made how many flights?

Tibbitts: I think we did ten.

Steiger: (whistles) Ten round trips!

Tibbitts: Eight with folks, and two with just fuel.

Steiger: Did you get to get out (Tibbitts: Yeah!) and run around in Antarctica?

Tibbitts: We had four hours, we figured four hours



One engine down—three to go, flying over Alaska.  
Connie Tibbitts photo.

before it would cool off so much that we could never get it started again.

Steiger: So you would turn it off for four hours, (Tibbitts: Uh-huh.) gas up, (Tibbitts: Yeah.) and then get the hell out of there.

Tibbitts: Yeah, and at the end of four hours it was touch and go. Like one time we couldn't get the door shut. It was a pressurized airplane so there were doors. (Steiger: Because it was so cold?) It had several latches, and somehow some moisture had gotten in there, we flew through a rainstorm when we first left Punta or somethin,' but we couldn't get the door closed. So, we had to just sit there with the engines runnin', to keep them warm, disassembling the door... We're talkin' four engines each with thirty-five gallon oil tanks. If you get thirty-five gallons of fifty-weight oil cold soaked, you'd never move it again. It will congeal. Some oil had dripped on the ground. It drips like a dog turd, it's so cold, by the time...the oil drippin' off the engine built more like a dog pile than a puddle. It was so cool. (laughs) It was so cold. (Steiger: Sounds really relaxin', yeah.) I wrote my mom and dad a letter just sayin' I'm probably gonna die down here, but there's no lawsuit. I

just want you to know that, don't sue these people. I've decided to do this.

Steiger: Why did you decide to, what was it?

Tibbitts: Well, she was just such a great woman. And I quit a bunch of times, I said, "You're gonna kill somebody." I had some really serious talks with myself about bein' responsible for these people gettin' on this plane. I quit regularly. She would just look at me and say, "Okay." I'd say, "Annie, we can't do this, you just can't do this." And she'd just look at me and she'd go, "How can we do it?" And I'd go, "No, you're not hearin' me, you can't do it." And she'd just look at me back and go, "How can we do it?" She was just so cool. She was just so strong. She was gonna do it. (Steiger: No matter what.) And I just figured I was the best person for the job. I'm pretty good at makin' junk go. (laughs) No one ever gave me a Learjet to fly, I seem to gravitate to the old worn out stuff.... Every trip was an incredible adventure, and we just made it back in on the skin of our teeth. Then it would take me two weeks, after every trip, two weeks to put the rivets that got knocked out from the landing gear, back in, and just visually lookin' over it, usually had to change a cylinder or two and just always had maintenance problems.

Steiger: Well, that's all you had, right? I mean, you had to go and get 'em in two weeks. (Tibbitts: Right.) And you needed to be on time.

Tibbitts: And they only paid \$25,000 for this flight. No, we only needed to be on time within a relative few days. Because of the weather we couldn't guarantee anything. And they had to be aware of that. But there were more people to go in each time. We'd haul people in and take the people in, out.

Steiger: So you had 'em comin' and goin'. (Tibbitts: Uh-huh.) Yeah, that would make sense, you wouldn't fly empty, ever then.

Tibbitts: Yeah. Except we had to make some flights with fuel. They needed fuel down there and the feds got on us. It's illegal to haul people and barrels of gas in the same cabin in an airplane. Especially leaking barrels. (laughter)... So we had to do two trips of just haulin' fuel. They figured every gallon of gas that we could leave on the ice was worth \$7,000 a barrel. It cost 'em that much to get it down there. They used it, they had a little Cessna 180 on skis. They had a base camp of about three tents by the landing area, called Patriot Hills, and the Cessna was used to get the climbers as close as they could to the mountain. And so we had to fly in fuel for that little plane, and then they'd be on the mountain, until they'd radio that they were ready to come back and the Cessna would go pick 'em up.

Steiger: So, there was a full-time pilot there all the time, too.

Tibbitts: Yeah.

Steiger: But how did that Cessna get there?

Tibbitts: They brought it in once: hop, skip, and

jumped it.

Steiger: Could it land on the water? Well, it had skis though, it didn't have floats.

Tibbitts: Yeah, but I think you can get it across to the [Palmer] Peninsula and land it at McMurdo, and just work down the peninsula. Maybe they used dogs to stash barrels of gas. I'm not sure how they got it in, but it stayed there. They dug a big hole every year and buried it. (Steiger: In the snow.) Then in spring—Antarctica spring, which would be our winter, they would just go back with a metal detector and find it. Anything left above the surface was gone.

Steiger: Because of the winds?

Tibbitts: Yeah, I guess it's just really severe.

Steiger: That's incredible.

Tibbitts: I guess it's *really* severe.

Steiger: They buried the plane.

Tibbitts: Yeah! Yeah. It was an incredible thing. I mean, it's really an incredible adventure.

Steiger: That sounds like it, my God. Did you ever think about wantin' to do it for another season, or anything like that?

Tibbitts: I said I'd do it, but not with that guy.

Steiger: The pilot? (Tibbitts: Uh-huh.) He was too big of a pain in the butt? Must have been good.

Tibbitts: No, he wasn't good. It was that co-pilot and me that pulled him through. The next year he went back and that co-pilot went back and worked for him, and they crashed. Stupid mistake.

Steiger: They crashed?! (Tibbitts: Uh-huh.) Did they die?

Tibbitts: No, unbelievable. They flew right into the ground. It was flat and they were so low and there is no definition. The sky is white, the ground is white, there are no other colors down there. There's just black and white—if you can find somethin' black. It's pretty much all white.

Steiger: So, it's just ice. Sky's white and the ground's white.

Tibbitts: Yeah, there is no definition. You can't tell a mountain, or a hill, or the ground, or the sky. There's no definition, there's no horizon. And so, they were flyin' really low.

Steiger: You have an altimeter, right?

Tibbitts: What's that gonna do for you? It tells you how far you are above sea level.

Steiger: Above sea level. Well, or sonar, I mean don't you have somethin' that tells you?

Tibbitts: You could have a radar altimeter, but that tells you how far you are off the ground underneath you, so if there's a hill, it won't, you know...

Steiger: If there's a hill comin' up...

Tibbitts: It won't pick that up. It just reads straight down. So, if you're flyin' at fifty feet and there's a little teeny rise... (Steiger: Which is what there was, huh?)

Tibbitts: What did they do? Oh, no! They flew

through a wisp of a cloud—and that’s what I didn’t like about this guy. He would tell me to run with the mixtures lean in a situation like this. And I wouldn’t do it. I just wouldn’t do it. I would just say, “Okay,” and I’d put my mixtures rich. So I had power if I needed it. Well, this engineer that they had didn’t know enough, or somethin’. I don’t know why he got caught with his pants down like that, but his mixtures were lean, and so they just flew through this little wisp, just put a layer of ice on the airplane and increased it’s weight, so it started sinkin’. They threw the power in, but since the mixtures were so lean, they didn’t have any power, and they just kept sinkin’ in. They just went flat into the ground and ripped the whole plane apart. They got pretty beat up, some broken bones, but they all lived.

Steiger: (whistles) But they lost that airplane.

Tibbitts: Yeah. And that guy lost his reputation.

Steiger: So the little Cessna came and saved ’em? How the hell did they...

Tibbitts: No, they were actually not that far from Patriot Hills. He was on the radio, and the fact that he didn’t show up when he said he would, those guys got on snow machines and started to come and look for him. They actually had a snow machine in the plane, that they got out because all the landing gear was ripped off and all they had to do was pry the door open and drive the machine right out the door. They managed to get it out, and head in the direction of Patriot Hills, and they met in the middle.

Steiger: So, when you went, were you wearin’ survival suits or somethin’? You must have had to have special clothes.

Tibbitts: I wore expedition-weight long underwear, and then a pair of heavy fleece pants. Then the thickest insulated coveralls that Carhartts make. I could stay out there for a few hours in that.

Steiger: Outside. (Tibbitts: Uh-huh.) And it’s like ten below or somethin’ like that.

Tibbitts: I don’t know what the temperatures were, I forget. I know Spark didn’t like it too well.

Steiger: I bet he didn’t. (laughter)

Tibbitts: He got out after one of those eight-hour flights...

Steiger: Oh, so he’d go on those flights with you?

Tibbitts: He went on one.

He got out after eight hours, that’s a long time for a dog to not pee. See, we were peein’ in bottles. But this dog didn’t pee. He’s a good dog. So, I hauled him down the ladder and set him down on the ice, and he took off for one of the tires to pee. (laughs) He lifted his leg and peed for an hour. (Steiger: I bet.) And all of a sudden the look on his face, when he looked around and saw it was just all white and so cold, it was hilarious.

Steiger: Did he jump back in the plane?

Tibbitts: Well, you have to climb the ladder to get in. He tried to stand on two legs, I’ll never forget that. One paw came up and then another paw came up, and then he started to tip over so a paw would go down, ‘cause it was so cold. That ice was a lot colder than thirty-two. So, he kept tryin’ to stand on two legs. (laughs) I threw him in the plane and wrapped him up. But he thought it was pretty funny.

Steiger: That’s an amazing story. Man, oh man. That’s wild.

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Tibbitts: I’m kind of waitin’ for my phone to ring with another adventure. I hope it does pretty soon.

Steiger: (laughs) Don’t you have a river story you can tell me?... There must have been one or two.

Tibbitts: Well, I suppose there were. I don’t think I have one good story... Remember how the water would fluctuate, and we’d be up in the middle of the night, pushin’ on them boats?

Steiger: You and me. (laughter)



Connine and her DC-6 on the ice in Antarctica.





Crystal in late '70s.  
Rudi Petschek photo

Tibbitts: Oh, Whale would get mad if we had to get him up. (laughs)

Steiger: I just remember you doin' all the work. Because I never was much on doin' the work. I kind of flapped my arms around.

Tibbitts: I don't remember that. I remember when I got my thumbnail pulled off and Whale's boat got a hole in the bottom of it.

Steiger: I don't remember that.

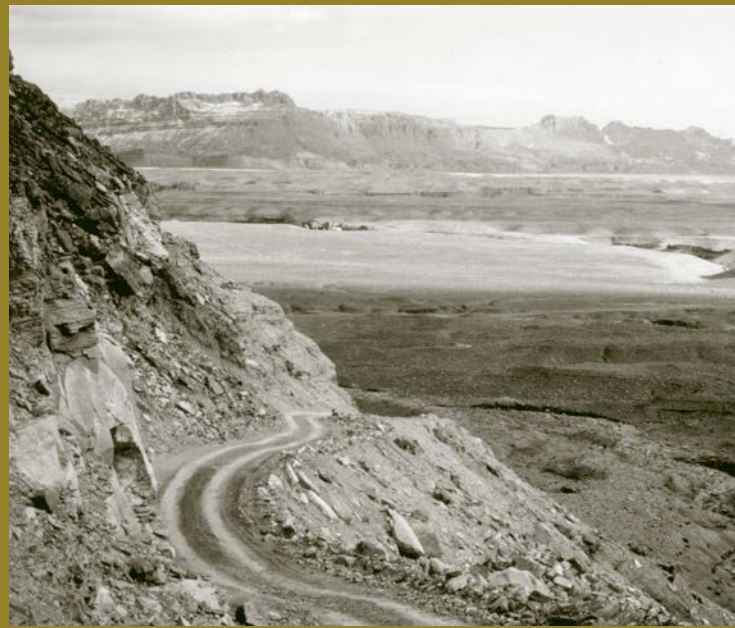
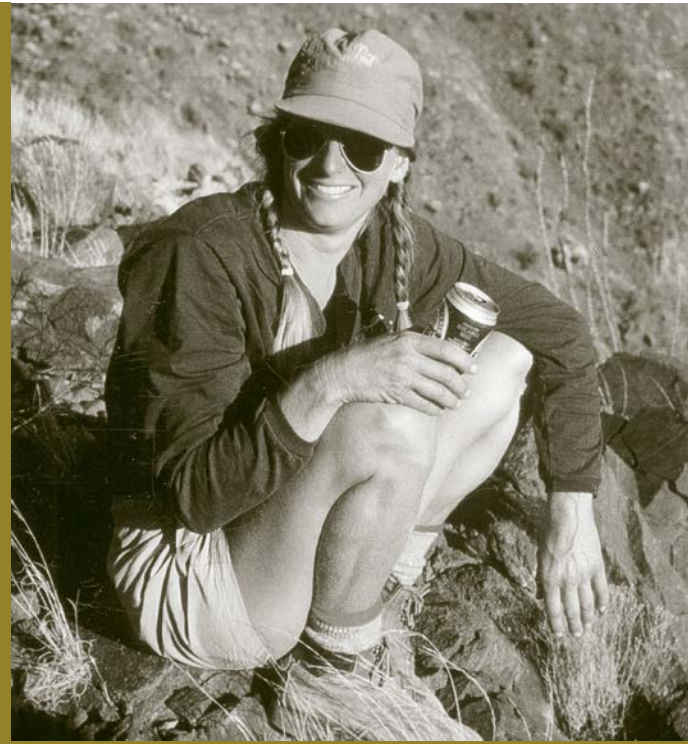
Tibbitts: I do—first night out, we were all pushin'. All three of us, we had Whale up, too. The water dropped big, we were all doin' "one, two, three, (grunt)." (laughter)

Steiger: Yeah, because I'm too proud to go and wake the people up for some help.

Tibbitts: We finally got Whale's boat to move an

inch, and it slid, and there was a stick in the beach that went up in the bottom of it, and we just did this "one, two, three, (grunt)" and the stick went through and just... (air escape sound) (laughs) and we were all standin' there stark naked leanin' on this boat that's sinkin'. So, Whale decides that he's not gonna fix it, which was a good decision. But next morning, he stood on the boat and picked the frame up, I had this piece of tire that I was supposed to stick underneath the frame as a wear pad, and I stuck it under there, and I was just gettin' it right, and Whale set the frame down on my thumb. (Steiger: Oh man.) But before he let go of it completely I yanked my thumb out. It hurt, but I wasn't quite sure why, because it looked normal. Whale reached over, as only Whale could do, with his gentle touch, and he touched my thumb, and the





Clockwise from above: Mechanic-ing on the plateau, Spark Plug and the view from the front yard, working, the driveway, the abode.

whole thumbnail was ripped out, and it just looked normal until you touched it. Then I went through the ceiling. I had to do the whole trip with my thumb over my head because it hurt so bad. Then when we de-rigged at Diamond Creek, we pulled the frames off, and my thumbnail was still in there. (laughter) Dennis Mitchem took it and made a necklace out of it. (laughs) Remember, he had body parts from everybody.

Steiger: Yeah, he was a little eccentric sometimes.

Tibbitts: I wish I had more stories.



## Notes of a River Sitter

RIVER RUNNING, I VE DECIDED, isn't the best way to see the Grand Canyon. Neither is hiking. Both turn the canyon into a human adventure, a place of obstacles and effort, worry and triumph. To see the canyon truly, you need to see it on its own terms. I came to this conclusion while viewing the canyon from a unique perspective, camping at Hance and Crystal for nearly three weeks and watching river runners run. From a boater's perspective, every inch of the river and every moment of the canyon may seem like an adventure, but when you sit on the shore, you soon realize that river trips are a brief interruption of the natural order. Most of the time, the river isn't an adventure, it's simply itself. The rocks sit there content in their geological identities. The river flows through them in praise of hydrology. The only names the rapids have are signed by waves that can hold no memories.

But then humans show up, and suddenly the river is saddled with the identity of a quirky asbestos miner of a century ago. Suddenly the rocks and waves become monsters with legends of all the evil they've done. The river becomes tension and dread, then a glorious feat. But soon the humans disappear around the bend, and the river goes back to being itself, flowing as it has for ages, completely oblivious of all the commotion it caused. The rocks go back to dreaming of the mountains they once were.

I do not mean to trivialize the tension and dread of guides arriving at Hance or Crystal, for I have felt worse than dread in their place. My whole purpose in being here now was to take seriously the dread in their faces and words, to make an official record of their troubles. But it was precisely because these had been places of dread for me that I was now brought to recognize the warped perspective of river runners, for it turned out that these places were far from dread-full. I had expected as much, for I had already seen the ultimate temple to boater angst turned into a delightful front porch. For six days during the 45,000 spike flow, I had camped just above the scouting boulder overlooking Lava Falls, and this boulder had become my lawn chair for eating, reading, bird watching, and gawking at the old power of the resurrected Lava Falls. At night I sat there watching the giant waves in full moonlight. The roar massaged my dreams. I would never be able to return to Lava Falls again without feeling a warm sense of homecoming.

The same thing happened at Hance and Crystal, but in a different way. Since the rapids weren't so compelling a sight at 8,000 CFS, my attention was more free to wander. I watched the comings and goings of the daylight, shadows, and moonlight on the walls and water. I watched the comings and goings of beaver, herons, and

snakes. The lizards with whom I shadow-migrated all day accepted me as a friend. For an evening stroll I could visit the rock garden, the ruins, or go up Crystal Creek. One day after a fierce storm that sent cascades pouring over the schist, Crystal Creek and Slate Creek both flash flooded, turning the rapid into an Oreo cookie, dark on both sides and light in the middle. It was a wonder to watch Crystal Creek building a considerable delta of small cobbles; I was seeing a legend at work, if in a modest way, like seeing Babe Ruth hitting a single. Hance and Crystal became familiar and friendly places, in short a home.

If guides would like to arrive at Hance, Crystal, or Lava and feel a warm sense of homecoming, I'd suggest you try a bit of river sitting. Doing a layover day there will turn the rapids into mere scenic backdrops. It doesn't count if you are just stuck waiting for the water to rise at Hance or fall at Crystal. You have to sit there on purpose, for the sake of identifying the geology of all your favorite rocks in Hance, or to watch for the big horn sheep to come down Slate Creek to drink. You'll also watch river runners coming through, and see that their agonies and ecstasies are but a small part of the stories the canyon has to tell.

Unfortunately, few trips would have time for river sitting during the 8,000 flows. Trips were pushing themselves to stay on schedule, getting up earlier, rowing or motoring all day, losing hikes. Even guides who appreciated the historic significance of a major dam being used to repair the ecological damage it had caused did not feel particularly honored to be participants in this event. Instead, there was a mood of deep frustration. Guides who had long ago resigned themselves to "The Powers That Be" treating the guiding profession with insufficient respect, who had watched trip lengths shrink and bureaucratic red tape grow to suffocating dimensions, now felt betrayed from a new source. Guides had thought they'd formed a partnership with the research community in addressing the impacts of Glen Canyon dam, but now the researchers had turned down the river without consulting the guides, in disregard of the hardships it would impose, with hardly any explanation of why an entire summer of precisely 8,000 was the necessary formula for the fish. Guides who had done the most trips with the fisheries researchers took this more personally, and expressed the greatest skepticism about the scientific rationale for the whole project.

Less than three weeks into the low flow, the owner of one of the river companies came downriver to assess the impact. He kept his trip waiting atop Crystal to talk with me. Already, six motor rigs had been stuck in Hance, and props and motors were being smashed at an unsustain-



able rate. He said that the last minute notification of the low water had left him scrambling to order more motors and parts. He had long supported environmentalist efforts, and he was dismayed that the outfitters and issues of river trip safety had been left out of the decision-making loop. Thus far only gear and profits were being lost, but wasn't it obvious that if people started getting hurt, it would hurt the environmentalist's cause?

On my last night at Crystal, a fisheries research trip chanced to camp there, so I tried to get some answers to the questions guides had been asking, such as: would 9,000 have hurt the fish? When I said that the guides community was being alienated, the head researcher launched a tirade of scorn for the guides: "The guides are always bitching. They wreck lots of props at higher water. There was a motor rig pinned here at 20,000. The companies shouldn't have fired all their old guys and hired all those kids." When I suggested that the guides had been very supportive of the researchers, the researcher acted as if the guides were trespassers in his science lab, and repeated that if river trips were having trouble, it wasn't the fault of the low water, it was totally the fault of the guides for being so incompetent. Then he went on about how it wasn't the researchers' job to educate the guides or public or Park Service about the low flows; if the guides didn't understand something, it was because they were lazy and stupid. Then, though this was their Official Park Interviewer opportunity to counterbalance the dozens of comments expressed thoughtfully and courteously by guides, passengers, and privates, the researcher ordered me, in words that can't be printed in a family publication like this, to get lost.

You can see that being a river sitter hardly made me geologically aloof from the concerns of river runners. On the contrary, I saw the big picture there too, and was quite immersed in its human drama, as when helping carry a backboard from a raft to a helicopter at Hance. This trip was one of only two commercial rowing trips that didn't scout Hance. They also had the worst runs (36% of their rafts going over the bottom dome rock vs. 10% for trips that scouted), and one produced the only swimmer of the week and the other the only evacuation. Of the two private trips I met at Crystal who had flipped in Horn Creek, one hadn't scouted and the other didn't scout long or well, for they claimed they never noticed any big hole at the bottom. As I've been trying to tell you, there are benefits to river sitting, even ten minutes of it; there are bigger perspectives it gives you, such as distinguishing waves from holes, or showing passengers just how long they need to hold on tight. Even ten minutes of river sitting serves the same purpose as ten days of it; it shows you that river runners are a very humble thing beside the ancient power of the Colorado River. If there was one lesson that stood out from nearly a month of studying boaters at Hance, Crystal, and Lava at flows that required not habits but complete mental engagement, it was that the best guides were those who best understood the river's power and who showed the river exactly the right amount of humility.

*Don Lago*

### Blacktail

Precambrian Gnarl  
Cambrian layer cake  
Great Unconformity abounds  
Twisting Sinuously  
A winding Cathedral  
of bedrock streambed  
It's mouth opening outwards  
becoming passersby.  
A narrow tight journey,  
deep within ourselves.  
Canyon rims above  
clouds grace the sky  
as eons pass by

In a geologic nanosecond,  
Guitar strings strum  
Flute notes echo  
Others in silence listen—  
the wisdom of the ages  
whispered in the trickle of sound  
the silence that absorbs our conscious mind  
Leads us to some other place  
in ourselves.  
Without Blacktail,  
we would never find.

*Steve Munsell*

# Nature in Trouble: Aliens in National Parks

## WHY WORRY ABOUT NON-NATIVE SPECIES?

POSTMODERN DECONSTRUCTIONISM is the fashionable, backside-of-existentialist philosophy that every object and condition is of equal value, nothing much matters, and it's futile to rebel. As if it isn't hard enough to understand what is best for ourselves and our world, this perspective has seriously diminished our culture's ability to decide and act on what is important. The introduction of non-native species (NNS) has been one of the most devastating human impacts on this planet's ecology, third only behind outright extinction and habitat destruction. A *laissez faire* attitude towards this phenomenon has dire consequences for us, for our children, and for our planet. But to understand the damage done by these often accidental introductions takes a little explanation.

Here are a few examples of alien invasions in the U.S. Kudzu, Melaluca, Brazilian pepper, Russian olive, purple loosestrife, spotted knapweed and other plant species have taken over many of this nation's great ecosystems, dumbing down their complexity, turning these elegant assemblages into simpler, non-interactive systems that support fewer species. Tamarisk and cheatgrass increase fire frequency in many habitats where fire has not played an evolutionary role, simplifying those ecosystems. The introduction of elm, maple and chestnut blights destroy our nation's most prominent deciduous tree populations, and non-native insects like gypsy moth and maple borer further harm our native forests.

Have you ever been stung by fire ants in the Southeast, or thought about what to do if (when) your trip is attacked by Africanized bees? Whirling disease, Asian tapeworm and other disease organisms are threatening trout and native fish populations. Avian malaria and brown tree snakes are literally eliminating the native bird fauna of Hawaii and the South Pacific. Most people see only non-native house sparrows, starlings and pigeons in their urban environments, not native birds. The aids virus alone seems like a big enough problem, not mention threats posed by that new Nile virus in the Northeast. These are just a few examples, and 10.5% of Grand Canyon's plant species are NNS, a proportion equivalent to that in the United Kingdom.

As with all invasions, conquest affects both the vanquished and the conqueror. NNS gradually become "naturalized", or incorporated into the ecosystem, but that process occurs over evolutionary time—tens of thousands to millions of years. If we were dealing with the natural establishment of a rare foreign species, North American ecosystems could handle and gradually incorporate the immigrants. However, the sudden arrival of thousands of NNS during the past century is swamping

the ecological adjustment capacity of our ecosystems, which are being launched off on unknown courses.

Making matters worse, aliens tend to show up in the most biologically diverse habitats (springs, wetlands and river bank habitats here in the West), settings where their impacts are most likely to be most serious. Making matters even worse, a study in Dresden, Germany (where long-term records of NNS arrival are kept) reported that the mean time between the introduction and eruption of alien plant populations was 267 years. Therefore, we can't even guess at the ecological implications of new species arrivals in our life times. It's simply best not to bring in new species, and to eliminate those we can, wherever possible, before we lose our native ecosystems.

Therefore, NNS invasions are ecologically bad because: 1) they disrupt the stability of ecological communities, particularly by 2) altering natural disturbance regimes and increasing the rate of ecological change beyond that tolerable by most species; 3) they degrade fish and wildlife habitat quality; 4) NNS destroy economically important populations; 5) they degrade aesthetic values and recreational experience (e.g., the invasion of camelthorn and Russian olive along Southwestern rivers; 6) NNS alter landforms (stream channels, etc.); 7) NNS include the transmission of new disease organisms with devastating population consequences; 8) they can strongly affect public health; 9) NNS damages are extremely costly (several billion dollars/yr in the U.S. at present), and 10) control measures require considerable, time-consuming follow-up monitoring, if control is possible at all.

## A SUCCESS STORY IN GRAND CANYON

Most, if not all, U.S. national parks are vigorously pursuing control of NNS because the NPS mandate is to manage for native assemblages, where possible. However, parks often require landscaping and NPS staff are not all botanists. The National Park Service at Page planted ravenna-grass, a large and invasive ornamental bunch grass, believing it to be a non-dispersing species like pampas-grass. Fortunately, Tina Ayers (NAU botanist) and I detected the rapid population explosion just as it was beginning, and with the help of two dozen volunteers we removed 10,000 plants from the river corridor in Grand Canyon in 1994 1996. This species is now rare to non-existent in Grand Canyon, and the few that spring up quickly fall to the shovels of the vigilant nps vegetation crew.

## TAMARISK IN GRAND CANYON

As a NNS, tamarisk or saltcedar (*Tamarix ramosissima*/pentandra) is a conundrum in Grand Canyon. It is a Eurasian shrubby phreatophyte that dominated the

riparian zone of southwestern rivers during the 20th Century. It is a good colonizer, but a lousy competitor. It supports only a few herbivorous invertebrate species, but many pollinator species, and now provides much altered habitat and food resources for the river's bird fauna. The U.S. Fish and Wildlife Service (FWS) has declared Mile 46 to Mile 72 of the river corridor as critical habitat for the endangered southwestern willow flycatcher, a species that nests preferentially in tamarisk.

Tamarisk produces millions of small, short-lived, wind- and water-dispersed seeds each year. As is abundantly apparent this year, and well documented in the literature, tamarisk colonizes moist fine-grained riverbanks on the heels of floods. The Adaptive Management Work Group's "\$50 million experiment" this year is shaping up to be the only massive germination event for tamarisk in the river corridor in the past 25 years, so be sure to thank them for reinitiating the invasion process there. More importantly, over the past 70 years, tamarisk has been actively invading the Canyon's many tributaries, streams that are now unique systems in having not been grazed, mined, or otherwise much affected by human activities. Such systems are essentially gone in the West, and are at risk in Grand Canyon.

#### A TAMARISK CONTROL PROGRAM IN GRAND CANYON

The Grand Canyon Wildlands Council (GCWC) (Kelly Burke, Kim Crumbo and myself) and the National Park Service (Norm Henderson, John Spence, Frank Hays, Lori Makarick and others) have funded a tamarisk control program in Grand Canyon. This project is supported through the Arizona Water Protection Fund, and cost shared with the NPS and GCWC. We plan to stall the invasion of tamarisk in more than 60 tributaries, killing tamarisk by applying Garlon® to freshly cut stems. When you actually count them, there are generally not many tamarisk in the in-park tributaries (in contrast, the Paria, LCR, and Kanab, Havasu and Diamond creeks are loaded). We expect that our teams of well-trained group of volunteers can handle a tributary a day or so. By removing tamarisk from the tributaries, we can set back the invasion process there by 50 years or so, while the FWS gets their Act together and starts managing for ecosystems, rather than single species.

We also plan to replace the tamarisk stand at Lees Ferry with native cottonwoods, willows and other native species. This site was photographed in pre-dam time, and prior to the arrival of tamarisk in the 1920s–1930s, the area just downstream from the launch ramp was dominated by those native trees. We will mechanically remove tamarisk, and plant a beaver-proof stand of native trees and shrubs, monitoring plant growth over the next couple of years and changes in the bird community. This part of the program is overseen by Fred Phillips (Fred Phillips Consulting), who has successfully transformed more than a mile of the lower Colorado River

shoreline near Parker from tamarisk hell into a delightful native cottonwood and willow stand. Cottonwoods and willows are culturally valuable to tribes such as the Hopi and the Navajo. Roots, branches, and logs are used in baskets, kachinas, and structures. In addition, restoration provides an opportunity for education, especially for volunteers who may not otherwise learn about the NNS problem. From this cultural perspective, having interfered with natural processes, we have a responsibility to care for nature in an active way. Restoration is one way to do that. This project is an important pilot study, in that it provides the opportunity to evaluate what it will take to transform tamarisk stands downstream into native vegetation, once the FWS and AMWG figures out their ecosystem management responsibilities.

#### WHAT'S RIGHT?

As the victims of post-modernism, we are accustomed to fatalistically accepting whatever happens. The obstacles to change are daunting, the issues are confusing, and the politics are abysmally confounding. But we do have a choice in this matter, and sacrificing our natural heritage to a bunch of aliens is the wrong path. The fight against aliens requires creativity, hard work, a good sense of rebelliousness, as well as a little information. The battles can, and should, be waged in our backyards, as well as on regional, national and global scales. Non-native species that don't spread are not the problem, and many ornamental species do not pose any ecological threat. But those that can reproduce from seed or rhizomally should be actively removed and eliminated, from our yards, our neighborhoods, our roadways, our parks and from our regions, it at all possible. Tending to your own environment can make a difference. Join your native plant society (every state has one), and let your local nursery house know they should not be distributing species that can go wild. I think each of us should take on the task of thwarting the spread of at least one alien species. Make a difference in this war. We welcome your comments on this tamarisk management plan, and hope you will consider the issue of non-native species introductions more seriously.

*Larry Stevens*

*Grand Canyon Wildlands Council Science Advisor*



## Bessie, Woman of the River

Two bqrs ago I asked boatfolk for any stories they might know concerning Glen and Bessie Hydes' mysterious disappearance on their 1928 honeymoon trip through Grand Canyon. I was hoping to sort through the various versions of the myths and put some of them to rest. It didn't work out that way. Instead, I got a phone call from Bill George, one of the owners of Western River Expeditions. Boy, did *he* have a story:

We bought Georgie Clark's company when she died. And I was conducting the funeral, down in Las Vegas. And her trusted friend and nurse—the person to whom she left her company legally, Lee McCurry, who has since passed away—called that morning, two or three hours before the funeral, and told me,



Bessie Haley [Hyde]  
high school graduation. 1924



Georgie Clark at her wedding in 1938.  
NAU, Georgie Clark Collection, #91.13.2

“Bill, we don't know who we're burying today.” Those were her words. I said, “What are you telling me, Lee?”

I went over to Georgie's trailer and sat down with Lee. She said, “You won't believe the stuff I've come up with in the last three or four days Georgie's name was never Georgie. It was Bessie. Here's her birth certificate. She was born Bessie DeRoss. And they lived in Denver.” They never lived in Chicago like she says in her book. She never saw Chicago. I threw my funeral talk out the window. I mean it was *not even close!*

And then Lee hauls out a marriage certificate. A certified copy, stamped with the original notary stamp in the corner of it, of one Glen R. Hyde and

Bessie Haley. And so my mind starts going round and round and round. You know, I mean, “What are you *telling* me here?” Well, so Lee gives me that copy. It was in Georgie's lingerie drawer. She said in that same lingerie drawer was a pistol.

Then all these things start to come down. One of them I knew—I was aware of it, because Georgie had mentioned it. She *hated*, with a *passion*, Emery Kolb. For what reason, she never said. She would go into a meeting, if he were there, and walk away. She would not be around him *whatever*. And then these other things...

I had already heard rumors, and had noticed several bizarre coincidences. Georgie's first adventures in Grand Canyon in the 1940s were with Harry Aleson, hiking from the Canyon out to Saint George—a route similar to what Glen and Bessie Hyde might have tried had they survived. Georgie later developed the triple rig—an assemblage of three rafts tied to each other and run with one oar downstream and one upstream—similar the to manner in which Glen and Bessie operated their scow. Georgie lived in Las Vegas, but few knew where. No one was invited to her house, *ever*. What tales she told of her early life turned out to be complete fabrications.

In the 1980s Georgie hired Marty Hunsaker as a truck driver, and later a boatman. She hired Marty's sister Lee McCurry to care for Georgie's ailing sister Marie. Lee later took over Marie's job as office manager. Roz Jirge, a long-time passenger and later crew for Georgie knew Hunsaker and McCurry well. “For a long time there,” Jirge says “Marty Hunsaker and Lee McCurry thought that perhaps Georgie was actually Bessie Hyde.” Perhaps, Jirge speculated, their theory may have had some roots in Georgie's “joking statement to the effect that she wished she could become a black widow spider after her death so that she could come back, mate with a man and then kill him!”

This tied in well with the myths of Glen Hyde being a brute, and Bessie having to kill him to escape with her life. Far fetched, yes, but the coincidences were thick and unsettling. It simply couldn't be, but...

“But this marriage certificate that was in her drawer just blew me away,” says Bill George. “How would she get it? Why would she *want* it? It's just been an intriguing enough story. There are just so many parallels. I'm not saying they're one and the same, but it has crossed my mind more than once.”

Brad Dimock

Brad Dimock's biography of Glen and Bessie Hyde, *Sunk Without a Sound*, will be released this winter.

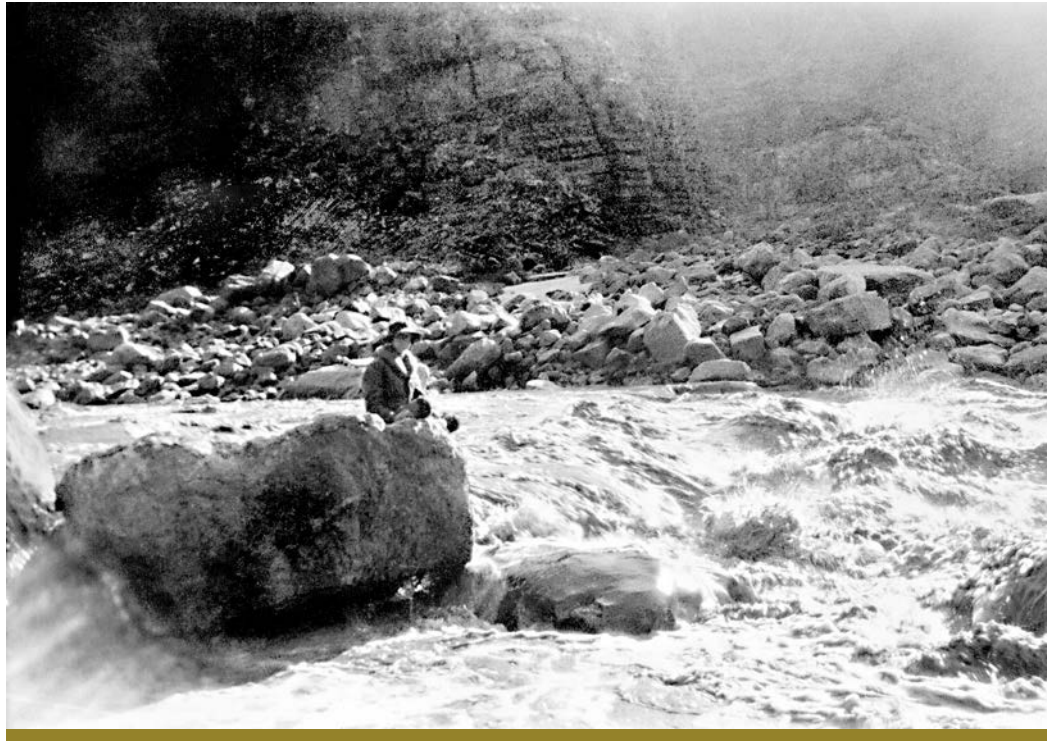
## Reward!

**T**HROUGHOUT THE SUMMER many boatmen have helped identify the thirty-six photographs taken by Glen and Bessie Hyde on their 1928 river trip. Only one picture remains unidentified, having stumped boatmen from 1928 through the present. In an effort to figure it out once and for all, Fretwater Press is offering a reward: an autographed first edition of the Hydes' biography when it comes out this winter. Mail your matching photo to Fretwater Press, 1000 Grand Canyon Avenue, Flagstaff, AZ 86001; or email it to [hyde@fretwater.com](mailto:hyde@fretwater.com).

Include a full description of the location.

*This photograph was taken somewhere below Olympia Bar in Glen Canyon, and above 27-Mile Rapid. It is shot from the right bank and is most likely in the Roaring Twenties. Clues are the steepness of the rapid, the texture of the far cliff wall, the geometry of the delta of rocks, and the right-shore boulders Bessie is sitting on.*

*The water level at the time was 8,200 cfs.  
Photograph courtesy of the Hyde / Allen / Emerson family collection.*



## Boat Naked

**F**rom an article about two rangers who drowned at Horn Creek in 1929 comes a possible new mandate...and certainly something the Park Service could get behind.

...

There seems to have been one point of knowledge concerning the turbulent Colorado that Mr. Sturdevant did not acquire, or at least did not give significant importance. This oversight probably cost him his life. We refer to the deadly grasp of the river on anyone who by chance is cast into the stream wearing clothes. The water of the Colorado is so heavily burdened with silt, that it quickly enters the clothing and

weighs down to death the strongest swimmers. Only naked swimmers have a chance. Mr. Sturdevant and one companion perished when they were hurled from the boat in which they were traversing the rapids of Horn creek in Grand Canyon. Had they taken the precaution to remove all clothing before attempting the descent of the rapids, they probably would have escaped from the maw of the stream. As it was, doubtless their silt burdened clothing dragged them down before they could reach land.

...

“Okay folks. This is Crystal. Off with your clothes.”

# True or False: 90% Of All Injuries Are To The Big Toe?

“AND THE OTHER 10% are caused by flying beer cans and irate husbands.” At least that was what we told our passengers at Lees Ferry during the orientations in the late '70s. All said, of course, to explain how safe river trips through the Grand Canyon were.

Although the true/false question might give a false sense of safety, trips *are* safe and also relatively safe as shown in *Fateful Journey: Injury and Death on Colorado River Trips in Grand Canyon* by Thomas M. Myers, M.D., Christopher C. Becker, M.T. (A.M.T.), and Lawrence E. Stevens, Ph.D. (Red Lake Books, PO Box 1315, Flagstaff AZ 86002, 520-774-4923, 1-884546-02-1, 1999).

Well-known gcr members Tom Myers and Larry Stevens, and Chris Becker, Tom's compadre at the South Rim Clinic, have combined their talents to publish this long-awaited statistical analysis of river-related accidents, injuries, and deaths. As have been previously stated at gts' and in the bqr, river running trips are still very safe. Though adrenaline is part of the appeal of river running, safety in Grand Canyon fares very favorably with other sports, both indoor and outdoor, moderate-risk and high-risk.

Without trying to misinterpret too many of the stats, here are some highlights:

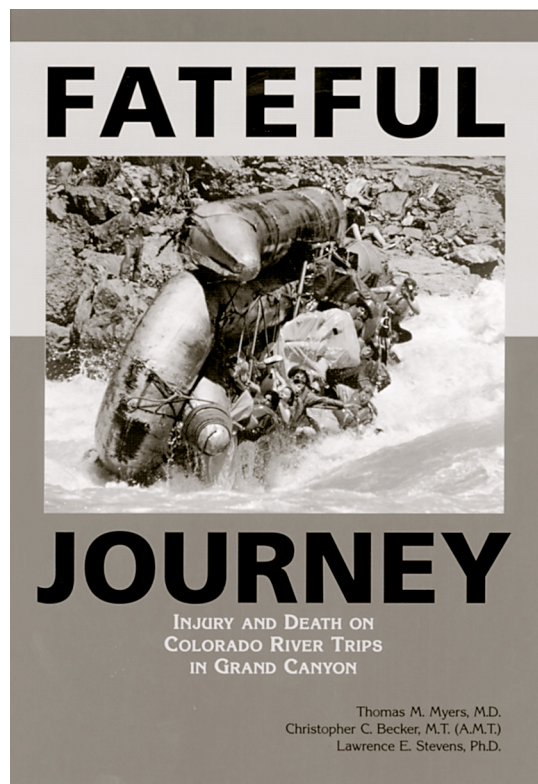
- Regarding immersion hypothermia, “contrary to common knowledge, physical activity actually increases heat loss more than it increases heat production and should be avoided unless it aids immediate self-rescue. Due to the extremely cold temperatures of the river, and the directly related risk of hypothermia to drowning, it is the single greatest hazard for river running in Grand Canyon. It has arguably made the river more dangerous now despite controlled flows from Glen Canyon Dam, than it was in the days of the untamed Colorado prior to 1963.”
- A five-year study (1988–1992) indicates that the frequency of off-river injury mechanisms of 57.6% is higher than that of the on-river rate of 42.4%.

- “Although boat flips are dramatic, they resulted in only one-third of the total on-river injuries.”
- “On a per trip basis, no significant difference existed between the trip-related injury frequency of commercial employees, commercial passengers, or private river runners. This pattern probably resulted from interaction between a dramatically lower injury frequency among employees on a trip-related basis, but a greater cumulative exposure to risk and higher injury frequency among individual employees.”
- “Water intoxication, or hyponatremia, can be as serious a medical condition as heat prostration. This condition has only recently been identified and can easily be confused with dehydration and other heat-related conditions.”
- 68% of rescues were conducted in less than 24 hours from time of injury. “Although evacuation was occasionally substantially delayed, case history data fail to show any additional mortality”.

- The fatality frequency of the pre-commercial era (1869–1937) is one in 20, for ten deaths (seven on-river, three off-river). For the commercial era (1938–1998), it is one in 18,424, for 33 deaths (17 on-river, 16 off-river).
- Crystal Creek is the rapid with the most fatalities, five. Lava Falls, 25-Mile, and probably 232-Mile had two each.

Helpful though this book may be, there are some nits to pick, most of them being historical, but a couple involve numbers and percentages that don't match from charts and tables to the text. For example, the percentages referenced to Table 7.1 on p.59 should be referenced to Table 7.3; percents are slightly different and don't match the percentages in Table 7.2.

Although statistics are far from most people's favorite reading, there are enough sidebars with stories and historical accounts spaced throughout to keep up interest. Table 15.1 (“Fatality data,” listing 45 deaths, is probably the portion I will refer to the most. One stat not discussed from this table is the unluckiest name to have when boating: William or





Wilson “Willie” is the first name of 5 of 45, or 11%, of the fatalities Charles, Tom/Thomas, and Michael have 2 each; all told, these four variant names comprise 11 of 45, or 25%).

Other things of particular note are that Myers tracked down the photographer of the cover photo, a December 25, 1970, Life magazine First Prize photo award winner for “Amateur Action” of an ARTA rig flipping in Lava Falls, and also those of the oft-boot-legged photos of the 1983 Tour West flip in Crystal Creek.

Buy *Fateful Journey*; refer to it; read it. There are much valuable data contained within; this book may influence the way regulatory agencies gather and analyze their stats. They might do well to follow Tom, Chris, and Larry’s example.

*Richard Quartaroli*

P.S. The answer to the True/False question in the title is false. Lower extremity injuries comprised 43% in the study years .

## Field Notes From The Grand Canyon

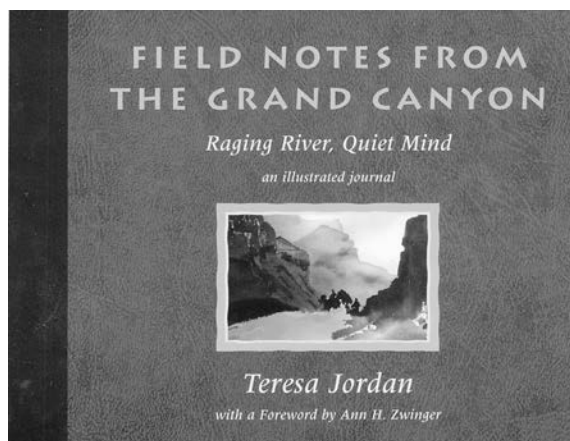
A GRAND CANYON RIVER TRIP, for many, becomes an intense life-changing experience, with a huge challenge: how to make sense of, to truly understand, a landscape so vast and so stunning, and to perceive what is happening in their own psyches. How *do* you come to terms with this place?

Ann Zwinger talks of this dilemma in her foreword to *Field Notes from the Grand Canyon: Raging River Quiet Mind*. In this small and colorfully illustrated journal, Teresa Jordan comes to terms with it through her field journal writings and watercolors, done on a 12-day Outdoors Unlimited Grand Canyon trip.

Anyone who has done a Grand Canyon trip will immediately understand the feelings and places that Teresa Jordan is describing with her skilled hand and observant eye. Her watercolor sketches are lovely, and notes on rapids, hikes, guides and camp life will spark the memory of anyone who has experienced it themselves.

This account is also a valuable reminder of what it’s like for most of the folks we’re taking downstream for the first time. Teresa Jordan’s words and paint are wonderful tools for expressing this profound experience—the soul-awakening splendor of a river journey through the most amazing geography on earth.

*Mary Williams*



*Field Notes from the Grand Canyon: Raging River, Quiet Mind*. Teresa Jordan with a foreword by Ann Zwinger. Johnson Books, 1880 South 57th Court, Boulder CO 803011-55566-255-2, 2000

## Adopt-a-Beach 2000

WE'RE GENUINELY PLEASED that so many of you stepped up to the plate (or the beach in this case) and chose to volunteer for the 2000 Adopt-a-Beach program. Not since 1996 have all beaches in the study been adopted, but this summer we managed to reach that goal once again! Perfect timing too with the low summer steady flows providing the potential for more beach surface to photograph! We owe a debt of gratitude to all those who continue to keep this program alive and well. This includes:

- All “adopters” since the program’s inception in 1996 who have taken the time to stop at their beach, snap those pictures, fill out those datasheets, and provide us with their valuable insights.
- The “primary investigators” who have conducted the analysis, compiled the elaborate report and made sense of it all for the rest of us over the years—Gary O’Brien, Andre Potochnik, Kate Thompson, and Kelly Burke. We are deeply indebted to these amazingly talented individuals whose hard work has served to develop a unique long-term monitoring program that provides an evolving record of trends in beach change in Grand Canyon and their possible causes.

- To Andre Potochnik and Matt Kaplinski, our representatives to the Adaptive Management and Technical Work Groups, for demonstrating the inherent value of our program to those federal advisory committees and for continuing to actively represent recreational river running interests.
- The Grand Canyon Conservation Fund, the Grand Canyon Monitoring & Research Center and individual gcrg members for their ongoing financial support of this program. Past support also has included the Grand Canyon Association/Grand Canyon National Park.

Overall, the Adopt-a-Beach program exemplifies the best of cooperative efforts involving so many sectors: commercial, private, NPS, science...It’s a program firmly grounded in the primary goals of our organization: protecting Grand Canyon and the river experience, and is certainly something we can all be very proud of.

*Gary O’Brien*

### Bass camp

Down the hollow carved by time  
Striped a flank of stone;  
Nestled amid Catclaws where  
The coyote dropped his bone.

Strewn about the boulder field  
Abandoned rusty dreams;  
Landslide claimed, the rest remain  
Haunted by pale moonbeams.

A coffee pot, a shovel blade,  
A bottle that got men drunk;  
Ghosts leave behind their aimless souls  
The miners have left their junk.

*Scott Knies*

## Beaches and Adopters 2000

Beach	Mile	Adopter
Badger Canyon	8.0	Andre Potochnik, Bill Leair
Salt Water Wash	12.2	Gary O'Brien, Dave Osterbrink/cgpba
19-Mile	19.1	Kenton Grua
20-Mile	19.9	Nicole Corbo
North Canyon	20.4	Charly Heavenrich
23-Mile	23.0	Craig Ahrens
Silver Grotto	29.3	Mary Williams, Chris McIntosh
Middle Nautiloid	34.7	Kenton Grua
Lower Nautiloid	34.7	Kenton Grua, Bill Leair
Tatahatso Wash	37.7	John Toner
Bishop Camp	38.3	Gary O'Brien, Doc Thomas
Buck Farm Canyon	41.0	Marijka Billingsley
Below Nevills	75.6	Kenton Grua, Bill Leair
Hance Rapid	76.6	Linda Jalbert/GC Science Center
Clear Creek	84.0	Kenton Grua
Above Zoroaster	84.4	David Brown, Nikolle Brown
Trinity Creek	91.6	Bob Dye
Schist Camp	96.0	Chris Von Bebbler
Boucher Canyon	96.7	Greg Woodall/nps
Crystal Creek	98.0	Sharon Hester
Lower Tuna Rapid	99.7	Trevor Lugers, Bill Leair
Ross Wheeler	107.8	Jeff Sorensen/az Game & Fish
Bass Camp	108.3	Clay Nelson
110-Mile	109.4	David Brown
Upper 114-Mile	114.3	Greg Woodall/nps
Lower 114-Mile	114.5	Greg Woodall/nps
Below Bedrock	131.1	Greg Woodall/nps
Stone Creek	132.0	Cynthia Billings
Talking Heads	133.0	Kenton Grua
Racetrack	133.5	Clinton Anderson
Lower Tapeats	133.7	Bill Leair
Owl Eyes	134.6	Charly Heavenrich
Backeddy	137.0	Jeff Sorensen
Kanab Creek, above	143.2	Nikolle Brown, Kenton Grua
Olo Canyon	145.6	Connie Tibbitts
Matkat Hotel	148.5	Paul Jones
Upset Hotel	150.4	Amy Flynn
Last Chance	155.7	David Desrosiers/nps
Tuckup Canyon	164.5	Susan Wykstra
Upper National Canyon	166.4	Andre Potochnik, Bill Leair
Lower National Canyon	166.6	Dave Christensen



## GCMRC Recreation Research News

**T**HE RECREATION STUDY sponsored by the Grand Canyon Monitoring and Research Center is complete. The research, which began in 1998, was part of the Adaptive Management Program for the operations of Glen Canyon Dam. The final report, entitled “Preferences of Recreation User Groups of the Colorado River in Grand Canyon,” details attitudes and preferences of recreational user groups and stakeholders of the Colorado River ecosystem. The objectives of this study were directed at describing preferences for various flow-related setting characteristics. Specifically the objectives were:

1. Determine current attitudes and preferences of Colorado River users toward recreation opportunities and setting attributes related to river flows.
2. Evaluate changing attitude and preferences of Colorado River users.
3. Evaluate commonality and disparity of current user attitudes and preferences regarding proposed management directions.

The study involved two phases of data collection. The first phase assessed current stakeholder issues related to recreation within the Colorado River ecosystem. Its major tasks, which were conducted during summer/fall of 1998, involved contacting stakeholders to identify and prioritize issues linking river flow levels to recreational use. The issues identified in the first phase guided the second phase of data collection in which user attitudes and preferences were assessed. The major tasks of the second phase of data collection, which took place from fall 1998 through spring 1999, involved five surveys of recreationists to assess their preferences for flow-related setting characteristics.

This research followed-up on the findings of Bishop et al. (1987) who studied relationships between flow release levels and recreational preferences of Grand Canyon white water rafters, Glen Canyon anglers, and Glen Canyon day-trip rafters. During the early 1980s, release flows from the Dam varied widely on a daily basis, and were referred to as “fluctuating flows.” A large portion of their study addressed user preferences related to flows that fluctuated more than 10,000 CFS within a 24-hour period. They also found that decreases in the number of camping beaches would have a substantial adverse impact due to recreational rafters having to share camping beaches with other groups. Other studies have indicated a decrease in the number and quality of beaches in the Colorado River ecosystem due to the adverse impact of Glen Canyon Dam. One of the objec-

tives of the 1996 spike flow (beach habitat building flow or BHBF) was to enhance the number and size of beaches in the river corridor. Evidence indicates that immediately following the spike flow there was a net gain in beaches and that a substantial proportion of beaches increased in size.

The high priority stakeholder issues that emerged from phase 1 were related to spike flows and their effects on recreation opportunities, particularly as spike flows affect number, size, and other characteristics of beaches. Hence, this study emphasized user preferences for beach characteristics, especially beach characteristics related to managerial influence such as size, presence of shade from a tree, and vegetation. Preferences for beach characteristics were primarily determined using photographs of beaches that were digitally manipulated to achieve the specific images required for the research design. For phase 2, the following five recreational user groups were surveyed using mailback questionnaires: private trip leaders, commercial outfitter patrons, commercial river guides, Glen Canyon anglers, and Glen Canyon day-trip rafters. Survey response rates ranged between 65% and 91%. During the time period of data collection, average daily flows ranged between 9,000–27,000 CFS. The principal conclusions of this study were:

1. Glen Canyon Dam releases have substantial impacts on recreational opportunities in the river corridor. Private trip leaders, commercial patrons, river guides, and anglers all reported preferences for various flow-related setting characteristics. White water rafter satisfaction was highest at constant flows between 20,000–25,000 CFS, and several flow-related setting characteristics were rated highly important, most notably stopping and hiking at side canyons, and running large rapids. Angler satisfaction was highest at constant flows between 10,000–15,000 CFS, however anglers were still satisfied with constant flows up to 25,000 CFS. For most day-trip rafters, satisfaction was considered independent of flow levels above 3,000 CFS.
2. The negative effects of fluctuating flows on recreational use were not substantial problems during the time period of this study. Given the level of annual run-off since the Record of Decision (1996), results of the stakeholder discussions concluded that fluctuating flow problems have been effectively addressed and currently are not a priority issue.
3. The recreational impacts of constant flow releases from Glen Canyon Dam were remarkably unchanged since the Bishop et al. (1987) study. User attitudes and

preferences regarding constant flows have not changed significantly in the past 15 years. The constant flow impacts identified by Bishop et al. (1987) converged with the evidence reported in this study.

4. The 1996 spike flow, as it affected beach development, was perceived as significantly improving recreational opportunities for rafters. Spike flows are being promoted as a means to increase the number and size of beaches, and hence have considerable support amongst the recreational public.
5. Large size beaches with shade from trees are setting characteristics with highly reliable and strong user preferences. Across three user groups (private trip leaders, commercial patrons, and river guides) and across several segmentation variables (past experience, boat type, group size), respondents preferred beach campsites greater than 800 square meters that included shade from trees. In addition, the size of beach was consistently ranked from a series of setting characteristics as being moderately important by white water rafters.
6. There is both commonality and disparity between user preferences and stakeholder directions. Points of overlap between stakeholders and users were: concern over impact of spike flows, lack of interest in fluctuating flows, and an awareness of the recreational impacts of various constant flow levels. Points of disparity between user preferences and stakeholders were that some stakeholders resisted explicit linkages between bhbf and the enhancement of recreational quality. An expanded context of Dam operating decisions, which would more explicitly include recreational user preferences, would be embraced by some stakeholders and not by others.

We appreciate the cooperation from the gcrp, and from the many river guides who provided the benefits of their thoughts by completing and returning questionnaires. The passion and commitment for river running in Grand Canyon came through loud and clear, and made for some provocative responses. For further information about the study, contact Bill Stewart from the University of Illinois at [wstewart@uiuc.edu](mailto:wstewart@uiuc.edu) or by phone at 217/244-4532.

### Rapids

I awake in the predawn hours sweating  
dreaming of your terror.  
Your names haunt me:  
Lava, Crystal, Hermit.  
Like childbirth,  
I want the joy without the pain,  
the beauty without the price.  
The time has come, we're face to face.  
And in the end  
fear turns to exhilaration.

### Metamorphosis

I enter the canyon burdened by  
cares, responsibilities, sorrows, fears;  
Hardened into a protective shell  
to shield me from the world.  
Day by day, my layers are removed;  
sometimes gently as by a lover,  
sometimes fiercely against my will.  
I leave naked, vulnerable, innocent  
fourteen days to transformation.

### Vishnu

You are my favorite,  
my best beloved.  
I float mesmerized  
through your heart.  
I become intimate  
with your every line and crease.  
The pain, torture of your past evident  
in the twists, folds, contortions of your face.  
Two billion years,  
you emerge  
more splendid than before.

*Alice Staley*

## Major Contributors — FY 99/00

The Board and Officers of GCRG want to thank all of our members whose generous donations during the past fiscal year (July 1, 1999 through June 30, 2000) have enabled us to continue our work. We deeply appreciate the extra support of the following contributors and sincerely apologize to anyone we may have inadvertently missed

### MAJOR CONTRIBUTORS

Brown Foundation  
Robert Gooch (on behalf of Brenda Gooch)  
Grand Canyon Association/Grand Canyon Nat'l Park  
Grand Canyon Conservation Fund  
Newman's Own Organics  
Teva Sport Sandals  
Matthew Thomas memorial contributions

### MEMORIAL DONATIONS

In memory of Brenda Gooch  
In memory of Chet Kosinski  
In memory of Harry "Burlo" Quartaroli  
In memory of Matthew Thomas

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Bruce McElya

# Glen Canyon Dam Adaptive Management Work Group Development of the Strategic Plan

SEVERAL OF US ON THE Adaptive Management Work Group have been working for well over a year to craft a Strategic Plan for the river ecosystem. This document consists of the following components, which should be viewed as an integrated whole. Together, they guide the work of the Glen Canyon Dam Adaptive Management Work Group (AMWG) and the Grand Canyon Monitoring and Research Center (GCMRC).

- Vision and Mission
- Principles
- Goals
- Management Objectives
- Glossary

We have completed most aspects of this plan except for the Management Objectives (MOS). These 54 MOS will generate research and monitoring activities over the next five to ten years. During the coming weeks and months, I would like to hear people's thoughts on what you think the ecosystem should look like in terms of cultural, recreational, biotic, and physical resources. The Adaptive Management Program spends about 8 million bucks/year to do this stuff, so we'd better get it right! Please E-mail or write your thoughts to Grand Canyon River Guides ([gcrgr@infomagic.com](mailto:gcrgr@infomagic.com)), attention Adaptive Management Program.

I plan to publish a preliminary version of the Strategic Plan in the Winter, 2000 issue of the *Boatman's Quarterly Review*.

*Andre Potochnik*

Mile 213.5: Stranded

No shit, there I was  
landlocked in Las Vegas  
not a dory in sight

no boatman with his oars  
I got swept away again  
in a torrent of yakking tourists

as thunderous as Granite Rapids  
What terror to be tumbled around  
in flumes of racing taxi cabs,

not a spume or spray to be seen  
Suddenly, my eardrums burst with sound  
of a thousand jangling slot machines

(wherefore sweet stream through slot canyons?)  
Then, blinded I was by neon, seeing stars  
in my head for there was no starry night

They had to whisk me away to safety at last  
& the only thing the EMTs ever heard me say  
was, send in the bats, please send in the bats

*Karla Linn Merrifield*

## Lunar Crater Named for Planetary Geolo- gist Gene Shoemaker (1928–1997)

At the 24th General Assembly of the International Astronomical Union August 7–18, 2000 in Manchester, England, the name Shoemaker was approved for a 50.9 km crater located near the south pole of the Moon, thereby honoring Flagstaff resident and internationally known planetary geologist Gene Shoemaker. This particular crater, located at 88.1 South, 44.9 East, is an especially suitable feature to bear the name Shoemaker because it is most likely the crater into which the Lunar Prospector spacecraft, bearing a small capsule containing Gene's ashes, crashed on July 31, 1999.

# GCRG Financials

## Profit & Loss Statement

Fiscal Year 2000

### Income

Membership income	\$48,227.50
General contributions	22,167.46
GTS income & grants	14,802.06
First aid class income	12,610.00
BQR grants	7,000.00
Adopt-a-beach grants	6,300.00
AMWG/TWG grants	2,000.00
Sales (t-shirts, hats, etc)	3,548.00
GTS overhead reimbursement	1,232.35
Interest income	731.18
<b>Total Income</b>	<b>\$120,618.55</b>

### Expense

BQR (editing, printing, postage)	\$31,631.39
Payroll expenses	18,828.06
GTS expenses	13,632.83
First aid class expenses	11,622.66
Rent	7,200.00
Adopt-a beach	8,098.96
AMWG/TWG	4,039.85
Postage	3,266.76
Depreciation expense	3,177.00
Meeting expense	2,835.81
Cost of sales	2,251.93
Printing	1,611.41
Telephone	1,593.40
Office supplies	1,462.16
Payroll taxes	1,352.76
Utilities	877.76
Repairs	707.88
Other (bank charges, etc...)	466.22
Internet	436.86
Insurance	270.14
Contract labor	187.50
<b>Total Expense</b>	<b>\$115,551.34</b>

**Net Income** \$5,067.21

Note:

Profit & Loss Statement does not reflect hundreds of hours of donated services for bqr proofreading, IRS annual report, Guides Training Seminar, website maintenance, clerical help, donated equipment, etc...

## Balance Sheet as of 6/30/00

### Assets

Cash in checking/money market	\$35,719.65
Postage & securing deposits	2,205.59
<b>Total Current Assets</b>	<b>\$37,925.24</b>

### Fixed Assets

Computer & office equipment	\$35,819.92
Less depreciation	-31,293.19
<b>Net Fixed Assets</b>	<b>\$4,526.73</b>

### Liabilities & Equity

Payroll liabilities	\$507.61
Restricted funds	277.64
Equity	41,666.72
<b>Total Liabilities &amp; Equity</b>	<b>\$42,451.97</b>

General members	1,078
Guide members	793
Circulation	1,954



## Businesses Offering Support

Thanks to the businesses that like to show their support for gcr by offering varying discounts to members.

<b>Canyon Supply</b> Boating Gear 505 N. Beaver St. Flagstaff	779-0624	<b>Marble Canyon Lodge</b> Lodging and trading post merchandise, Marble Canyon, AZ	355-2225
<b>The Summit</b> Boating equipment	774-0724	<b>Cliff Dwellers Lodge, AZ</b> Lodging and store merchandise (excluding tobacco, alcohol & gas)	355-2228
<b>Chums/Hellowear</b> Chums and Hello clothing. Call Lori for catalog	800/323-3707	<b>Mary Ellen Arndorfer, CPA</b> Taxes 230 Buffalo Trail, Flagstaff, AZ 86001	525-2585
<b>Mountain Sports</b> River related items 1800 S. Milton Rd. Flagstaff	779-5156	<b>Trebon &amp; Fine</b> Attorneys at law 308 N. Agassiz, Flagstaff	779-1713
<b>Aspen Sports</b> Outdoor gear 15 N San Francisco St, Flagstaff	779-1935	<b>Laughing Bird Adventures</b> Sea kayak tours Box 332, Olga. WA 98279.	503/621-1167
<b>Teva Sport Sandals and Clothing</b>	779-5938	<b>North Star Adventures</b> Alaska & Baja trips Box 1724 Flagstaff 86002	800/258-8434
<b>Sunrise Leather</b> , Paul Harris Birkenstock sandals. Call for catalog.	800/999-2575	<b>Chimneys Southwest</b> Chimney sweeping 166 N. Gunsmoke Pass, Kanab, UT 84741	801/644-5705
<b>River Rat Raft and Bike</b> Bikes and boats 4053 Pennsylvania Ave. Fair Oaks, CA 95628	916/966-6777	<b>Rescue Specialists</b> Rescue & 1st Aid Box 224, Leavenworth, WA 98826 www.rescuespec.com	509/548-7875
<b>Professional River Outfitters</b> Equip. rentals Box 635 Flagstaff, AZ 86002	779-1512	<b>Wilderness Medical Associates</b> 189 Dudley Pond, ME 04219 www.wildmed.com	1888-945-3633
<b>Canyon R.E.O.</b> River equipment rental Box 3493, Flagstaff, AZ 86003	774-3377	<b>Rubicon Adventures</b> Mobile cpr & 1st aid Box 517, Forestville, CA 95436 rub_cpr@metro.net	707/887-2452
<b>The Dory Connection</b> Dory rental 823 1/2 W. Aspen #4, Flagstaff, AZ 86001	773-1008	<b>Vertical Relief Climbing Center</b> 205 S. San Francisco St., Flagstaff	556-9909
<b>Winter Sun</b> Indian art & herbal medicine 107 N. San Francisco Suite #1, Flagstaff	774-2884	<b>Fretwater Press</b> www.fretwater.com	774-8853
<b>Mountain Angels Trading Co.</b> River jewelry Box 4225, Ketchum, ID 83340 www.mountainangels.com	800/808-9787	<b>Randy Rohrig</b> Casitas by the beach for rent in Rocky Point.	526-5340
<b>Terri Merz, MFT</b> Counselling 1850 East Flamingo Road #137 Las Vegas, NV 89119	702/892-0511	<b>Dr. Mark Falcon</b> Chiropractor 1515 N.Main, Flagstaff	779-2742
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<b>Snook's Chiropractic</b> Baderville, Flagstaff	779-4344	<b>KC Publications</b> Books on National Parks Box 94558, NV 89193-4558. www.kcpublications.com	800/626-9673
<b>Fran Sarena, NCMT,</b> Swedish, Deep Tissue, & Reiki Master	773-1072	<b>Roberta Motter, CPA</b> 316 East Birch Ave., Flagstaff, AZ 86001	774-8078
<b>Five Quail Books</b> Canyon and River books 8540 N Central Ave, #27, Phoenix	602/861-0548	<b>Flagstaff Native Plant &amp; Seed</b> 400 East Butler, Flagstaff, AZ 86001	773-9406
<b>Canyon Books</b> Canyon and River books Box 3207, Flagstaff, AZ 86003	779-0105	<b>High Desert Boatworks</b> Dories & Repairs andy @wileywales.com Durango, CO	970/259-5595
<b>River Gardens Rare Books</b> First editions 720 S. River Rd. Suite a-114, St. George, UT 84790	801/674-1444	<b>Hell's Backbone Grill</b> Restaurant & catering Hwy 12, Box 1397, Boulder, UT 84716 www.boulder-utah.com	435/335-7464
<b>ERA Conley Realty</b> 123 W. Birch Ave., Suite 106, Flagstaff, AZ 86001	774-4100	<b>Boulder Mountain Lodge</b> Hwy 12, Boulder, UT 84716 www.boulder-utah.com	800/556-3446
<b>Design and Sales Publishing Company</b> geology guides www.edu-source.com/fieldguide.html	520/774-2147	<b>Marble Canyon Metal Works</b> mcmetalworks@worldnet.att.net www.marblecanyonmetalworks.com	520/355-2253
<b>River Art &amp; Mud Gallery</b> River folk art 720 S. River Rd. Suite A-114, St. George, UT 84790	801/674-1444		

# Wilderness First Aid Courses 2001

**Wilderness Review Course Date: March 27-29, 2001 (2 1/2 days)**

Prerequisite: Must be current WFR, WEMT, WAFA or Review by Wilderness Medical Associates (WMA), WMI or solo (If your previous course was not with WMA you'll need to make special arrangements. Give our office a call at (520) 772-1075).

Cost: \$165

**Note:** If your current first aid card expires prior to our review, you must call WMA at (207) 665-2702 and get an extension letter.

GCRG reserves the right to cancel any classes due to insufficient enrollment.

Place: Canyon Explorations / Expeditions warehouse, Flagstaff, AZ

**Lodging:** On your own.

**Meals:** On your own.

Course include 2-year CPR certification.

Class size is strictly limited. Guides and private boaters welcome. Send your \$50 nonrefundable deposit with the application below to Grand Canyon River Guides to hold a space. The courses are already filling, so act now.

Review Course

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone (important!) \_\_\_\_\_ Outfitter \_\_\_\_\_

Guiding since \_\_\_\_\_ # Trips \_\_\_\_\_ Type of current first aid \_\_\_\_\_

## Care to join us?

If you're not a member yet and would like to be, or if your membership has lapsed, get with the program! Your membership dues help fund many of the worthwhile projects we are pursuing. And you get this fine journal to boot. Do it today. **We are a 501(c)(3) tax deductible non-profit organization, so send lots of money!**

<p><b>General Member</b></p> <p>Must love the Grand Canyon</p> <p>Been on a trip? _____</p> <p>With whom? _____</p> <p><b>Guide Member</b></p> <p>Must have worked in the River Industry</p> <p>Company? _____</p> <p>Year Began? _____</p> <p>Number of trips? _____</p> <p>Name _____</p> <p>Address _____</p> <p>City _____ State _____ Zip _____</p> <p>Phone _____</p>	<p>\$25 1-year membership</p> <p>\$100 5-year membership</p> <p>\$277 Life membership (A buck a mile)</p> <p>\$500 Benefactor*</p> <p>\$1000 Patron (A <i>grand</i>, get it?)*</p> <p>*benefactors and patrons get a life membership, a silver split twig figurine pendant, and our undying gratitude.</p> <p>\$100 Adopt your very own Beach: _____</p> <p>\$ _____ donation, for all the stuff you do.</p> <p>\$16 Short sleeved T-shirt                      Size _____</p> <p>\$18 Long sleeved T-shirt                      Size _____</p> <p>\$24 Wallace Beery shirt                      Size _____</p> <p>\$10 Baseball Cap</p> <p>\$10 Kent Frost Poster (Dugald Bremner photo)</p> <p><b>Total enclosed</b> _____</p>	<div style="border: 1px solid black; padding: 5px; background-color: #d0d0d0;"> <p>We don't exchange mailing lists with anyone. Period.</p> </div>
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# Lees Ferry Ranging In The Good Ol' Days

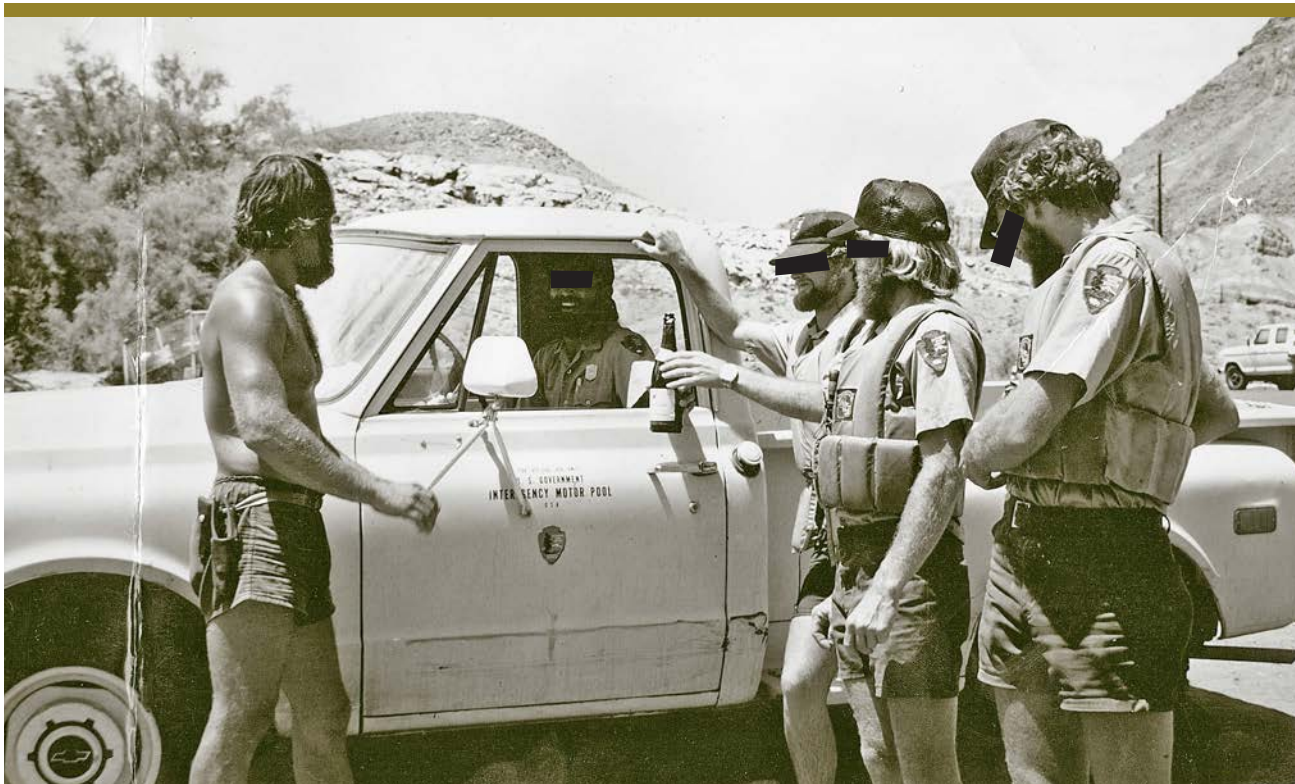


photo from the GCRG Manuscript Collection

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Thanks to all you poets, photographers, writers, artists, and to all of you who send us stuff. Don't ever stop. Special thanks to the Brown Foundation and Newman's Own Organics for their generous and much appreciated support of this publication. Printed on recycled paper with soy bean ink by really nice guys.

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## boatman's quarterly review

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