

**Transcription: Charles “Chuck” Zemach Grand Canyon Historical Society Oral History Program
Part II**

Interviewee: Chuck Zemach (CZ)
Interviewer: Tom Martin (TM)
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TM: Today is January 14th, 2015. This is Part II of an interview with Charles “Chuck” Zemach, conducted between Chuck and Tom Martin. Chuck is in Los Alamos, New Mexico. Tom Martin is in Flagstaff, Arizona. Chuck, could you spell your name again for us?

CZ: Z-E-M-A-C-H.

TM: Great. And what year were you born?

CZ: September 15, 1930.

TM: All right, thank you. Yesterday, we had ended our interview in the middle of a cliff hanger. It was 1981, your first Grand Canyon river trip, with Jim Beard and your wife, Mary. You had just gotten pummeled in Hance Rapid and the boat had made it into this small eddy to which one of your spare oars had floated. Your wife, Mary, was back with you after being ejected from the boat. Can you pick up that thread?

CZ: At that point, we had a lot of bailing to do. I estimated we had picked up almost 4, 000 pounds of water. We had floated pretty well through that secondary rapid, Son of Hance, we called it. It's hard to overturn a boat full of water. In fact, the boat never overturned. We did lose Mary temporarily, but not the boat. A commercial trip came by and asked if we wanted help. We didn't need help at that point, but did say that one of our oars was floating downstream, and if found, would they leave it on the bank somewhere. They did, and we found it, so we finished the trip with three oars.

TM: Nice.

CZ: That was about the end of that episode and it wasn't all that bad. It was challenging and we survived.

TM: Chuck, how did the rest of your trip participants do in the rapid?

CZ: Variously. The first down Hance was my Los Alamos Lab friend, Dick Slansky, with Pete Beard as passenger. Dick stayed on the right side entirely and went directly into that hole at high speed, because he was rowing hard and the river was moving. He crested it and did great.

TM: How do you spell Dick's last name?

CZ: S-L-A-N-S-K-Y.

TM: Thank you.

CZ: Following us, came Dave and Rosemary. Prior to our trip, I had attended an AWC meeting in Albuquerque, seeking trip companions. I was advised to call Steve Maurer, an experienced river runner familiar with the Grand Canyon. But Steve had his own Canyon trip that season and was unavailable for ours. Then Dave called us from Albuquerque, introducing himself as an experienced boater; Steve had given him my number. I learned later that Dave was a carpenter doing work on Steve's house. He had done one river trip as a passenger on a friend's boat, on Grey-Desolation, not too challenging, and had borrowed the friend's boat for the Canyon. Subsequently, Steve and wife Lisa became close friends and did a number of rivers with us though we never managed to synchronize on the Canyon. Dave did not understand white water, despite our attempts to advise him. When approaching a haystack or a hole, he would row upstream in order to enter it gently. He flipped in several rapids. In Hance, his raft was trapped in the hole. It didn't flip, but it emerged from the hole without a floor.

So far, the score was rafts 1, Hance 2. Observing from the river bank, Jim and Frank portaged their boats. We continued down to Phantom Ranch, Dave rowing with no bottom on his raft. That works, apparently.

TM: Well, it does if it stays floating.

CZ: Yes, the tubes were ok. We helped them gather up what remained of their gear and raft, and Dave and Rosemary helicoptered out from Phantom. So, that's how we got through Hance. Not glorious.

TM: No, but you made it.

CZ: Yes, we all made it one way or another. And, as I remember, that was the last major difficulty we had. We made it through everything else. It was the first Canyon trip for all of us and a learning process. I remember being under constant tension. I wouldn't say I was exactly scared all the time, but under tension.

TM: Did you go all the way to Lake Mead?

CZ: Mary left at Diamond Creek to meet an obligation, as did some others. She returned to Los Alamos with Dick Slansky and our boat. Two boats went down to Pearce Ferry, Frank Lucero's with Tim and me as passengers, and Jim's with Dave Reidel and Ginny.

TM: To Pearce Ferry, ok.

CZ: Past Diamond Creek, an incident. I was in Frank's boat in the front, Tim was at the oars, with Frank in back, coaching Tim, on his first river trip, on the post-Diamond Creek rapids. We were on river right, floating toward that great claw-shaped rock at Mile 232, river right. It was a fierce looking rock, I guess you remember that.

TM: Yes.

CZ: Especially at low water.

TM: Especially at low water.

CZ: Frank said "go left", but Tim's attention was elsewhere. Frank said "go left!". No response. Frank screamed "GO LEFT!!!". Tim made some convulsive move with the oars that sent the raft to the right. That wedged us in the narrow channel between the rock and the right bank. The three of us were able to step onto the bank and pull up on the bow and stern lines, freeing the raft. No doubt, a first descent of Mile 232 rapid by that route.

TM: Wow. So another little bit of portage there. How do you spell Frank's last name?

CZ: L-U-C-E-R-O.

TM: Thank you. So, what were your end-of-trip thoughts? Do you remember any of that?

CZ: First, I was glad we made it. Second, let's call it a maturing experience. Third, I was ready and anxious to do it again, as were Mary and Jim. He did buy a better boat.

TM: Interesting, ok.

CZ: And, hopefully at a better water level. The ramp at Lee's Ferry sloping into the river, with lines marking the flow, registered 3000 cubic feet per second when we launched. The river moved perhaps one to two miles an hour between rapids.

TM: That's amazingly low. Was it 3,000 the whole time?

CZ: It had something to do with the dam control. It varied somewhat on subsequent days but was always low. Which reminds me of another incident. The river at Unkar Rapid is wide, and at our water level, was shallow and checker-boarded with rocks. Running over rocks was unavoidable, though you had a choice of which rocks. Jim's Udisco was not a high-quality boat and at Unkar, suffered a major tear in its bottom. Jim had ample repair material, and I knew how to repair a boat, so by the next morning, the boat was ok.

TM: Ok

CZ: We did an awful lot of rowing just to make distance. We did a fair number of hikes, but, for lack of time, missed out on others that Jim and Frank were familiar with, or that John Van Vesse, the Canyon guide from Los Alamos, had recommended.

TM: Ok. Chuck, what were the dates of this trip, roughly? Do you remember what month you ran?

CZ: October twelfth to October thirtieth. It got dark a little early, and it was a little chilly. But the river was not crowded with commercials.

TM: So at the end of that trip, the Grand Canyon was calling you back again.

CZ: Yes, it was.

TM: Did you come back to run Grand Canyon, then, in 1982?

CZ: No, but we did return in 1983. That was the flood year.

TM: And the 1981 trip was just you and Mary? You didn't have any of your children along?

CZ: No children. We hadn't seen the river yet, but knew it could be a challenge. And it would have been difficult to arrange because they were in school.

TM: Ok, but there was a change, then, in 1983?

CZ: Yes. Launching June 26, 1983, we had all three. We had our two boys, Art and Ken, from Lee's Ferry. Dorothy was in college in June. She flew to the South Rim and walked down the Bright Angel Trail in time to meet us at Phantom Ranch July 4.

TM: So, '83, that was an interesting year for river running. Can you talk about that a little bit?

CZ: Yes, an awfully interesting year, the "flood year". The flood built up slowly. In a report for Adobe Mud, the Adobe Whitewater Club of New Mexico newsletter (see www.rfw.org/RaftingGrandCanyon/1983_High_Water_Trip_Report_by_Chuck_Zemach), I called April, May, and June "a season of rising expectations". In March, the "most probable flow" for April-to-July was projected to be 96% of normal. Flows rarely exceed 25,000 cubic feet per second in a normal year. By mid-May, the mountain snowpacks that feed the Colorado were rated 110%-120% above normal, the river was already running 25,000 cfs, and the summer flow "could rise to 40,000". On June 20, river flow was at 61,000 cfs, scheduled to rise to 67,000 that evening, and by mid-July, the flow "could rise to 80,000". Grand Canyon National Park Superintendent Richard Marks wrote to all non-commercial trip leaders that "This is high water!" Rafts shorter than 15 feet were not recommended. Trip leaders who canceled trips during the high-water period would be given priority consideration for launch requests in 1984. Thus, by the day we launched, six private permits had become newly available for launches in the next weeks (and remained unclaimed although there was a waiting list of thousands).

We spent a long time planning the trip, and I was being especially careful because I had three kids along. Mary and I were going to use our Williwaw 2, which was a fifteen-foot, nine-inch boat, and Dorothy would ride with us, after joining us at Phantom Ranch. Art was going to run my Hopi, a twelve-foot boat, and Ken would be his passenger. Art had already been a river guide on the Taos Box for two seasons, rowing the Hopi, so he'd had plenty of experience running not only in Class IV water, but also in Class V water during the high Box flows of 1979-80. I felt pretty good about him. Ken was fourteen, and plucky. He had had experience paddling on local rivers with our Sea Eagles and Tahitis.

With us were two other 15'9" PVC rafts, one rowed by Jim Beard, our buddy from our 1981 trip, and the other by Ralph De Vries of Los Alamos. In addition, the party included Frank Leroi from California, a friend of Ralph's, Tamara from Durango and Maggie Briesmeister of Los Alamos who would accompany us to Phantom Ranch, and Hans Ruppel of Los Alamos, who would join us at Phantom with Dorothy.

TM: How old was Dorothy?

CZ: Dorothy was twenty. She and Art were college students. As the river was rising, I continually called the Grand Canyon River Office for updates. Typically, you'd expect the Grand Canyon flow through the dam to be 3 to 5,000 cfs at the lower limit of variation, up to 20 or 25,000 at the high end. There would be daily variation between these limits, according to the power demands in Arizona. We launched at 70,000. Two days later, a helicopter dropped a ziplock bag, weighted with sand, over our river camp at Mile 19 right, with this notice: Flow would increase to 90,000 that evening. It later rose to 92,500, according to the Bureau of Reclamation. USGS at Phantom Ranch measured the peak as 105,000 cfs. Perhaps the USGS number was higher because it included flow from the Paria and Little Colorado. Some of the rapids were washed out, and others, through narrow canyons, got quite intense.

TM: Like which ones?

CZ: The most intense were Mile 24½, Hance, Crystal, and Lava Falls, about which, more later. The washed-out rapids included House Rock, Sockdolager, Grapevine, Horn Creek, Bedrock (no rock visible), Upset, and all rapids below Diamond Creek. Granite was about "half" washed out. Redwall Cavern was flooded, and we saw 10-Mile Rock one and a half feet above the water. Our kids in the Hopi flipped in Mile 24½. One of them drifted into an eddy on one side of the river, the other drifted into an eddy on the other side and went 'round and 'round, and the boat went downstream. Mary and I caught up to the boat, and Jim rescued the kids. That was a trying experience. We took out, later on, a mile above South Canyon, and had a layover.

TM: So, hang on a second. Art flips the Hopi in 24½ mile, and, this is a question I had. I keep hearing of the high water. 90,000, certainly even 50,000 and above, the river picks up speed considerably, and stopping is difficult. So, Art flips in 24½, and things are kind of corralled back together at 30 mile? Is that about right?

CZ: Yes.

TM: Kids are in the eddy, and you're chasing the boat downstream.

CZ: Kids are in the eddy. I did something, which, in later years, I would say was a mistake. When somebody flips, the correct procedure is for all other boats to aim at the swimmers and let the gear just float down the river. Let the gear go until you've picked up the swimmers. Well, at that point, Mary and I were downstream of the flippers. We had gone through the rapid first. The Hopi floated by us, and Jim and Ralph were behind us. So I thought, with two boats behind us, they would certainly pick up the boys. Well, Ralph just freaked out and he went down without doing anything. It was left to Jim to pick up the boys, even though one was on one bank and the other was on the other bank. What I did was chase the Hopi. As you suggested, stopping it was difficult. River speed at 70,000 cfs was eight miles per hour - - we timed it between Lee's Ferry and Navajo Bridge - - and certainly higher at 90,000. You can row into the eddy, but the overturned boat you're dragging is still partially in the mainstream, and the force of the water will drag the overturned boat back into the mainstream and drag you out of the eddy. That happened to us a couple of times. I was rowing and Mary was holding on to the Hopi. That took us up to something like mile 26, past Cave Springs Rapid, before we were secure in an eddy and righted the Hopi with its flip lines. And then, Jim shows up with the boys. They were a little shaken. Art told me that he was in this eddy and he was dragged around three times before he finally managed to swim to shore. He made the circuit of the eddy, and when he got to the eddy line on the far side from the bank, he would be dragged underwater. Lifejacket and all. Pretty fierce eddy. Ken was saying, "That was not a fun experience." But we survived; they survived.

TM: Ok. Yes, fortunately.

CZ: Yes.

TM: Ok, so down to South Canyon, had a layover, and then you, and Mary, and the boys are ok, it was like, "Well, let's keep going".

CZ: There was some repairing to do. One of the Hopi D-ring patches had been wrenched off, but we had spare D-ring patches. We took out a little before South Canyon, a broad beach after Mile 30. The beaches adjacent to South Canyon were submerged.

TM: You mentioned some of the rapids were washed out. What was Hance Rapid like?

CZ: It was one of the intense ones. We flipped in Hance, in our big boat. Everyone else made it.

TM: What happened there?

CZ: I don't remember how we flipped; it happened so fast. Then, we got on top of the overturned raft, Mary and I, and tried using our flip lines, but this was a nearly sixteen-foot raft, heavily loaded. At launch from Lee's Ferry, we had distributed our gear and food as we thought fair, between our Williwaw II and the Hopi. Now, Art, as a veteran of Explorer Post 20 in Los Alamos, knew the Post's rules for safety and precautions. At the start of every major Post trip, each pair of boys in a raft, was required to overturn the boat in an eddy, and then right it with the boat's flip lines. I think it was actually Explorer Post 20, and probably Stretch Fretwell, who invented the technique of flip lines as we were using them, which is a lot better than the techniques recommended by some guide books. Art and Ken overturned their Hopi in an eddy at Lee's Ferry, and successfully re-flipped it. But I observed that they had difficulty, and would have more difficulty in turbulent water. I transferred their gear and food from their boat to ours. So, our Williwaw II was not heavy enough to avoid flipping in Hance, but too heavy for us to re-flip.

Then Jim came after us. Jim tried to pull us into an eddy and had the same problem mentioned earlier. He would pull his boat into the eddy, we would be holding onto his boat, but the river would pull on our boat and pull his boat out of the eddy. It just wasn't possible. We went on and on, through Sockdolager (washed out) riding on the overturned boat. Somewhere between Sockdolager and Grapevine, we figured out what to do. We set our boat adjacent to Jim's boat, side tube to side tube, and stepped onto Jim's boat. Then Jim, Mary, and I pulled on our flip lines, but had a lot more leverage because we were standing on his side tube. The three of us together could very easily turn our overturned boat upright. This method of re-flipping a heavy overturned boat is recommended.

[An alternative flip technique: Bring the overturned boat to shore, sideways, with two or more boaters holding the flip lines and standing above the side tube on the river side. The other members of the boating party, on shore, cooperatively lift the side of the boat adjacent to the shore as high as they can, after which those standing on the river side of the boat holding the flip lines can complete the flip (and fall into the water).]

TM: So, meanwhile, Ralph and Art are with you, the Hopi and Ralph's boat, you're all moving along together.

CZ: From Hance, that's right. They followed us through Hance and Jim and I were the lead boats at that time. We kept Art in between some of the bigger boats, and he did all right.

TM: So, arriving at Phantom, in comes child number three.

CZ: That's right.

TM: Mom and Dad having any anxiety at this point? You know, kids flip the Hopi back at 24½, you guys have had a pretty interesting time at Hance, the water's...

CZ: I wouldn't say no anxiety. I said I was under tension for the whole first trip. I was under tension for the second trip, too, until we passed Lava Falls. Perhaps more tension.

TM: What were the dates of this trip? Do you remember?

CZ: June 26 to July 16, twenty-one days later.

TM: Ok. So, when you got to Crystal, the water was back down a little bit. Was Crystal still under NPS control by that time? Or had they...?

CZ: Crystal was down to 70,000 cfs. I checked these flows, day-by-day, with the Bureau of Reclamation, after the trip. It was very much under NPS control and it had a number of visitors, like Park Superintendent Richard Marks and Senator DeConcini, who was introducing himself to his Arizona constituents. He was campaigning. Di Concini asked Mary where she was from. When she said "New Mexico", he turned his back and went off to seek other constituents. Superintendent Marks and his Rangers were grappling with a critical situation. Back on June 17, a 37-foot motorized pontoon capsized in the hole in Crystal. It was too damaged to continue and the passengers were helicoptered out. Another commercial lost its rowing frame in Hance.

On June 25, the day before our launch – we were already on the beach - - six more large pontoons failed to navigate the hole in Crystal successfully. 90 people were spilled into the water that day alone. Helicopters were going back and forth, taking out the rather cold and wet passengers. One elderly man had died from drowning, or perhaps from a heart attack in the cold water. At a certain point, the Park authorities had banned further launches. We were waiting at Lee's Ferry for a number of hours, not sure what to do. A commercial river operator, Dick McCallum, was on the beach with us. He was muttering that they should find some river ranger who had been down the Grand Canyon as often as he had and let that ranger tell him not to launch. Dick McCallum was a pusher, and he talked by phone to

the Superintendent. Either from his pressure, or for other reasons, the Superintendent changed his mind. The river was now open, and only Crystal was closed.

That was the situation when we got there. The commercial guides could take their own boats down Crystal, their passengers had to walk. For us, boatmen were allowed and passengers would have to walk, except that each boat could take along one swamper. That was the first time I heard the word swamper. Well, a swamper is just a boatmate. Our boats had two people, except Ralph's boat, which had three, so Frank Leroi did walk and was happy to do it. The rest of us went down Crystal.

TM: So, what was your run of Crystal like?

CZ: Ok. The big hole in the center was extra ferocious. But the water had come up on the bank on the right side, including a modest grove of tamarisk trees. The river did try to drag you toward the hole. But, if you worked hard, or decently, you could keep far right and avoid the hole. It was quite a scene to watch but it wasn't that hard to go around Crystal. The boys in the Hopi did that fine, except that, afterwards, there's this follow-on, the Son of Crystal, a shallower part. In that part, they both got thrown out of the boat, but didn't lose their hold, and then climbed back in. They were resilient enough to do that.

TM: How was your run in that...?

CZ: My run was quite easy.

TM: Lower Crystal?

CZ: I kept as far to the right as possible throughout, avoiding the tamarisk trees. Dodging the hole was fairly easy. There was one incident. We were standing on the side, looking at Crystal, with a lot of passengers watching with us, and one of the commercial boats came by. When close to the hole, he turned his boat transverse to the river and started gunning it toward the shore. He may have waited too long, just barely kissing the edge of the hole. I remarked to one of the passengers, "He came a lot closer to the hole than I would have done." The passenger said, "And he came a lot closer to the hole than he said he was going to."

We rowed past Crystal, and there were these huge boats, pontoons, marooned on the side. There was one of them, upside down, that said "Georgie White" on it in big black letters. A couple of years later, I met Georgie White at Marble Canyon Lodge. We had a very interesting talk about all her experiences. And we talked about that year. I mentioned that I guessed she had had a problem. And she just flat-out denied it. She said, "No, I never had any problem in Crystal."

TM: Let's take this sidebar for a minute. What else do you remember of that conversation with Georgie?

CZ: Quite a lot. Let me finish this point.

TM: Ok.

CZ: About how we passed Crystal and we saw this overturned raft which said "Georgie White" on it. The boat she was guiding may have survived, and one of her other boats may have overturned.

TM: That could be.

CZ: She had a lot of bravado. We talked about past experiences. In the early days, she had planted markers on the banks, which she could sight as she was going down the river. This was before the Belknap and Stevens guides. She had her own personal markers to indicate when the rapids were coming, and so forth. She also told me - - maybe this was uncharacteristic because it revealed a mistake - - she once went with passengers down Bedrock on the wrong side, and the boat got stuck on the rocks. So there was a problem, the passengers and everybody getting out and hauling the boat over the rocks, and eventually getting past Bedrock. Even Georgie White had experiences like that. There's a story I've heard in several versions, so it may be true. After all these commercials had overturned at Crystal in 1983, there was a period where Georgie was on the left bank with her arms folded and saying nothing, and she was watching this chaotic scene with helicopters flying back and forth. At a certain point, she says, "They sure don't make passengers like they used to." I was told this by Steve Maurer, mentioned above, who was a personal friend of Georgie's, and I guess he got it from her. I've read a similar story in Kevin Fedarko's book, but it comes out a little different. I'll follow Steve Maurer's version.

What else about those events at Crystal in 1983? One commercial pontoon went into the hole and got trapped. The following boat, of the same outfitter, then bumped into the boat and knocked both free of the hole. A ranger had told this story to us as an example of clever maneuvering by the second boat. Later, I was having lunch in Fern Glen Canyon and chatting with a guide of this outfitter. I mentioned the trick of cleverly hitting a boat out of the hole, and the guide denied that, saying "No, nothing was that well planned. It was all an accident."

TM: Oh my gosh.

CZ: So, those are some of the memories. Most of this I wrote up in that report which your River Runners for Wilderness kindly put on the website. But, I think I'm adding a couple of things that are coming to me.

TM: That's good. What do you remember of Lava Falls? Was it pretty sharp?

CZ: Lava Falls reminded me of Hawaii. The pattern had nothing to do with the traditional bubble line, or rocks on this side, or that side. It was a huge V-rapid, pointed downstream. On the outside of the turn of the river, that's the right side, there was just a wall of water, which might be thirty feet to thirty yards long and higher than a boat length. It reminded me of pictures of surfers coming down big waves in Hawaii.

There's this great wave, and every once in a while, the white caps would overcome it and the wave would collapse slightly, and then it would reform.

Art was sitting on a rock above the rapid watching this awesome scene. Ralph came up to him and said "We'll help you portage if you want to portage it." Art was silent for a moment, and then he said "I'd rather swim than portage."

TM: Nice.

CZ: That was my boy! I really felt proud of him. I told Art I was going to lead, and if I get down safely, we would aim at taking out at a little eddy at the bottom of Lava, on the right. I said, "If I make that, I could do two things. Either I could stay there, and be ready to rescue you in case you flip in Lava, or I could walk up the right bank to the midpoint of Lava, and take pictures of you as you go down. What would you like me to do?" Art said, "I'd rather have you take pictures." So we have pictures of him and Ken in the middle of Lava. Pretty impressive.

TM: Nice!

The way to get down Lava, apparently, was to stick as close to the left branch of the V as possible. There was probably no chance to cross the left of the V and get into quiet water. But the flow was very much toward the right, trying to drive you into this wall of water. The challenge would be to struggle against that and to keep to the left as long as possible to delay your eventual encounter with the right branch of the V. We all did that successfully.

TM: I bet!

TM: Do you have any other thoughts of what, between 3,000 cubic feet a second, in 1981, suddenly going to 70 to 90,000 two years later, any other things about the river at high water that were remarkable?

CZ: That were remarkable? I could mention three things. First, the speed of the river. We timed ourselves from Lee's Ferry to Navajo Bridge at 70,000 cfs. We got to Navajo Bridge at 8 miles an hour.

TM: Going fast.

CZ: That's pretty fast.

TM: Yes.

CZ: Second, it was difficult to manage the eddies. Eddies could be 100 feet long or more, and the eddy fences were very strong. When aiming for a beach, there are two kinds of problems. You might start hugging the bank early on, get trapped in the previous eddy, and have to go work your way upstream to

escape it. Or, if you broke through the eddy fence directly opposite your objective, you might get carried far downstream before approaching the shore, and have to laboriously work your way up. The eddies were almost as big of a problem as some of the rapids.

Third, there were boils and whirlpools, which we had not met on previous river trips. As another river runner explained to me at the time, the boils and the whirlpools are driven, at high water, by rocks which lie far beneath the surface of the river, even though such rocks don't necessarily cause rapids. For example, we had just passed Mile 36 Rapid, which is not difficult. Upstream of us, a huge boil erupts. It might have been around three feet high above the level of the river and six or more feet across. Like a giant carnivorous mushroom. It sucked us back upstream, captured our raft, and started spilling water into it. The raft didn't overturn but was mostly filled with water before the thing let us go.

TM: Wow.

CZ: It wasn't actually dangerous, but it was an odd experience.

TM: And then you're back to bailing again.

CZ: And then we were back to bailing, yes.

TM: Oh my gosh.

CZ: I was complaining about the eddies. Mary reminds me that whenever we would take out at some beach for an overnight or for lunch, almost always, one of our party would overshoot the eddy and be pulled downstream.

TM: What would you do then?

CZ: Well, if they could walk or row back up, they did.

TM: I see.

CZ: Otherwise they didn't.

TM: Wow.

CZ: We ourselves failed to make it into Bass Canyon on the right. We overshoot and went down almost to Shinumo Wash. Somewhere above Shinumo Wash, there was a take out, and we spent the night there.

TM: Just lost touch with your party and pulled over where you could and spent the night?

CZ: That's right.

TM: Wow.

CZ: The rest of our party pulled in at Bass Canyon, I guess that's what you call it.

TM: Ok.

CZ: We spent the night in a little sandy stretch, just above Shinumo Wash. We found out that we could hike over a small ridge and get down into Shinumo Wash. From Shinumo Wash, we could hike up a steep cliff in the upstream direction, and get back to Bass Canyon. So, we did reunite with our party. Later, we hiked back into Shinumo Wash, and to our campsite. There wasn't any particular trail; we just worked out our own switchback route up the slope from Shinumo and over to Bass. I marked our route with a series of cairns and, a few years later, the cairns were still there.

TM: Oh!

CZ: So, some others may have thought that was a planned route from Bass to the base of Shinumo Wash.

TM: To Shinumo, yes. So, having, then, gone through Grand Canyon at very low water in '81, and very high water in '83, and then again at other levels on many other trips. what is turning out to be your ideal water level?

CZ: 18,000 to 20,000 cfs

TM: Why?

CZ: It's high enough so that you don't find too many rocks in the bed of the river, and, once you're that high, you don't want it any higher. I think I've done it at all flows. There was a time I did a solo trip in that Hopi. The flow varied from 18,000 to 20,000 cfs, and I thought that was a most comfortable level. There was enough water over Lava Falls so that you could go down the left side. Well, it wasn't easy. I spent a long time on my solo trip walking back and forth, looking at and memorizing the rocks on the left bank before I actually went down, but it was doable. And...

TM: So, you ran left at Lava, then, on that trip?

CZ: Yes. Left or center-left. I remember there was some maneuvering to do.

TM: On that solo trip. Yes, that would make sense. What time of year was that?

CZ: That was in 1997, 14th April to 8th of May. That, I would say, is my preferred period of time to go down the Grand Canyon under any circumstances.

TM: Why is that?

CZA: In June and later, until September, the Grand can get pretty hot. After the second week of April, the trees and bushes green up, the redbud trees are in blossom, the prickly pear cactuses are in flower. When you get down further, what do you call those stringy cactuses?

TM: The opuntia, the cholla, or the prickly pear?

CZ: No, I mean the tall, single strands of things.

TM: Oh, the ocotillo.

CZ: Ocotillo, yes. The ocotillo are absolutely gorgeous in Indian Canyon. There is a forest of ocotillo, and if you catch them in bloom, they're particularly gorgeous. So, that's a reason for doing it after the first week of April, but the second week of April is when the commercial season begins. Or, it did at that time. And, it's really nice to get there before the commercials begin.

TM: Why is that?

CZ: Because of all the noise. That problem's been improved a great deal in recent years, but in those days, the noise of the two-stroke motors that the commercials used could be heard for a quarter of a mile downriver and upriver, perhaps a half a mile. If you're in the busy season, you've got a continuous train of commercials coming down. If you're trying to relax on a beach, you hear these loud motor noises continuously all day. Now that's been significantly improved in recent years, because they were required to switch to four-stroke motors. I don't understand the motor technology too well, but they're much quieter.

TM: Correct. Yes, that's right.

CZ: I do remember one time, in a later year, I was fussing around on the beach and all I heard was the sound of the waves on the river. Then I looked up, and there was this big pontoon going by me, which I hadn't heard, and the noise of the motor did not go over the noise of the river. The noise of the river was quite pleasant. But still, the idea of a continual parade of huge pontoons going down contradicts your idea of a natural wilderness. I don't mind sharing a wilderness with others, but in modest quantities. I usually

had good relations with the commercials that we did encounter. They were generally friendly. Most of them were nice. There were a couple of exceptions, which I probably need not enumerate.

TM: Sure.

CZ: But, when they get to be a crowd, it's quite a devaluation of a wilderness experience.

TM: So, your total runs through Grand Canyon by boat now are how many?

CZ: My total is 16 times. Most from Lee's Ferry to Pearce Ferry. A couple of times we took out at Diamond Creek, if people had limits on their time. A couple of times recently, we went down to South Cove because Pearce Ferry was unreachable. Once, I went down in my Padillac, an inflatable kayak, with Jim and others. That time, I had another commitment. We did launch at Lee's Ferry and I took out at Hermit. Jim took my boat to Pearce Ferry, and I picked it up in Colorado later. I hiked out from Hermit to the South Village. That was pretty interesting.

TM: How so?

CZ: Well, all of the Grand Canyon is pretty magnificent, and this is a part I hadn't seen before. And, part of it involves walking along the Tonto, which I hadn't done before.

TM: Did you walk the Tonto up to Indian Gardens and then go out, or did you go up the Hermit Trail to Hermit Rest?

CZ: it was either the Hermit Trail, or the Granite Trail, unless they are the same.

TM: Yes, that would be the Hermit Trail.

CZ: And then there's the problem of getting back to South Village, which I think I did by hitchhiking. Is there a road?

TM: Yes, there is. it goes from Hermit Rest back to the village.

CZ: Ok. So, I hiked up to Hermit Rest.

TM: Alright. When thinking about this, I mean, 1981, very low water. 1983, very high water. Solo trip, inflatable kayak trip, 16 total. What other river adventures do you remember having in the canyon? That really, really make you sit up and pay attention and go, "Oh yes, I remember that time."

CZ: There were lots of little incidents. Except for what I've described, nothing ever really went wrong.

TM: That's good. What went right? What other little incidents do you remember?

CZ: Many incidents went right. Some memories:

A few years after the 1938 flood, the flow was still high, 30,000 cfs or more, and the top of Tenmile Rock less high above the river than usual. Mary and I managed to tie our boat to the Rock on the downriver side and climbed to the top. I wonder whether any others ever ascended Tenmile Rock.

Here is Mary's favorite Canyon hike: Steep climbing, but easy. Take out at Carbon Canyon. Go up the canyon to that stromatolite, where the canyon broadens out, and a rather somber view of lava fields appears. Walk in the downriver direction, returning to the river through Lava Canyon. Then back to Carbon, along the river edge. Just prior to reaching Carbon, the slope down to the river becomes very steep and it is necessary to swim about 15 yards. Cold water, but only for a few seconds.

We almost always visited Mooney Falls, up Havasu Creek. We have seen many waterfalls in Hawaii, but consider Mooney Falls, at full flow in the spring, the most beautiful.

Apart from the above, it is hard to name the "best" hikes. There are so many great ones and they are all different.

At Rider Canyon, we once met George Steck, author of Grand Canyon Loop Hikes. He advised that if you spy a cairn on canyon right (looking down the canyon), perhaps a mile from the river, and follow the subsequent cairns, you are led to the rim for a nice view overlooking the river.

Another of our frequent hikes was up Blacktail Canyon, especially pretty. If one begins hiking in the streambed, one soon encounters a blockage. Rather, one should begin by climbing about hundred feet up the slope on canyon right, continue up high, then return to the streambed after the blockage is past.

I don't know whether the present Park ban on "visitation" of the Anasazi Bridge also bans the short but interesting climb, across the river from one of the camps before President Harding Rapid, up to a near view of the bridge. The bridge itself is in decrepit shape and few would dare to "visitate" (= walk?) on it.

Jim and I often hiked up the Kaibab trail - - shorter than Bright Angel - - from Phantom Ranch and hitchhiked to South Village for a big lunch. We once bought a quart of Haagen-Dazs ice cream plus small cups and plastic spoons at Babbit's store, before descending. We handed out portions to ascending hikers, most of them fatigued and panting, but appreciative.

A California businessman had done some business in Flagstaff and, with the weekend free, had hiked down to Phantom on Saturday and back on Sunday, when I met him. He was thrilled by the Canyon. He repeatedly bemoaned that he only had two days. Such a vast area. So much to see. He said, "It would take a week to do the Grand Canyon."

On our earlier trips, we used a Sears 3-horsepower outboard motor after Separation Canyon and a motor mount I devised that fit between two rafts. It would pull four rafts at 3 miles per hour plus the river speed. We would travel all night and get from Separation to Pearce Ferry in one night. A map, a flashlight, and the pole star were sufficient for navigation; the river made turns often enough so that we always knew our location.

On later trips, we decided that there were enough interesting features below Separation so that we stuck to rowing during daylight.

On our 1988 trip (2 rafts, Mary and myself, Jim Beard and Chris Whitman), heavy rain caused us to turn in to camp by the former Lava Cliff Rapid, Mile 246 Right. While Jim and I were setting up tents, the girls sought shelter from the rain. They found an alcove under a cliff on the downriver side of the beach, with an inscription: AMOS BURG / BUZZ HOLMSTROM / WILLIS JOHNSON / ...OM THE BEGINNING. This was left by the Burg, Holstrom, Johnson trip of 1938, a repeat of Holstrom's 1937 solo trip down from the Green River in Wyoming and on through the Grand Canyon, which Burg then promoted in many public lectures. At the time, neither GC Park officers, nor GC historian David Lavender, nor other authorities I questioned were aware of the inscription. In an article entitled "Willis Johnson" in Boatman's Quarterly Review, 1995, Brad Dimock supplied some background, showed a photo of the inscription, and noted that Willis was living in Tooele, Utah. I didn't see the article until later, but called Willis up in 1998. At age 87, he was very gracious, happy to chat about the old days, and added to my store of Grand Canyon lore: He knew Buzz more intimately than anyone else. He was certain that Buzz had not committed suicide; he was shot by another member of that river trip after an altercation. Buzz was romantically attracted to Lois Jotter, one of the two women first down the Grand, but she was taller than he, which was a problem. He had talked with James White in 1931 about White's supposed Grand trip before Major Powell, but White's story "didn't add up".

Some of our incidents went right, but were quirky and funny. Consider our 1986 trip (4 rafts, Mary and myself, Jim Beard, Jim and Beth Fuge, Doug McCullough and Ann Hardin, plus Kelly Kellstedt, kayak): My raft was about to pass Whitmore Wash when Doug, whose raft was already beached, waved me to the shore. He introduced me to Fred. Fred was a US Navy pilot stationed at a Canadian military base. His mission was to train Canadian pilots in the use of the Lockheed P-2, a plane which was designed to locate Soviet Union submarines in the Atlantic. A friend in the US had invited him to join a Grand Canyon trip, meeting first at Marble Canyon Lodge. The friend supplied other trip details, but was misunderstood. There was talk of Las Vegas, Nevada, Whitmore Wash, and the hiring of a private plane to bring the group from one site to the other. Intending to arrive at Marble Canyon Lodge, Fred flew to Las Vegas. At the airport, he hired a private plane to carry him to the landing site above Whitmore Wash and walked down to the beach. He spent the night there, and in the morning, the first boat he saw was Doug's. Doug's river map showed him that Whitmore Wash was far from Marble Canyon Lodge. We took Fred to our campsite at Mile 194 Left, fed him lunch, dinner, and breakfast the next day. That morning, I hailed a passing commercial boat and said to the occupants, "Would you like to hear a funny story?" The guide agreed to take Fred to Diamond Creek, and on the group's return bus to Flagstaff, let Fred off at Williams. Fred could then take a bus to the South Village, hike down to Phantom Ranch, and await his friends. Fred wore hiking boots at Whitmore Wash, but sandals on the boat, the boots being forgotten at our camp. Fifteen minutes later, I hailed a second passing commercial and said to the occupants, "Would you like to hear a funny story?" The guide agreed to pass on the boots to Fred, who would not have left Diamond before the second boat arrived. A few weeks later, I received a thank-you note from Fred. He had recovered his boots, met his friends, and enjoyed his Grand Canyon experience with the Whitmore-Diamond segment replacing the Lee's Ferry-Phantom segment.

Still in 1986: We lunched at Three Springs Canyon, Mile 216 Left. Jim went on to the night's campsite. The others hiked up the canyon. Then the Fuges decided to return to the river and go on to camp and later, Kelly decided the same. When we remaining four had finished our hike and were about to launch our boats, a raft party from OARS came abreast of us. "Where are you going to camp?" the trip leader asked. "Mile 221 Right", I said. "We are going to Mile 221 Right", said the TL. "No problem," said I, "there are three good campsites in a row." "We are going to the upstream one," said the TL. We all knew that one was the best. I answered, "Some of our party are downstream. I guess we'll take whatever they pick out for us." The OARS group started rowing vigorously. Their hope of beating us to the preferred camp was futile as Jim had a two-hour head start. They caught up to Kelly, who was floating lazily without paddling. His feet were out of the kayak and he was lying on his back, enjoying the sun. "Are you of the same party as those people at Mile 216?" "Yes." "Are any of your party downstream?" "Uhm, uhm, yes I think so." More vigorous rowing. They caught up to the Fuge boat that was also floating, without being rowed. They passed at top speed without comment. Meanwhile, Jim was also stretched out, enjoying the sun. He had beached his boat in a small inlet above the camp. Neither his boat nor his tent was visible from upstream. He saw the Fuge boat far upstream and saw the OARS party speed past it. So he arose and hid behind some trees. When the TL's boat came abreast of the camp and turned toward the shore, Jim came out to the shore and waved. Jim said he never saw a look on a face that seemed so disgusted.

Some of our incidents that went right were quirky, but not funny:

On a cold, windy day, after we passed Bedrock, a couple hailed us from the shore. They were hikers, from the North Rim, who had taken a walk upstream from their river camp. The woman, dressed in not much more than a swimsuit, was shaking uncontrollably, probably hypothermic. They asked us to boat them to their camp, so we did. Mary managed to stabilize the woman with hot tea from our thermos, pants, and two sweaters.

We met a Sierra Club group of perhaps 15—20 hikers, unwisely led and unwisely equipped (70-pound packs containing cans of tomato sauce, no aids to call for help in an emergency) at the Deer Creek Patio. They planned to continue their hike along the river to Kanab Canyon, then return to the North Rim through that canyon. But two of the women had developed knee problems, so walking was difficult, and impossible with packs. The trip leader assured us that the two "were good troopers and would be fine in the morning" but would we boat them to Fishtail, half-way to Kanab, where the group would camp that night. We did. The rest of the group did not appear at Fishtail till the next morning. We fed our guests dinner, wine, and breakfast. The next morning, one of our guests was ok, sort of, and the other could hardly walk at all. We believed that a helicopter evacuation was necessary, as did the hikers, excepting their leader. The leader insisted that the impaired woman was "a good trooper" and would be all right soon. This led to acrimonious debate and would have led to a mutiny if the leader had not relented. We cut up one of our plastic tube tents and from the pieces, formed a large, orange "X" on a flat piece of ground, as the Park prescribed. Mary used our Air Force mirror to signal distress to a passing commercial plane. Through the center hole in the mirror, she could see sunlight reflected on the plane's fuselage. The pilot dipped the plane's wings and blinked its lights in acknowledgement. A few hours later, the rescue helicopter arrived.

The US Congress sometimes considers legislation affecting Grand Canyon management. At such times, Utah Senator Orrin Hatch has been a reliable defender of commercial outfitter interests. In 1998,

our river trip encountered, for the first and last time, such strong, morning, upstream wind that our boats could make no headway downstream. We were obliged to halt on the shore for a few hours, until the wind died down. A few days later, we were floating past Nankoweap where a line of pontoons saying "Hatch Expeditions" was on the beach.. A Hatch guide was on the river side of one of the boats, fussing with the motor. We exchanged pleasantries, "Hi." "Hi." "Beautiful day to be on the Grand Canyon." "Sure is!" Then I said, "By the way, the next time you talk to Senator Hatch, will you please have him introduce a bill to ban upstream winds in the Grand Canyon." He laughed and said, "You know, I don't think we can do that. We ask Senator Hatch for so much that I don't think he has any time to do anything else for us." I've heard Senator Hatch claim that he's perfectly neutral on commercials versus privates, but there's some family connection between Hatch Expeditions and the senator.

TM: Sure there is.

CZ: I think he was one of the primary agents in banning one of the reforms, which almost passed at the beginning of the 80s. You must know more about the history of this than I do.

TM: Oh, that's right. It's management by congressional fiat, and that speaks to the issue of fairness. People have different visions of what is fair. I think the bottom line is we all would agree that managing a resource needs to be fair, fundamentally fair.

CZ: Continuing with incidents that went right: On my solo trip, instead of the more notable canyon hikes, I did new ones. For example, leaving Lee's Ferry, you come by Cathedral Wash, which is mile 3. It never occurred to me before to stop at mile 3. Cathedral Canyon brings you back up to the road that leads from Marble Canyon Lodge to Lee's Ferry. A charming canyon. A bit of effort to get up the steep sides here and there.

We had always passed by the Triple Alcoves and the Royal Arches in the past. This time, I tried to enter each arch and alcove. I think the Triple Alcoves are misnamed; it's either two alcoves or five alcoves, depending on your definition of how deep an arch has to be to be called an alcove. There were one or two that I decided were beyond my ability. Have you been inside those arches?

TM: We have scrambled around up there. It's fairly sporty at some points. There are some springs up there that were really pretty and it's a challenge to get there.

CZ: Parts of it were sporty, I was prudent, but not too prudent.

TM: Good.

CZ: On my solo trip, Crystal was bothersome. It was cold and drizzly. I did a little scouting and then was prepared to do Crystal. But a commercial raft party comes by, stops to scout. They see me alone and the guide, very charitably, offers that I go down with them as an extra safety factor. I said yes. They go off to

scout and take an interminable amount of time, an hour or more, before they come back. During this time, the weather gets horrendous. The drizzle turned into a driving rain. The wind became very fierce. You could see the wind blowing sheets of rain sideways over the Grand Canyon.

TM: Wow.

CZ: Over the river.

TM: And you were cold already.

CZ: Yes. And the wind blew in the wrong direction, toward the hole. I became very sorry that I had said I'd wait for these people. Then the rain and wind slackened somewhat, so my mood changed. I told the passengers that I could stay on the bank and watch them go down and take photos, and mail them the photos. They approved. Then the guide comes back and says, "Oh, no, no, no! You're launching with us and you're going to stay in between our forward rafts and our backward rafts." He just laid down the law. We got through Crystal all right, but the experience was trying. It was still raining. As you must know, the gems offer few campsites and hardly any places to just sleep on flat ground. Eventually, I found one fairly far down.

On that trip, commercial parties were already at Stone and Galloway. One is not supposed to land on a beach already occupied, but when solo, I didn't follow that rule with the commercials. I would just politely mention that I was alone in one boat, and would they mind? I was always welcomed and offered dinner and breakfast!

TM: Nice.

CZ: At Stone, this was rewarding for three reasons. First, I got *lunch*, dinner, and breakfast. My own food was minimal as I wanted the boat as light as possible. Commercials give you good meals.

TM: That's right.

CZ: Most, anyway. Georgie White, I heard, did not. Second, one of the passengers was a retired physics professor with whom I had been friendly at U. of California, Berkeley. We reminisced about California in the old days. Third, the trip leader told me something new. A hike up Kanab Canyon, for at least three hours, brings you to a side canyon on the right, which is worth the effort. It was magnificent, as good as Elves Chasm. I think it is called Whispering Falls.

TM: That's right.

CZ: This was the first and last time that I've been there, and it was remarkable. I owe that to this canyon guide who advised me of it.

TM: Nice!

CZ: I now recall one other uncomfortable thing. This is the one time on the solo trip that I was actually scared, and it wasn't on the river. I had hiked up Stairway Canyon. You must know that pretty well. You go up the canyon, there's a blockage, you climb up on the side or up the creek, and you come to another blockage that is a little harder, and the next one is harder still. A graded sequence. I arrived at a pretty steep wall over the creek bed, perhaps 15 feet high, no obvious handholds or footholds. I climbed perhaps 10 feet up the adjacent canyon wall. It was, as I remember, layers of white marble, a series of smooth, rounded bulges, nothing to hold on to securely. I don't know whether I'm describing something that reminds you of anything. My right foot could just about reach a small niche in the creek wall. I made a lunge for it and pulled myself to the top. Then I got scared. How to get back? From the top, the niche was invisible and the side layers out of reach. I carried a 35-foot rope in my backpack, but all the rock was smooth, nothing to tie on to. I spent some time, prone on the top, legs over the edge, toes locating the niche, and memorizing the moves necessary to get down. It turned out to be easy and I was relieved.

TM: Yes.

CZ: That's all that strikes me. Oh, yes! My first problem was at Cathedral Wash. I had a porta-potty suitable for a one-person trip. It was a plastic bucket, with a plastic top which screwed down on it, and it could carry twenty-eight days worth of waste. I had greased the edge of the top so that it would be easy to open or close. But I had closed it too tightly. It wouldn't open. There were no proper handles on the body or the top, so one couldn't grasp the body, grasp the top, and pull one against the other. Eventually, I wrapped a long strap a number of times around the body of the bucket, and anchored that to a tree.

TM: Clever.

CZ: That fixed the body. I pointed a sharp edge of my lumberman's tool onto one of the corrugations on the top and pounded it with a rock. That broke the corrugation. I tried on another corrugation and broke that. I tried on a third corrugation and the damn thing opened.

TM: Wow.

CZ: So I did have a functioning porta-potty. Afterwards, I advised others that with type of porta-potty, close it finger tight, not very tight.

TM: Well, you solved it. That's good.

TM: You know, Chuck, do you have any thoughts on Grand Canyon and the Colorado River, as a place to teach us, visitors to national parks, things that we might not necessarily learn in our ordinary, daily, busy-job lives?

CZ: I was taught geology. And some botany. That's probably not what you're thinking of. You're thinking about moral principles or ethical principles.

TM: Or team building, or...

CZ: Or human cooperation.

TM: Being small in a big land.

CZ: I had a more scientific approach.

TM: That's fine.

CZ: I appreciated the geology.

TM: Nice.

CZ: The early part of the canyon unfolds like a textbook. All these layers. They're easy to spot, at least in the beginning of the canyon. Each has its own characteristics. If you're trying to climb them, knowing those characteristics is a guide to what's easy and what's hard. There's the whole idea of evolution going back to the precambrian era and precambrian rocks. Once, I was trying to beat down an empty soda can by pounding on it with a flat rock, which was a redwall fragment. The redwall fragment broke. I said, "They sure don't make rocks like they used to." The idea of nature is exalting and I was exalted. Many urban people don't understand that. I understood it better after coming out to the national parks. The national parks are one of America's great ideas. There are no bad ones. There are a few dull national monuments. I once made an effort to visit Arizona's Pipe Springs National Monument; it had some historical significance. It doesn't amount to much. The Grand Canyon is the premier park. It's worth saving this resource for exaltation, for challenge, and opportunity, and the feeling of liberation. It deserves the most effort for protection, and preservation. As for the human aspect of teamwork, I learned that you must be careful about what buddies you pick to go with on a long trip in an isolated area.

TM: Can you speak to that a little bit?

CZ: Most of the people I've gone with did absolutely great. Especially my special buddy Jim Beard. He and I and Mary shared many trips, not only in the Grand Canyon. He would pick up a girlfriend by going

to a supermarket the day before, or somewhere, and meeting some nice young thing and bringing her along. Once in a while, we picked a lemon for a trip and were stuck with him for three weeks. I could describe the lemons, but that would not be edifying.

TM: No, but it is recognized that one of the most important things a person can do on a do-it-yourself river trip in Grand Canyon is choose your co-travelers well.

CZ: I would underline that. On another theme, I did try to influence public policy on rivers, and river trips, and permits. First of all, in my backyard in New Mexico, but, also, to some extent on the Grand Canyon. The managements of the National Parks and Bureau of Land Management (Department of Interior) and of the National Forests (Department of Agriculture) are obliged to have their planning processes open to public comment, but will they even read the comments? It's iffy.

I've had long experience, especially when I was President of the Adobe Whitewater Club, negotiating - - with the support of AWC private boaters - -with our local BLM and National Forest offices in New Mexico, and fairly successfully, I would say. We played a major role in the drafting of their river regulations. On the issues of safety and environmental protection, we were generally on the same side as the management agency. The other main issue was the division of permit allowances between privates and commercials. On that issue, the commercials in the US have had an overbearing influence which, I would claim, I managed to counteract in New Mexico. The commercials in New Mexico were pretty decent folk on the whole. A lot of them became my good friends and we would cooperate in designing river recommendations to the BLM and the Forest Service. That worked pretty well in my day, i.e., in the 1980's and 1990's.

TM: Nice.

CZ: The Grand Canyon did hold policy reviews open to the public like the CRMP.

TM: Right, the Colorado River Management Plan.

CZ: I wrote long essays, and lists of recommendations to them, both in 1988 and in 2002. I never received any indication that my lofty principles or concrete suggestions were read, and they certainly never followed my advice.

TM: What was that?

CZ: First, let me quote principles and objectives, taken partially from the first three pages of my 14-page, October 5, 2002, submission to the CRMP. Second, more specific advice from the same document:

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**I. Some Basic Principles
for guiding the design of rules for river access and use**

1. River running is an expression of freedom.

River running is more than a recreation, and as guardians of the Colorado, you do more than administrate a recreational activity. The river runner on the Colorado enjoys nature and confronts nature, and both on a grand scale. Enjoyment and struggle are the elements of an expression of freedom.

The challenges and opportunities of a Colorado River experience can be met at various levels of intensity, that is, at levels appropriate to the experienced and the inexperienced, to the weak and the strong, to the old and the young, to the natural scientist and the layman. Each of us, in varying degree, can enjoy nature and confront nature. For each of us, the river experience can enrich, inspire, ennoble. To each of us, river running can be an expression of freedom.

This is the first principle. When in doubt about a difficult decision, -- and you may have many doubts about many difficult decisions -- return to this golden idea and work forward from it.

2. In America, there are only a few valid justifications for limiting freedom.

On the Colorado, there are precisely three:

(a) Personal safety.

Grand Canyon rapids, trails, and cliffs can be hazardous. An unprepared boater or hiker may cause harm to others or be unable to assist others in need. Thus, while safety practices should be fostered by education, it is also appropriate for the GCNP to enforce the culture of safety by regulation.

(b) Environmental preservation.

This refers to long-term preservation, remediation, and possible improvement of the Canyon's physical environment. The documents say

"The Colorado River, as it flows through the park, provides opportunities for one of the world's premier river experiences."

And the documents refer to

"the overwhelming grandeur of the environment".

Good words. This means that you have a higher mission and a higher trust than to equilibrate political pressures and commercial pressures and even citizen pressures.

In the US as a whole, there are many rivers and other waters, and people with different recreational interests and commercial interests. In this enlarged perspective, we might agree that some waters be reserved for wilderness, others for jet boats, fishing trawlers, cruise ships, and so forth.

Let the compromises with the wilderness ideal be done on the less-than-premier rivers. We can suffer much harm to the Colorado and still have above-average river experiences and moderate grandeur. We can degrade much of it, and people will still say "this beats anything in southern California", or "Toto, we're not in Kansas, anymore." But if we degrade it at all, we fail our heritage and you fail your trust.

(c) Traffic control, when the volume or quality of traffic itself degrades freedom.

This gets to the crunch issue -- restrictions on the allowed number of launches per day or per week for commercials, for privates, and for administrative trips, beyond what is reasonably required for environmental preservation.

It can include further protections of the freedom to enjoy nature, relating to campsite courtesy, trash pollution, noise pollution, camping limits at attraction sites.

3. The Fair Sharing of Resources, a Sense of Proportion, Recognition of Limits

(Sharing of Resources, for short) [condensed]

- A system in which 20,000 commercial passengers per year arrange their Grand Canyon trips with ease and efficiency, while independent river runners are allotted 3500 places per year, many having endured years of waiting in line, and with 7600 trip-leader hopefuls currently in line behind them plus the uncounted number of their potential trip-mates, is unfair.

Aggravating the unfairness is the toll of disappointed independent river runners, fated never to achieve even a single trip in their lifetimes. Some hopefuls die or grew feeble while waiting. Some give up or suffer life-style changes while waiting. An uncounted multitude never join the assemblage-in-waiting at all because of the anticipated futility of it.

The current scheme for allocation of launch permits between privates and commercials is indefensible on the basis of any set of criteria that includes elementary fairness. Its defenders, such as they are, come from that class of beneficiaries of the system for whom economic gain outweighs fairness, and there are not all that many defenders among the beneficiaries, either.

The unfairness in this allocation system must not be sustained. The Park Service and its Superintendent should now be confronting, lucidly, rationally, and even courageously, the heritage of a quarter-century of accumulated grievance among independent river runners, and the law-suits of the recent past. Else they will be confronting law-suits in the near future and another quarter-century of accumulating grievance.

One may recognize that there are strong interests at work. There are strong politics at work. Perhaps the politics on the side of the status quo are currently stronger, though such things may evolve and it's hard to predict what a court will decide. I have a certain sympathy for the previous Superintendent who copped out in mid-process.

I also have sympathy with the present Superintendent, and his associates, who now must carry on. It may be inevitable that the Superintendent and his associates will be admonished, pressured, threatened, criticized and/or shot at from one or more sides, regardless of their decisions. What a wonderful opportunity to follow one's conscience. What a wonderful opportunity to do justly, and to love mercy, and to walk humbly with thy God. (*Micah, VI. 8*).

II. Responses to questions on the "submit comments" page of the grca/crmp website, in the suggested format

1. *What are the conditions and qualities that make a Colorado River trip special to you?*

The trip is special to me because of the fabulous number of opportunities to enjoy nature and to confront nature, both on a grand scale. These opportunities include:

- river running on quiet waters in immense grandeur, on frolicking rapids that provide a good bounce and a good shower, and on big rapids that strain one's strength and skill, inspire a bit of fear, and punish misjudgments.
- hiking the side canyons. Something like 60-70 are accessible, all spectacular and all different.
- Climbing the rocky cliffs -- the easy ones and the hard ones, but not the dangerous ones.
- Viewing and studying 2 billion years of geology
- Viewing and studying plants
- Watching deer, sheep, ring-tailed cats, beaver, ant lions (you feed them ants), hawks, eagles, snowy egrets, blue herons. (As for condors with big numbers on them, and rattlesnakes, I can take them or leave them.)
- Enjoying solitude and quiet in an environment of grandeur.
- Stretching out on a beach and doing nothing.

Imagine yourself visiting the Grand Canyon in 20 years. Describe what you would like to see and experience on a river trip.

First, I'd like to see and experience all of the above. Second, I'd like to see some changes, as follows:

- A system of access to the Canyon by which, at a reasonable cost, I can do the river every one or two years as an independent boater in my own boat, making my own trip decisions, and choosing my own trip companions.

-- Increase of the 18-day / 21-day limits on trip duration by, say, 50%, so as to permit serious backcountry hiking from the river. Because summer is hot, and winter is cold, dark, and snowy, such increase might be confined to trips launched in March 1-April 15 and Sept 15-Oct 31.

-- Restoration of beaches to, say, the quality familiar in 1980-1985. Find out how to kill the tamarisk & kill it. Find out how to bring back sand to rock beaches (current flood experiments will probably fail), and bring it back.

-- An institutionalized system of cooperative trips, where Canyon research and Park tasks are done with the participation of volunteer independent boaters, and perhaps volunteer commercials. There was talk of organizing this sort of thing a few years ago, but after volunteering, I never heard anything more.

[Well, you did ask what I would *like* to see.]

2. List your top 3 priority issues for the Colorado River through the Grand Canyon.

1. Make the system of allocation between privates and commercials fair. It is a scandal that while 20,000 commercial passengers per year get trips easily, privates are allotted 3500 places, often obtained after years of waiting, and for many privates, the prospect is only one trip per lifetime, or no trips per lifetime. Uncountably many privates have given up without trying. [But one could be more adroit at it. See below.]

2. Make the system of allocation between privates and commercials fair.

3. Make the system of allocation between privates and commercials fair.

Compared to this top-priority issue, all other issues are of second priority, or of lower priority. If you can't solve this problem equitably, the whole CRMP effort will be seen by many as a meaningless charade.

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CZ: Of specifics urged on the CRMP, I think two were most significant: (a) the superiority of a waiting-list for award of private permits (with prompt replacement of cancellations) over a lottery and (b) equality of river access o commercials and privates. The first was ignored and the second partially ignored. I think it's gotten worse.

TM: Slow to change. Ok, gotten worse.

CZ: (a) Up to 2002, a two-track system existed for awarding permits to private boaters. On one track, one joined the waiting list and waited. In recent years, the wait was quoted to be ten or fifteen years. Such estimates were actually artificially high because the waiting list was continually reduced by drop-outs and because one might join the trip of a friend or family member positioned earlier on the list. On the second track, one telephoned the Park's river office repeatedly, e.g., once a day, until a cancellation from a previous permit holder came in. Many who joined the waiting list didn't know whether they would to be married in two years, or divorced in two years, or would change their jobs, or move out of town.

TM: That's right.

CZ: So, some canceled their permits when their number came up. Jim and I would alternately call the permit line every day and always picked up a canceled permit in two or three weeks. This technique favors those with job flexibility and those willing to exert effort to acquire a permit. When all or most other overcrowded rivers had lotteries and the Grand Canyon had a waiting-list system, I thought the Grand Canyon system was the best, despite the length of the list. I told that to the Grand Canyon people many times. A lottery doesn't reduce the number of permit aspirants, except by frustration. Awards based on

probabilities doom some applicants to fail for more than 10 years or for their lifetimes, as I illustrated with numerical examples in my CRMP submission. (I played the lottery on the Middle Fork of the Salmon for 12 years and always lost. I obtained one Middle Fork trip on invitation from an Idaho river runner - - to whom the Idaho river managers were indulgent - - and another in September, after the lottery season.)

(b) I argued in New Mexico (with some success) for a 50-50 split between commercial and private access to a river and likewise on the Grand (with no success). More precisely, 50-50 with borrowing, which meant that when one sector did not fill its quota over some time interval, the other sector could take up the slack later on. This rule was simple, was at least a plausible approximation to fairness, and any computer-based rule might not be much of an improvement. The counting of boater traffic could be based on (a) number of trips, (b) number of users, or (c) number of user-days. The different choices gave different advantages to one side or the other, but this was a secondary issue. Somewhat facetiously, I suggested counting a commercial guide as 3/5 of a user.

What else? Oh, you were asking me what the Canyon, what the national parks can teach us. I think I covered this in the quotes from my CRMP submission. Others may come up with different answers, or with no answer. In 1990 in Flagstaff, I attended the Grand Canyon Futures Forum, sponsored by the Sierra Club. Arizona Senator John McCain sent a video clip as a welcoming greeting to the participants which was inspiring. The Senator really cared about the Grand Canyon. Jack Davis, the Grand Canyon Superintendent at the time, was there, and I chose to sit next to him in the front row. I was gratified that his perspective on the Canyon was much like mine. The perspective of the Sierra Club speaker was not at all like mine. Absent from his address was any notion of freedom, or of challenges and opportunities. He told of his one canyon trip as a healing experience, his tensions ebbing away, the peace and solitude acting as a therapeutic remedy for the cares that infested his urban life. In any case, the main theme of the Forum was that the managers of the Grand Canyon are guardians of a valuable treasure, and must be very careful how they manage it, and many are watching them.

TM: Yes.

TM: So, Chuck, you know the resource well and you know the issues well. What would you think is a solution to this conflict between the commercial concession interest and the do-it-yourself river runners, especially with regards to this vision of freedom?

CZ: I've met a lot of commercial guides. Most of them are pretty decent people.

TM: Absolutely.

CZ: They are not doing this to make money. Well, yes, they are doing it for a living, but they're also doing it because they love the canyon.

TM: That's right.

CZ: Many are like that. And many are very courteous to privates on the river.

TM: But I'm going to jump in here and ask a question. Does courtesy and loving the canyon equate to a distribution of access?

CZ: Not in the past. In addition to the guides, you have the owners of the company, who may also be guides. They watch the bottom line in dollars.

TM: Sure.

CZ: The more access they have to the river, the less access for privates, under the principle of protecting the environment and under traffic control. So there's a conflict. You say, "What is the solution?" I don't have a solution. I don't favor war. Economic pressure and greed are at the heart of the problem. There remain social pressure for what it is worth, political pressure, evolution of the national political leadership, and a hard slog ahead for groups like River Runners for Wilderness. The road is endless. My personal solution to the access problem, through cancellations, is no longer there. It eventually goes back to Congress. The Congress can and does make rules which affect the way the Park Service works.

I wonder to what extent the community of commercial guides and owners would consent to fairer sharing of the river, and to what extent recent changes in demand for commercial access might affect their attitudes. I have already noted that most commercial guides are good guys.

But here is a counter-example: The following email message appeared on the gcbpa listserve in 2002:

Subject: [gcpba] chat with a commercial owner

Had a chat recently with the son of a river company founder. The commercial sector has, and gives, the Park too much money for anything to change. Commercial boating has made the Grand Canyon what it is today and his family has the "right" to continue their family's "traditional" way of life. (the company founder was a carpenter) This current interest in private trips is a fad and interest will fade soon enough. And he is not worried because the commercial sector has too much money for the Park to mess with them. The commercial sector has enough money to weather and win any and all court challenges. The commercials feel for the private boaters but they were there first and after all, if someone really wants to go, they can call his company.

TM: It's not really a fair, in that case, not a question of...

CZ: I included this quote in my CRMP comments in 2002. And then I said, "Evidently the commercial owner was speaking sincerely and giving a frank appraisal of the potential of the present CRMP process. Park officers should be embarrassed that a climate exists in the Grand Canyon river community, or in a part of the community, in which such views can be displayed as a matter of course. But perhaps the commercial owner quoted above is right. Then Park officers should be doubly embarrassed."

That's the way it is. In New Mexico, there was a period in the 1980s when river overcrowding became evident and regulations had to be formulated. There were many meetings. There weren't that many commercials, maybe eight or ten. And activist privates like me. I was president of the Adobe

Whitewater Club in those years and negotiated with both the commercials and with the BLM. After a certain amount of interaction, antagonisms relaxed, people began to be willing to make allowances for the other person's point of view, and even friendships were formed. In one of my previous incarnations, as a Foreign Service Officer in the State Department, I found that even in negotiations with the Defense Department over national security issues, prolonged interaction led to a mutually cooperative spirit among the negotiators.

So, without proposing a solution, I would say that if somebody would engineer sustained interactions between private boaters, e.g. the Private Boaters Association and the RRFW, and the commercial guides and maybe the Grand Canyon Trust, then in the fullness of time, feelings might ameliorate. Perhaps, a Park Officer with a flair for diplomacy could form a "River Community Advisory Committee" with these elements and task it to produce joint papers addressing one issue at a time. This is a speculative proposal. I don't know if it would come out well or not. They might have had plenty of these meetings already and nothing ever came of them.

TM: Well, we still are on a journey for fairness, so, I would say, yes, something is going to have to happen. We're all going to have to come back to the table, either through the courts, or through Congress, or through a management plan to revisit this.

CZ: And, that's a political problem.

TM: Yea, one of many. So, Chuck, we've been interviewing here for almost two hours.

CZ: Wow.

TM: Time flies when we're having fun. Probably going to go ahead and wrap this up now. Is there anything else you'd like to touch on briefly before we wrap this up?

CZ: I'd just like to repeat the guiding principle, already stated above. In the meetings I attended in New Mexico, and I became famous for this, I'd get up before these contending groups, and say, "River running is an expression of freedom. It's the business of American regulators and American participants to preserve and promote that expression of freedom for as many people as can enjoy it." That's my final word.

TM: Nice. Very good. On that note, thank you very much Chuck Zemach.