



DIARY KEPT  
*during the*  
UPRIVER CONQUEST  
*of the*  
COLORADO RIVER

---

June-July, 1960  
JOYCE HAMILTON

# Foreword

by GEORGE MORRISON, *Expedition Commander*

Our original plans for running the Colorado River did not include Mrs. Hamilton, nor her friend Mrs. Guy Mannering, wives of our expedition's Kiwi members from Christchurch, New Zealand. The feeling was that traversing the Grand Canyon was fraught enough with dangers without having to be mindful of the comforts of women. But it was impossible to ignore the tremendous energies thrown into preparations for the trip by both Mrs. Hamilton and Mrs. Mannering. They seemed capable of performing any task. When it came time for launching the boats (an arduous task, considering the topography at Lee's Ferry) the women sweated and strained as much as any of us. As for portaging equipment, including 35 pound tins of gasoline, from the beach to the boats, they did more than their share. And their careful and quite scientific preparation of the diet we were to take was indeed a masterpiece.

It finally became a quiet consensus that if the women wanted to share the downstream adventure they should be allowed to do so. Thus Mrs. Hamilton and Mrs. Mannering became integral parts of the first conquering of the mighty Colorado.

This is not in the least to detract from the splendid participation of the other women, Mrs. Fran Belknap, Mrs. Mickey Storts and Mrs. Otis Marston, who formed a part of the ever-watchful rim party, but did not actually run the river. Their presence high above continually filled us with the assurance that all would go well.

What Mrs. Hamilton's diary reveals in the following pages is essentially correct in fact, and rather touching, most of us feel, in many of its characterizations. What she has to say about the historic up-run is, of course, what she saw and felt from the rim of the canyon, and what she gleaned from telephone conversations with members of the party when it tied up at Bright Angel Creek. Her guesses about the progress we were making, based on what little she could see from 5000 feet up, are amazingly accurate and were only possible because of her keen knowledge of rapid rivers and her instinctive judgment of what people do under the unusual circumstances we often found ourselves in.

All of us who made up the Colorado River Expedition salute Mrs. Hamilton and her sensitive account of what went on in fact and what transpired in the minds of the women who watched and waited.

*Diary Kept*  
*During the Upriver Conquest*  
*of the Colorado River*

JUNE - JULY, 1960

---

*Saturday, June 18th*

At last the big day has arrived!! The sandy little beach with its willow shade which has been our home and haven from the desert heat during almost a week of preparations, is now a scene of busy activity, confusion and disorder. Gas cans, gear, cameras, cooking needs, boxes and bundles, provisions and people, clutter the beach from end to end. But by midday the boats are loaded, and the sand settles, farewells are said to the less fortunate who have to remain behind, and with fluttering hearts (mine anyway) we shove our boats out into the muddy Colorado, a parade past for the benefit of the spectators and photographers on shore and we turn and head downstream. Lee's Ferry to Lake Mead with the adventures of a lifetime between.

There are four boats in the fleet, two twenty-four foot Cathedral hulls powered by two Interceptor 185 h. p. engines with twin jet units, and two eighteen-footers with one 185 h. p. Interceptor engine and jet unit apiece.

The leader of the expedition is Dock Marston who has run the gauntlet of the great river a dozen times already, has made a thorough study of its history and moods and therefore, we hope, knows every rock in every rapid. Our chief pilot is Bill Austin from Indiana Gear Works, Indianapolis, who first introduced our New Zealand jet propelled craft to the United States and whose slender stature and quiet manner belie his true character, which is as full of grit as our food is on the river.

As we set off on the first stage of our journey the lead boat was Wee Red (wee rather than little in deference to the Kiwis) pilot, Garth Marston, Dock's son, the eternal sophomore from Seattle, with Dock himself and Pug Atherton, one of Dock's chosen rivermen from Hawaii. Behind them, ploughing a little under its heavy load, ran Big Red or 21, Bill Austin, pilot, and crewed by Bill Belknap, photographer and Canyoneer from Boulder City, Nevada, and Jim Bechtel from the Indiana Gear Works, our bearded Tarzan and court jester. Next in line, trundling along in Big Yellow or 16, are the three Kiwis, Jon Hamilton, pilot, Guy Mannering, photographer, myself as ballast and, feeling a little out-kiwied, Jack Reynolds from Seattle — Old Jack, our commissary steward, the most important member of the expedition. Last in the convoy and looking very much least from the security of our big barge came Wee Yellow, bouncing flippantly over the waves, piloted by Dick (Fireball) Young, mechanic from Indiana Gear Works, crewed by Phil Smith, scientific observer, and Ed I'Anson, experienced river man and photographer from Pasadena.

We are on our way at last, boats planing well despite their loads, everybody happy — past the beach, now submerged, on which we spent four days camped last month, under the thin graceful arch of Navajo Bridge, on down between the rosy marble walls until suddenly the river appears to stop short ahead of us. We are approaching Badger, our first big rapid — It was perhaps as well that we could not see what we were plunging into until we were hurtling down the tongue into it. But we came out unscathed at the lower end and proceeded calmly on our way until once again the river seemed to drop away ahead of us. This was Soap Creek Rapid. Discretion being the better part of valor and it being lunch time anyway, Dock decided we should pull into shore and take a look at this one first. He also wanted to give me a last chance to walk out of this wild adventure, there being a trail up to the rim here. But I decided to stay for lunch anyway, and soon after we were bashing our way down through Soap, pulled into the long beach below the rapid, where the waves lapped as on the seashore, and unloaded Wee Red. Then Bill Austin and Dock went out to

try their first uprun. After a considerable struggle they returned to the beach to discuss tactics and empty out some more luggage (including Dock). This time Bill made it to the top. When he climbed the last wave, plunged downwards and then rode up the tongue to the smooth water beyond, we were jubilant.

The Indianapolis 500 race had nothing on this for thrills. On top of the cliff above stood three tiny figures, Margaret Marston, Micky Storts and Margie Mannering our rim-runners, witnesses of the first uprun of Soap. Feeling rather pleased with ourselves we continue on our way, running between narrow canyon walls and through some sharp little rapids. I had overheard Dock warning Fireball of a rock somewhere and I kept my eyes skinned for that rock until we rounded a bend and found the canyon blocked by a rock the size of a hotel. Could Dock have been joking at Fireball's expense? But no, it could be too expensive to joke on the river.

Round another bend and we saw a long low arch at the foot of the red wall ahead. As the leading boats approached it and drew in under the rock cave, they appeared to shrink to the size of toys and I began to get some idea of the size of the cavern. This was Red Wall Cavern, a vast sweeping arched ceiling tapering back to meet the wet cool beach behind us, a dark and pleasant contrast to the glaring heat outside. But we dally only long enough to refuel boats and take some photographs, then press on down the narrow canyon, eleven more miles to the beach above President Harding rapid. This is where we camp tonight, on the smooth sand between the rocks with a fringe of tamarisks and "wait a minute" bush, a kind of acacia which has a grasping nature. Jack and I sort out the menu for the evening meal while Bill B sets up the stove on a rock. Before long, we are all well fed and happy. Here I heard for the first time the Riverman's roll call, a sudden rousing shout of "Here" echoed promptly by a dozen voices.

### *Sunday, June 19th*

The nights in the Canyon are glorious, the stars brilliant above and the air warm. After a last swim in the dark water, we lie down to sleep on top of our bed rolls. After a three or four course breakfast, we walked downstream for a preview of the rapid. Not too bad, one very large wave right in the middle but it is not necessary to run through it unless one is looking for thrills. Dock took us on a conducted tour of the local graveyard just to keep our morale high. It is encouraging to be told stories of the many unfortunates who have perished miserably in the canyon before us.

We loaded up the boats and negotiated the rapid without incident, though Fireball took on the big wave just for the hell of it, or for some more obscure reason. A pleasant run today with no big rapids. We saw big caves high in the rock walls and passed giant pot holes rounded out of the rock at the base of the cliffs. Then the canyon began to widen and the side canyons carved their way down, breaking up the walls to form gigantic buttresses and bastions. We had longer vistas ahead and interesting glimpses up side canyons. The largest side canyon is where the little Colorado comes down to join its parent river. Although we had been told of the blue lagoon here, we still gasped with wonder to behold such brilliant turquoise blue meeting the coffee colored Colorado water in a clean straight line. As soon as the boats touched the bank we were overboard, playing happily as porpoises in the clean saline water. People were shoved overboard, others ducked, we dived from the back of a boat and were sent hurtling out into mid-stream by the jet. Garth and Jim in life jackets, locked head to tail with their feet tucked round each other's ears, paddled themselves along with the ship's paddles. Dock pointed out an old prospector's hut huddled under a rock shelf upstream. Jon, Phil and I swam across to investigate but found that someone else had arrived there first and had pinned a notice on the door warning us not to remove any gold nuggets we might find under the bed. Actually all we found were two saddle trees, a wooden stirrup and a pair of boots which were either dehydrated or that prospector had very small feet.

We are off again down the wide canyon and high on a cliff above stands a tower from which our rim party will be watching. Stopped to lunch on a small beach above Chuar huddled in the shade of a rather spindly tree. Old Jack good humoredly withstood a chiding for not providing enough Tang, the only fruit cordial which would camouflage the flavor of the river water. The responsibility of his position as commissary steward weighs heavily on Jack's shoulders but he does not let the griping disturb him too much; he knows that there is little danger of outright mutiny. I don't think Old Jack would have bothered to go on living if he had been denied this trip down the River. "Fireball" Dick, on the other hand, regards it all as a job of work, the sooner done the better. But he is cheerful about it. He can, in fact, sing non-stop for two hours on one can of beer. He and Jim both bought a handsome new straw hat for this trip. Fireball has given his a new treatment, rolling up the brim front and back. With elastic under his stubby chin, old sawed-off blue jeans and no shirt on his oily brown back, he looks quite picturesque. We cached petrol here in the shaft of

an old mine. Chuar rapid presented no problem, but strong gusts of wind troubled the pilots of the big boats this afternoon, causing them to veer and swing off course. As we approached Unkaar we noticed that Fireball was no longer following. Garth turned back in Wee Red to rescue him if need be, while the two big boats pulled into a beach above Unkaar to wait for the wind to drop. We were just beginning to feel anxious about the two wee boats when they reappeared, Wee Yellow had gotten a little clogged with sand which is hardly surprising.

Unkaar sweeps round against a magnificent curving red wall and looks pretty rough to us. But the photographers are wearing delighted grins so it is nice to know that somebody is happy. (The pilots are mere accessories on this trip). They sat themselves up gleefully on the rocky beach in the crook of the rapid and waited hopefully. So Bill Austin and Jon obligingly ran the two wee boats down. Then they ran up, down and up a second time, with the spectators cheering and Pug, Jon's passenger, riding the boat like a charioteer, whipping it up the rapid in true Ben Hur fashion. The boats took advantage of a sneak course up the side of the rapid, only swinging out into the rough water when it became necessary where they had to fight a little to reach the top.

It was still too windy to risk the big boats so we decided to camp and do a bit of repair work on the boats. Here Pug and I concocted a most unusual chef's special called Hambascowaii, a Polynesian gourmet's delight. We had eaten ham every day for lunch for a week so felt compelled to camouflage it in some way before serving it on the dinner menu. We had tossed into the pot all the ketchup, puree, tabasco and such we could find and were well satisfied with our effort when Jack nearly ruined it by emptying in a jar of raspberry jelly. Luckily, I contrived to fish it all out again when he wasn't looking, and Jack still believes to this day that it was his jelly which made for the success of the dish.

It was about this time that Pug abandoned his lei which had started down river fresh from Hawaii, but was by now no more than a string with a wisp or two of dead stuff, a shadow of its former glory.

There was still a boisterous breeze stirring up the sand and tossing it willy nilly about the beach, so most of us unrolled our beds right at the river's edge where the damp sand oozed little pools of water under us. A swim in the dark and a night cap concocted by Phil of grape flavored Kool-Aid laced with vodka, and we all slept like logs.

### *Monday, June 20th*

While the boys were busy this morning reinforcing cracks in the boats, Bill Belknap and I turned archaeologist. The slope above our camp was strewn with pottery shards, pieces of red clay pottery and pieces of the grey with designs still clear in black and white. In some we could see the imprints of the thumbs of the ancient craftsmen. We also found carefully shaped bird arrowheads and a grinding stone. Dock informed us that there is evidence of quite an Indian settlement in this area.

The big fiber-glassing work completed, we ferried the keener photographers across the river where they climbed high up the ridge to perch precariously on the ledge above the rapid. Three boats then plunged down through the white water, waiting below for the fourth boat to bring down the camera crew. On our way again, prancing down through Mile 75 rapid and on to the head of Hance. Here once again, we stop to consider before taking the plunge. We set up our lunch in the shelter of a big rock but still the hot desert wind tossed handfuls of sand into kippers and Tang. Again we hesitated to take the big boats through the rough water with such strong gusts of wind to contend with. I joined the photographers on the rocks this time and we filmed with enthusiasm, Bill and Jon running down Hance and up again, then the four boats down one after another. Fireball in Wee Yellow came leaping and bounding right down the middle, which, if a little hard on the boat at least provided us with good photographic material. Now the last lap to Phantom Ranch.

We entered Granite Gorge which is narrow and beautiful in the late sunlight. We must make Phantom Ranch by six if we want to enjoy somebody else's cooking tonight, so we went bucketing down through Sockdolager and Grapevine without stopping. There is no place to stop as the canyon walls rise sheer out of the dark water. From the shadow of the gorge we burst suddenly into full sunlight, and there ahead hung the suspension bridge by which the Bright Angel Trail spans the river; and beyond it the cottonwoods and little stone houses of Phantom Ranch.

With the first lap of our journey accomplished without incident, and the prospect of a good meal ahead, we donned our best if rather crumpled clothes and tramped up the mule trail through the cottonwood shade to the Phantom Ranch house. How we did enjoy the clean tables, the air-conditioned room, the cool beer, and food ungarnished with sand. We telephoned the rim to glean news of our rim party and to deluge them with ours, inviting Margie and Buzz Belknap to walk down the trail and join us on



the river. We swam in the cool clear green water of the stone edged swimming pool, and decided that civilization has its points.

We found a rather tired, lonely little Aussie who was pathetically pleased to meet us, his Australasian brothers so very far from home. Guy, walking down the trail with Bill Austin to our camp on the beach, was introduced to some of the night life of the Canyon. They first encountered a family of skunks, obviously hostile, so returned hastily and allowed them unconditional right-of-way. A little further on, Guy was again ordered urgently to stop. This time their flashlight revealed a rattlesnake on the trail. Bill, with unpleasant memories of rattlesnakes too recent to be forgotten, asked Guy behind him to fetch a stone. But by the time Guy had found a boulder which he considered suitable and came staggering back with it, the deed was done. Jon, Jim and I walking down the dark trail later without a flashlight were perhaps lucky to encounter nothing more frightening than two quiet, gentle deer.

### *Tuesday, June 21st*

We were all up early "playing" gas cans before breakfast and we were soon back into the swing of the game as learned so well at Lee's Ferry. Buzz, Margie and Micky arrived looking remarkably fresh after their six mile walk down from the Rim. They had watched from positions on the rim our running of most of the major rapids to date. So clearly could they see through the binoculars that they suggested we should exercise a little more care when going about our private business.

A very hot and busy morning spent sorting, loading and caching food and gas for the upriver attempt. Then Bill and Dock in one 18-footer and Jon and Guy in the other, ran right up through Grapevine and Sockdolager non-stop in thirty-five minutes. Dock looked almost pleased when they returned. It seems that it may be necessary to re-rate the rapids for the jet boats. Dock has a system of rating for the rapids, from one to ten varying a little depending on the amount of water flowing. We lunched on the beach, waved goodbye to Micky who left us for the rim, mounted on a mule in the pack train, and rewarded our faithful Australian friend with a short spin in Wee Red.

Then, all aboard and we are off on the second stage of our venture, planing but only just, under our fresh load of food and fuel. We are still in the Granite Gorge running between walls of black Archean rock, the oldest exposed rock in the world. One can see how it was buckled and twisted aeons ago, and how lava was forced up into cracks and fissures, cooling slowly to form red granite, streaks of pink through the black Schist. The geological

history of the Canyon is written clearly in its walls, for the knowledgeable to appreciate and the ignorant to regard with awe as the realization dawns of its incredible age. I spent most of last night allowing that thought to soak into my being. From the information I have gleaned, this Archean rock or Vishnu Schist was originally sedimentary, but was subjected to tremendous heat and pressure and was thrust up to form a high mountain range. Eons of erosion leveled it and the land subsided under the sea where layers of mud, sand and limestone were deposited to form what is now called Tonto platform.

Above the Tonto platform and ages later the Redwall limestone layer was formed, again under the sea. This contains fossil shells and coral and is actually blue-grey in color. The red coloring being a stain from the next deposit. The Supae and Hermit shale belong to an age when the land was once again above sea level, being deposited by rivers and floods, and above it again the Coconine sandstone indicates a time when the land became desert. In these two layers have been found imprint of ferns and fossil tracks of dinosaurs or at least primitive reptiles and amphibians. Then once again the area was submerged and the final layer, the Kaibab limestone was deposited. I do not know how many millions of years it is since the United States finally emerged from the sea, but the Colorado River has been busy ever since, carving its way down through the many layers as fast as the land rose beneath it to form the great dome of the Grand Canyon area.

So that, roughly, is the story of the Grand Canyon which I chewed over as we continued on our way downriver. I stopped chewing momentarily as we bumped through Horn Creek rapid but was able to resume until Monument Creek or Granite Falls appeared on our river horizon. We stopped to reconnoiter. This one looks a bit mean to me, fast, big rocks and no "Kiwi course" up the side. Bill decided to "have a bash at it." (This term the Yanks love and accuse the Kiwis of originating but I am sure that it must have originated here, back in the Archean era). We unloaded Wee Red and Bill with Garth as passenger hurtled down through the wild water to the bottom of the rapid. Then we all held our breaths and our cameras at the ready while he fought his way up and up, almost but not quite to the top. There he was sucked back into the huge hole below the tongue, vanished into a wave, emerged at last, boat half full of water, swept downstream—hit a submerged rock and bounced up onto the beach high and dry.

A post mortem revealed a small rent so that patchers got to work and the rest of us, after bringing down the remaining boats, set

up camp for the night. Everybody threw buckets of water over everybody else, then everybody threw buckets of water over Garth in the wounded boat, from which he emerged dripping, examined the smashed wind screen, threw Jim's beautiful hat (borrowed for the occasion) on to the sand in mock fury and stomped on it. This little play act conscientiously filmed by Jim who would even sacrifice his hat in the course of art. This was a delightful spot to camp, overlooked by a great isolated sentinel of rock which gives its name to Monument Creek and which Jon and I tried unsuccessfully to climb. We lost face a little over this as we had acquired reputations for being expert rock-climbers or mountain goats as the less polite put it.

Evenings in camp were always fun. While the cooks sweated over the stoves, the rest of the party enjoyed a "cocktail hour" for which were provided the necessary beverages and tasty tid-bits. Whenever I saw Ed I'Anson he was either clutching his camera or a jar of cherries pickled in Bourbon, more often the latter. It was about here that I became aware of the unromantic truth about the, to me, romantic sound of the rivermen's roll call. The first "here" came only as a result of the first man's breaking wind after a meal! When the echoing "heres" subsided someone always remarked dolefully "somebody's missing."

### *Wednesday, June 22nd*

He made it!!! Great elation when Bill in Wee Red, now patched and with the wind screen discarded, managed to top Monument Creek rapid. We buried the wind screen with appropriate ceremony, shook the sand out of our bed rolls, our hair, our ears and everything else and proceeded happily down river.

The black Archean rock soon runs out beneath us, to reappear again for a short stretch further downstream, smoothly gleaming in the sun. Then it was replaced entirely by the red-brown horizontal strata of the sedimentary rock from which jutted overhanging shelves. Between these walls the river boiled and swept and there were no beaches, so that on the many occasions on which the 18-footers stopped to clean the Phantom Ranch sand out of their fuel lines, the other boats were compelled to mill round in the stream. On one such occasion we hitched Big Yellow to a large rock in mid-stream and clambered onto it to find it worn silky smooth, almost oily to touch, and threaded with coppery green.

HERMIT RAPID — Here we cached petrol, determined our course through the rough water and drank from a tiny clear

stream in which I caught by the tail a bright blue catfish. I thought catfish only came in Colorado brown.

On our way again down a widening canyon. The walls here rise in a series of giant steps, the sloping shelves tinged with blue-green growth and the side canyons breaking down through to give the impression of a series of gigantic step-pyramids. Our lunch stop today was at Elves Chasm where the river takes a wide loop 'round a great rosy turret of rock. Opposite this formidable cliff a stream cuts its way down a narrow side canyon, leaping and pausing to form a series of crystal waterfalls and green pools. With squeals of delight, Margie and I planted ourselves under a waterfall and gasped as the cold clear water rinsed the muddy Colorado out of our hair. Scrambling up beyond the first waterfall, I discovered Pug swimming languidly in a green pool, naiad-like, his head wreathed with maiden-hair fern. The waterfall above this pool showered down through a jumble of huge rocks which had lodged in the narrow canyon to form caverns and shafts—cool wet and green with moss and fern.

We swam in under one great rock, scrambled up through the slithery shaft receiving an icy shower as we climbed, to emerge through a window and dive eight or ten feet into the deep pool below. Guy, Jon, Phil and Jim arrived with cameras. Jim, poised atop the waterfall, ready to delight the camera men with an Olympic style dive, was thrown into confusion when Jon placed a rock in the crown of his once-handsome hat and tossed it into the pool. He came plummeting down with a mighty splash. Right to the bottom he went, emerging at last wearing a pleased grin and his precious hat jammed well down on his head. I would not have thought it possible to be cold in the Canyon with the air temperature around 110°, but by the time the moviemen had finished in Elves Chasm I was actually shivering.

As we were returning to the boats, Guy, who was in the lead, suddenly became very agitated, shouting and pointing excitedly to the river. There we counted three or four life jackets floating serenely downstream. What the devil? We hollered at the group below on the beach but they shrugged shoulders in a gesture of unconcern. Further inquiry elicited the information that it had to be either the life jackets or the boat as someone had inadvertently tossed a lighted match aboard! It could have been a major catastrophe with the floor of the boat stacked with gas cans. It was with this sobering thought that we set off once more with Dubendorf our next port of call.

Above Dubendorf we cached fuel, mixed our afternoon brew of Tang and saw our first barrel cacti, bristly, barrel shaped things

crowned with yellow flowers. At this point some of the boys decided that after all boating down the Colorado was rather tame sport and that it might liven things a little if they dispensed with boats altogether. So they gave it a try, but by the time Dubendorf had finished with them they seemed willing, almost eager, to climb aboard the boats again. Garth was picked up by Wee Yellow and Jon and I in Wee Red fished Pug and Buzzy out. We were on our way again when Buzz remembered that Bill Belknap had remained on the beach to photograph the swimmers, and as far as we knew was still there. The other boats were forging ahead, unaware of the fact that "somebody's missing." So we turned and retraced our path up through the riffles to Dubendorf. Bill was strolling down the shore with his camera, looking quite unconcerned. Nothing could shake the perfect serenity, calm and control of this man, dependable, solid as a rock in stature and character.

With five of us aboard now, Wee Red chased downstream after the other boats. Several bucketsful of water landed in my lap as we wallowed through one rapid and Wee Red protested by ceasing to plane. We were thinking of turning Pug and Buzzy out to swim again when we found the other boats pulled up on a small beach. We reshuffled into our right boats again and as we were many miles behind schedule we set off at a spanking pace with the idea of putting as many miles as possible behind us before dark. Tapeats, Fishtail, Kanab and Upset rapids we just ignored. We were once again in a narrow gorge, shaded by the sheer walls through which sliced incredibly deep narrow side canyons. One of these slots is Havasu Canyon, which comes down from the beautiful valley where the Havasupai Indians live and farm in an American Shangri-La. But our gay and carefree progress down the winding canyon was not to continue for long. Big Red ran a thrust bearing! For six miles, Bill Austin nursed the big boat along on one engine, looking for a square yard or two of sand on which to beach it. At Mile 164, Tuckup Canyon, we found our beach and gratefully tied up the boats. We ran Big Red well up on the sand and while the mechanics of the crew investigated the damage, the rest of us unloaded and prepared our usual three course dinner. We Kiwis enjoyed roughing it ala-American.

High above our camp near the top of the cliff we could see the sky through a great window in the rock. The night sky is still strangely unfamiliar to the Kiwis. We have learned to recognize the Big Dipper and from it picked out the Pole Star, noting with satisfaction that in the early morning it was still there, cradled in the same hollow in the canyon rim.

### *Thursday, June 23rd*

With such a narrow slot of sky above us, the sun was late rising this morning — in fact it rose twice. After a first peep at us it retired discreetly behind the canyon wall and did not reappear until it had climbed right to the top. For this we were very grateful as it gave the mechanics time to change the thrust bearing in comparatively cool shadow. The job completed, we turn our heads towards Vulcan. The supreme test! All we see from the boats as we approach the head of Vulcan is the great fall of black lava which poured down the red canyon walls to dam the mighty river aeons ago, and ahead our view of the river suddenly ceases where it tumbles over the lava ledge to drop fifteen feet in the distance of one hundred yards.

We pulled into a sandy bay and scrambled eagerly up the trail through rocks and cactus to the top of a cliff, from which we would have our first view of the monster. Silently and with some awe we surveyed the scene below us. The coffee-colored water poured fiercely down the tongue, forming a ridge off both sides of which the water peeled to drop into deep holes and to rise again in two huge curling waves. The hole and the wave on the right-hand side were of terrifying dimensions. Beyond these was a boiling, heaving turmoil of white water, tapering out gradually to the foot of the rapid. The boats would have to approach the rapid in exactly the right spot to follow down the tongue on the point of the ridge to avoid being sucked into the Scylla and Charybdis which lay in waiting, one on each side. What happened beyond that point we could not tell, but we would hold on tight. We ate some lunch and allowed our stomachs time to settle. Then the photographers ranged themselves along the cliff top and Bill and Dock in Big Red launched the attack.

The rest of us waiting, with boats at the ready, were unable to see Vulcan. We heard some sickening thuds above the roar of the river, and then, after an unbearably long silence, shouts from the cliff-top — Garth, Phil and Jim tearing down the trail. "Bill's broken his leg." They climbed into Wee Red, shoved off and vanished around the corner into the awaiting arms of Vulcan. Silence. Our turn next. We shove our Big Yellow barge out into the stream, Jon, Old Jack and me, my knees wobbling just a little. But John took the rapid quietly and perfectly, and Fireball in Wee Yellow followed down safely.

Bill's leg was broken. Margie standing on the rocks a few feet above the rapid had witnessed the whole drama and had given the alarm to the cameramen on the cliff above. Big Red slid off

the tongue to the right, hitting the corner of the great curling wave which tossed that 24-foot, 2½ ton boat clear into the air, and flung it aside into a turbulent area among some rocks. Margie saw Bill slump and Dock take the wheel to do a 360° turn and plunge down the remainder of the rapid to the beach below. He and Garth set off immediately in Wee Red to run the eleven miles down to Whitmore where a message could be sent to the rim for assistance. Meanwhile, Jim and Phil made Bill as comfortable as possible on the beach and we rigged a shelter over him and boiled up some water. Most fortunately, Jim and Phil both had some knowledge of first aid. They gave Bill a shot of morphine and we bound on homemade splints and bathed the wound with saline solution. It was a compound fracture, the tibia broken in two places and about four inches exposed. We must keep it clean, the greatest danger is infection.

Wee Yellow took off down river to support Red, returning soon with the welcome news that contact had been made with the rim. It was almost dark when Dock, Garth and Chuck Richey (Superintendent of the National Park Service who had been waiting to join us at Whitmore) came back up the river. A plane circled over us this evening. We flashed mirrors and wondered whether it came as a result of our message or in ignorance of our plight.

We sat watches through the night to keep Bill company and his wound damp. Bill Belknap did not once leave Bill's side and Buzzy worked far into the night building a dike 'round our wee hospital to keep the waves from lapping too close.

It was a restless anxious camp that night but Bill slept a little and got through the dark hours without showing too great sign of strain or shock.

### *Friday, June 24th*

With the first welcome light we were up, breakfasted and broke camp with anxious ears tuned in for the awaited sound of a helicopter. At last it came, an awkward, clumsy angel of mercy, settling onto the beach in a flurry of sand. Gently the boys loaded our casualty into it, making him as comfortable as possible. He had exhibited such calm and fortitude and had refused the proffered shot of morphine before we moved him. Phil climbed in beside him and the "copter" rose off the beach. We shut our eyes to keep out the sand and heaved audible sighs of relief.

We loaded up the boat for the last time, Jon, Chuck and I now in Bill's boat, Big Red, and Guy piloting Big Yellow. But before saying goodbye to Vulcan, Jon took Wee Red and with the light of battle in his eye, sought revenge on the vicious rapid. But although

he fought bravely and continuously for nearly half an hour, he finally had to admit defeat. Disappointed, we made our way downstream. Eleven miles and a few riffles and we reached our fueling station at Whitmore. I had expected to find some evidence of human habitation here but all we found was a man and a boy, a wee thin fuel line dangling down from the rim, thousands of feet above, and a horse which looked slightly incongruous at the bottom of the canyon. And, winding down through the stark savage looking rocks, a narrow trail made its steep descent. Slowly the gas cans were filled from the thin fuel line. We ate our last lunch on the river, sharing it with the Bundy boys. When I had first heard of the Bundy boys, I had envisaged them as a quite separate branch of the human race and they are almost, inhabiting the area between the rim here and the main road, but I was surprised to find that they look much the same as other Americans.

The last gas can filled and loaded, we say farewell to the Bundys and set out on the last long lap. We have still one hundred and twenty miles to go but most of those are on the lake and we feel that we are almost home.

At Mile 217, we cached some fuel. Fireball in Wee Yellow with four aboard had preceded us down the rapid. We were a little astonished when he, growing impatient of our delay, came driving nonchalantly back up through the rapid still with four large men aboard. This, we complimented ourselves smugly, was the rapid which turned back a party who attempted to run up the river in propeller driven craft a week or so earlier.

A few more riffles and we pass Bridge Canyon, a proposed dam site marked by a handful of tiny deserted huts perched above the river and referred to as Bridge Canyon City. The next landmark was Separation Canyon. Here three members of Powell's crew, the earliest river party to go down thru the canyon refused to go further, preferring to face the arduous walk out and the Indians rather than continue their hazardous course down the river. Now since the building of Hoover Dam the remainder of the journey presents few hazards as the lake so formed backs up through the Canyon almost to this point.

We pursue our way 'til the skyline ahead and above is broken by three great humps of rock called the Bells. With these as a background, Bill Belknap films the boats, four abreast, cruising down the river in formation, their white jet streams and spreading wakes breaking the smooth copper surface of the water. Another stop where the river is wide and sluggish to fuel up in midstream and I slipped overboard for a last bath in the muddy Colorado.



I noticed that Garth and Pug were flying a pennant, so I found a rather grimy dish towel and hoisted it on the boat hook, where it flew bravely until Bill Belknap produced his shining yellow pennant blazoned with a skunk, Dock's emblem on the river, to replace it.

With Bill piloting and all the excitement over, Jon and I suddenly lost interest in the scenery. We spread cushions on the deck, spread ourselves on the cushions and slept. Where the canyon finally opens out into Lake Mead, we found the two Harris-Brennan boats which had preceded us down the river. The outboard on one boat had ceased to function below Whitmore. Guy and Dock took it in tow and I had a glimpse of it weaving dangerously in their wake before I slept again. We stopped once more to allow the other boats to overtake us and leaped overboard, this time into deep green lake water. Then on again into the evening. Just before dark, we found ourselves weaving between hundreds of little boats and pulling into the wharf at Temple Bar. Journey's end.

Micky, Margaret Marston, Garth's daughter Debby, Fran Belknap and daughter Loie were awaiting us with a joyous welcome. We had made it!

Feelings were a little mixed as we tied up the boats and trudged up the road to Temple Bar restaurant, weariness and relief to be safely here mingled with regret that this part of the wonderful adventure was over.

Suddenly as we walked into the dining room I became aware of our appearance and strange picture we must have presented to the civilized local inhabitants. We were sandy and sun-baked, bearded and battle scarred. Our clothes were in tatters and stained the coffee color of the River. And Ed was wearing kilts! He was now affectionately called "Mum" by the rest of his boat crew. But none of this detracted from our enjoyment of that meal, accompanied by a little bourbon passed surreptitiously under the tables. We wound up with the Roll Call, somebody was still missing, and our theme song, "Throw Out The Lifeline," led soulfully by Jim. Then we unrolled our beds wherever was most convenient and slept.

### *Saturday, June 25th*

This morning we made the final run down the lake to Boulder City. Sitting relaxed and well content as we bashed our way through the choppy blue waves, I watched the clutter of gear bouncing around in the cabin, remembering the many times we had packed and stowed it neatly at the start of a day, and the incredible muddle in which we always found it at the end. Coffee, sugar and milk powder mingle with the sand on the cabin floor

and melted butter slushes 'round in the bilge. I recall the brief vision of white petrol cans leaping into the air to turn a complete somersault and land right side up again as we bounded down one rapid. I remember the gusty desert wind which scorched our faces, and the relief when a shower of spray engulfed us, the prankish desert wind which whipped up the sand to fill our sleeping bags, our eyes and our food. My hands are testimony to the hard work in the great heat of the canyon where in the mornings the perspiration poured down our faces and backs but where by mid-day we were too dehydrated to sweat.

Above all, I value the little pictures I have of the different members of the river crew, pictures warm with the comradeship which has grown quietly to strengthen us in this endeavor.

Dock, his map spread on his knees, briefing us on the day's run ahead, his quiet sure directions and occasional teasing twinkle, and he does know every rock in the river, bar one — the small submerged one at the side of Monument Creek on which Wee Red and I both holed ourselves.

Fireball, recumbent on the sand, being asked whether he has selected his course through the nearby rapid and his reply, pointing carelessly down stream with his thumb, "Sure, I go thatta way," — or "straight out, turn left."

Jim, lying on his back on the deck of a boat, hands clenched, eyes tightly shut while I saw off the wiry fringe of his moustache with very blunt scissors. And, Jim again in his flowing beard and battered straw hat soulfully rendering, "Throw Out the Lifeline" whenever a situation became serious.

Small, slender Margie, exerting all the horsepower she could muster to help lift a boat onto its side for patching, or to push a 24-footer off the sand.

Sixteen-year-old Buzzy always working quietly in the background, whether tending boats, assisting with camp chores or merely shoveling out level platforms in the sand for other people to sleep on.

Garth and Pug cheerfully squashing out the lumps in the porridge or preparing, under Old Jack's anxious directions, some complicated dish for dinner.

Ed, after a reminder from Dock (no names mentioned), evidencing a guilty conscience by bringing his sand-scoured dishes to us for inspection after each meal.

Phil's quiet assurance which inspired such confidence as he applied first aid in our little emergency hospital on the beach below Vulcan.

Bill Belknap whom we loved and on whom we leaned. Guy, with his Shavian beard and quiet wit. Jon with his seven league boots, striding up side canyons and vertical canyon walls for a morning constitutional.

And Bill Austin, the bit in his teeth, fighting to master the big river with unyielding determination as he bashed his way up through the major rapids. Vulcan alone remains undefeated, preferring to hit below the belt rather than to accept a fair challenge.

We are not prepared to surrender yet and will return to again challenge Vulcan, the guardian of the Grand Canyon.

### *Sunday, July 3rd*

A week has passed, a week of work, preparation and mustering of reinforcements. Now we are ready to launch our assault on Vulcan and if we do win through, if we do succeed in battering down the portals of the Grand Canyon which have withstood every seige to date, then we have high hopes of completing the run upriver to Lee's Ferry. A number of attempts have already been made to run the river "against the grain," but any which did succeed in reaching the foot of Vulcan rapid were there repulsed with firmness and finality. These attempts have all been made with conventionally powered craft. We base our high hopes of success on our faith in our jet powered boats.

The difficulties encountered in different rapids vary with the water stage. Our downrun was made during the high water stage of the spring flood, but now the water is dropping fast. Dock believes that this will increase our chances of success in Vulcan but may present greater problems in the rapids higher up. There is no time to be lost. That is why the boys have worked so feverishly to repair the two old battle-scarred 18 footers, and to prepare the two new 18 footers which are to replace Big Yellow and Big Red. These last, the 24-foot boats, we had long decided were quite unsuitable for running up river, especially at the low water stage expected. They both looked a little battered anyway, after the tremendous pounding they had received on their way downstream. Long hours of sticky, prickly discomfort, working in temperatures of 112° or so, fiber-glassing, overhauling and filing down impeller blades, had restored Wee Red and Wee Yellow to something like their old shape and standard of performance.

The two new boats which were christened KIWI and DOCK also received attention. Impeller blades were filed down, stress points in the hulls were reinforced and water deflectors fitted. Margie and I took over Old Jack's department and with Fran Belknap's most valuable help, selected and packed the food for

the trip. This time, for the sake of lightness in weight and speed in preparation, we dispensed with all luxuries, keeping the menus as simple as possible. If they have any complaints to make about the food, we will not be there to receive them, which is a comfort, but a very small one. I would so love to be going with them on this venture but Margie and I are also considered luxuries, to be dispensed with this trip for the sake of lightness and speed. The crew is down to nine men. Garth, Pug, Jack and Phil had all been compelled to return to homes and business. Bill Austin was, of course, incapacitated, to our very deep regret. Margie was delegated the position of nurse and I was demoted to that of rim runner to patrol the North Rim with Micky. Margaret and Fran are to run the South Rim.

George Morrison, Publicity Manager for Indiana Gear Works and Chancellor of the Exchequer for the expedition, had arrived some days ago, bright-faced but tight-fisted. He has been hitched to the telephone ever since, we suspect trying to put through to the Gear Works message No. 38 (send more money).

By noon today the finishing touch had been put to the last boat, the receiver had been surgically removed from George's ear, and boats, crew and gear transported down to Lakeside. The afternoon was entirely taken up with launching, fueling and loading boats, placating press men and attending to some ailment from which Wee Red still suffered despite a week's hospitalization. At six o'clock boats and crews were ready to leave with Dock and Jon, who is now chief pilot, leading the convoy. They headed out into the blue lake to make their first run to Temple Bar. We rim runners, loathe to say goodbye, piled into Fran's car and drove through the beautiful evening hills to descend into Temple Bar just as the four boats rounded a peninsula and pulled into the wharf. There we ate a last supper with them, tucked them into their sleeping bags on the stony beach, wished them all goodnight and good luck, and drove forlornly back to Boulder City.

In the morning they have a little work to do on the boats before setting out on the long run up the lake and lower reaches of the river to Vulcan, which they hope to reach tomorrow night.

They all seem in good spirit and glad to be on their way at last!!

### *Monday, July 4th*

Up early and packed. We finalized plans and methods of communication with Fran and Margaret before parting to run our allotted rims. Then Micky and I, car piled high with luggage, camping equipment and spares for the boats, set out on our long hot drive to Tuweep which is a point on the rim above Vulcan

rapid. Through gray desert dabbled with tiny brushes and curious Joshua trees, into red country again with its regiments of great red bluffs fading to blue in the distance. Then green, startlingly green, little townships like oases with tiny fruit and lemonade stalls under the cottonwood trees at the roadside, "All the lemonade you can drink for 15¢," and we drank our fifteen cents worth! We stopped to rest in a shady park in St. George. We have driven out of Nevada, across a corner of Arizona into Utah. St. George nestles around an impressive white Mormon Temple. We sprawled on the grass and slept a little, swatting the flies in our sleep. I had a yen to eat a watermelon on the desert rim of the canyon above Vulcan, and perhaps spit the pips at the boys down below, but we shopped in vain.

At six-thirty, we left the main road and took to the hills, bumping along a dirt road through sparsely settled and vegetated ranch country, climbing higher and getting refreshingly cooler. In Arizona's juniper country now. We pulled off the road into the trees, prepared a meal on our little charcoal stove and rejoiced in our moonlit solitude. This must be the quietest spot in Arizona. We slept in the station wagon, our feet on the spare jet unit, heads on the tailgate, and Micky with a loaded .22 tucked under her pillow.

### *Tuesday, July 5th*

We were up before the sun, brewing coffee in the crisp mountain air. A long drive through ranch country, passing an occasional tank or tiny ranch house; then a steep climb up the rough twisting track over Mt. Trumbull through scrubby juniper and piñon, up into the tall pines and down again. The last stage of our journey lay down the long valley which runs out to the Rim and we must make it before ten as Dock has scheduled the first uprun attempt of Vulcan for 10:00 A. M. This is to enable Las Vegas press reporters to fly in to be on the spot at the appointed time.

We pass the tiny isolated air strip and the ranger's house arriving at the rim to find quite a crowd gathered there. We wondered where in all this ninety miles of empty country through which we had motored they could have come from. But apart from Riffy, the ranger, they had all flown in from Las Vegas. Jack Pepper, reporter, his photographer, the pilot, Chuck Ritchy and Riffy greeted us and pointed out the four boats resting quietly on a beach 3,000 feet below and a mile downstream of where we stood. Between us and the boats lay Vulcan, seething and roaring his fury. We settled ourselves on the rocky rim, legs dangling over the 3,000 foot precipice and binoculars screwed into our eyes. We waited.

Before long, we saw Kiwi with its orange deck come out from the little bay and nose cautiously up into the foot of Vulcan, feeling his way like showing a horse the jump. This, we guessed would be Jon. He returned to the other boats and we waited impatiently, wondering what was going on so far below us, too far downstream for us to see clearly. At last we see Kiwi approaching again, faster this time, his white plume flying. I do believe that the battle is on. Right up the side he comes, taking the Kiwi course as far as possible, then out into the rough, plunging and rearing, sometimes vanishing from sight in the wild waves to reappear, nose still pointing upstream, still seeking a loophole in Vulcan's defenses. He has swung right across towards the north bank, now he zig-zags back, he has found the tongue, he's going to make it! A last mighty effort and he shoots up the tongue and into the smooth water beyond. 11:27 A. M.—the first boat ever to top Vulcan rapid! I am suddenly aware that I am clapping, shouting and leaping up and down like a maniac. But as the rest of the spectators are doing the same, to a lesser degree, it doesn't matter.

The party on the beach below appears to be resting on its laurels—it is probably Tang-time so we sit on the gummy rocks in the shade of a small piñon and help Chuck eat his lunch. One's view through binoculars gets a little blurred when munching crackers and cheese.

For the rest of the afternoon, we watch and wait and watch again, our spirits sagging as Vulcan repulses one attack after another. Three times Ol' Red came up from the beach and plunged into that maelstrom of white water, and three times he almost made it, being thrown aside into a turbulent eddy among the rocks just before he could get a grip of the tongue. Twice Ol' Yella (these are Riffy's names) tried his luck but was less successful than Ol' Red. Why haven't they tried "Dock," the other new boat? Perhaps they are more confident of "Dock" and wish to keep him 'til last. What if none of the other boats make it? Will the trip then be off? We were frantic to know the answers to these questions but had no way of communicating with those tiny figures so far below. At least they knew that we were watching as our mirror flashes had elicited an answering flash from the beach.

As evening approached the rest of the watchers departed, leaving Micky and I to our lonely vigil. We established our little camp under a shady piñon tree where there was, of all things in this wilderness, a picnic table. After supper we returned to the rim in the fading light and lit a little fire on the rocky point. An answering fire flared on the beach below. Goodnight and Good Luck!!!

### *Wednesday, July 6th*

At 8:23 this morning Ol' Yella topped Vulcan. It was a tremendous struggle, half a dozen times he was sucked back and spewed out at the foot of the rapid but each time he renewed the attack immediately. On the sixth attempt he won through, soared up the tongue, did a victory roll with his white plume flying and landed safely on the little beach beside Kiwi. Two boats up. Now for the third. What are they doing down there all this time? I am convinced that my binoculars translate all movement into slow motion. Riffy, who is our constant and only companion now, goes off to get a cushion as he is "sure wearin' those rocks out." Riffy is our only means of contact with the outside world. Through his radio link-up with Grand Canyon Lodge on the South Rim, he has sent out the news of our river party's successes to date. A few spots of rain prompt him to remark that "after a long dry spell here you want to carry around a bucket of dust to refresh yourself." Riffy and his wife have lived at the Ranger Station here for over 20 years, six miles from the lip of the canyon and sixty miles of rough dirt road from the nearest small town, Fredonia. The track used to be so rough that the journey into town would take all day and sometimes all night, too. Now Riffy flies a plane over the surrounding country fire-watching. He says he wore out four flying instructors until in the end he brought one out here to the station and kept him here until he had succeeded in teaching Riffy to fly.

1:55 P. M. Ol' Red has touched down on the beach above Vulcan, and it was a pretty heavy landing! It was some time ago that he first started out, moving quietly up the side of the rapid then diving out into the thick of it, to bob like a cork tossed this way and that, trying to follow the zig-zag path which seems the only possible route to the top. For a long time he appeared to lose more ground than he gained then he broke through and fought his way across to the position from which to make the final spurt up the tongue. Here once again, as happened three times yesterday, he was pitched sideways into that rock-bound eddy and this time stranded high on a rock. Our hearts descended to our boots as we watched the tiny figures wading around Ol' Red and peering under the bows.

We saw "Dock" below Vulcan take off and head downstream, past the little bay, through Little Vulcan, round the bend, and for one anxious moment I thought, "There is serious trouble, they are going to Whitmore to send for help." Then "Dock" turned in to the long beach there and after a time returned upstream loaded with something. We realized that it was driftwood, and guessed

that it was being used to jack up the boat or lever it off the rock. Suddenly to our astonishment Ol' Red shot out of the eddy and straight up to the top of the rapid before I could train the glasses on it. Micky and I nearly fell off the precipice in our excitement, but there was no victory roll and Ol' Red was driven so high onto the beach that we knew that it had been badly holed.

Another long wait while "Dock" donned his battle array, the canvas cover with which they now enclose all except a small cockpit for the pilot. He came streaking up the side and entered the rapid, and somehow we expected him to come almost directly up as did Kiwi. Instead we were distressed to see that something was wrong with that boat; it could make no headway at all, but the pilot refused to give in. Again and again, he drove "Dock" into that seething tumult of water and for thirty-five mad minutes was bundled and bashed, doused and then disgorged, only to try again. I could feel this determination oozing up from the depth of the canyon and was so afraid that it would become desperation, but he quit and retired to the sheltered bay to rest. Riffy, deciding that the show was over for the day, went home to tea and Micky set about preparing our humble supper. I watched a little longer and saw Ol' Yella accompany Ol' Red as it limped upstream to a long smooth beach directly below our area. Then the pilot who I could now recognize as Guy, drove it up high and dry on the sand. George and Jim drew out a big OK on the sand and when I waved and flashed a mirror I could hear shouting. Then to my delight I recognized "Throw Out the Lifeline" echoing up from the depths of the canyon.

After our supper, Micky and I strolled back to the edge to light our goodnight fire and could hardly credit what we saw. Down there in the dark canyon was "Dock," bow lights glowing like two cigarettes, sneaking quietly up the shadowy side of Vulcan to deliver a surprise attack. And it worked!!! Vulcan's defenses were down and with Micky and I pumping kinetic energy down into the canyon with all our strength, he made it to the top. Quickly we lit our bonfire to show that we had witnessed, threw to the wind a few Indian war-whoops, and as soon as we had seen the answering fire below we rushed off to tell Riffy the wonderful news. It was 8:10 P. M. when the last of the four boats topped Vulcan.

### *Thursday, July 7th*

This morning the four boats and entire crew assembled on the beach directly below us. In the sand beside the OK they traced the words SLOW 1 DAY and proceeded to work on Ol' Red. Later,



the fiber-glassing completed, they wrote again on the sand, LEAVE 4:00 P. M. Then they all sprawled on the beach to wait for the patch to dry, flat on their weary backs and so directly below us that I thought again of my watermelon pips. "Throw Out the Lifeline" reverberated through the canyon. Micky and I relaxed too but at 3:15 P. M. were brought hastily to our feet by a faint shout from below and peered over the edge to see the boats being shoved out. We watched them turn and head upstream, streaking through the brown water like four tiny comets. In five minutes the last white tail had vanished 'round the last bend.

We turned our backs on Vulcan and set about breaking camp, gave Riffy the news of their departure, suggesting that he might have some fire-watching to do over the canyon during the next day or two. Then we took to the long, dusty road to Fredonia. Soon we were on "Finnegan's Freeway" steering a hazardous course between rocks, ruts and stray cows, and veering 'round such hairpin bends that we kept running back into our own dust. At Fredonia, we hit the highway and pushed on by moonlight to Jacob's Lake. There we camped under tall pines and a full moon, sleeping bags well up over our ears to keep out the cool air as Jacob's Lake is 7900 feet above sea level.

### *Friday, July 8th*

A beautiful drive down to the North Rim Lodge through forests of pine and spruce and clumps of white stemmed aspens. Pale blue lupines carpeted the ground under the trees, coral and pink Penstemons fringed the roadside and open meadows were sprinkled with wild flowers. We took a log cabin under the pines near the Lodge and spent most of the day in the shower endeavoring to remove some of the Arizona dust from ourselves and our clothes. We sent cables to New Zealand and Indianapolis and admired the view from the enormous windows of the lodge. The river is not visible from here but the view is still magnificent, taking in many of the great buttes which were originally named by Powell who was the first man ever to run the river in 1869 and who obviously rejoiced in a good classical education. Siva, Devi, Buddha, Zoroaster, Isis, Horus, Osiris, etc., all named very suitably for Egyptian and Eastern religious figures.

We do not expect the boats to reach Phantom Ranch, below this point, until tomorrow but we long for news.

### *Saturday, July 9th*

Here at North Rim Lodge we can contact, by telephone, Phantom Ranch and our South Rim runners who are now at the Lodge

opposite us, ten miles as the crow flies across the canyon. This is the only place in the Canyon where we can contact our river party, and the only place apart from the rugged trail at Whitmore where supplies can be sent down with the mule train from the South Rim.

We learned that Margaret had chartered a plane to fly down over the Canyon. At 1:30, we received the welcome news that she had located the boats below Hermit rapid and had seen the men form a hasty human O for OK on the beach. They still have two big rapids to run before reaching Phantom; Monument Creek in which we holed Ol' Red on the downriver trip and Horn Creek which Dock has predicted will be tough in low water. We tramped the trails and photographed wild flowers to while away the anxious hours. At 4:30, a ranger brought a message to say that the boats should arrive at Phantom Ranch in one hour. Where the message came from I cannot think, we were too overjoyed to question it.

At 6:15 P.M., I was able to talk to Jon and was pleased to find that they are all in good spirit, despite the fact that they hole and patch a boat per day. Apparently each morning they rise bright and early and set out confidently on the day's run, and each morning 8:30 sees them cast on a beach getting out the patching kit. This has come to be known as the morning glass session conducted by Guy. They are elated with their success at Vulcan and confident of reaching Lee's Ferry, but the rapid fall in the water level is causing concern. They must proceed with all speed. It would be such a disappointment if, when they reach Badger, the last rapid before Lee's Ferry, there was nothing but a thin trickle dripping over the rocks! So they will leave at an early hour tomorrow morning. Micky and I were loathe to leave the telephone, grasping eagerly all the stories we could wring from them about the trip so far.

They told us how Jon, when he crested Vulcan with the first boat, had been about to do a triumphant victory roll when the gate which controls the jet, jammed half-shut. He had been left with only just enough power to prevent him from being sucked back into Vulcan's waiting mouth.

They told us the story of Ol' Red when it piled up on the rocks, how they had levered it into position with driftwood and with a taut bow line kept its nose pointing upstream, then as Jon gave it full throttle, Fireball who was perched on the deck slashed through bow line and dived overboard. Only when Ol' Red was safely up over the top did anyone pause to reflect on the fate of Fireball. But he was still with them, some way downstream, fighting his own little battle with Vulcan from which he emerged damp but victorious.

Another picture which we enjoyed was of George fidgeting during a long wait at Vulcan and feeling frustrated and dismembered without his telephone, being soothed by Bill who made him a fishing rod out of a stick, string and bent pin and set him to catching catfish.

They told us proudly that only Jon had been a match for Vulcan and had been able to bring the four boats through successfully. Then they told how, at the sight of a small bull snake he had leaped to the top of a twelve-foot rock from which he refused to budge until the snake had been caught, tamed and removed by Buzzy. Sixteen-year-old Buzzy is piloting a jet boat for the first time on this trip and seems to have proved his worth and ability.

Their first camp above Vulcan was at Tapeats Creek which I believe is a popular fishing resort. A few miles above it, in Dubendorf, Ol' Yella came to grief and Guy conducted his morning glass session. At Elves Chasm, traffic on the river became rather congested when they met Georgie White's fleet of rafts, bumping its way downstream. Apparently Georgie was rather surprised to meet up-going traffic, and ventured to suggest that the boats had been portaged around Vulcan. She was lucky to escape with her life.

Last night the camp was at Stanton's Switching Yards which is named for a plan never fulfilled, and a short run this morning found another rock, followed by another glass session.

At Hermit they found a Kiwi course right up the side between the rough and the rocks, and Monument Creek was another "Kiwi rapid" so called because the four boats were taken up by Guy and Jon.

Horn was mean, just as tough as Dock had predicted. Here Jon took a serious ducking in the second boat and when it came to the fourth was only too pleased to allow Guy the privilege of driving it up. And so they had come to Phantom Ranch to dine at the ranch house and talk to their rim runners over the telephone.

### *Sunday, July 10th*

Assured that the boats had left Phantom Ranch, Micky and I drove to Cape Royal, a rocky point from which we would command a clear though distant view of Unkaar rapid. It was a pleasant drive through the forest, and Cape Royal, a popular port of call for tourists, is like a rock garden, sweet with orange blossom, scented cliff-rose and bright with Penstemons and clumps of yellow flowers. We sat ourselves up with binoculars and books in the juniper shade and prepared to watch and wait. Below us was Angel's Window, a huge square hole through a thin flange of rock,

through which we had a framed view of Unkaar as we walked along the trail.

No boats yet.

All day we sat watching and waiting while tourists came, questioned us and went. At 3:15, the tourists and I sat on log seats on a point overlooking the Canyon while a Ranger lectured us on the Formation of the Canyon.

A 7:00 P. M., still no sign of the boats so we returned to the Lodge and rang Margaret. Bad news—Ol' Yella broke up and sank in the Grapevine, a few miles above Phantom Ranch. Fireball and Jim are safe but Jim has lost all his exposed film and the tools and fiberglass kit have gone down with the boat. Margaret and Fran have the unenviable task of trying to find replacements for these essential items to send down on the early morning mule train and this is Sunday night with the nearest town, Flagstaff, 108 miles away. The men are back at Phantom Ranch and George and Fireball will go out by mule to the South Rim.

### *Monday, July 11th*

We rang the Ranch at breakfast time and talked to Jon and Guy. The equipment they needed has arrived, thanks to Fran and Margaret, so they plan to reinforce the bows of the three remaining boats and leave at about midday.

Guy's story of the sad end of Ol' Yella is graphic. Jon in Kiwi had gone up Grapevine first, Fireball and Jim in Ol' Yella were following and Guy waited his turn at the bottom. He saw Ol' Yella tossing and plunging in the usual manner, then he realized that it was floundering, the stern rising out of the water till he could see clear back to the transom and the jet stream pluming straight up into the air like a fountain. The water poured in through the gaping hole between bow and deck, then as the nose sank lower the brown flood rolled over the top of the deck and waterfalled into the cockpit. And still Fireball clung to the wheel and above the din of water could be heard Jim's urgent shout, "Turn on the bilge pumps." Fireball reached under the water and fumbled for the bilge pumps, now submerged. Jim also fumbled under the deck, triumphantly tucked something into his pocket, grabbed his two cameras, a seat cushion and a dinner-breakfast combination which was floating by and submitted himself to the mercy of the waves. There was a final sputter as the engine fizzled out and the water grabbed Fireball by his life jacket and pried him away from the wheel as the boat sank beneath him. All this occurred in the short space of forty seconds. When the drama was over and they were all safely back on the Phantom Ranch beach,

Jim, mindful of his responsibilities reached into his dripping pocket and handed to George with a happy smile—the Keys of Of Yella!!!!

So now we are left with three boats and a crew of seven to make the final stage to Lee's Ferry.

At noon, Micky and I returned to Cape Royal to keep our vigil over Unkaar. We had become quite a tourist attraction drawing a bigger crowd than the nature talk nearby. One member of our audience asked whether the boats were on a fishing expedition!!

At 4:30, just as we were beginning to worry and the crowd to become restless, the first boat appeared round the curve of the river, then the second and third. The spectators cheered, thumped our backs and lent us their binoculars. We watched those three white streaks move in single file up through the first riffle, on through the second and straight on up through Unkaar itself with hardly a pause. It was a heartening sight. They ducked behind a hill and then we could follow them on for another mile before the Canyon swallowed them up. The whole show lasted only ten minutes, but it was well worth the two days of waiting. The crowd dispersed and Micky and I headed for Cliff Dweller's Lodge. We would not see the boats again now until they reached Soap Creek rapid, after which they would have only Badger between them and Lee's Ferry.

From Jacob's Lake, we coasted down through the thinning forest and thickening air. The familiar Vermillion Cliffs appeared ahead vivid in the evening sunlight. We kiwis have come to know and love this barren colorful desert. At Cliff Dwellers we found Bill Austin and Margie eating steaks. They had flown up from Las Vegas two days ago. We ordered more steaks and set about satisfying their hunger for news.

### *Tuesday, July 12th*

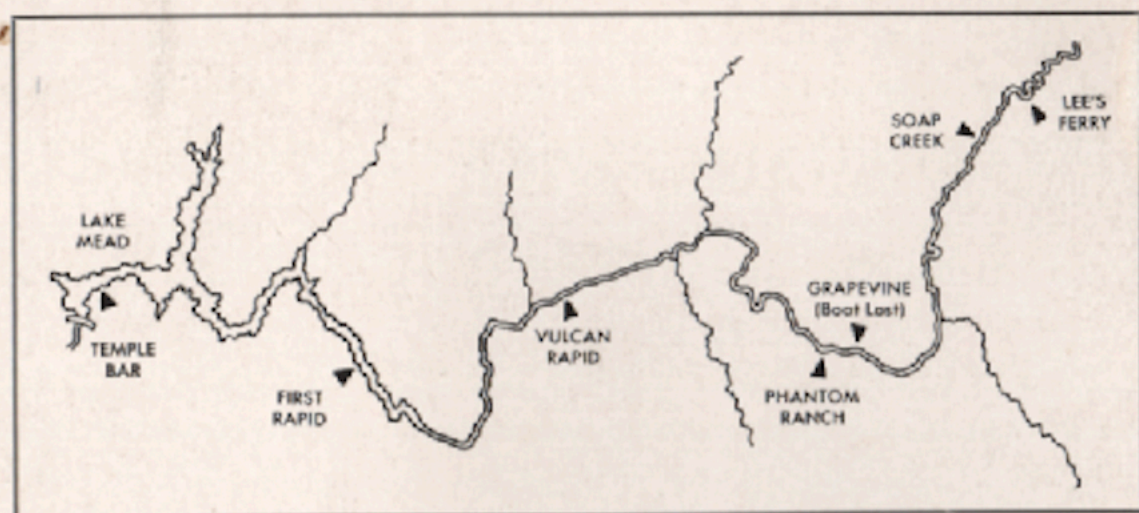
This morning we cleaned, washed, packed and unpacked, trying by tremendous activity to make the morning pass quickly. We could not expect any sign of the boats until midday at least. At 11:30, we received news from the Indiana Gear Works pilot that he had flown out over the Canyon and had sighted the boats about eight miles below Soap Creek. He thought they should make Lee's Ferry in two hours. Our first thought was to rush immediately to Lee's Ferry to await their arrival. But I knew that in the 35 miles they had yet to go there were still two major rapids, one of which Dock had warned would be a serious problem in low water. This was Soap Creek and Dock expected rimrunners to be on the watch there. The others were impatient to prepare a welcome on the

Ferry beach, my objections were overruled and I was whisked along with them. There we sat on the little beach we know so well under the familiar willow, now dense with its summer foliage, and waited with growing impatience, the ice melting around the champagne and the balloons which we had dangled from the willow branches popping in the hot sun. My thoughts were on Soap Creek and I was fairly champing at the bit.—3:00, 4:00, 4:30—Margaret and Fran arrived with George and Fireball, the castaways, and asked immediately if we had seen the boats through Soap. I grabbed Fireball and Fran and Margaret and we drove back to look for the boats, first to Navajo Bridge, then to the rim above Badger, then if necessary to Soap. But we did not need to go to Soap, we had already missed their arrival and welcome on Lee's Ferry beach. By the time we arrived back the champagne had gone and George had gone in search of a telephone. The party was over but the guests lingered still and we triggered off a second round of congratulations, hugs and happy smiles.

We sat on the sand glowing with pride and not a little relief while our seven bearded heroes translated desperate adventures into hilariously funny stories for our benefit. They had stopped at Soap to bung on a hasty rubber solution patch which, as they were too impatient to give it time to dry, had immediately washed off again, but no matter—they were nearly home. They had also eaten lunch at Soap Creek which reminded the rest of us that lunch had somehow slipped our memories today, that it was now supper time and that we were jolly hungry. So we left our three staunch boats hitched to the willow and drove up to Cliff Dwellers—there to order the biggest juiciest steaks in the United States.

Dock has climaxed his boating career (which officially ended last summer) by leading the first uprun of the Colorado River from Lake Mead to Lee's Ferry and I believe he is well satisfied. Bill Belknap, Buzzy and Ed are happy to have participated in the great achievement. Jim, George and Fireball Dick have successfully accomplished all the tasks which were set them by Indiana Gear Works and have proven the quality and capability of their boats. Bill Austin is furious with Vulcan and hospitals and doctors and plaster casts, but rejoices in the success of the trip. We Kiwis are most proud of the way in which the jet boats have proven their worth for they are, after all, the products of New Zealand brains. We are also most grateful for the opportunity of sharing in this great adventure and for the privilege of knowing and working together with such fine and worthwhile people.

JOYCE HAMILTON



## THE FIRST SUCCESSFUL EXPEDITION UP THE COLORADO RIVER

PUG ATHERTON	Honolulu, Hawaii
BILL AUSTIN	Indianapolis, Indiana
JIM BECHTEL	Indianapolis, Indiana
BILL BELKNAP	Boulder City, Colorado
BUZZ BELKNAP	Boulder City, Colorado
JON HAMILTON	Christchurch, New Zealand
JOYCE HAMILTON	Christchurch, New Zealand
ED I'ANSON	Los Angeles, California
GUY MANNERING	Christchurch, New Zealand
MARGARET MANNERING	Christchurch, New Zealand
GARTH MARSTON	Seattle, Washington
OTIS "DOCK" MARSTON	Berkeley, California
GEORGE MORRISON	Indianapolis, Indiana
JACK REYNOLDS	Portland, Oregon
PHIL SMITH	Washington, D.C.
DICK YOUNG	Indianapolis, Indiana

**BUEHLER**  
*Turbocraft*

A DIVISION OF THE BUEHLER CORPORATION