

August 1992

Alaskan Caver, Volume 12, No. 2, August 1992

Curvin Metzler

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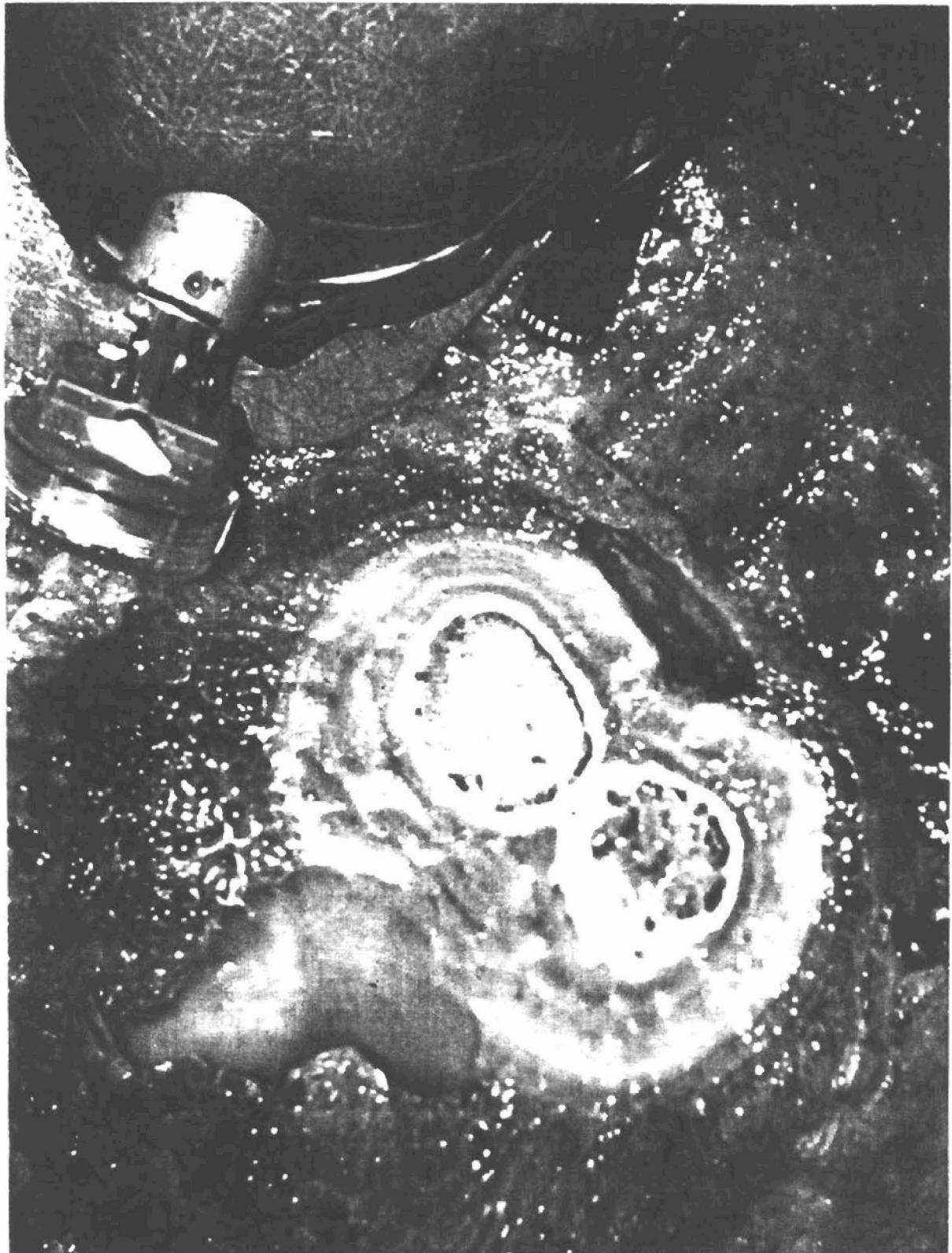
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The ALASKAN CAVER

VOLUME 12

NUMBER 2

AUGUST 1992



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Membership is open to all interested in Alaskan cave discovery, exploration, description, survey, mapping, photography, hydrology, morphology, biology, geology, history, speleogenesis and other spelaeon processes, conservation, management, adventures, and the fellowship of Alaskan cavers. Annual dues are \$15 for individual or \$20 for family membership. Add \$8 to dues if overseas and airmail postage is preferred over surface. Institutional subscriptions are \$20 per volume (6 issues).

Dues are due on January 1 and are sent to the Treasurer (address below), payable to Glacier Grotto. Those joining for the first time between October 1 and December 31 will be considered paid through the following year. Dues status is indicated on the mailing label. Meetings are held in Anchorage, Fairbanks, and Ketchikan; see the back page for information regarding meeting times and locations.

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Fried Eggs (or is it Gonzo?) (from POWIE III, 1989). Photo by Norm Thompson.

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Northwest to Alaska

by Fred Grady

[Reprinted from the D.C. Speleograph 47(10):5-6, October 1991]

My participation in the POWIE V Expedition of the Tongass Caves Project came about via a series of somewhat unrelated events. I had heard about the fine caves that had been found on Prince of Wales Island, Alaska, and had seen the slide show of the project at the 1990 NSS Convention. Then I had gotten a National Geographic Research proposal to review regarding the collection of some bear bones that had been located in one of the caves. A little while later I received a series of letters from Ray Garton that had been sent to the NSS Paleontology Section. One of these letters was from Kevin Allred, asking if someone in the Paleo Section would be interested in assisting with the Tongass project. Though the letter was several months old by the time I received it, it got my interest. At about the same time there was a note in the D.C. Speleograph welcoming applications to participate in the 1991 expedition.

After exchanging letters with Kevin Allred, I sent in my dues to the Glacier Grotto and booked a flight to Ketchikan, Alaska. Having seen a slide show on the 1990 POWIE expedition, I rounded up a full rain suit before leaving on July 13. Upon arrival at Ketchikan, I met another expedition member, Doug Strait, who had a motel room reserved which I was able to share. The next morning we met other expedition members Jay Rockwell, Win Wright, and the Allreds. We took a relaxing ferry ride for several hours to Hollis. From there we drove in two vehicles to the El Capitan Work Camp. Accommodations at the work camp were better than I had expected. There were trailers to sleep in, eat in, and work in. The U.S. Forest Service had provided a large supply of food and we could order more.

The first morning in camp we were given all sorts of information as to what we could and could not do and what

the Forest Service could provide for us. Jim Baichtal and Cat Woods were the Forest Service people with whom we would deal directly, and both were very interested in the caves. Jim was locating new ones faster than we could possibly explore them.

The first afternoon Jim, Win, Doug, and I took a power boat to see Cataract Cave, where Win wanted to set dye traps and take water samples. It was a bit of a hike from where we left the boat to the entrances, much of it over fallen tree trunks. Devil's club, a spiny plant, was all over the place, especially just where I wanted to put my hands to pull myself over the tree trunks. I had brought along on this short trip only a flashlight and contented myself with poking around one of the entrances.

The next day we were given a helicopter safety lecture. We were supposed to wear red fire-resistant suits and inflatable life vests when riding in the helicopter. I suspected the real reason for the red suits was to make body recoveries easier. Fortunately I never did ride the helicopter as I am quite prone to motion sickness.

We finally got away to do some caving. Jim took Jay and me to survey a small cave and then found another while we were getting dressed. The two of us ended up surveying this new cave, named Winter Wren Cave. We got a total of 75 feet of survey and then tried to find a way into T-Slot Cave, which needed a 50-foot rope though one could climb partway down.

After dinner Jim, Russ (another Forest Service employee), and I took a boat to look at the resurgence. It was quite pretty but the cave itself went only about 20 feet to a sump, though in one place there might have been about an inch of air space. Water in these caves is around 40 degrees Fahrenheit, so total immersion without a wet or dry suit is nothing to look forward to. It was a good day for seeing black bears; I saw a total of seven. Bald eagles

are commonly seen here, too.

The next day Jim, Kevin, and I surveyed a 200-foot-long cave, most of which was a low wet crawlway. We left one body-sized muddy lead for future generations. The following day Kevin and I went into El Capitan Cave to the bear hybernaculum. Kevin went up a hairy exposed climb and rigged a rope for me. After a couple of short climbs there was a tight spot that I barely got through and then a ten-foot-long lake to cross. Kevin rigged a hand line and I slid across, using a carabiner on my seat harness. The stretch in the rope caused one leg to enter the water. After a short muddy crawl we made it to the bones. I was delighted, as there were bear bones of two kinds all over the place. There were two skulls and various bones of black bear and several fragmentary bones of a much larger bear. I took a few photographs and made some measurements. Getting out was almost as much fun as getting in.

We continued to survey caves. Two people from the Bureau of Mines joined us for a couple of days. A local caver, Pete Smith, became a competent surveyor. We generally used two-person survey teams as there was so much to do for our small party. There were other areas to go to: Dall Island and the alpine karst above El Capitan. We had a check-out procedure so our location was always known to someone. While most of the caves were not highly decorated with speleothems, there was one remarkable exception. Mark Fritzke, a California caver, and I surveyed Thrush Cave. It was only twelve feet long but was covered with multi-colored moonmilk even on the floor. On the same day we surveyed Thrush Resurgence Cave, which had more than 260 feet of passage and a very tight lead at the end. Both of these caves were intersected in places by an igneous intrusion whose dark color contrasted with the light-colored limestone. One thing we did not see in any of the caves was bats, though fresh skeletons with bits of skin attached were found in El Capitan Cave, suggesting that bats were there during a dif-

ferent season. I have tentatively identified three of the skulls as belonging to two different species of *Myotis*.

About halfway through my stay at the camp, Kevin sprained one of his ankles and so ended up taking care of the kids for several days in a row, while his wife Carlene went caving. I teamed up with Kevin to do a couple of things, as I was getting tired from caving and strenuous hikes over rough terrain. Carcass Cave was next to the road and reported to have bones. It also has a 45-foot drop to get in. Kevin rigged a rope using his station wagon as a rigging point. I started rappeling down and when almost to a ledge realized the rope was too short. I was able to wedge myself on the sloping ledge, using a tree trunk for support, while Kevin rerigged the rope to give me about ten more feet. The bones turned out to be modern deer and wolf, so I ascended out. During my entire stay, this was the only cave I saw with significant amounts of trash in it. The next day, with all four kids in tow, we located some karst features and the two older kids and I surveyed a 50-foot cave.

On another day Win and I decided to take a canoe to see some petroglyphs. We were careful to check the tides, to take advantage of the change in tides for the return trip. We never did find the petroglyphs and, while the tides may have changed, the wind—which was strong to begin with—got worse, and it was against us. At one point we towed the canoe along the shore with a piece of webbing. We finally got nearly back to camp and decided to tackle our second goal: to check out Cascade Cave, reported to have deep water. I pulled on my wet suit, while Win had a fuzzy suit with a much abraded dry suit over it. After clambering over the usual number of fallen trees we reached the entrance, a nice large one. After about three steps in, I was in cold water over my head. I swam ahead a ways and saw what appeared to be a sump. Win followed and confirmed my observation. We backed out and Win gave me the end of the survey tape and told me to go as far as

I could, which was where my hard hat got stuck in a narrow part of the passage--about 25 feet in and about ten feet short of the sump. After taking instrument readings and sketching what there was we made our way back to the canoe and eventually to camp.

All too soon my stay at El Capitan Camp was over and I made my way back to Ketchikan, where I had half a day for sightseeing. However, I had seen far better in the splendid old growth trees of the Tongass National Forest and the fine caves--unique in their own ways--than what Ketchikan has to offer. I also appreciated the easy-going leader-

ship style of the project and the interest of the National Forest Service in the caves, especially Jim Baichtal and Cat Woods. □

Highlights of POWIE V (1991)

- 96 new caves discovered
- 50 caves mapped
- 18,000' (feet) total surveyed
- 2 large pits found: (depth/dia)
 - Yukon Pit 150' 65'
 - Bear's Plunge 142' 30'

Summary of January Meeting in Fairbanks

by Mike Mauser

An informal meeting of Fairbanks cavers was held at my house on Friday, January 10, 1992. The meeting featured three slide shows, pizza, beer, wine, and lots of cave talk. We hope to have future meetings featuring more of the same plus some definite cave trip plans. I called everyone that was on the current Glacier Grotto membership roster but did not reach working or answering numbers in many cases. If you are a caver in the Fairbanks area and are interested in meeting some fellow cavers (perhaps to even form our own grotto), please call or drop me a line (my address and phone are listed with the officers on page 2).

Attending were Glacier Grotto members Jim Nicholls and Doug Buchanan with guests Bob Page (who used to be active in cave mapping "back east"), Jeff Shryer, Joan Walser, and Clayton Cranor.

The meeting owes its existence to the generosity and thoughtfulness of John Jansen who sent the NSS Lechuguilla slide show up for our use. This show was the main reason for calling a meeting, and it would have, by itself, made for an excellent time. However, its quality and subject matter were rivaled (if not surpassed, at least for us Alaskans) by

Doug's slides of moulin caving. Moulins are vertical shafts in glaciers; caves in glacial ice are called glacier caves. These glacier caves have pits, passages and formations which rival those of many hard rock caves. Doug has scouted out places where surface water on glaciers plunges into the ice. Marking the holes he has then returned in winter after water flow has ceased but before the plastic flow on the glacier closes the hole. The holes are drifted over and must be dug out. Care is essential here because the drops can be well over 100 feet before going horizontal and dropping again. No one has ever followed a moulin to the bottom, but you can also enter at the glacier terminus. Here, particularly after a spell of very cold weather, the winter glacier caver can often find ice helectites, needles and crystals that are awe-inspiring, fragile and ephemeral. (This later quality permits a certain lack of care that would be illegal in a hard rock cave.)

Capping off the evening was a slide show by Jim featuring winter caving in northern Utah and southern Idaho. The surface scenes looked like those of Doug's moulin caving except for the trees in the background. □

El Capitan Cave
Prince of Wales Island
Technical Preliminary Report #25
Addendum to Reports #6 and #23
by Kevin Allred
October 8, 1990

New Discoveries

The Forest Service conducted a biological survey in El Capitan Cave during May 7 through May 25, 1990, to investigate life organisms there. The details and results of the survey will not be covered in this report other than a few hydrological notations from that field work.

1. A graduated stick guage was placed in the resurgence stream of the system. Water fluctuations reflected daily melt-water cycles with about three hour pressure wave delays. The volume averaged around 4-5 CFS (see graph of May data).

2. Some recently exposed and well-preserved striations in limestone were found near the resurgence. Glacial

travel was to the west.

3. With Forest Service permission, a quick biological survey and compass and tape survey were taken of the resurgence (called Lower El Capitan Cave). Toward the terminal sump approximately 30 feet from the surface of the 1988 landslide area, 286.4 feet of passage was mapped. No side passages were entered.

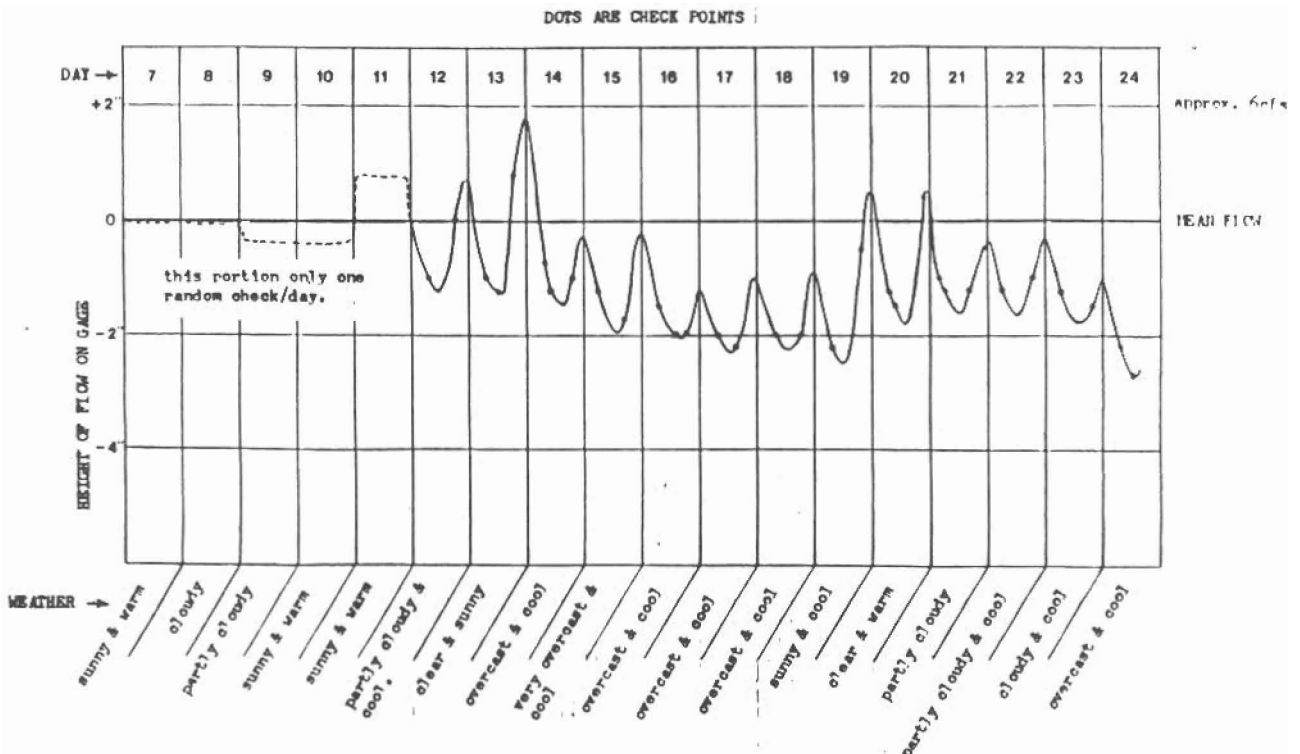
4. The passage below Hatfield's Pit, where I had collected the first fungus gnats reported in the state, was found to be blocked with cobble fill, probably from the November 1988 flood. In addition, the access stoopway to the second drop of Hatfield's Pit was mostly filled with cobbles at the same time.

5. The sump in the Alaska Room was much larger than in 1989 and overflowing with excess water running across the

MAY 1990 RESURGENCE ESTIMATED FLUCTUATION

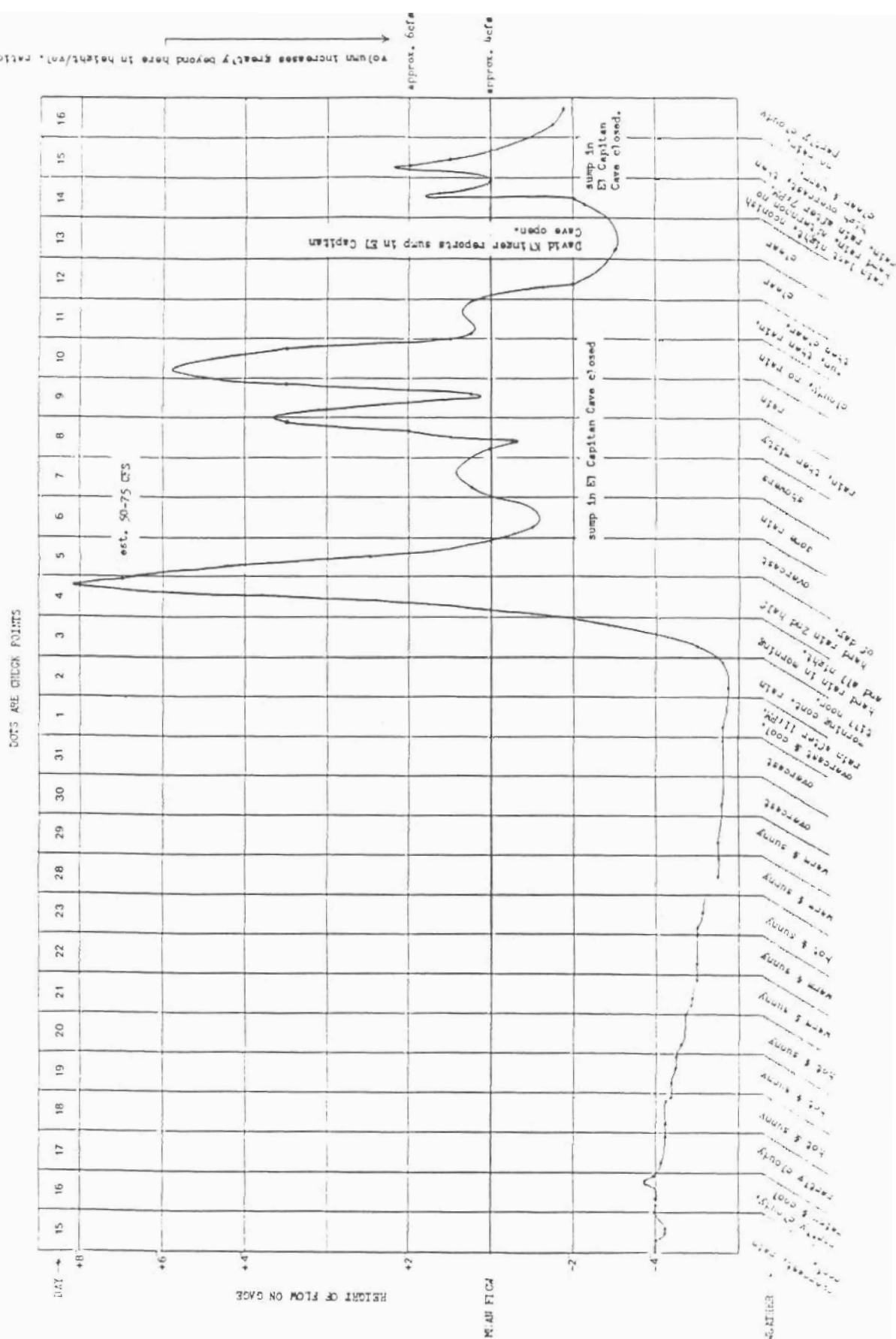
EL CAPITAN CAVE, TONGASS NATIONAL FOREST

U.S.F.S. BY K. ALLRED



JULY-AUGUST 1990 EL CAPITAN RESURGENCE ESTIMATED FLUCTUATION

FOR ASS CARS PROJECT by B. Bastanz, J. Rocum'1, E. Alfred



room to sink in two places.

6. The water from the Hot Fudge Sundae was found to lead from a new unexplored area of the cave. Mapped were 241.9 feet, with more to be done.

7. A surface stream high on the mountain above El Capitan Cave was found to enter a deep sinkhole (Slate Cave). The caves may be connected hydrologically.

8. The Forest Service installed a vandalism deterrence sign and a register at the cave entrance.

POWIE IV

The 1990 Prince of Wales Island Expedition (POWIE IV) was held from July 15 through August 15. The resurgence was found to average about 1/2 CFS until midway through the expedition, when heavy rains flooded the Ball Bearing Passage with backup from approximately 50-75 CFS (estimated by Jay Rockwell). Only three mapping trips occurred before this high water: one in the Hot Fudge Sundae area and the other two in the Upper Rockwell River area. The Upper Rockwell was found to travel beneath the balcony to the Alaska Room.

The new access passage into the Hot Fudge Sundae extension was found to contain not only soda straws, but white directional popcorn on leeward sides of protrusions. This is probably from the drier air blowing into the cave allowing the popcorn to build up in this manner. An interesting side passage contains a false floor having old stream casts on its underside. Further on, rather tight, difficult crawling leads to a deep pool (Bear Lake). At this pool an awkward traverse leads to a stoopway containing very old-looking bear bones strewn across the rocky, silty floor. The most complete skeleton is on top of the fill, while bits and pieces of others which appear older are buried or partially buried. One single canine tooth is about four inches long, including its root. At this time the species are unknown. If the recent skeleton is a black bear, it is a very large one. During POWIE IV, an additional 345.6 feet were surveyed in this area. During

the survey, the passage continued to a rubble-filled slope which I dug out, following the strong incoming breeze. In removing the large rocks, I found other bone fragments. The crawlway led to a small room. Further progress was halted by boulders and more rock fill, but outside light could be seen through a crack and the incoming air was warm. During the winter, the air current would be reversed, attracting hibernating animals to the relatively warm site. It is not yet known if the fill in this old entrance is glacial in origin.

Total surveyed passage now for El Capitan Cave is 10010.3 feet.

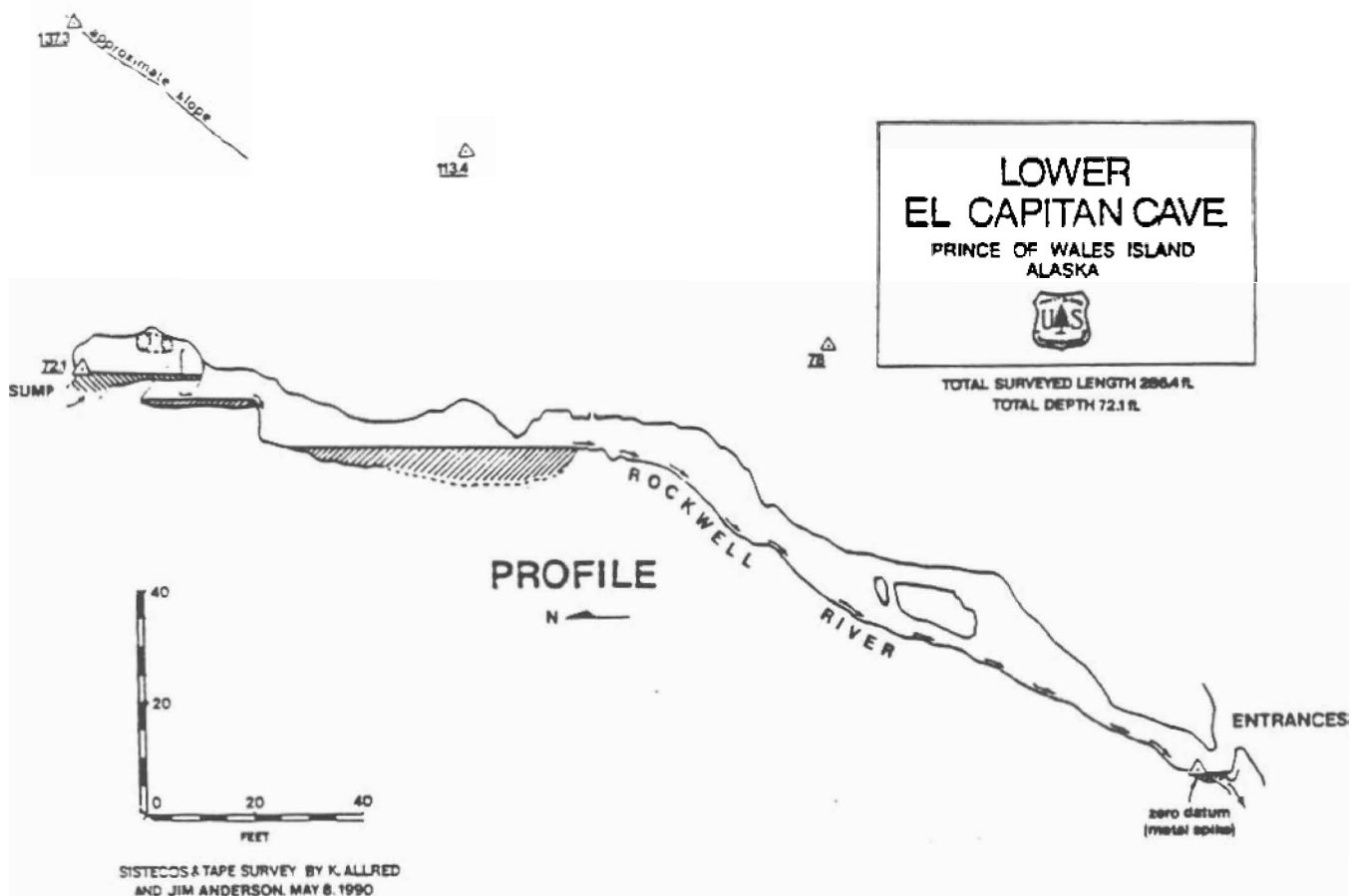
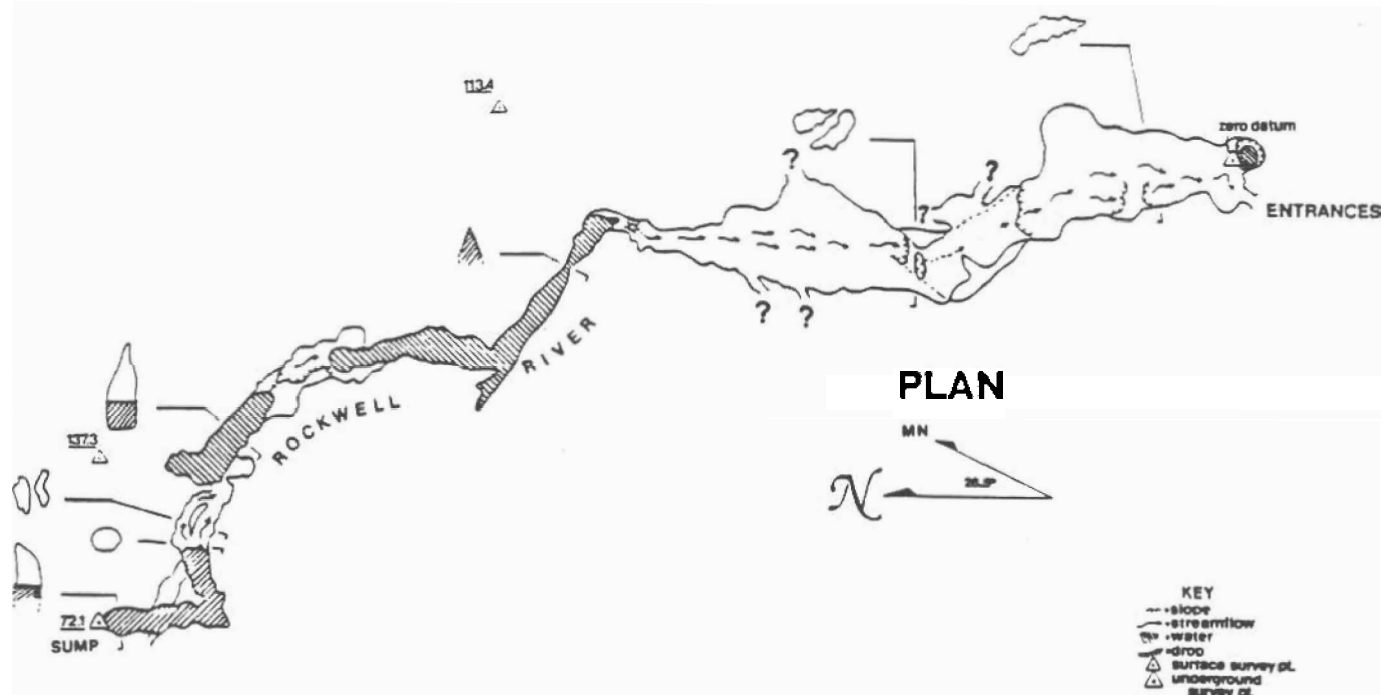
Recommendations for the Hibernaculum

It is recommended that this area of the cave be left as is until a qualified specialist can investigate and study the bones properly. It thus should presently be off limits to even experienced cavers in order to preserve this important and easily-disturbed site.

Safety Considerations

Until this season, we did not know that El Capitan Cave flooded drastically enough to sump in its upper parts to prevent access to further regions. Fortunately, no one was trapped in the cave; but Forest Service radon detector kits placed there and some rigged ropes were sealed off by the sump at Ball Bearing Passage. More steps should be taken to place an accurate, permanent monitoring system of some kind in the resurgence stream. Dangerous flooding could then be predicted and entrapment prevented.

The stream was roughly monitored during this expedition by Bob Bastasz and I, but we do need more systematic accuracy. As found with the monitoring done in May, the pressure wave delay seemed to be about three hours. Although I had thought there would be no more snow melt fluctuations in July, close observation reveals slight daily fluctuations (see graph of July/August data, page 7). □



El Capitan Cave
Prince of Wales Island
Preliminary Report #75
Addendum to Reports #6, #23, #25
by Kevin Allred
November 25, 1991

1991 Accomplishments

As last year, we were unable to spend much time in El Capitan Cave due to flooding from rain. However, the cave was extended in depth 43.4 feet in a chimney now known as "The Percolator". It continues upwards.

In "El Camino Real", an overlying passage and a short side tube were surveyed and several leads checked out. Total passage surveyed in El Capitan Cave is now 10252.9 feet with a depth of approximately 299.4 feet. A computer will be useful for further cartography.

On August 12, 1991, voice contact was finally made through rubble of the hibernaculum to the outside, after several prior attempts. This event was speeded up by a calculator program supplied by Mark Fritzke, pinpointing the outside location within about 20 feet. The rubble will be cleared to allow paleontologists to excavate further in the hibernaculum. This year the bones in the hibernaculum were tentatively identified by paleontologists Fred Grady and Dr. Timothy Heaton. They are from black bear (*Ursus americanus*) and either a very large grizzly or the extinct giant short-faced bear (*Arctodus simus*). More bone parts are needed to positively identify the latter. Dr. Heaton collected samples of both types to date and measure them. Radiocarbon date results from the University of Arizona are as follows:

bone from complete black bear
10,745 \pm 75 years BP

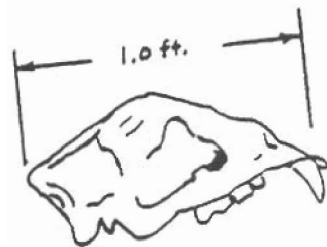
bone fragment of large bear
9,760 \pm 75 years BP

Curiously, the complete and well-preserved skeleton is nearly 1000 years older than the larger bear's bone frag-

ments. More black bear bones of unknown age are scattered along the passage. At least some of the more decomposed bones were possibly exposed from glacial and/or post glacial sediments for longer. It appears that the extensive deposits of fish bone stomach contents covering floors of the hibernaculum are much older than previously thought; perhaps as old as the bear bones. It would be interesting to identify these fish to see if they are now native to the area. A weasel skull was also found in the same area. Both paleontologists are planning to return for further excavations. Also, in August Jim Baichtal and Steve Lewis collected wood samples from two logs in the Alaska Room. These were carbon dated and the results are as follows:

the biggest log in the room
4120 years old \pm 60 years

a partially buried log further east
6500 years old \pm 60 years □



Sketch from POWIE IV field notes.



Formations in El Capitan Cave
photographs by Curvin Metzler



Challenge Cost Share Agreement
between the Tongass Cave Project, NSS
and the Tongass National Forest, Ketchikan Area, USDA Forest Service

THIS CHALLENGE COST-SHARE AGREEMENT, made and entered into by and between the Tongass Cave Project of the National Speleological Society, hereinafter referred to as the TCP, and the Tongass National Forest, U.S. Department of Agriculture, Forest Service, hereinafter referred to as the Forest Service, under the provisions of the Interior and Related Agencies Act, P.L.101-121.

WITNESSETH:

WHEREAS, the Forest Service manages National Forest lands which include abundant cave and karst resources and,

WHEREAS, the Forest Service has the responsibility to manage and protect the cave and karst resources on National Forest lands in accordance with the Federal Cave Resources Protection Act of 1988 and,

WHEREAS, the TCP is interested in promoting and assisting the Forest Service in gathering cave and karst resource information and,

WHEREAS, it is mutually beneficial for both the TCP and the Forest Service to work cooperatively to locate, identify, inventory, survey, and map these resources.

NOW THEREFORE, in consideration of the above premises, the parties hereto agree as follows:

A. THE TPC SHALL:

1. Conduct expeditions to search for caves, cave resources and karst formations and develop detailed compass and tape surveys of individual caves. To the extent possible, assessment will be made of the biological, geological, mineralogical, cultural, paleontological, and recreational resource

values of the caves. These evaluations will be tied to the Cave Management Strategy developed for the Ketchikan Area.

2. Make available all field data generated by the TCP to the Forest Service. Copies of all photographs and/or videos shall be provided to the Forest Service.

3. Assume responsibility for safety inspection of climbing ropes and equipment loaned to the project by the Forest Service.

B. THE FOREST SERVICE SHALL:

1. Provide to the TCP supplies, materials, and equipment to the extent that funding is available and as identified in the annual plan of operations.

Support will include: housing, subsistence food, local transportation (to and from the work site), shower facilities, laundry facilities, office space, climbing ropes, drafting materials, paper, mylar, and topographic, geologic, and other forest maps.

2. Provide photographic film and processing for duplication of photographs.

3. Provide leadership for planning of the cave expeditions.

C. IT IS MUTUALLY AGREED AND UNDERSTOOD BY AND BETWEEN THE SAID PARTIES THAT:

1. This agreement will become effective as of the latest date of signature by representatives of each party. This agreement may be changed at any time by mutual agreement of the parties, such amendments shall be incorporated

in writing as appendices to this agreement. This agreement may be terminated 30 days after the written request of either party.

2. The TCP shall comply with all Federal Statutes relating to non-discrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352), which prohibits discrimination on the basis of race, color, handicap, or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. 1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex.

3. This agreement in no way restricts the Forest Service from participating with other public or private agencies, organizations, and individuals or from accepting contributions and/or gifts for the improvement, development, administration, operation, and preservation of this cave resource project.

4. No part of this agreement shall entitle the TCP to any share or interest in the project, caves or cave resources other than the right to use and enjoy the same under the existing regulations of the Forest Service.

5. No Member of, or Delegate to Congress shall be admitted to any share or part of this agreement, or any benefits that may arise therefrom; but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

6. The products of all work generated in conjunction with this agreement shall become the property of the Forest Service. Copies of photographs taken with private film, by expedition members, shall be made available to the Forest

Service; cost of duplication will be at Forest Service expense. If Forest Service film is used for photography, the film will remain the property of the Forest Service; duplicates will be made available to respective photographers.

7. For the purpose of this agreement, the Forest Service considers "Tongass Cave Project Members" to mean any person who is participating in the project. Participation in this agreement is not limited to official members of the National Speleological Society and/or associated grottos, but such partners shall be under the supervision and control of the TCP.

8. TCP and Forest Service representatives shall meet annually in the spring to discuss the agreement's effectiveness, administration problems, future and upcoming work projects, budgetary needs, and equipment and training needs. The Forest Service shall have the responsibility for conducting this annual meeting. Additional meetings may be requested by either party.

9. Designate in writing the liaisons, and their alternates.

10. TCP members are responsible for loss or damage to their personal equipment, as well as any Forest Service owned equipment assigned for use while in work status. Normal wear to Forest Service equipment is anticipated and will not be considered damage.

IN WITNESS WHEREOF, the parties hereto have executed this agreement as of the last date written below.

[Signed "For the Tongass Cave Project" on February 14 (1992) by Kevin Allred, and "For the Tongass National Forest, Ketchikan Area, USDA Forest Service" on February 27 by David Rittenhouse] □

Glacier Grotto Directory of Membership (End of 1991)

Name	[Office]	Address	City	State	Zip	GG	NSS	Home	Work
Allred, Carlene B		PO Box 376	Haines	AK 99827		92	16389	[msg (907)766-2020 KHNS]	
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Allred, Flint		PO Box 376	Haines	AK 99827		92			
Allred, Forest		PO Box 376	Haines	AK 99827		92			
Allred, Kevin	[VP SEast]	PO Box 376	Haines	AK 99827		92	16730	[msg (907)766-2020 KHNS]	
Allred, Soren		PO Box 376	Haines	AK 99827		92			
Anderson, Brad S		2320 2nd Ave	Ketchikan	AK 99901		92		[907]225-5941	
Bacon, William W III		PO Box 190326	Anchorage	AK 99519-0326		92		[907]248-4811	
Baichtal, Bessie M		131 Lakeview Dr	Silver Lake	WA 98645		92		[206]274-6971	
Baichtal, J B		131 Lakeview Dr	Silver Lake	WA 98645		91		[206]274-6971	
Baichtal, James F		482 Forest Park Dr	Ketchikan	AK 99901		92	33277	[907]247-0178	[907]225-3101
Baker, Robin		Kens Camp 3100 Channel Dr #2	Juneau	AK 99801		91		[907]463-4863	
Bastasz, Dr Robert J		PO Box 2417	Livermore	CA 94550		92*	13896	[415]443-9624	[415]294-2011
Bennett, John J (Jeff)		HC 79 Box 4499	Chugieck	AK 99567		91	30847-	[907]688-6080	[907]257-2611
Bennett, Katie		HC 79 Box 4499	Chugieck	AK 99567		91		[907]688-6080	
Binnian, Emily F		1101 Cordova St #314	Anchorage	AK 99501		91	31038	[907]278-1044	[907]786-7031
Bishop, Richard D		PO Box 978	Ward Cove	AK 99928		92		[907]247-8308	
Bishop, Ellen		PO Box 978	Ward Cove	AK 99928		92		[907]247-8308	
Black, Curt		6858 139th Ave NE #702	Redmond	WA 98052		92*	13537-	[206]889-2236	[206]889-1001
Bowers, Wm Harvey	[Treas]	305 S Bartlett Cir	Wasilla	AK 99654		92	12088	[907]376-2294	[907]373-2241
Burger, Raymond A		PO Box 672349	Chugieck	AK 99567		92	30656	[907]888-3835	
Campbell, Chris Rebich		601 Pittinger St	Ketchikan	AK 99901		91		[907]225-5359	
Campbell, Doug		601 Pittinger St	Ketchikan	AK 99901		91		[907]225-5359	
Campbell, Dr William G		1101 Cordova St #314	Anchorage	AK 99501		91	31039	[907]278-1044	[907]276-7371
Canola, Eileen		PO Box 1483	Ward Cove	AK 99928		91		[msg (907)225-5900 Ward]	
Carlson, Lynette		PO Box 19214	Thorne Bay	AK 99919		92			[907]828-3301
Chimielowski, Reia M		996 Siskiyou Blvd	Ashland	OR 97520		91		[503]482-5394	
Christensen, Bob		2502 1/2 N Shore Rd	Bellingham	WA 98225		91		[206]677-0873	
Clark, Amanda		Reeves Hall, Cottey College	Nevada	MO 64772		92	31003-		
Clark, Carl E	[Membership]	PO Box 2725	Palmer	AK 99645		92	11569-		
Clark, Carl R		PO Box 2725	Palmer	AK 99645		92	31004-		
Clark, Mary Rose		PO Box 2725	Palmer	AK 99645		92	14043-		[907]745-4811
Clark, Patrick W		PO Box 2725	Palmer	AK 99645		92	31002-		
Cooper, Daniel J		10334 Colville St	Eagle River	AK 99577		92		[907]694-6467	[907]345-7751
Coville, Glen C		PO Box 1259	Ward Cove	AK 99928		91	34435	[907]247-8187	
DeLapp, John		PO Box 100566	Anchorage	AK 99510		92			[907]271-2551
Donaldson, Dr Brian		PO Box 230446	Anchorage	AK 99523		92		[907]344-5554	[907]522-1041
Dotson, Robert		6015 Dotson Ln	Ketchikan	AK 99901		91		[907]225-2817	
Dunaway, Samuel M		3440 W 86th St #8	Anchorage	AK 99502-7402		92	4837	[907]248-4037	[907]762-2171
Dunaway, Sharon		3440 W 86th St #8	Anchorage	AK 99502-7402		91	32073	[907]248-4037	
Eash, Art		4228 James Dr	Anchorage	AK 99504		92	33345	[907]338-4208	[907]581-5121
Eddy, Dave		PO Box 5655	Ft Hood	TX 78544-0655		92	11830		
Ekstrand, Heidi		PO Box 6324	Ketchikan	AK 99901		91		[907]225-6324	
Ferguson, Jim [Conservation]		PO Box 20908	Juneau	AK 99802		92	15023	[907]463-2690	[907]465-5381
Fosse, Earl		301 Barden St	Ketchikan	AK 99901		91		[907]225-4480	
Foster, Doug		RR 1 Box 1359	Louise	KY 41230-8011		91	33827		
Freeman, Charles		436 Front St	Ketchikan	AK 99901		92			
Fritzsche, Mark		PO Box 4836	Arcaata	CA 95521		92*	18064	[707]826-1725	[707]822-5521
Genter, John H		1445 35th Stt	Los Alamos	NM 87544-2107		91*	22870	[505]682-5858	
Gianutsos, Rosemond		38-25 52nd St	Sunnyside	NY 11104-1027		92		[718]335-3403	[718]457-7481
Girard, Tom		PO Box 1656	Seward	AK 99664		92	31814	[907]224-8698	[907]224-3691

Name	[Office]	Address	City	State	Zip	GG	NSS	Home	Work
Grady, Fred		1201 S Scott St #123	Arlington	VA	22204-4655	92*	19856	(703)621-0238	
Gustafson, Jack		PO Box 3280	Ketchikan	AK	99901	92		(907) 225-5225	(907) 225-20
Hall, Elisabeth Schutzenbach		7040 Gibbs Hill Cir	Anchorage	AK	99504	93	16557	(907)333-2090	
Hall, James Allen		7040 Gibbs Hill Cir	Anchorage	AK	99504	93	29632	(907) 333-2090	
Hall, Matthew Thomas		7040 Gibbs Hill Cir	Anchorage	AK	99504	93	22131	(907)333-2090	
Hall, Michael Ian		7040 Gibbs Hill Cir	Anchorage	AK	99504	93	24151	(907) 333-2090	
Hall, Richard Allen		7040 Gibbs Hill Cir	Anchorage	AK	99504	93	16556	(907)333-2090	(907)257-13
Halliday, Dr William R		308 Aron Ct	Sterling	VA	22170	92*	812	(703) 430-4826	
Hallinan, Dr Thomas J		1617 Wolverine Ln	Fairbanks	AK	99709-6628	92	6329	(907) 479-6064	(907) 474-74
Hallinan, Nancy C		1617 Wolverine Ln	Fairbanks	AK	99709-6628	92	6367	(907) 479-6064	
Hannon, John M		907 Forest Service Dr	Craig	AK	99921	92		(907) 826-3188	(907) 826-32
Hassell, Barbara C		2949 S Tongass Hwy	Ketchikan	AK	99901	92		(907) 225-2041	
Hastings, Mary		PO Box 5893	Ketchikan	AK	99901-0893	92	34437	(907)225-4264	
Heaton, Amy		216 N Willow St	Vermillion	SD	57069	91		(605)624-9179	
Heaton, Christie		216 N Willow St	Vermillion	SD	57069	91		(605)624-9179	
Heaton, Dr Timothy H		Univ of South Dakota	Vermillion	SD	57069	91	15753	(605)624-9179	(605)677-61
Heaton, Holly		216 N Willow St	Vermillion	SD	57069	91		(605)624-9179	
Heston, Julia		216 N Willow St	Vermillion	SD	57069	91		(605)624-9179	
Hecker, Miles J		3200 Green Meadows Dr	Casper	WY	82604	91*	18733	(307)237-2612	
Hecker, Patti Shannon		3200 Green Meadows Dr	Casper	WY	82604	91*	21566	(307) 237-2612	
Hilden, Gerald L		9015-26 Waddell Creek Rd SW	Olympia	WA	98502	91			
Hillis, Sharon		#16 Whale Pass, PO Box WWP	Ketchikan	AK	99950-0280	92		[msg (907) 846-9001]	
Hogben, Robert		436 Front St	Ketchikan	AK	99901	92			
Holm, Bjarne		11441 Browder Ave	Anchorage	AK	99516	91		(907) 346-3910	(907) 346-21
Iliff, Alice L		1600 W 11th #33	Anchorage	AK	99501	91	13966	(907) 272-5887	(907) 762-26
Jackson, Dorica Rockwell		5972 Roosevelt Dr	Ketchikan	AK	99901	91	30318-	(907) 225-4331	(907) 225-50
Jackson, Nathan P		5972 Roosevelt Dr	Ketchikan	AK	99901	91	30317-	(907) 225-4331	
Jackson, Rebecca L		5972 Roosevelt Dr	Ketchikan	AK	99901	91	30320-	(907) 225-4331	
Jackson, Stephen P		5972 Roosevelt Dr	Ketchikan	AK	99901	91	30319-	(907) 225-4331	
Jansen, Barbara		7814 Raymar Cir	Anchorage	AK	99518	92		(907) 344-4402	
Jansen, John F [Prog Chair]		7814 Raymar Cir	Anchorage	AK	99518	92	4040	(907) 344-4402	
Kargard, Eva		2115 Hudson St	Pascagoula	MS	39567	92	33593		
Keith, Matt		4082 S Tongass	Ketchikan	AK	99901	91		(907) 225-8412	
Kellstedt, Lyman G [Kelly]		Rt 6 Box 134A	Santa Fe	NM	87501	92	13093	(505) 471-7077	
King, Philip T		1813 Bannister Rd	Anchorage	AK	99508	92	29943-	(907) 276-0138	(907) 276-43
Klimack, Bill		25582 Morse Dr	Carmel	CA	93923	92*	20786	(408) 625-3522	
Klinger, Col David [Reg Rep]		PO Box 537	Leavenworth	WA	98826	92	10583	(509) 548-5480	(509) 548-54
Knops, Dan		PO Box 695	Girdwood	AK	99587-0695	92			
Kraettli, Elisa M		PO Box 10456	Fairbanks	AK	99701-0456	92	16380		(907) 456-57
Kyle, Gene [Cave Rescue]		7020 Tall Spruce Dr	Anchorage	AK	99502	92	29442	(907) 248-3297	(907) 271-24
Lane, Buddy		40 Hidden Brook Ln	Signal Mtn	TN	37377-2063	92*	12054	(615) 886-6219	(615) 867-28
Lane, Doranne Mullenix		40 Hidden Brook Ln	Signal Mtn	TN	37377-2063	92*	17389	(615) 886-6219	
Lewis, Steve		PO Box 83715	Fairbanks	AK	99708	92	30022	(907) 479-7257	
Logan, Dave		8811 Cordell Cir #3	Anchorage	AK	99502	92	20456	(907) 243-4887	(907) 786-74
Long, Norman		469 Atlantis Ave	Anchorage	AK	99518	91		(907) 562-3509	(907) 279-06
Massie, Jack [Secretary]		1853 Bartlett Dr	Anchorage	AK	99507	92		(907) 562-0417	(907) 349-85
Mausser, Michael W [VP North]		1466 Carr Ave	Fairbanks	AK	99709	92	11135	(907) 456-6953	(907) 452-14
Mays, Rachael H		1813 Bannister Rd	Anchorage	AK	99508	92	29942	(907) 276-0138	
McDonald, David S		215 Dean A McGee Ave #409	Oklahoma City	OK	73102-3423	91			
McElroy, Debbie		PO Box 9518	Ketchikan	AK	99901	91		(907) 225-1465	
McRorie, Steve		5802 2nd Ave	Ferndale	WA	98248	92		(206) 384-3660	
Metzler, Curvin [Ed;VP SCan]		PO Box 100738	Anchorage	AK	99510-0738	92	23882	(907) 333-8766	(907) 786-18
Nicola, Steve		891 Kazarian	Tulare	CA	93274	92	33726	(209) 688-7333	(209) 688-73

Name	[Office]	Address	City	State	Zip	GG	NSS	Home	Work
Montgomery, Robert Clyde		PO Box 2102	Casper	WY	82602-2102	91*	15643	[307] 266-6929	
Morrissey, Karen		4228 James Dr	Anchorage	AK	99504	92	33346	[907] 338-4209	
Morton, Bruce R Jr		HC 83 Box 206 Eagle River Rd	Eagle River	AK	99577	92	3202	[907] 694-9112	
Nicholls, James R		PO Box 310	Ester	AK	99725	92	15216	[907] 474-0104	[907] 452-2128
Olson, Dr Wallace M		PO Box 210961	Auke Bay	AK	99821-0961	91		[907] 789-3311	[907] 789-4420
Olson, Marie M		PO Box 210961	Auke Bay	AK	99821-0961	91		[907] 789-3311	
Olson, Ian		12601 Toilsome Hill Rd	Anchorage	AK	99516	91		[907] 345-3125	
Omar, Eleanor		PO Box 8402	Ketchikan	AK	99901	92	33729	[907] 225-0897	
Permalee, Mark		13141 Foster Rd	Anchorage	AK	99516	91		[907] 345-3899	
Pease, Maj C R (Chuck)		PSC #80, Box 15497	AFD	AP	96367-5497	92	4847		
Perrigo, Dalene T		1921 Congress Cir, Apt B	Anchorage	AK	99507	92		[907] 344-3290	[907] 263-9067
Perrigo, Lyle D		1921 Congress Cir, Apt B	Anchorage	AK	99507	92		[907] 344-3290	[907] 257-2738
Pool, Charles		PO Box 6000	Ketchikan	AK	99901	91			[907] 225-6684
Ramele, James J		7840 Convoy Ct	San Diego	CA	92111-1210	91		[619] 272-1056	[619] 277-1010
Riber, Julia		PO Box 19107	Thorne Bay	AK	99919	91	34155	[907] 828-3433	[907] 828-3302
Richardson, Michele		111 Seton Wy	Santa Cruz	CA	95060	91	23319	[408] 427-0638	
Richardson, Robert W		111 Seton Wy	Santa Cruz	CA	95060	91	22115	[408] 427-0638	
Rockwell, Dr Julius Jr [Pres]		2944 Emory St	Anchorage	AK	99508-4466	92	11308	[907] 277-7150	[907] 277-7150
Rockwell, Elizabeth A		2944 Emory St	Anchorage	AK	99508-4466	92	15232	[907] 277-7150	
Rockwell, Julius IV [Tad]		1012 W Balboa, Suite A	Newport Beach	CA	92661	92	17856	[714] 673-8667	
Roy, Charles [Skip]		1326 G St	Anchorage	AK	99501	91	7209	[907] 276-0711	[907] 276-0711
Rubeck, Rusty L		750 Sarahs Wy #59	Wasilla	AK	99687	92	21537	[907] 376-9083	[907] 753-2732
Ruggles, Anne K		PO Box 82950	Fairbanks	AK	99708-2950	92	27053	[907] 474-3755	[907] 474-7741
Sanders, Dr Robert B		11661 Rockridge Rd	Anchorage	AK	99516	91		[907] 345-0203	
Sandhofer, Paul F		PO Box 9-1333	Anchorage	AK	99509	92		[907] 344-3259	[907] 249-1293
Sattler, Robert Alan		PO Box 80466	Fairbanks	AK	99708	91	27469	[907] 455-9104	[907] 474-7818
Schwaiger, Hans		11650 Cobra Ave	Anchorage	AK	99516	91		[907] 345-1361	
Simmonds, Geoffrey W		PO Box 8378	Ketchikan	AK	99901	91		[907] 225-7302	[907] 225-6664
Smith, Dr G Warren		408 W Dakota St	Hammond	LA	70401	92	5601	[504] 549-3742	[504] 549-2316
Smith, Marion O		PO Box 8276 UT Sta	Knoxville	TN	37996	91*	9164	[615] 584-4927	[615] 974-2449
Smith, Pete		PO Box WWP	Ketchikan	AK	99950-0280	92	33979	[msg] [907] 846-9001	
Sonnenberg, Gary		1377 Pond Reef Rd	Ketchikan	AK	99901	92	33648	[907] 247-1559	[907] 255-7030
Steele, Bill		PO Box 19296	Thorne Bay	AK	99919	91		[907] 828-3985	[907] 828-3304
Steele, Carol M		PO Box 19296	Thorne Bay	AK	99919	91		[907] 828-3985	
Stone, Daniel E		PO Box 111414	Anchorage	AK	99511	92		[907] 345-5783	[907] 349-5148
Streit, Douglas		17 Pinehurst Dr	Caswell Beach	NC	28461	92	9707	[919] 278-9246	
Thompson, Norman R		225 S Tyler Ave	Louisville	CO	80027-9556	91*	26017	[303] 665-9831	[303] 673-5755
Tillotson, Frank		PO Box 6142	Ketchikan	AK	99901	92		[907] 225-2324	
Tonnessen, Dr Kathy A		PO Box 2417	Livermore	CA	94550	92		[916] 441-3044	[916] 324-1744
Tubbs, Chuck		1418 W Lexington Ave	Elkhart	IN	46514	92	25182	[219] 522-5701	[907] 294-3531
Tubbs, Nancy		1418 W Lexington Ave	Elkhart	IN	46514	92	32450	[219] 522-5701	
Van Note, Michael J		PO Box 26	Haines	AK	99827	92	14174		
Ward, Denise E		390 S High Beach Rd	Alpine	UT	84004	92	20815	[801] 756-9329	[801] 321-1180
Ward, Erick		PO Box 1483	Ward Cove	AK	99928	91		[msg] [907] 225-5900 Ward]	
Wetterling, Jeanne		41 Hillview Rd	Birdsboro	PA	19508	91	28381	[215] 385-7163	
White, Sharon K		9461 Hiland Rd	Eagle River	AK	99577	91	34852	[907] 694-9562	
Wito, Andrzej		ul Dzierzynskiego 16A	Krakow	Poland		91	32382	48(12)330183	
Wito, Voytek		8720 Beachwood Cir	Anchorage	AK	99502	91		[907] 248-5703	[907] 265-6011
Woods, Christopher A		8604 Boundary Ave #2	Anchorage	AK	99504	92	31029	[907] 333-6720	[907] 552-2845
Worley, A C [Ace]		PO Box 112234	Anchorage	AK	99511	91		[907] 345-4083	[907] 266-1653
Worley, Dennis		PO Box 112234	Anchorage	AK	99511	91		[907] 345-4083	
Wright, Winfield G		PO Box 4313	Grand Jct	CO	81502	91*	20655	[303] 464-5338	[303] 245-5257
Zak, Dr Leo [Saki]		Ceska Speleo S, ZO 5-05 Tries	Pardubice	Czechosl	ovaki a92				

Glacier Grotto List of New Members (8/92)

Name	[Office]	Address	City	State	Zip	GG	NSS	Home	Work
Beichtal, Dorene		482 Forest Park Dr	Ketchikan	AK	99901	92		[907]247-0179	
Bundtzen, Thomas		794 University Ave #200	Fairbanks	AK	99709	92		[907]455-6269	[907]474-71
Clark, Stephen E		2440 E Tudor #121	Anchorage	AK	99507	92	10355	[907]338-6719	
Hallinan, Peter		1617 Wolverine Ln	Fairbanks	AK	99709-6628	92		[907]479-6064	
Hampton, Don		PO Box 82950	Fairbanks	AK	99708	92	27054	[907]474-3755	[907]474-77
Hertert, Mary		12210 Cange St	Anchorage	AK	99516	92		[907]345-6781	[907]762-81
McGee, Katherine E		PO Box 104441	Anchorage	AK	99510-4441	92		[907]248-2448	
Morrison, Dody		PO Box 5614	Ketchikan	AK	99901	92	35906	[907]225-7680	[907]225-76
Moyer, Tom		119 N Cushman St #203	Fairbanks	AK	99701	92		[907]488-3444	[907]456-81
Reid, CDR Leroy		1273 Annapolis Dr	Anchorage	AK	99508	92		[907]272-5001	
Reid, Sabra		1273 Annapolis Dr	Anchorage	AK	99508	92		[907]272-5001	
Thompson, Carolyn		306 Main St #211	Ketchikan	AK	99901	92		[907]225-3009	[907]228-42
Thompson, John (Terry)		306 Main St #211	Ketchikan	AK	99901	92		[907]225-3009	[907]225-30
Tiemersma, Len		2425 6th Ave	Ketchikan	AK	99901	92		[907]225-8495	[907]225-60

Please check your membership listing for accuracy—both address and phone number!

The GG/NSS column indicates status within the Glacier Grotto and the National Speleological Society. The year number (91 or 92) under GG reflects dues payment as of December 31, 1991. An asterisk following the year number means that primary allegiance owed to another grotto. A minus after the NSS number means that NSS membership has lapsed (according to the latest NSS Members Manual directory).

Total number of members in the Glacier Grotto as of December 31 (1991) is 157. Of these, 61 have primary affiliation with the Glacier Grotto.

Shaman Caves

by Carlene Allred

This overdue report is in response to a cave rumor entitled "Chilkoot Cave, a Shaman's Cave", reported in May 1979, The Alaskan Caver 4(2):8. According to Julius Rockwell, Julia Folta of Lutak Inlet (near Haines) reported this cave to his daughter, Dorica Jackson. The report is dated December 6, 1975.

In the fall of 1981, I was invited to join a group outing to visit "Shaman Caves" at Lutak Inlet. Our small group was led by Dick Folta, Julia's husband. Shaman Caves is located very roughly a thousand feet up on the eastern wall of the canyon at the head of the inlet. This is above an old Chilkoot Indian (Tlinget) village site. According to local history, the village was abandoned after a catastrophic flood resulting

from a landslide into Chilkoot Lake, which is upstream. The area contains many historically significant sites, so our tour was most interesting.

The caves--actually a rock overhang--contain pictographs of a reddish brown color (I was told they were written in blood). We saw no bones or artifacts. I assumed the sacred site had been vandalized or disturbed. I know nothing of the condition of the place upon rediscovery. According to Larry Martin the caves were rediscovered by Jim Carter or Carder (both formerly of Lutak Inlet). The site has no speleological significance.

The trip report is typically "frost pocket style": the journey to and from is scenic, wonderful, awe-inspiring; but the cave itself is actually nothing. □

GLACIER GROTTTO
Income & Expense Statement
For The Year Ending
December 31, 1990

	POWIE	Grotto	Total
Income			
Dues	\$ 0	\$ 529.00	\$ 529.00
Alaska Caver	0	147.50	147.50
Patches	0	65.00	65.00
POWIE '90	207.70	0	207.70
Total income	207.70	741.50	949.20
Expenses			
Alaska Caver	0	655.52	655.52
Patches	0	43.50	43.50
NSS	0	25.00	25.00
Supplies	0	10.22	10.22
Bank charges	0	10.65	10.65
POWIE '90 (rope)	400.07	0	400.07
Total expenses	400.07	744.89	1,144.96
Net loss	\$ (192.37)	\$ (3.39)	\$ (195.76)

GLACIER GROTTTO
Balance Sheet
December 31, 1990

	POWIE	Grotto	Total
Assets			
Cash	\$ 363.40	\$ 464.42	\$ 827.82
Patches-61	0	176.90	176.90
Rope	400.07	0	400.07
Total assets	763.47	641.32	1,404.79
Liabilities			
Rockwell Loan Balance	935.84	0	935.84
Allred Loan Balance	20.00	0	20.00
Total liabilities	955.84	0	955.84
Net Worth			
Balance 12-31-89	0	644.71	644.71
Less: 12-31-90 loss	(192.37)	(3.39)	(195.76)
Total Net Worth (Deficit)	\$ (192.37)	\$ 641.32	\$ 448.95

GLACIER GROTTTO
Income & Expense Statement
For The Year Ending
December 31, 1991

	POWIE	Grotto	Total
Income			
Dues	\$ 0	\$ 1,067.00	\$ 1,067.00
Alaska Caver	0	489.00	489.00
Patches	0	30.00	30.00
Miscellaneous	0	10.50	10.50
POWIE '90	304.20	0	304.20
Total income	304.20	1,596.50	1,900.70
Expenses			
Alaska Caver	0	2,021.82	2,021.82
Patches	0	17.40	17.40
Supplies	0	8.95	8.95
Bank charges	0	13.50	13.50
POWIE '90 (rope)	400.07	0	400.07
Total expenses	400.07	2,061.67	2,461.74
Net loss	\$ (95.87)	\$ (465.17)	\$ (561.04)

GLACIER GROTTTO
Balance Sheet
December 31, 1991

	POWIE	Grotto	Total
Assets			
Cash	\$ 0	\$ 16.65	\$ 16.65
Patches-55	0	159.50	159.50
Rope	0	0	0
Total assets	0	176.15	176.15
Liabilities			
Rockwell Loan Balance	268.24	0	268.24
Allred Loan Balance	20.00	0	20.00
Total liabilities	288.24	0	288.24
Net Worth			
Balance 12-31-90	(192.37)	641.32	448.95
Less: 12-31-91 loss	(95.87)	(465.17)	(561.04)
Total Net Worth (Deficit)	\$ (288.24)	\$ 176.15	\$ (112.09)

TONGASS CAVE PROJECT - SURVEY STANDARDS

In order to make accurate maps and reports, surveys must be concise, and notes complete. Please finish the entire area you are working in if at all possible (unless the cave keeps going). That way a return trip will not be necessary. We are using fiberglass tapes in feet and tenths. 50 foot tapes suffice in most caves. Bring your own instruments and tape if you have them.

INSTRUMENTS PERSON

1. Avoid sighting with a large steel reflector on your headlamp, or other steel such as a justrite headlamp. Keep flashlights and other magnetic objects away from the compass. Watch out for headlamp battery packs!
2. If you wish, you may want to take both back and fore shots, but it is up to your own judgment. Double check all measurements relayed to the sketcher. Azimuth and inclinometer readings are in degrees.
3. Use one eye only when sighting with instruments. Keep the compass level.
4. Make sure survey gear is in the pack before leaving camp. At the end of each day, leave cleaned instruments in the Project office (or base camp).
5. Compass declination must be set at zero.

LEAD PERSON

1. Don't forget to bring flagging and other means of marking key survey points.
2. Mark and label the entrance point. Also mark points at sumps and all leads by tying marked flagging to solid projections out of the way of traffic and turbulent waterflow.
3. Double check tape measurements.
4. Tie into a previous survey if you aren't the first team to enter a cave.

SKETCHER

1. You control the survey and are responsible to write a separate description of the cave, reporting such things as geology, speleogenesis, speleothems, hydrology, fauna, and management recommendations.
2. Double check relayed measurements.
3. Sketch to one inch equals 20 feet. Mark a north arrow on each page. Large rooms may require several pages. Number each survey point differently. Include both plan and running profile views to scale. Below (1), is an example of a running profile. You may use a protractor and ruler for accuracy. It is your job to catch survey blunders while sketching.
4. Notes shall be returned to the appropriate cave file at the close of each day.

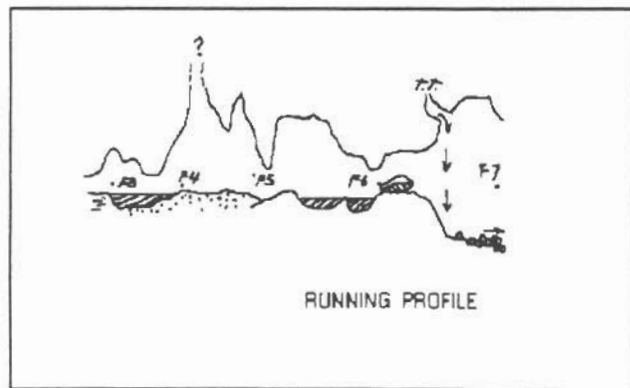


Figure 1

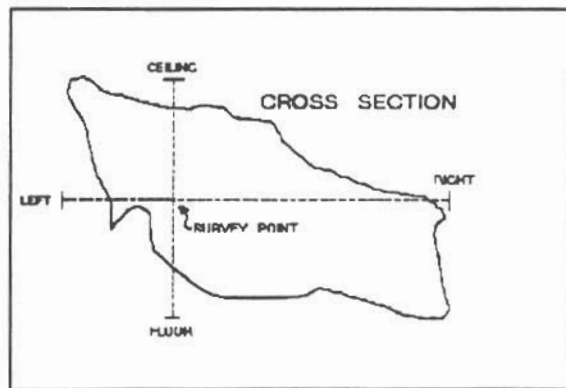


Figure 2

5. Measure or estimate distance to walls, ceiling and floor perpendicular to survey travel. See Figure 2 for an illustration of these measurements.
6. Draw lots of cross sections.
7. Include all detail such as floor fill, cobbles, sand, air movement, silt, etc. and features such as geology, speleothems, drops, chimneys, and fauna. Use standard NSS symbols.
8. For each passage ending or lead, describe exactly, such as "plugged with sand", or "goes 2 by 3 feet".
9. Number each page as you use your survey book.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★
A r e a G r o t t o M e e t i n g s
★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

▣ SouthCentral Area Meetings

SouthCentral Area Meetings will be held at 7:30pm on the **fourth Wednesday** of each month, as voted last year. It was decided that the officers meet for discussion half an hour before each meeting. The meeting place has been changed to the 4th floor conf. room, Nat'l Bank of Alaska, 301 W Northern Lights Blvd., Anchorage. After the program, further discussions continue at **The Eatery** (201 E Northern Lights).

▣ SouthEast Area Meetings

SouthEast Area Meetings will be held at 7:30pm on the **first Monday** of each month. The meeting place is the **Alaska Public Health Service Building, 304 5th Avenue, Ketchikan.**

▣ Northern Area Meetings

Northern Area Meetings are held in **Fairbanks** by demand; contact **Mike Mauser** at (907) **456-6953** for more details. Also, see the article on page 5 for a summary of the meeting held in Fairbanks this past January.

T-Shirt Design Contest

At the Grotto meeting this past April, it was decided that we should pursue the first printing of our very own official Glacier Grotto t-shirts. But first we need a design! So it was decided that we have a contest for the best design, with a free t-shirt to the winner of the contest. So if you have any ideas for designs, draw them up and enter them into the contest. You could be the honored winner of the contest!

Glacier Grotto

2944 Emory Street
Anchorage, Alaska 99508-4466

Address Correction Requested

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★ ★
★ ★