



THE CASCADE CAVER

Official Publication of the
CASCADE GROTTOS N. S. S.

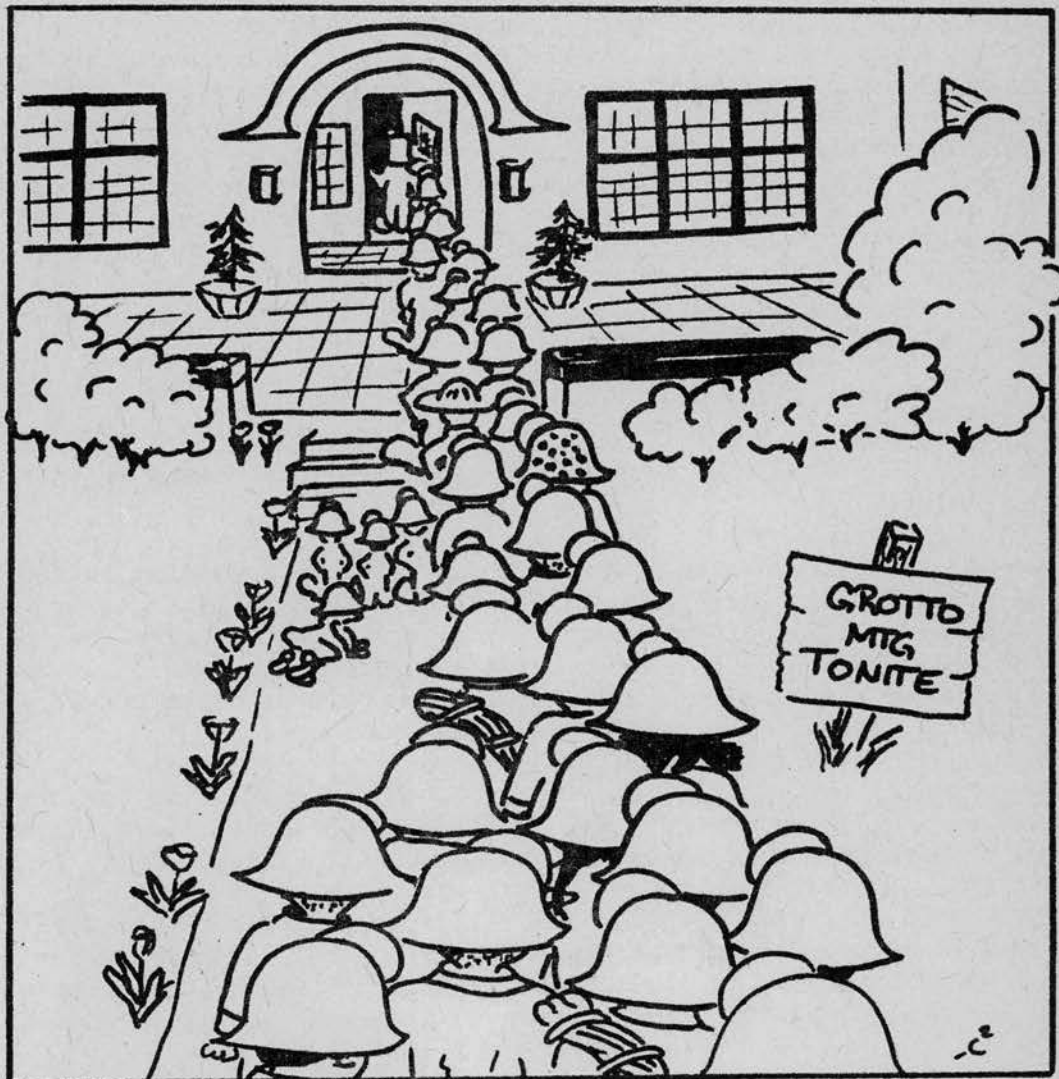


INTERNATIONAL JOURNAL OF VULCANOSPELEOLOGY

Volume 16 No. 5

Editor: Rod Crawford

May 1977



TO: LEN & BILL HALLIDAY,
THANK YOU FOR YEARS OF HOSPITALITY

-CASCADE
GROTTO

THE CASCADE CAVER is published ten times a year (honest!) by the Cascade Grotto of the National Speleological Society. Subscription rate is \$4.00 per year. Full grotto dues are \$4.50, and family memberships (not including subscription) 50¢. All payments should be made to the Grotto treasurer, Chuck Coughlin, 6433 S. 127th Pl., Seattle, Washington 98178.

COMING EVENTS

July 15-17. Oregon Grotto annual meeting and pot luck picnic at Trout Lake. Meeting Friday night 7:30 in the Mt. Adams Park in Trout Lake; picnic on Saturday, 7:00 PM, at John Slabic's farm south of Trout Lake, just north of the 20 Mile post. You can't miss the WELCOME SPELUNKERS banner or the big red barn. Contact Ed Crawford, 522-1203, or Bob Brown, (206) 569-2724.

Monday, July 18. REGULAR MONTHLY MEETING IN THE SEATTLE PUBLIC LIBRARY, 4th/5th AND MADISON, DOWNTOWN SEATTLE, ROOM 325, 7:30 PM.

July 23-24. Expected date for a biological expedition to Deadhorse Cave, Mt. Adams area. Call Rod Crawford, 543-4486 evenings.

Sunday July 31. Scouting French Cabin Mountain Limestone, Kittitas County. Contact Rod Crawford. Room for two more at present time.

A day in early August. One or perhaps two trips to Windy Creek Cave, north Cascades. Call Stan Pugh, (206) SK9-6211, or Chuck Coughlin, 772-1170.

Monday, August 15. Regular monthly meeting, same time, same station.

The Editor's Monthly Complaint: surely I'm not the only one in the whole grotto who wants to go caving! Come on, people, let's get some of your trips on this page.

News and Notes

At the June meeting Bill Halliday reported seeing a large firm cave entrance on a recent climb of Mt. St. Helens, but being unable to reach it in the time available.

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Some further comment seems in order on Chuck Coughlin's listing in the "Experience Auction" catalog which we made fun of on this page last month. In case anyone got the wrong idea, we emphasize that it was not Chuck's idea to be listed as NSS "Chairman"; in fact he didn't know about it until it was in print. No doubt the Pacific Search people thought that "Secretary/Treasurer of the Cascade Grotto" just didn't sound flashy enough.

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The Jewel Cave Adventure, reviewed in these pages recently, is now available. Hardcover is \$10.50, paperback 5.95. Well worth the money if you have any. "Inquire at your bookstore or order from the Conns, Route 3, Custer, South Dakota 57730."

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WE BRING YOU ALL THE NEWS DEPARTMENT: "[To dream of] a deep cavern shows that you will always remain poor and unknown, unless you exert yourself." From Aunt Sally's Policy Players Dream Book, by Henry J. Wehman. Baltimore, Ottenheimer, 1959. P. 10. (The numbers to play are 46, 51, it adds).

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New Member

Lori Porter 4610 70th Ave. Ct. W., Tacoma WA 98466 L04-2782

New Addresses

John Torkelson 15212 SE 175th Pl, Renton WA 98055 same phone

Wes Grandstaff moved, left no address (where are you, Wes?)

Bill Capron 7037 26th NW, Seattle WA 98117 same phone

Internationally Significant Lava Tube Caves
of the United States:
a preliminary tabulation*

-- William R. Halliday

In February I received the following letter:

INTERNATIONAL UNION OF SPELEOLOGY
Commission of the Greatest Caves

Dear Colleague,

The Commission of the Greatest Caves plans to publish all the speleological data collected from its members since 1973. These data will be published country by country, in two parts : caves classified by development (1) and by depth (2), with historical and bibliographical informations about each cave (year of discovery, years of exploration, names of explorers, publication where to find the map).

This issue will be ready for the next Congress of Sheffield (September 1977) and will be given to each member of the Commission, i.e. to any people who has sent informations or who has collected the data on the greatest caves of his country.

With this letter, we ask you to send to the Commission, before MARCH 1977 the 31th, the list of the greatest caves of your country (up-to-date in 1976) with, if possible, their geographical and geological location, years of discovery and exploration, name of the explorers, name of the rock (~~which is important for non-limestone caves~~). Altitude is useful for potholes and eventually their springs.

For Lava Caves, the commission has chosen the minimum depth of 100 m (potholes and caves or springs as well) and the minimum length of 1000 m (caves and potholes as well).

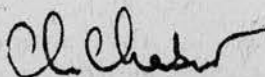
At Sheffield, two meetings of the commission will be held. Their objective will be to bring up to date all the recent data collected, to correct former errors, to check forgotten caves and mainly to discuss the notion of depth, length and development of a cave : which is a good definition of a vertical drop ? Is it possible to create a universal method for cave topography ? Is it possible to publish all existing cave maps ? And so on.....

We accept any suggestions regarding the organization and format of this commission.

We hope, dear colleague, to meet you in Sheffield and we wish you a good caving year before the Congress.

*Note: a shorter version of this article appeared in Speleograph 13 (5): 51-53. The present version contains some editorial corrections & additions.

Yours sincerely,



CLAUDE CHABERT, president
47 rue de la Sablière
75014 PARIS

Obviously, this request was less than totally clear. However, I interpreted it as a request for information on lava tube caves of the United States 1000 m (3281 ft) long or longer, and/or with a vertical range of 100 m (328 ft) or more. With the assistance of Frank Howarth, Russ Harter, Ron Greeley, Dale Green, Charley Larson, Julius Rockwell, and Frank Ireton, I have prepared the following preliminary report. As will be seen, time limitations did not permit development of the requested historical information. [Ed. note: I have added the historical information in the case of Washington caves from the data in the Washington Cave File]. I expect to attend the meetings of the commission in Sheffield in September, and would appreciate additions, corrections, or what not, as soon as possible.

* * *

LAVA CAVES OF THE UNITED STATES
KNOWN TO HAVE A LENGTH OF 1000 METRES OR MORE
AND/OR A DEPTH OF 100 METRES OR MORE

I. Lava Tube Caves in Pahoehoe Basalt Lava

Alaska:

Lava tube remnants up to 19 km long are present, but all lava tube caves now known are less than 1000 m long.

Arizona:

Government Cave. Length: 1120 m, per unpublished map by Central Arizona Grotto, N.S.S. Previous map published by Park, C.F., Jr., 1929. Government Cave. Museum Notes (Museum of Northern Arizona, Flagstaff), 2 (5): 3.

All other known lava tube caves are less than 1000 m long.

California:

Catacombs Cave. Length: 2000 m. 1963 map by S. Peck published in Proceedings of 1972 International Vulcanospeleological Symposium, White Salmon, Washington (still in press as of 15 April 1977). First mapped 1920; that map apparently lost but is said to have shown greater length.

Catwalk Cave. Length: 2420 m. Map in Baer, Roger T., 1970. Petrology of Quaternary Lavas and Geomorphology of Lava Tubes, South Flank of Medicine Lake Highlands, California. Thesis, University of New Mexico. Note: map does not indicate whether cave is segmented.

Hercules Leg-Juniper Caves section of The Labyrinth. Length: 1347 m. 1963 map by S. Peck published in proceedings of 1972 symposium (see above). Total length of Labyrinth system is about 5661 m but it is segmented extensively.

Many other lava tube caves of northern California are not known to have been mapped. All known lava tube caves of southern California are less than 1000 m long.

Hawaii:

Blair Cave. Length 1000-1500 m but unmapped. Estimate by Frank Howarth.

Kaumana Cave. Two segments, separated by sink 20 m long, 10 m wide, 10 m deep. Length of longer segment about 850 m. Included here because of

possibility that further study may show that the sink does not segment the cave. Data from Frank Howarth. See also his article in *Pacific Insects*, 15 (1): 139-151, 1973, reprinted in part in the *Cascade Caver*, 13 (10): 4, October 1974.

Kazumura Cave. Length: "Approximately 10 km of surveyed passage" reported by W. Gagne and F. Howarth in *Pacific Insects* 16 (4): 405, 1975. Depth: 200 m. Map not yet published. Cave stated to have 15 skylights; "most were characteristically offset on upper levels", and Howarth reports that the cave is not segmented.

Offal Cave. Length: about 3400 m, but unmapped. Estimate by F. G. Howarth. For additional information see reference cited for Kaumana Cave.

Idaho:

Arco Tunnel. Length: 1316 m. 1962 map by Pete Sanchez, in files of Craters of the Moon National Monument; apparently unpublished.

Tee Cave. Length: 1006 m. First mapped 1967 by Gem State Grotto, N.S.S.; 1973 map by F. and S. Ireton published in: Ireton, Frank, 1973. Tee-Maze Cave System, Lincoln County, Idaho, U.S.A. *Western Speleological Survey Misc. Series Bulletin 15* (W.S.S. Serial #46), p. 16. Note: a thin lava seal separates this cave from Maze Cave, length 549 m. These and other caves nearby are part of a large system, the full extent of which is not yet known. See reference cited.

Although partially collapsed lava tubes can be traced for at least 19 km in other parts of Idaho, no other lava tube cave more than 1000 m long is known there at present.

New Mexico:

Although largely collapsed lava tube remnants have been traced at least 28 km in this state, no lava tube cave here is known to be more than 100 m long.

Oregon:

Baker Cave. Length: 1496 m. Map published in 1972 proceedings of vulcanospeleological seminar (see above); calculation by Charles Larson.

Lavacicle Cave. Length: 1234 m. Map published in *Speleograph* 11 (3): 30-31, 1975. Cave consists of one long segment. Entrance is 548 m from one end but does not segment cave.

Lava River Cave, northwest segment. Length: 1884 m. Map published in *Speleograph* 18 (8): 91, 1975.

Malheur Cave. Length: 956 m surveyed plus estimated 120 m of underwater passage beyond sump. Map with sketch of underwater portion in *Speleograph* 13 (7): 74, 1977. Depth 19 m.

Skeleton Cave. Length: 1010 m. For lengths of this and other lava tube caves of area of Bend, Oregon, see: Greeley, R., 1971. *Geology of selected lava tube caves of the Bend area, Oregon*. Oregon Dept. of Geology and Mineral Resources, Bulletin 71.

Wind Cave. Length: 941 m plus unmapped section, according to Greeley. Knutson lists as 1170 m (see 1972 proceedings).

No other lava tube cave in Oregon is known to be 1000 m long. Baker Cave is the largest cave in the much-publicized "40-mile Cave" system.

Utah: Duck Creek Lava Tube. Length: 3674 m. Map published on cover of Inner Mountain News, 8 (5), May 1976.

No other lava tube cave in Utah is known to be 1000 m long.

Washington:

Ape Cave. Length 3400 m, depth 197 m, with additional unmapped areas. Maps published in: Hyde, J.H., and R. Greeley. Geological Field Trip Guide: Mount St. Helens Lava Tubes, Washington, 1973 Meeting, Cordilleran Section, Geological Society of America. Discovered 1951; explored 1952 by a youth group called the St. Helens Apes.

Deadhorse Cave. Length 1214 m. Map published in Selected Caves of the Pacific Northwest, 1972 N.S.S. Convention Guidebook (W.R. Halliday, editor.) Discovered by local residents, date unrecorded; first shown to speleologists 1967; explored 1969-1972 et seq. by Jim Nieland, Doug Pickard, and others of the Oregon Grotto of the N.S.S.

Dynamited Cave. Length 2243 m; depth 107.5 m. Figures are composite and subject to correction. Map published in 1972 proceedings (see above), with additions published in Speleograph 9 (10): 171, 1973. Composite data published in Northwest Caving, 6 (1/2): 3-8, 1975. Discovered 1958; explored 1958 by Carl Nielsen, Damon Bagley, and others, and in 1967 and 1969 by Steve Knutson, Charles Larson, and others of the Oregon Grotto of the N.S.S.

Falls Creek Cave. Length 2797 m, depth 126 m. Map published in Speleograph, 11 (9): 113, 1975. Discovery uncertain, entrance known since before 1950; explored in part by forest rangers and Boy Scouts, 1958, in part by Datus Perry, 1959.

Lake Cave. Length 1360 m, including 112 m invasive stream passage complex. Depth 56 m. Map and length of main cave passage published in Hyde and Greeley (see above). Map of stream passage published in Speleograph, 9 (7): 125, 1973. Discovered and explored 1958 by the St. Helens Apes (see above).

Little Red River Cave. Length 1032 m, depth 88 m. Map and length published in Hyde and Greeley (see above). Discovered and explored 1960 by Bill Reese, Bob Kitch, and Gene McCune.

New Cave, Western or "Main" section. Length: 1166 m. Source: 1972 N.S.S. Convention Guidebook (see above). [Inclusion of New Cave in this list depends upon yr editor's opinion that the main entrance does not fully segment the cave]. Discovered 1954, explored ca. 1955 by Homer I. Spencer.

Ole's Cave. Length 1714 m, depth 58 m. Length composite from Hyde and Greeley (see above), and Halliday, W.R., 1963. Caves of Washington. Wash. State Div. of Mines and Geol. Inf. Cir. #40. Discovered and explored 1895 by Ole Peterson.

Three Sinks Cave. Length: 1006 m. Source: unpublished map in Oregon Grotto Library files. Discovered 1967; explored by Charles Larson and others, Oregon Grotto, N.S.S., 1967.

Ape, Lake, Little Red River, Ole's, and smaller nearby caves are part of a single lava tube system. The others cited are parts of other systems of various sizes.

Editor's Note: As this list demonstrates, Washington contains more of the world's longest lava tubes than any other state. It is probable that Washington also contains a greater amount of mapped lava tube passage than any other state, although I have not compiled statistics on the subject.

The above list adds two (Catacombs and Catwalk) caves to the list of lava tubes of the world with more than 2000 metres of passage published in the July 1976 Cascade Caver. Hopefully Dr. Halliday will turn up some more at Sheffield.

The longest lava tube caves of the United States therefore appear to be:

Kazumura Cave, Hawaii	10,000 m (approx.) if unsegmented
Duck Creek Lava Tube, Utah	3,674 m
Ape Cave, Washington	3,400 m plus unmapped areas
(Offal Cave, Hawaii)	3,400 m (estimated)
Falls Creek Cave, Washington	2,797 m
Catwalk Cave, California	2,420 m if unsegmented
Dynamited Cave, Washington	2,243 m
Catacombs Cave, California	2,000 m
Lava River Cave (NW), Oregon	1,884 m
Ole's Cave, Washington	1,714 m
Baker Cave, Oregon	1,496 m
Lake Cave, Washington	1,360 m
Hercules Leg/Juniper Caves, Calif.	1,347 m if unsegmented
Arco Tunnel, Idaho	1,316 m
Lavacicle Cave, Oregon	1,234 m
Deadhorse Cave, Washington	1,214 m
Wind Cave, Oregon	1,170 m (tentative figure)
New Cave, Washington	1,166 m if considered unsegmented
Malheur Cave, Oregon	1,076 m including estimate of unmapped
Little Red River Cave, Wash.	1,032 m
Skeleton Cave, Oregon	1,010 m
(Blair Cave, Hawaii)	1,000 - 1,500 m estimated

II. Fissure Caves in Lava

The only fissure cave in lava known to be more than 100 m deep is the South Grotto section of the Crystal Ice Caves Rift, Idaho. Its depth has been stated to be 210 to 245 m; the map has not been published and may be lost. For additional information see 1976 revised edition of: Halliday, W.R.. Depths of the Earth. New York, Harper and Row, pp. 390-394. (No cavernous segment of this Rift is known to be 1000 m long).

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RECENT NEWS FROM TOM MILLER

(From a letter to W.R.H.)

"...Spent ten glorious days in Puerto Rico—saw nearly all of the Rio Camuy system as well as a new (relatively) cave with more than four miles (1 1/2 was still virgin). Still going, 80 feet high, 10-15 feet wide..."

"...Am in a last minute rush to leave for Belize...There are approximately 15 km mapped in Caves Branch system with 5-10 km left. Footprint has 4 km so far, 1-2 more explored and may possibly go to more than 11 or 12 km. Waterfall Cave will more likely finish at 2 1/2 to 3 km. I will be very busy..."

Well, it looks like we've lost Tom for good. But perhaps he'll show up in the Northwest again some day...for a visit.

TRIP REPORT

Oh, My Aching Back
Chuck, Mary, Molly, Bridget, Katie, and Casey Coughlin
with Tuffy and Thelma
May 29 & 30

On a May 15 trip to the Concrete area to check out road and snow conditions, Rod Crawford had taken the time to introduce us Coughlins to Three Mile Creek Cave. This cave is near a quarry northeast of Concrete at about a 3000' elevation. The entrance is about 8' high by 15' wide and the cave goes back about 80' to fill dirt brought in by collapse of a sink, which completely seals off the passage (see sketch map below). The collapse occurred in recent times according to an article in an early "Caver" which mentions a discussion with an old timer who remembers passage beyond the collapse area.

The idea of digging into more passage so excited me that I returned with the family three weeks later prepared for some serious digging. I had built a wooden "ore car" for help with dirt removal and was anxious to try it out. We set up our tent in the entrance (yes, it's that big). After dinner I sent Mary and the children to bed and settled down to some serious digging. I was pleased with the way the "ore car" worked out.

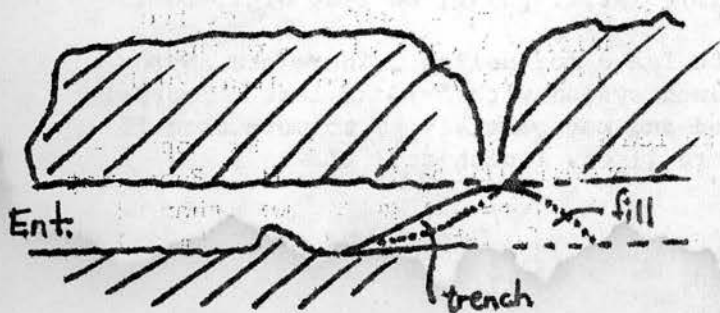
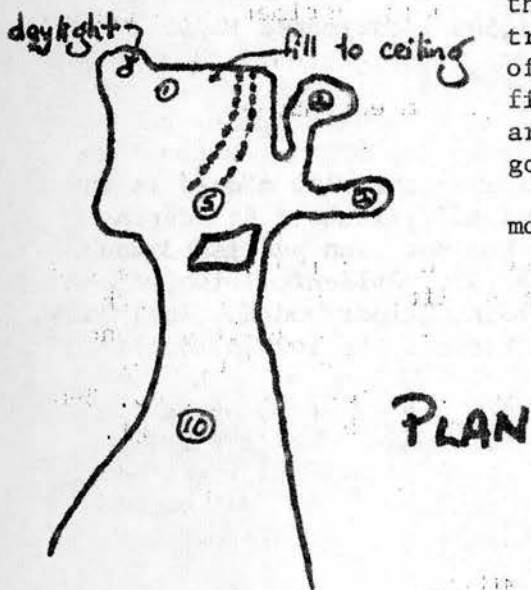
I was able to fill it in close quarters and then drag it downhill on its skids out of the trench and dump the load. In about 3-4 hours of digging I was able to extend a trench about fifteen feet to the center of the collapse area. The ceiling is bedrock as far as it goes.

I spent another 1 1/2 hours digging in the morning. Mary, the kids and pets did some hiking in the area, enjoying sunshine and a crystal clear view of Mt. Baker.

Editor's note: For more information about Three Mile Creek Cave, see Caves of Washington and also the original report in Cascade Cave Report #2, June 1951, reprinted in Cascade Caver 15 (9): 104.

Well, that takes care of our monthly trip report from Chuck Coughlin...

BUT WHAT HAVE ALL THE REST OF YOU
TURKEYS BEEN DOING??



Recent Developments in Northeastern Talus Caves

by Robert W. Carroll, Jr.
Potsdam, New York

The past month, and the weekend of June 11-12 in particular, has seen some interesting developments regarding the TSOD anorthosite talus system and vicinity. Using a measuring stick and compass, I have been doing a somewhat better job of detailed documentation there than I had at MBDATHS. MBDATHS itself may be "gathering cobwebs", and it may be a very long time before my 5300-foot estimate is checked out; of the prominent handful of New England "rockpile" cavers, Miles Drake had relocated in Virginia last year, and Dave Allured and Vi Schweiker will be moving to Colorado in two months (great news for Colorado, not-so-good news for the Northeast). It turns out that MBDATHS is down to only one "perhaps-or-perhaps-not" good unexplored section and could be expected to "stall out" at or around 5500 feet at most. On TSOD, the story is a bit different.

It turns out that I had greatly underestimated the passage that I had explored (but not measured) in the "Antigravitron" Sector last October. On the weekend of June 11-12, an eight-hour session with it corrected this error, and when the arithmetic was done, the grand total for the system came to 5500 feet! This does not include two major unexplored sectors, "TSOD II" and the newer "Bonor" (a major talus rampart paralleling and then crossing a ravine with underground stream), each of which look good for at least several hundred feet, plus a brand new network that has some chance of "tying in" with the "TSOD II" Sector. The August "Adirondack Miler or Bust" expedition has been renamed "Two Km or Bust" and the odds look high of its succeeding.

Sooner or later, that "monster" will have to run out of boulders--an earlier visit suggested that it will not link with any of the Henodoawdas (one an 830-footer, another a 760-footer, a third a very impressive 500+-footer that I am "keeping on ice" until 1978, at which time I think it will "make some eyes pop out")--but it is already "shaking up" some cave-length statistics around the Northeast. A bunch of well-known limestone stuff--Onesquethaw, Gages, Ward-Gregory, Hailes, etc., already has been "leapfrogged". Currently, four Jefferson County caves, three in Schoharie County, one in Albany County, and one in Sullivan County outrank it; by winter, the one in Sullivan County and one to three in Jefferson County may possibly "drop a notch" in the ratings. New York's two "5-milers" and three "2 1/2-milers" will almost certainly stay out of reach, although the combined TSOD area and its 50-odd caves add up to at least 10,750 feet of combined passage, 7550 feet mapped and a lot more likely--a respectable total for the Northeast. The map of TSOD itself is a "real mess" that promises to get worse.

I trust that your talus specialists have been busy in the West lately. Given the right kind of geological factors--fragment size and number, the way they are arranged, toughness of the rock--the prospects for talus caves are "wide open". Add a few things like underground pools and streams, small speleothems, some rooms 30 feet across, and ice chambers, and they can be very fascinating. Meanwhile, good luck in your efforts this summer, and let me know once in a while how things are "going" in your area. By winter, the talus statistics of our respective regions should be very interesting!

Editor's note: Perhaps some of Mr. Carroll's information would make an interesting addition to the proceedings of the "Commission of the Greatest Caves" at Sheffield this year. In the meantime, anyone interested in starting a map of Senger's Talus Cave just call me--you supply one or more willing mappers, and I'll supply another (me) and a Brunton.

Friday, March 18, 1977
Vancouver, Wash.

The COLUMBIAN 3

St. Helens seen monument area

By ALLEN THOMAS
Columbian Staff Writer

Unhappy with Forest Service policies, a fledgling conservation group is reviving a 1960s plan to create a Mt. St. Helens National Monument.

Russ Jolley, a Portland biochemist and member of the group, said today a meeting is scheduled Tuesday night in Kelso to reorganize the Mt. St. Helens Protective Association. Jolley said the group hopes to gain members and political clout and persuade U.S. Rep. Don Bonker, D-Wash., to introduce into Congress legislation to create a 120-mile, 90,000-acre national monument.

The proposed national monument would stretch from the Green River drainage basin on the north to the lava caves and upper Kalama River on the south.

Jolley said the Forest Service's permitting of logging, mining and geothermal exploration in the Mt. St. Helens area is destroying a tremendous natural resource.

Mt. St. Helens is the only Northwest glacier-clad volcano that has no environmental protection, he said.

"Mt. St. Helens deserves some protection," said Jolley. "In spite of some destruction, it can be saved."

Jolley said that under national monument protection no logging or new mining would be allowed on federal land. He said existing mining on federal land and mining and logging on privately owned property within the proposed national monument boundaries would still be possible.

Jolley said if the area were a national monument, the Forest Service might be able to work out some land trades with private property owners to protect the area in the monument.

Jolley said the south side of Mt. St. Helens has been severely damaged by logging.

"They're not getting good regeneration (of trees)," he said. "Between Burlington Northern, Weyerhaeuser and the Forest Service they've just about wiped out the whole area. It's almost totally clearcut."

Jolley said there are higher elevation clearcuts in the proposed area that were cut 15 years ago and have practically nothing growing.

Current board members of the Mt. St. Helens Protective Association include Jolley, Russ Maynard of Vancouver and four others from Olympia, Longview, Kelso and Chehalis.

Jolley said the association was formed in 1972, but went dormant about two years ago. The group used to have about 25 other members, he said.

"The time for action is approaching," said Jolley. "The Forest Service is getting ready to plan on the Spirit Lake and Green River planning units."

Jolley said the Forest Service has drawn an artificial boundary between the Green River and Spirit Lake area. The area should be considered as a whole, he added.

About one-quarter of the proposed national monument is in Bonker's district and about three-quarters in U.S. Rep. Mike McCormack's district.

Jolley said the group feels Bonker would be more receptive to the proposal than McCormack.

"Judging from past performance, he (McCormack) doesn't seem the one to go to for support," said Jolley. "although he hasn't been approached."

Tuesday's meeting will be in the home of Noel McRae, 2857 Rose Valley Loop, Kelso, said Jolley.

The following is from the Seattle Post-Intelligencer, Wednesday, June 15, 1977:

Xanadu Again In A Sea of Trouble

VANCOUVER, B.C. — (AP) — Xanadu, the little cruise ship beset with legal and financial difficulties, is in trouble again...

Oh, well, the headline certainly sounded interesting...

(contributed by W.R.H.).

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TWENTY-SIX YEARS AGO
in the Cascade Cave Report

CASCADE GROTTO
NATIONAL SPELEOLOGICAL SOCIETY
CAVES OF WASHINGTON
(Compiled by W.R. Halliday, as of May 15, 1951)

Part I: Eastern

<u>NAME</u>	<u>COUNTY</u>	<u>QUADRANGLE</u>	<u>LOCATION</u>	<u>TYPE</u>
1. Crawford (Gardiner)	P.Oreille	Metaline	Z Canyon	Ls.
2. Allbright	Okanogan	Chopaka	**	Ls.
3. Mt. Olive	Okanogan	Chopaka	**	Ls.
4. Chelan Ice	Chelan	Jameson	Ice Cave State Park	Talus
5. Indian	Grant	Beverly	S. of Vantage on E.Bank	Shelt.
6. Beverly	Grant	Beverly	Near Beverly	Talus
7. Crab Creek	Grant	----	Near Wilson Creek	Lava [sic]
8. Ice Cave	Spokane	Spokane	NE corner 5 Mile Prairie	Lava [sic]
9. Rock Lake	Whitman	--	N. end & W. side of lake	Shelt.
10. Boulder	Yakiman	Mt. Aix	**	

Part 2: Western

1. Ice Cave	Skamania	Hood River	**	Lava
1a. ----	Skamania	Hood River	**	Lava
1b. ----	Skamania	Hood River	**	Lava
2. St. Helens	Skamania	Mt. St. H.	**	Lava
3. Mt. Issaquah	King	Snohomish	SW 1/4 sec. 36, T24N, R6E	Talus
4. Grotto	King	Skykomish	1/2 mi. E of Skyko Lodge	Ls.
5. Icy Wind	Snohomish	Stillaguamish	North of Silverton	--
6. Big 4 Ice	Snohomish	Stillaguamish	Big 4 Peak	Glac.
7. Mt. Rainier	Ice Pierce	Mt. Rainier	Various Glaciers	Glac.
8. English Camp	San Juan	--	Near English Camp	Ls.
9. Sucia Island	San Juan	Orcas Is.	Various Bluffs	--
10. Orkila	San Juan	Orcas Is.	1/4 mi N of Camp Orkila	Sea
11. Lapush	Clallam	Lapush	1 1/2 mi S of Lapush	Sea
12. Lester	King	Snohomish	1/4 mile N of Lester	--
13. Fern	San Juan	--	N. edge of Oceanographic Lab grounds	Sea
14. Lake Lena Ice	Jefferson	Mt. Constance	SE side of lake	--
15. Ross Dam	Whatcom	Stillaguamish	Near Dam	Ls.
16. Jackman Cr.	Skagit	Mt. Baker	NE of Van Horn	Ls.

The preceding is reprinted from Cascade Cave Report #1, p. 4, May 21, 1951, with corrections published in CCR #2, p. 5, June 10, 1951.

**Precise locations for these caves omitted in this reprint.

Note: all original errors have been left intact for historical reasons.

Yr editor invites you to reflect on this list for a while, and consider those wild and woolly days of the Grotto's first year, when the only maps were the old 30' quadrangles and 28 caves were listed for Washington, of which all but six were mere rumors at the time! In fact, four of the above are now known to be no cave and six others have not yet been checked out! But now there are over 300 authenticated caves in Washington. Be grateful you belong to a long-established grotto.---Editor.

CASCADE GROTTTO STORE

Bill Capron, Keeper: Phone 784-8497
 Price List, July 1977

Cave Packs	\$1.50
Carbide	50¢/lb.
Judson kneepads, pair	4.50
Helmets	*
Chin Straps	.85
Premier Carbide Lamps	9.25
Lamp Brackets	1.00
Lamp Felts	2/15¢
Lamp Tips	.20
Lamp Flints	3/25¢
Lamp Waskets	.10
MSA Edison Cell headlamps	*
Gibbs ascenders (spring)	8.50
Gibbs (quick release)	10.50
Bonaiti D Carabiners	2.50
Bonaiti Locking D	3.25
Cascade Grotto Patches	1.50
NWRA Patches	1.50
Cascade Grotto Decals	.25
NSS Decals	.20

*Contact Keeper for Information.

Editor's note: Bill never comes to meetings, so if you want anything from the store you will have to call him.

THE JUNE MEETING

Twenty-one people of various sorts turned up at our third meeting in the public library. This total is even more impressive than it sounds, for it includes none other than Charlie Anderson! After some trip planning there was a discussion of the Forest Service's new off-road vehicle policy in the St. Helens lava Tube area (the same as last year's--terrible) and a plea for people to complain to the Forest Supervisor about it. Yr editor was appointed (1) to sign up for a year's meetings at the library, and (2) contribute some money to the purchase of a new typing element for the machine on which this 'ere rag is typed. Both these objects have since been accomplished. The program included a VICEG publicity slide show on the Regional Meet (more on the meet in next issue), and many slides from Bill Halliday on early Vancouver Island Caving, recent work in Belize, and last year's trip to the Canadian Rockies.

THE CASCADE CAVER
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Take
 Nothing
 But
 Pictures
 Leave
 Nothing
 But
 Footprints