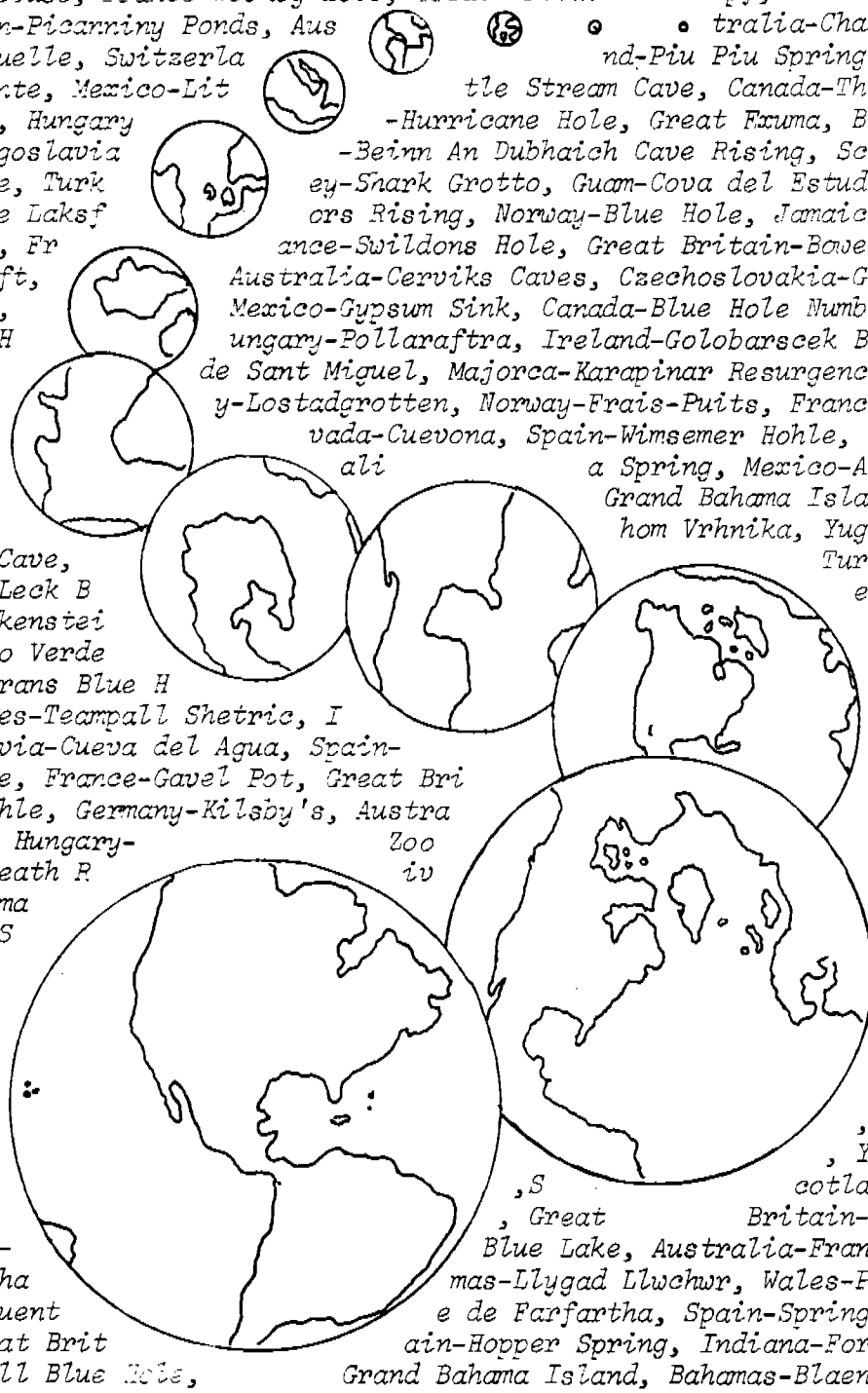
UNDERWATER SPELEOLOGY

OFFICIAL NEWSLETTER OF THE CAVE DIVING SECTION OF THE NATIONAL SPELEOLOGICAL SOCIETY vol.3, no.3



ountain of Vaucluse, France-Wookey Hole, Great Britain-Blautopf, Germany-Wakulla Spring, Florida-La alconera, Spain-Picarniny Ponds, Aus tralia-Chasm of Hranice, Czechoslovakia -Siphon de Rinquelle, Switzerla nd-Piu Piu Spring, New Zealand-Han-sur-Lesse, elgium-Bustamante, Mexico-Lit tle Stream Cave, Canada-The Great Blue Hole, Honduras- olnarj Barlang, Hungary -Hurricane Hole, Great Exuma, Bahamas-Pollanaffin, Ireland- zvir Kolpe, Yugoslavia -Beinn An Dubhaich Cave Rising, Scotland-Agen Allwedd, Wales- uden Resurgence, Turk ey-Shark Grotto, Guam-Cova del Estudiants, Majorca-Grotto of Dre ms, Italy-Nedre Laksf ors Rising, Norway-Blue Hole, Jamaica-Izbindis, Romania-Resurgen e de Port-Miou, Fr ance-Swildons Hole, Great Britain-Bover Cave, California-Aachtopf, ermany-The Shaft, Australia-Cerviks Caves, Czechoslovakia-Grotte du Pre Au Tonneau, Bel ium-Media Luna, Mexico-Gypsum Sink, Canada-Blue Hole Number Four, Andros, Bahamas-Lake evitz Spring, H ungary-Pollaraftra, Ireland-Golobarscek Bovec, Yugoslavia-Smoo Cave, S otland-Torrent de Sant Miguel, Majorca-Karapinar Resurgence, Turkey-Blue Hole, Guam-Blu Grotto, Ital y-Lostadgrotten, Norway-Frais-Puits, France-Keld Head, Great Britain-De ils Hole, Ne vada-Cuevona, Spain-Wimsemer Hohle, Germany-Webubbie Cave, Austra ia-Santa Ros ali a Spring, Mexico-Aggtelek Cave, Hungary-Bens Ca hedral Cave, Grand Bahama Island, Bahamas-Prods Pot, Irelan -Izvir Pod Ore hom Vrhnika, Yugosl via-Uamh Poll Edghainn, S otland-Handos Cave, Turkey-Meda Xica, Spain-Gouls de ourne, France-Leck B eck Head, Great Britain-Jacobs ell, Texas-Falkenstei ner Hohle, Germany-Ewens Pond , Australia-Rio Verde Springs, Mexico-Abaligeti C ve, Hungary-Karans Blue H ole, Great Exuma, Bahamas-D n Yr Ogof, Wales-Teampall Shetric, I reland-Zerovnica Cerknisko ezero, Yugoslavia-Cueva del Agua, Spain- Uamh An Tartair, Scotland-Gr tto de la Balme, France-Gavel Pot, Great Bri tain-Cold Water Spring, Iowa Brunnensteighohle, Germany-Kilsby's, Austra lia-Dzibilchaltun, Mexico-Bar dla-Also Cave, Hungary- Zoo Hole, Grand Bahama Island, B hamas-Little Neath R iv er Cave, Wales-Arch Cave, I reland-Mrzla Jama Pri Lozu, Yugoslavia-Ojo de Rio Bolugas, S pain-Cnoc Nan Uanh System, cotland-Resurg ence de Bestouin, France-K ingsdale Master Cave, Great Britain-Devils ell, Missouri -Elsachbroller, Germany-Hel hole, Austral ia-Beke Cave, Hungary-Conch ound Blue Hol e, Andros Island, Bahamas-Cra lle Hole Sumps ,Ireland-Porth Yr Ogof, Wales- laninska Jama , Yugoslavia-Cueva de Caluenin, pain-Uamh Mhar ,S cotland-Grotte Aux Lacs, France-In leborough Cave , Great Britain-Tytoona Cave, Pennsylvania-Mo dloch, Germany- Blue Lake, Australia-Frank Cave, Hungary-Black Hole, C y Sal Bank, Baha mas-Llygad Llwchwr, Wales-Pollnasalac, Ireland-Pivka Jam , Yugoslavia-Fuent e de Farfartha, Spain-Spring of Vitarelles, France-Magnet meter Pot, Great Brit ain-Hopper Spring, Indiana-Forellenloch, Germany-Tavas Cave ungary-Hawksbill Blue Hole, Grand Bahama Island, Bahamas-Blaen Hepste Resurgence, Wales-Qua

UNDERWATER SPELEOLOGY

published bi-monthly
beginning in February
by
The Cave Diving Section of
The National Speleological Society

Membership in the NSS Cave Diving Section is open to any NSS member in good standing that is interested in cave diving and has paid the dues ($3.00 for 1976). Persons not wishing to join may subscribe for $5.00 per year. Checks should be made payable to "NSS Cave Diving Section" and sent to Steve Maegerlein, Rt. 14, Box 17, Bloomington, IN 47401.

Deadline is the second Friday of the preceeding month. Send articles and correspondence to the Editor, Sheck Exley, 1591 S. Lane Ave., Apt. 118C, Jacksonville, FL 32210.

Opinions expressed herein are not nec essarily those of the NSS Cave Diving Section.

CALENDAR

Sept. 4-5, 1976: 9th Annual NACD Cave Diving Technology Transfer, Atlanta, GA. (Contact NACD, 2900 NW 29th Ave., Gainesville, FL 32601)

Sept. 11-12, 1976: Cave Diving Course, Branford, FL. (free to Section members)(Contact Sheck Exley - see address above)

June, 1977: Cave Diving Session and Annual Section Meeting at NSS Convention, Michigan.

Sept. 6-9, 1977: 3rd International Cave Diving Camp, Bristol, Great Britain. (This is just before the 7th International Speleological Congress - contact B.E.C. Travel Limited, 63 Dun keld Road, Ecclesall, Sheffield, S11 9HN England.)

1979: 4th International Cave Diving Camp, Mexico. (Contact Eduardo Castro Ruiz, Cerro de Tezonco 117, Mexico,21 D.F.)

COVER

Our cover this month signifies the worldwide cave diving activities of our colleagues overseas. We have listed 119 of the more famous cave diving sites in the world in 24 different countries. Most of these countries and others have active cave diving groups, many of which are affiliated in some way with the International Cave Diving Commission of the Union Internationale de Speleologie (the world caving organization). Anyone wishing to work with the Commission in promoting cave diving on an international scale should contact the Chairman, F.T. Piskula, Nam. SNP 19, 614 00 Brno, Czechoslovakia.

OVERSEAS DISTRIBUTION

One of the little-known aspects of *Underwater Speleology* to our readers here in the states is our popularity overseas. Subscriptions of our newsletter go out to Great Britain, West Germany, Switzerland, Czechoslovakia, Austria, etc., and certain issues (paid for by our members) are distributed in other areas when an item of interest shows up. All items must be paid for; we do not exchange or distribute free copies.

Here in the U.S. we distribute a limited number of free copies as required by our parent organization, the NSS. One copy goes to the library of the U.S. Geological Survey in Washington, D.C; and four go to the NSS Library at our national office in Huntsville, Alabama, probably one of the best-known and most extensive permanent repositories of cave-related literature in the world. In addition, two more copies go to the editor of the *Speleo Digest* for review and possible eventual republication in that popular annual book.

INTERNATIONAL CAVE DIVING COMMISSION

The International Cave Diving Commission was created by the Union Internationale de Speleologie during its 6th International Congress in Czechoslovakia in fall, 1973.

SPECIAL REPORT ON

NATIONAL CAVE RESCUE COMMISSION

by Tom Cook, N.C.R.C. Diving Officer

At the section meeting held at Morgantown, W.Va., it was decided to ask the Section members to send to me the names and addresses of fellow cave divers you know who have their act together and who you think could handle a rescue or recovery operation. These people should have their own gear and not have to run around borrowing it if needed. Please state if they have had dry caving and/or vertical caving experience; also, if they have their own dry caving and vertical gear.

These names will be disseminated to the various National Cave Rescue Regional Coordinators as capable cave divers to be placed on the rescue call down list. For an explanation of the function of the N.C.R.C. see *NSS News*, vol. 34, no. 5 (May 1976), p. 87.

As the National N.C.R.C. Diving Officer I plan to screen all cave divers requesting to be put on call down lists through our Section members. I think that there are enough of us spread around the U.S. and Canada so that we know most of our fellow cave divers. The reason for the screening is that unfortunately ego-tripping types tend to gravitate toward rescue situations and I want to avoid placing this type of person on a call list. Like I stated before, people who use common sense and have their stuff together are the ones we are after, after all they may be coming to the aid of one of us or a friend at some point in time.

The British method of sump and diver rescue is being looked at as a system to put into effect here. They have chalked up quite a number of rescues and their equipment has withstood the test. I have started gathering materials for a sump rescue litter and hope to have it completed and tested in a few months at which time the plans will be published in *Underwater Speleology*. I also have a diving reel that will handle 500 feet of nylon line and commo wire for communication through the sump.

If any of you have ideas on rescue equipment, procedures, training etc. please pass them along.

There is a need for regional diving officers to coordinate cave diving rescue resources and activities in the regional areas. If you would like to apply for these positions or know of a person who would fit the bill, contact the following Regional Commissioners: western, Dan Smith, 834 Louise Drive, Petaluma, CA 94952; northwestern, David Mischke, 23817-1o4th Ave., West Edmonds, WA 98020; southwest, Parry Denton, 1009 N. Halagueno St., Carlsbad, NM 88220; central, Tom Rea, 5141 E. Pleasant Run Parkway, S. Indianapolis, IN 46219; southeast, Bill Varnedoe, Jr., Route 4, Box 1853, Huntsville, AL 35803; east, Gene Harrison, 8802 Portner Ave., Apt. #5, Manassas, VA 22110; northeast, Carl Kingsley, 1518 Elm St., Utica, NY 13501.

Well, that's it. If anyone has any ideas or questions, please send them to me, my summer address is Box 216, Mt. Sunapee, NH 03772.

* * * * *

"Safety First"

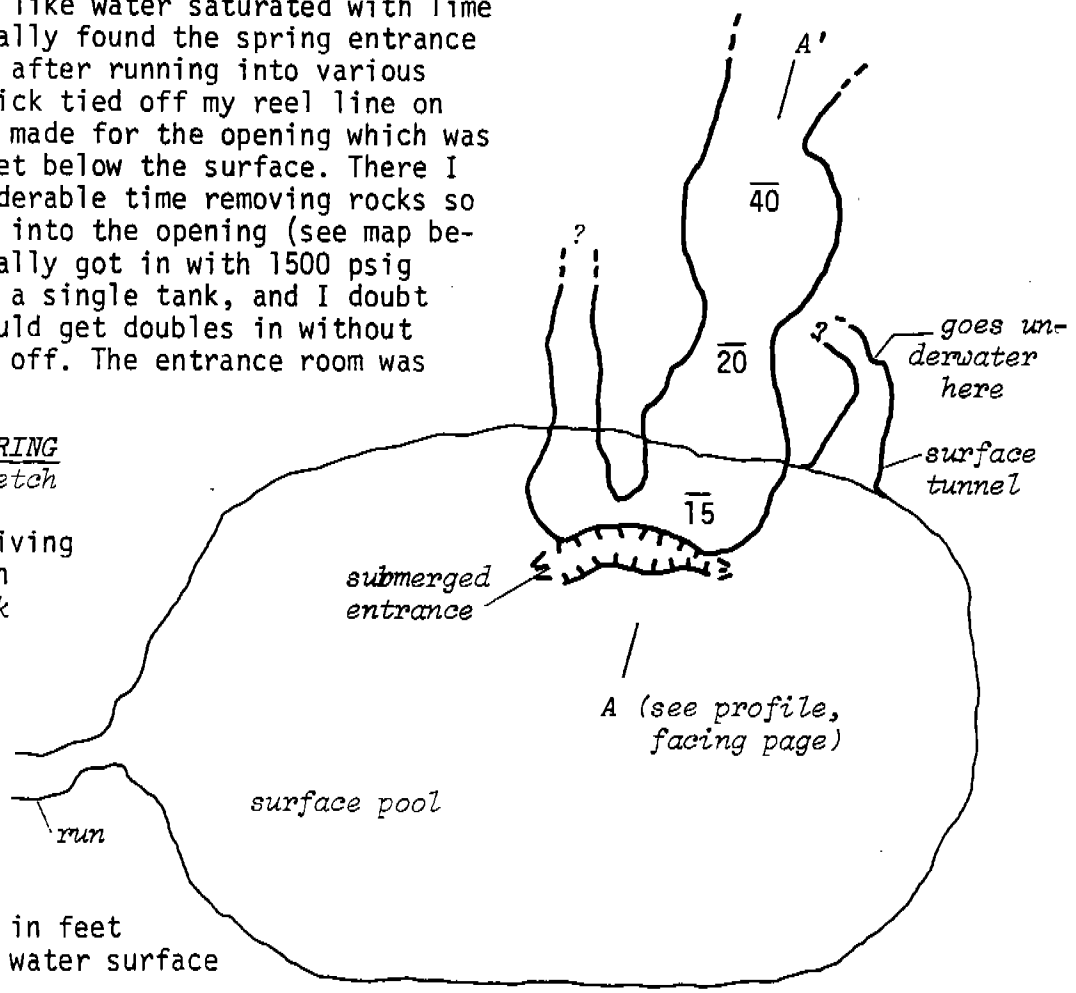
Judy Spring

by Tom Cook

(Editor's note: Judy Spring, which has been described as the "outstanding karst feature" in Germany Valley, West Virginia, is considerably endangered by operations in a quarry located directly above the main flow to the spring. We would certainly urge our members to support the conservation efforts of the Germany Valley Task Force of the NSS to protect the spring and other features such as nearby Hellhole and Schoolhouse Caves.)

During the recent NSS Convention at Morgantown, W. Va., Dick Bishop told Brad Smith and I about Judy Spring, which is near Seneca Caverns, W. Va. So Brad and I decided to do the dive on our way home. Since we had used our air up in the pool demonstration during the Cave Diving Session we had our tanks refilled in Morgantown, but unfortunately the cascade system only went to 2000 psig.

Dick and Jim Storey with his big red dirt eating machine were to meet us at the Germany Valley Limestone Quarry in which the spring is located. I arrived before Brad and decided to do a recon... Well, visibility was about 3 feet in what looked like water saturated with lime dust. I finally found the spring entrance in the pond after running into various boulders. Dick tied off my reel line on shore and I made for the opening which was about 10 feet below the surface. There I spent considerable time removing rocks so I could get into the opening (see map below). I finally got in with 1500 psig left. I had a single tank, and I doubt that you could get doubles in without taking them off. The entrance room was



JUDY SPRING
plan sketch

NSS Cave Diving Section
Tom Cook

15 = depth in feet below water surface

fairly large, visibility remained about 3 feet, and little flow was noticed. I proceeded to swim up the passage which was decorated with erosional forms- great for running into and fouling the line. The passage would become large with a room, then pinch down, then enlarge again. Because of the poor visibility I did not see how big the rooms were, but they were at least 10 feet wide and 4 to 7 feet high. About 70 to 90 feet in I hit the turnaround pressure and started out.

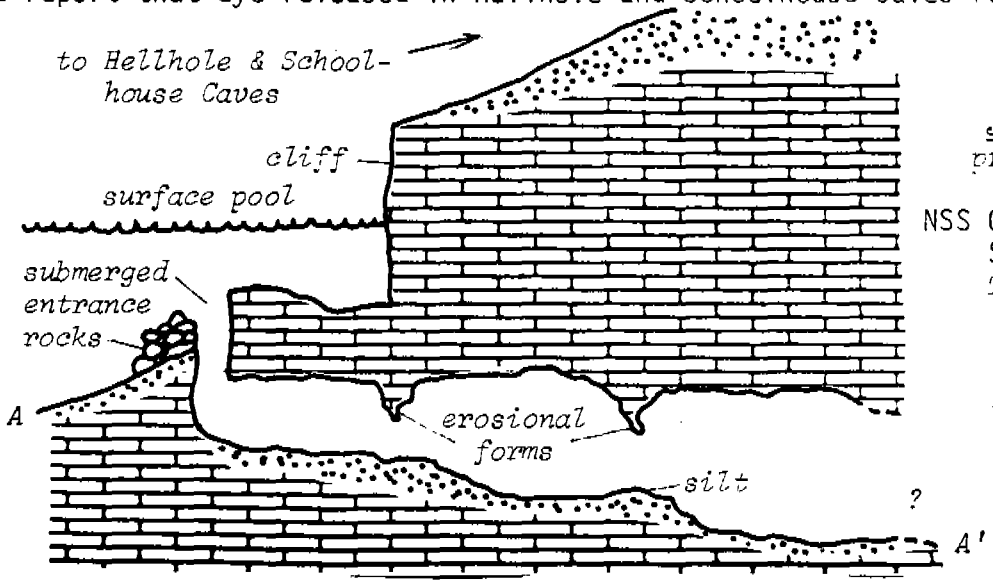
Back at the entrance slot I explored the entrance room and found a smaller passage that paralleled the main passage. I followed this for 20-30 feet and turned back. This passage was about 3 feet high and looked like a straight passage, lacking the undulations of the main passage.

I tried to exit the cave through the entrance slot and had difficulty. Finally I got out to waist level, but a large rock I was pulling on rolled down into the slot and landed on a flipper. Now I couldn't move my foot or get it out of the flipper or even reach down to free it. Nice mess. So I stood there and looked at the rock face that was a quarter-inch from my mask.

Jim (standby) said he'd come in after me if I didn't come out soon, but I didn't feel like waiting there so I decided to get that rock off one way or another. I knew I could take my tank off, then slide down the slot and push it off, but I didn't want to do that (too much work). So, I did an underwater body jam, put my heel on one side of the rock, jerked my pinned foot up, pushed with the other foot. The foot came up and the rock rolled on.

I surfaced and explored a water level passage and found that it went underwater at the rear and to the left. Brad had finally made it here, but he had double 80's and there was no way he could get through the slot.

There was something strange about this spring, but I don't know what it was. Dick said that they blast directly above the spring opening which accounts for the covered entrance... As far as I could see there was little breakdown in the passages, but the suspended sediment was thick - perhaps it is knocked loose by blasting. Another thing that did not seem right was a report that dye released in Hellhole and Schoolhouse Caves reached Judy



JUDY SPRING
profile sketch

NSS Cave Diving
Section
Tom Cook

Spring in around one minute I think it was, but that would require a swift current which I did not find.

The spring was dived by a scuba diver some time ago and he said that it got tight about 70 feet in. He may be referring to the erosional forms that hang from the ceiling and project from the sides, narrowing the passage.

Judy Spring warrants further exploration. However, a separate tank should be used to locate the entrance slot and remove the rocks from the entrance (including the one I rolled down). Then you can enter the spring with a full tank. The bottom is compacted silt, may be lime. Further on you may have to watch out for breakdown, which may indicate the rock has been weakened by the blasting above. If doubles are used I think they will have to be slipped in first and put on inside the cave entrance room. The surface level lead may connect with the main passage, but I didn't examine the parameters so don't really know.

The spring is located 3.3 miles south of the town of Mouth of Seneca. Turn left at the limestone company sign, drive through the quarry buildings and you'll see a spring on the left. Where the road turns right (away from the spring) there is a dirt road and bridge going left over the spring. Turn left onto this dirt road and make a hard right just before the bridge onto an overgrown road and from there you can see the pond that the spring is in.

* * * * *

CAVE DIVING IN GERMANY

from information supplied by Jochen Hasenmayer

(Jochen Hasenmayer is widely regarded as one of the best cave divers in the world, and has dominated the exploration of underwater caves on the European continent. His 930 meter penetration of Rinquelle in Switzerland, made with open-circuit scuba and a unisuit in 47°F water, was probably the longest by anyone at the time. He usually works solo, with safety line on a wrist reel dubbed "Thread of Ariadne." - Editor)

The two karst regions in West Germany, the "Schwabische Alb" and the "Deutsch Alpen," contain fourteen interesting water caves and siphons. Two of the springs, Blautopf and Aachtopf, are quite famous and contain very interesting underwater caves.

Cave diving in Germany began with a dive at Blautopf in 1880, and the first sump was traversed in 1903. As in Florida, there are far more sport cave divers than serious explorers specializing in the activity, 70-100 of the former as opposed to only a few of the latter. As the cave diving sites become better known and the numbers of divers increase, the amount of investigation and number of accidents is expected to increase.

The photographs of Jochen Hasenmayer and his equipment on pages 15-17, 19,20 and 22 of Bauer's *The Mysterious World of Caves* apparently show equipment that was in use quite some time ago (publication date was 1971). Special equipment now used includes "safety wire on wheels, corrected optical diving masks, back-scooter and balance-sack under the tanks." It is obvious that the German cave divers are probably far ahead of us (U.S. cave divers) in terms of equipment and techniques.

NEW CAVE COMMUNICATIONS

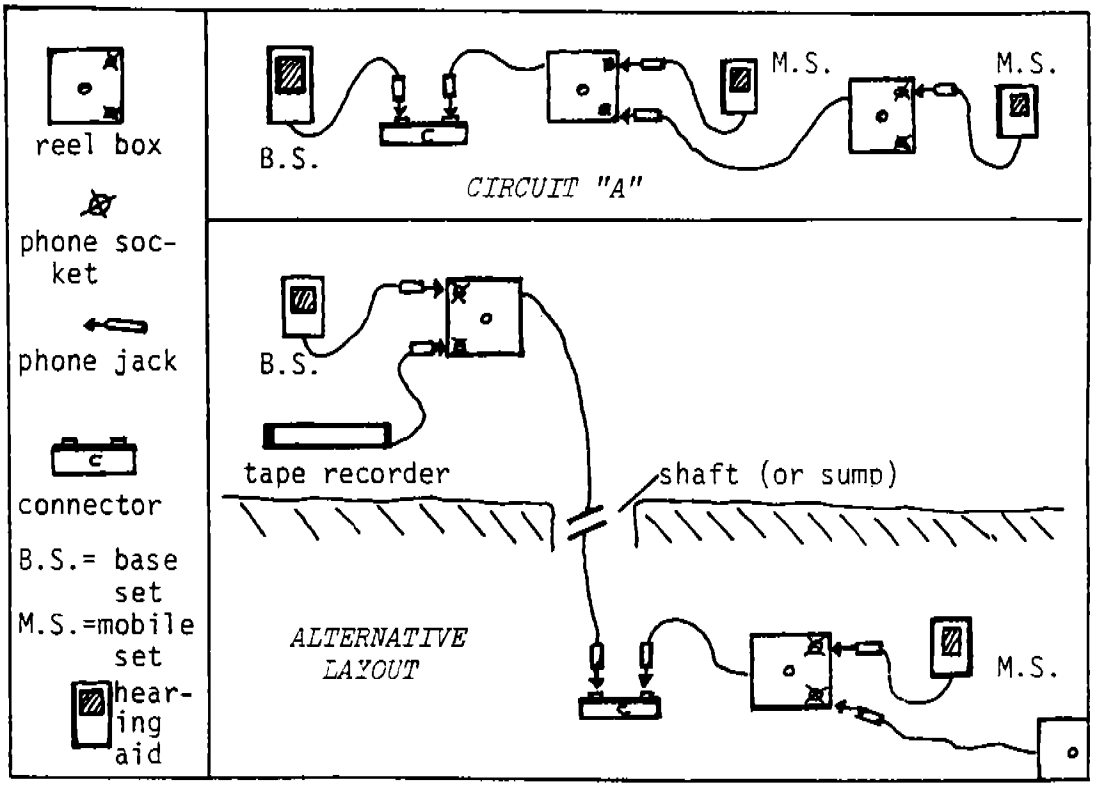
by Steve Wilkinson

Ed. note: The article below, which originally appeared on pp. 427-429 of the New Zealand Caving Journal *(vol. 4, no. 75), comes to us courtesy of active caver and cave diver Bill Atkinson, 91 River Rd., Christchurch, New Zealand. Many thanks to the author of the article as well as Bill, who secured the permission for reprint.*

To give our readers some idea of the "state of the art" in New Zealand cave diving, here are some excerpts from Bill's letters:

"...Re Piu Piu Springs in New Zealand (impressive clear-water spring pictured on p. 77 of Jennings' Karst *with a mean flow of 10.5 m^3/sec - ed.) - the spring issues from an aperture too small to enter, so I'm told. But the state of the cave diving art in NZ is such that even the little that has been done is reported by hearsay. No surveys or maps. Anything is possible."*

"...Our caves are land caves (those we're interested in at the moment), in limestone formation as the result of still-active stream systems, and we begin where the usual caving techniques have run up against sumps too long/too complex for the go-on-one-breath idea. For communication across the near-side/far-side gap caused by the sump we run a light wire flex through, connecting each end to an ordinary hearing aid. The physics involved are beyond me, but this very lightweight/low cost unit works clear on voice for several



hundred yards in operational conditions, and even seems to lower background noise such as waterfall hash."

The first job was to construct a portable reel on which to wind and carry the wire. My first attempt was a wooden reel (1/4 inch ply ends, 1/2 inch dowel through the centre) 8 inches long. The ends of the dowel projected about 3/4 inch through each end. A box was needed, having back, base and two ends. Bushes were placed in each end to take the reel spindle, two phone sockets were fitted on one end, wired in parallel to two spring contacts which touched two slip rings on the reel, with the wire fixed permanently to the reel and the slip rings. A belt was attached to the back and the job was complete.

The wire I decided to use was TRU RIP, 2/14/0076. Calculations by the makers suggested that up to one mile of wire could be used without any appreciable loss of efficiency. I purchased 200 yd. of sub-standard wire and wound 100 yd. on to the reel, and fitted a phone jack.

The next important thing was a smaller phone or a substitute. One of my friends said "What a pity you can't use a hearing aid." Experimentation with a borrowed one proved that it would be ideal. With a simple modification a length of Tru-rip was added, a phone jack fitted and it worked. At least it did work when two hearing aids had been modified.

The only other item needed was a "connecting box", which I made by fitting two phone sockets wired in parallel into a plastic box (after tipping out the transparencies). This is needed to connect two wires, each having a phone jack on the end (see diagram, top of next page).

Operation

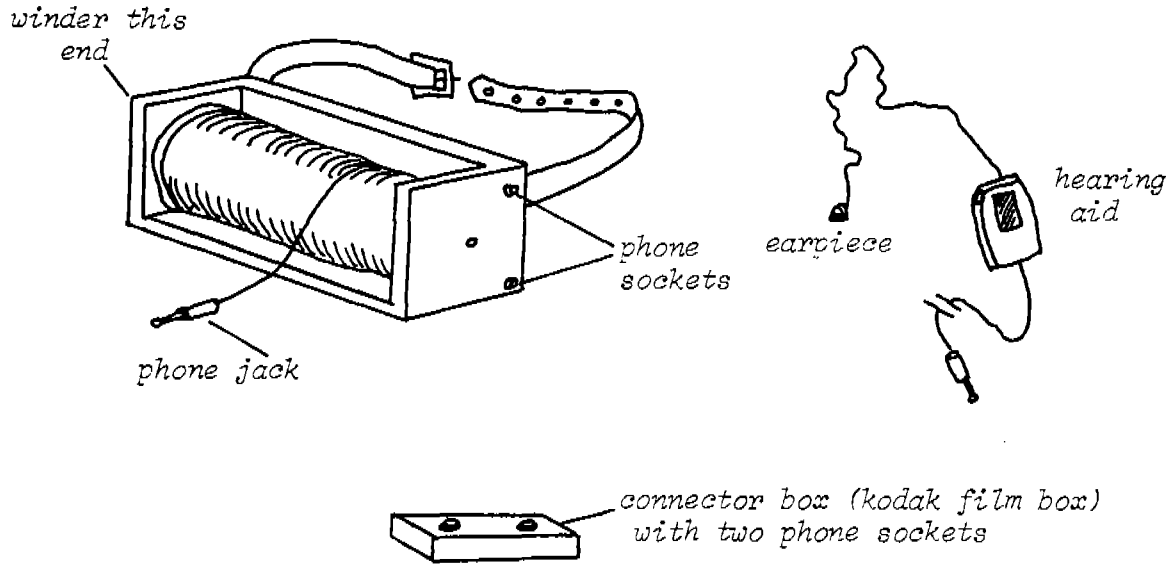
Assuming only two sets are to be used with one reel, they are arranged as follows:

1. The base set and operator are positioned outside the cave.

2. A caver buckles on the reel (it is quite comfortable worn resting on the buttocks), the hearing aid is plugged into the reel and the earpiece fitted. Once the set is switched on it can be placed in the top pocket of a "trog" suit to afford it some protection.

3. The jack on the reel wire is plugged into the connecting box, the base set is also connected and everything is ready for testing.

Tests carried out so far have been very encouraging. Using half volume, good reception was obtained both ways, (this was over 200 yd. of wire). The set can be left in the pocket (or clipped to a chin-strap) whilst climbing or crawling and reception is good. Both sets can be left switched off if desired, though this prevents the base operator hearing the colorful language let forth when the caver tries on a squeeze for size. We have found it very handy to pass comments on progress or the types of formation found in a new cave, the base operator keeping a log of events and comments. The operator also passing on any relevant comments on the weather.



With two or more reels and two or more sets, possibly two connecting boxes also, a very useful phone circuit could be set up. For instance; sets could be left ready connected at strategic points in a cave during a rescue operation.

The wooden reels and boxes have given no trouble to date. I did add at a later date a detachable winding handle to the reel and reinforced the jack plugs with garden hose to guard against crushing by careless cavers.

We now await the donation of further hearing aids. (The first two were donated).

If any other clubs would like more details of modifications to the sets, or the construction of reels I will be happy to oblige.

An alternative method for use in shafts is to leave a reel on the surface with base set connected, the wire being paid out as the caver descends.

The person descending must of course take the connector with him. Once he reaches the shaft bottom a second reel can be plugged into the connector and the system used as described earlier.

* * * * *

DEVILS EYE AND JENNY SPRINGS, FLA., CLOSED

These two extremely popular Florida springs have been temporarily closed to all diving. The owner, Mr. Robert Wray, felt forced to close the springs out of concern for recent fatalities involving inexperienced cave divers (not members of NSS) at Jenny Spring. River access to Devils Eye, which Mr. Wray cannot control, is still available.

The springs will be reopened to certified cave divers (PADI, YMCA, NACD, NASDS) starting Labor Day weekend. Liability releases will be required.

MINUTES OF THE ANNUAL MEETING OF THE NSS CAVE DIVING SECTION

June 30, 1976 - NSS CONVENTION, MORGANTOWN, WEST VIRGINIA

(as recorded by Karan Exley, NSS 16265)

The meeting was called to order by the acting Chairman, Sheck Exley, at 4:00 PM. In the absence of the secretary-treasurer Karan Exley was appointed to take the minutes of the meeting.

The following Section members were present: Dick Bishop, Doug Carter, Tom Cook, Karan Exley, Sheck Exley, Chuck Heller, Daryle Hensel, Joseph Lieberz, Barbara Storey, and Jim Storey. The following interested persons were also present: R.F. Tyndall, Jeff Yockers, Dane Sottolano, Brad Smith, Ann Underwood and Clay Phipps. Dane Sottolano joined the Section after the meeting.

The prospects of a field trip to dive nearby Laurel Mountain Cave were discussed. Tom and Sheck had checked out the site on Monday and found a pretty interesting large flooded mine reportedly over 60 feet deep that intersects several natural caves; the water was cold but quite clear. It was decided to put a notice up at the registration table to see if anyone would be interested in going Friday morning.

It was moved and passed to form a committee to make a list of persons qualified to participate in cave diving rescues. The chair appointed Tom Cook chairman of the committee and asked that the list be made available to Dan Smith and the National Cave Rescue Committee (*ed. note- Tom was subsequently selected national diving officer by the N.C.R.C.*).

In the process of amending our Constitution, no less than 12 amendments were proposed, discussed, withdrawn and/or passed, including some that had been proposed by Dave Jagnow and Bob Woolf quite some time ago. Rather than go into a detailed report on the actions of each motion, please see the new revised Consitution of the NSS Cave Diving Section on page 33. A comparison to the old Constitution will reveal the changes that were made.

Election of officers was held, and the officers for 1976-77 are as follows: Chairman, Sheck Exley; Vice-Chairman, Tom Cook; and Secretary-Treasurer, Steve Maegerlein. Joe Lieberz ran Steve a close race for the latter position. In accordance with the new changes to the Constitution, Sheck, Tom and Steve will serve until the annual meeting next summer in Michigan, or until election by mail should a quorum not be present.

Jim Storey mentioned the need for an NSS Slide Show on cave diving, particularly the safety aspects. Chuck Heller moved that a committee be set up to compile the slide program. Motion was seconded by Dick Bishop and passed. The chair asked Jim Storey and Dick Bishop to work together as co-chairmen of the committee. Jim asked that anyone with slides on the subject please send them to him (3221 Valaire Dr., Decatur, GA 30033).

It was moved and passed that the meeting be adjourned.

* * * * *

There are <u>old</u> cave divers, and there are <u>bold</u> cave divers, but there are no <u>old, bold</u> cave divers.

CONSTITUTION

I. The name of this organization shall be the Cave Diving Section of the National Speleological Society.

II. The purpose of this organization shall be the same as those of the National Speleological Society with the additional purpose of organizing NSS members who are interested in cave diving so that they may better promote the objectives of the NSS.

III. (1) The Cave Diving Section shall be governed by an Executive Committee made up of the following officers (all NSS members) elected by the members at the annual meeting during the NSS Convention: Chairman, Vice-Chairman, and Secretary-Treasurer. In the absence of a quorum at the annual meeting, the previous year's Executive Committee shall nominate a slate of officers. In addition, nominations will be solicited from Section members through the mail, allowing 30 days for response. After this the election shall be held through the mail allowing 30 days for response.

(2) The Executive Committee shall have complete power to manage the business, to formulate by-laws, to raise funds in any manner not inconsistent with the policies of the NSS, and to perform all other necessary functions.

(3) Decisions or actions of the Executive Committee may be overruled by a 2/3 majority vote of the members.

IV. (1) The life of the Cave Diving Section of the NSS shall be perpetual or until terminated by a majority vote of the membership upon recommendation of the Executive Committee.

(2) Executive Committee meetings and general meetings shall be held at such times and places as are determined by the Committee with the exception of the annual meeting, which will always be held during the NSS Convention for the purpose of electing the Executive Committee.

(3) A petition signed by a majority of the membership shall be mandatory upon the Executive Committee to call a special meeting for the purpose stated in the petition.

V. Full membership is limited to members of the NSS.

VII. (1) The Constitution and By-Laws of the NSS shall be binding on the Cave Diving Section. Any action inconsistent therewith shall be null and void.

(2) Any NSS property shall revert to the NSS in the event of dissolution.

VIII. Amendments to this constitution shall be made by a majority vote of those present at any previously-announced meeting where a quorum is present called by the Executive Committee expressly for the purpose, or by written consent, of one-half the total membership.