

BASIC CAVE DIVING

-a blueprint for survival



by Sheck Exley



cave diving section

underwater
speleology

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 1979). Immediate family of members not wishing to receive a newsletter may also join for \$1.50. 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 the treasurer, Stephen Maegerlein.

Deadline is the second Friday of the preceeding month. Send articles and correspondence to the editor, Gene Melton.

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

CHAIRMAN - John Zumrick, 2114 NW 55th Blvd., #12-A, Gainesville, FL 32601

VICE CHAIRMAN - Tom Cook, 378 Webster St., Manchester, NH 03104

SECRETARY - Bill Fehring, 5439 Ginger Cove Dr., Apt. A, Tampa, FL 33614

TREASURER - Stephen Maegerlein, P.O. Box 60, Williams, IN 47470

EDITOR - Gene Melton, 505 37th Ave., Vero Beach, FL 32960

PUBLISHER - Stephen Maegerlein

SLIDE PROGRAM COMMITTEE - Paul W. Smith
2842 NE 14th Dr., Gainesville, FL
32601

TRAINING COMMITTEE - Forrest M. Wilson,
2832 Concord Dr., Decatur, GA 30031

INTERNATIONAL COMMITTEE - Joseph Lieberz, c/o Electronic Product Testing, 1905 Victory Blvd., Unit 13, Glendale, CA 91201

WORKSHOP COMMITTEE - John Zumrick

SAFETY COMMITTEE - Tom Cook

PROSPECTIVE STUDENT LIST - Karan Exley

AWARDS COMMITTEE - India Young, Rt. 3,
Box 119K, Byron, GA 31008

COVER

Basic Cave Diving - a Blue Print for Survival by Sheck Exley is the latest publication by the N.S.S. Cave Diving Section. Written for the cave diver with little experience or training, veteran divers will also find the text useful and informative. Although North Florida caves are discussed, the information can be used worldwide. Each Chapter starts with an accident report, follows with an analysis and then discusses technical hardware, techniques and training that could have prevented the accident. The 46-page booklet is "a Blue Print for Survival". Order from: Publications Committee
N.S.S. Cave Diving Section
10259 Crystal Springs Road
Jacksonville, Fla. 32221
Payable to:
N.S.S. Cave Diving Section
Price: \$2.95 Retail: \$2.50
N.S.S. Member: \$1.75
Wholesale (10 or more)

EDITORIAL

Basic Cave Diving by S. Exley should do more to prevent cave diving accidents than anything else in the past eight years. Written clearly, concisely, and to the point, it provides the reader with the knowledge of what is necessary and WHY to cave dive safely. Good job, Sheck!

CALENDAR

July 29 - Aug. 4, 1979; "Cave Rescue Operations and Management Seminar" Albany, N.Y. Contact: National Cave Rescue Seminar, 834 Louise, Petacuma, CA., 94952, (707) 763-4884.
Aug. 5-12, 1979; Cave Diving Session and Annual Section Meeting at NSS Convention, Pittsfield, Mass.
Sept. 1981, Fifth International Cave Diving Camp, Bowling Green, Ky.
Contact: Joe Lieberz - address on left

SPRING CAVE TRIP REPORT

AUGUST 1978

By Norm Pace

Chris Albers	Al Collier	Steve Havelly	Ben Stucklen
Janet Albers	Blane Colton	Laszlo Kubinyi	Debbie Stucklen
Don Asnicar	Donald Davis	Norm Pace	Tom Taylor
Jerry Atkinson	Gary Harris	Jim Pisarowicz	Clarence Williams
Dan Cole	Dave Harrison	Paul Simmons	Doug Wilson

The above Colorado Grottoites and interested parties (plus a few who did not get listed) participated in the Aug. 19-20, 1978, attempt on Spring Cave's Sump 4. In brief, it was a great Grotto trip but we failed to dive Sump 4. However, we learned considerable in the process. As most will recall, a series of SCUBA dives during the past few years has succeeded in forcing three upstream sumps to the present end of exploration, Sump 4, nearly two miles into the cave. This point was reached in October, 1977. The personnel requirement for dive trips is large because Sump 1 is already a mile into the cave and SCUBA gear (about 70 lbs. per diver) must be moved to that point, through some difficult passages. This most recent effort involved 18 "assigned" slots, including six divers, so the thing has ballooned into expedition proportions, complete with organization hassles. Logistics did us in this time, but only because the water was exceptionally high, necessitating a short free dive only half way to Sump 1. So, by the time we had moved all the gear to Sump 1, it was too late to begin the Sump 4 attempt. The following account of the trip is necessarily myopic, being my own. Therefore, I for one, would appreciate seeing trip reports from others as well.

Planning for the Sump 4 dive attempt--our Grotto trip really began last winter as various scenarios for the trip were discussed. The problem was (and remains) basically a logistic one; place 200 plus lbs. of gear and three divers, in reasonable aggressive state of mind, at Sump 4. We have decided that three divers should be used in this cave wherever possible. Two divers generally are considered optimal, to prevent crowding in sumps, and the Brits seem to think that the "buddy system" consists of a single diver with a second in reserve--not necessarily even in the water. However, so far in Spring Cave, none of the sumps has been unreasonably tight or silty--Sump 4 could accommodate an 18-wheeler--and the extra person provides an important safety margin. In this 40° alpine cave, an incapacitating injury poses the additional threat of lethal hypothermia. So, in the event of an accident, with three cavers on hand, one could go for help and

another could remain at the scene to render any necessary assistance. However, using three push divers at Sump 4 meant that 3 more divers would be required for the carry between Sumps 1 and 2. This, in turn, meant 400 plus lbs. had to be delivered to Sump 1. The three divers remaining outside Sump 2 were projected to survey and explore side leads.

Three general approaches to the first dive of Sump 4 were discussed. The most obvious was to continue what we had been doing, namely, cart all the stuff in and do the dives, then retrieve everything the following day. The hooker with this plan was that we had never tried to move that much gear in one trip. In fact, to my knowledge, this would be the largest in-cave diving expedition thus far attempted in the U.S. So, the organization problems seemed of concern. Ten-twelve persons, in addition to the divers, all wet-suited for the frigid waters, would be required to move gear the mile in to Sump 1. And, it was of extreme importance that the haul parties move rapidly to Sump 1 in order that the divers be sufficiently warm and fresh for extended activity.

The second plan discussed involved a preliminary trip to establish an equipment dump at Sump 1, for use on a subsequent date. The problem here was that Sump 1 likely would be inaccessible until the date of the dive because of the snow melt run-off and, anyway, all of the gear would have to be moved from the cave following the dive. This would require a significantly large party, or numerous transport trips and, therefore, multiple weekends to do the Sump 4 dive. This plan offered no advantage over the final scenario, which involved placing a camp and equipment dump at Sump 2, for protracted exploration beyond Sump 4. The camp clearly would be required for continued work beyond Sump 4, but because of all the obvious hassles implicit in these last two plans, we opted for a single push, a brief exploratory dive of Sump 4 and the problems of the requisite large party.

Having settled on a plan for the next phase of the Spring Cave exploration, we had only to wait for the snow melt floods to recede. The 1977-78 snowpack on the plateau above Spring Cave was exceptionally high. In fact, as documented by Donald Davis (CINTHER, May-June, 1978), water poured from the entrance to the cave this year, for the first time in at least 20 years. Moreover, the melt arrived a full month late. Several excursions were made to check the water situation at The Jaws, the deep constricted canal which during high water, prohibits access to the main river gallery. However, not until early August did Blane Colton report four inches of air at The Jaws. We, therefore, scheduled the Grotto trip and Sump 4 attempt for the weekend of Aug. 19-20, feeling confident that by then, the water would have dropped sufficiently. The dive crew was to include, besides me, Tom Taylor, Al Collier, Doug Wilson, Jim Pisarowicz and Chris Albers, who had to drive down from Jackson, Wyoming.

There was considerable interest in the trip among the Grotto membership, as the above list of participants attests to. Two weeks before the trip, I mailed to the interested an information sheet regarding wetsuit rentals, rides, scheduling, and pre-trip designation

of haul teams, to minimize organization problems the morning of the trip. Gary Harris agreed to serve as surface coordinator; getting all those people together and into the cave in concert, promised to be a full-time job. Christ--even getting that many cavers out of warm down bags appeared a formidable task!

Jerry Atkinson and I made the 280 mile Denver-Spring Cave grind on Friday afternoon. I was taking in a leisurely, stoned day before the dive this time. Those long drives and edgy, 2:00 a.m. arrivals are definitely not good preparation for two hard days of cold water caving. We stoked up on pasta in Glenwood, then munched our way on to the campground, finishing the drive in a brilliant sunset. The evening was spent packing haul bags, during which I burned out one of my dive lights. Although not too important for the dive, this possibly had some influence on the following day's events.

Gary started routing out people about 7:00 a.m. on Saturday. Things looked good; we had a full complement of enthusiastic cavers plus two extras. Actually, several people who had originally planned to come, could not do so but a sufficient number of unexpecteds showed up. Recognizing the need to get things on, everyone hustled in getting their act together, so by mid-morning haul teams were starting up the trail to the cave, past the usual dumbfounded gaggle of onlookers. We grouped at the entrance so as not to get scattered throughout the cave too soon. Sitting around at Sump 1, waiting, wet, at 40° is a real drag.

Then, into the cave in groups of three, two clutching slings on either end of a tightly wrapped tank bag. The third in each group humped a bulky pack holding regulator, dive light, mask and various other paraphernalia. I recall thinking that it all looked very serious. Several people who had never worn wetsuits before, much less dabbled in alpine cave waters, were clearly subdued, not knowing quite what to expect and already feeling wetsuit constriction and sweat. Then too, there had been this continuous speculation about the state of the river. However, the party moved strongly through the upper cave, flowing past the ladder climb, the T-Junction and the following overhanging boulder climb in essentially continuous motion. I was elated at the progress. The extra, "roving Sherpas" proved extremely valuable and are recommended to future diving expeditions in Spring Cave.

The first hint of poor water conditions that we encountered was crotch-deep water at the Polish Squeeze. Bummer. We plunged on, relaying tanks through the tube and up the Polish Squeeze canyon and gingerly clanking them into a stack at the top. The rather continuous line of cavers broken up then. I was one of the first to Jones Beach, a half-hour further, and had to wait another 30-45 minutes before all arrived. Just enough to chill.

Jones Beach is where the swimming begins. However, you not only have to swim through a narrow, deep canal, but halfway through, you must clamber over a constriction, The Jaws, in the top of the nearly water-filled canyon. Usually this is no problem, but the water level indeed was high, so The Jaws meant one ear in the water. Cold

water. Even a little splashing inundated the nose, and this was inevitable while moving tanks and lead weights through. A few people began to appear disgruntled, but all maintained good form. Then we hit the obstacle I had particularly been concerned about. The place doesn't have a name, but just beyond Cobble Road, an overflow tube which is dry at this time of year, the passage slopes down to rejoin the deep, ponded water at a cross-canyon with low air clearance. Although generally no problem, this trip it was almost sumped. A narrow slot above the water level connected to more spacious headroom only six feet away. Unfortunately, that air space could not be used for breathing so the only way on was to take a deep breath and go for it.

Our team reached the constriction first. I, in fact, had found it necessary to dive through this thing during an early summer trip the previous year and had free-dived other short sumps, so realized that it was not really dangerous. However, the aspect of the whole thing really is formidable. I definitely would not have free-dived it without absolute knowledge that it really did open up over there. You cannot judge well when going in. Seeing the high water there, even though for the last hour I had been expecting it, discouraged me greatly. No way that everybody would go through it. Wanting to keep things moving, I right away got out my dive light, took a deep breath and dove through the thing.

The two sides of the dive communicate by the slot in top of the nearly water-filled passage. A lamp may even be passed back for lighting. On the inner side, it is necessary to tread water or swim 50 feet to a cobble beach, so I floated there in the buoyancy of the wetsuit, treading to maintain balance. I got my carbide lamp lit immediately, turning off the very much more brilliant diving light to conserve power. In retrospect, turning off that underwater light was a mistake, but having burned out a bulb the previous night, I had no spare and wished to conserve power for the Sump 4 dive. By the time I was set to receive gear, other parties had arrived and were rather taken aback by the scene. The water there is deep and crystal clear and, of course, very cold. My light would have shone through the slot as a glaring reflection off the water, over a green-black glow below the surface. This dim lighting must have offered a sinister view. As it was, as more parties gathered, several cavers decided that free-diving 40° sumps required a bit more mental preparation and so waited, got cold, sane, and kissed off the remainder of the trip.

Gary started moving gear through the dive and swam it back to a cobble-shored beach. Then some others, familiar with high water at that constriction, pepped through amid sputterings, chokes and gasps of how the cold water stabs you in the forehead. You can't hold your breath so long in frigid water, either, since the body blows off considerable effort warding off the cold by generating more heat. (SCUBA tanks require considerable husbanding in the cold.) All the sputtering, of course, did not make the reluctant on the other side any happier about the obstacle, but some dove through anyway. Again, in retrospect, we handled the situation poorly. We, in fact, had been concerned about the possibility that this constriction might be flooded, but had not invested any effort in exploring how best to put

twenty people, some with little or no experience in cold water caving, through a free dive, albeit short. We should have all gotten out dive lights and illuminated the dive site like a football stadium. Then, a line should have been strung at an angle appropriate for pulling oneself through rapidly. A descending angle on the line would be most useful because the wetsuit affords several pounds of buoyancy and thus tends to pull the diver toward the ceiling, where he catches on jagged protuberances and has to flounder vigorously to kick up to air. Most importantly, we should have carefully coached everyone about how to handle the thing if encountered. As it was, I for one, rather unconsciously suppressed thought or discussion of the possibility of this flooded constriction. No reason to alarm people beforehand, I think, was my vague rationalization. Anyway, we learn. The next time it will be done correctly.

So, after two hours of discussions, diving, moving all the junk and just kicking around, everyone was through who was coming. I spent about an hour of that time treading water and coaching through the communication crack or swimming gear back to the cobble beach, so had grown quite chilled. We still had a half-mile of cave to trudge, wad and swim through and the haul teams were cut in half. Council was held on the beach, shouting over the din of the swift water there, and all agreed that the Sump 4 attempt would have to be aborted. By the time we got all of the gear to Sump 1, it would be much too late to launch the push. Beyond Sump 1 is another three-quarters of a mile of cave, two sumps, and a waterfall to ascend before even getting to the Sump 4 dive site. However, there certainly was no reason not to continue on to Sump 1. It was, after all, a Colorado Grotto trip and the best part of the cave was yet to come. Also, we, of course, could ferry to and stash some of the gear at Sump 1 for future use.

We dropped two of the tanks and weight belts that had to go back out at the cobble beach and proceeded on in with the remainder. I enjoyed the stroll thoroughly, in fact, was quite gleeful. Fine cave to move through and we wouldn't be hanging our butts over the edge that day. I was interested to note that some of the gravel bars had shifted. One place where we previously had to swim was then only chest deep. It makes tank hauling easier. Also, it possibly is noteworthy that numerous footprints in mud only a few feet above stream level had obviously been inundated, but not torn away. This would suggest that the melt-waters pond in this portion of the cave rather than tear through violently. The place seems to have flooded to at least 20-25 feet in depth near Sump 1, since the sand dig also had flooded.

Although we carted four tanks to Sump 1, only two were to be stashed for an already-planned repeat attempt on Sump 4. The other two we used on practice dives in Sump 1. Albers and Doug Wilson, although certified divers, had not yet dived in a cave. Tom Taylor and I alternately went through with them. The sump line had been torn free by the meltwaters and was tangled on protuberances, so Tom and Chris restrung it on their dive. Fortunately, we did not have to use any of our 600 feet of bright yellow nylon, Sump 4 line.

I tried to get a few photos of Tom and Chris going under.

A dive at Sump 1 really is a dramatic sight. The ceiling of the broad corridor lowers there, over a deep pool with a wide, polished cobble and gravel beach, past which the river flows. It is a prime place to launch a dive from. The divers swim out 30-40 feet before submerging; no one else even wades out a bit to avoid generating silt. Besides, the place is cold as Hell. Quite a bit of froth gets splashed around as the divers submerge. Everyone is weighted for neutral buoyancy at about 20 feet in depth and really has to kick for it. During descent, the pressure progressively collapses the gas-filled bubbles in the neoprene and buoyancy is lost, so things aren't so bad even a few feet down. Also, at the surface, it usually is necessary to dump a lot of air from all the garbage like packs and helmets. All the froth kicked up initially reflects the brilliant shafts of light from the divers' sealed beam lamps. Then, as they descend toward a submerged constriction, the Sump 1 pool glows deep green.

Following the return of the others, Doug and I donned their tanks for another dive. Apparently, I dragged Tom's regulator's octopus second stage in the gravel and as I went down, the thing went free-flow, errupting a cascade of bubbles. I surfaced and could not get it cleared, so retreated to the beach and put my own regulator on. There's another lesson learned on this trip; keep second stage mouthpieces covered when not in use. I plan to try small nylon stuff-sacks held on with a sturdy rubber band, so that the bag can quickly be snatched off. Because I blew off so much air piddling with the regulator, Doug and I only went into the first airbell in the sump. I was pleased to note that the silt bank on the bottom of the nearly water-filled room had been blasted out a bit by the flood. There have been some problems here in the past. Swimming in essentially zero visability is really scary.

Returning to the others, we struggled out of the gear, packed it up and forged on out in time for a fine sunset. Back at camp, all concurred that in the balance the trip had been successful. Although we had not explored Sump 4, it certainly had been an outstanding Grotto trip. Several people were introduced to wetsuit caving in alpine waters, we learned considerably about organizing and coordinating large logistic efforts, and a fine time was had by all. The fire that night was welcome. Autumn chill already in the air at that elevation. The next trip would mean frozen wetsuits.

* * * * *

The 4th INTERNATIONAL CAMP OF CAVE DIVING will be held at Cabrerets, France, 18th - 25th August, 1979. You may obtain a registration form by writing Stephen Maegerlein, P.O. Box 60, Williams, IN 47470. Please enclose a stamped, self-addressed envelope.

OCTOPUS BREATHING

it really works

(Reprint from NAUI News)

By Melton Culpepper

Imagine yourself enjoying a pretty night dive with two of your favorite dive buddies. Suddenly, an unfamiliar diver approaches frantically with near panic in his eyes. He gives the "thumb-up" surface sign and tugs on your BC. Annoyed, you look at him and wonder what could be going on. You have plenty of air, are well within the no-decompression limits and your two buddies are nearby. You wonder if he is an Instructor and he thinks you are one of his students whom he is trying to get to the surface for some urgent reason or if he has mistaken you for his buddy and you should know it is time to surface. Perhaps, he sees some approaching danger that you are unaware of and is trying to tell you to get out immediately to avoid injury or death.

The water depth is only 35 feet, but the only exit to the cavern is a good forty-foot horizontal swim. There are several other divers between you and the way out and you have your own buddies to consider. And then what you dreaded happens--he looks directly into your eyes and slices his throat with his finger quickly and definitely.....The unknown intruder is out of air and he's expecting you to get him to the surface safely on your air.

My wife, a friend, and I were diving in beautiful Ginnie Springs, Florida. The pool to the Spring is about fifteen feet deep where a cave opening leads to a large "Ballroom" which is enjoyed by thousands of divers year-round. At the bottom of the "Ballroom" about one hundred feet from the cavern entrance, is steel grating which prevents divers from venturing further into the hazardous and extensive cave system. A large permanent line runs the length of the "Ballroom" from the entrance and can easily be found from any location inside.

My wife and I had taken the NAUI basic SCUBA Course in Fort Lauderdale, Florida eighteen months earlier and later took A "Cavern" Diver Course (not Cave Diver) offered by the National Speleological Society. The importance of Octopus Regulators was stressed in both courses, but it was not until sometime after the basic course and before the Cavern Course that we somewhat begrudgingly plopped down the extra cash for the additional second stages which seemed superfluous appendages to our already expensive equipment. Until the night of this dive, the only usage our Octopuses had had was in practice. We had doubts as to how practical they would be in a real emergency. The doubts were not concerning the reliability of the equipment, but our ability to manipulate it in the midst of probably a panic situation.

However, somewhere along the way, we picked up a tip on the handling of an Octopus Regulator which was probably as valuable to us as the regulator itself. Until then, we had used the second stage with

the short hose as our "primary" regulator and the long-hosed Octopus was attached to the BC or just hung freely. The new method was to use the long-hosed second stage as our primary regulator throughout our dive and have the short-hosed one attached to the BC right under the chin. I attached mine with a NASDS "Safety Plug" and a two-inch piece of nylon cord tied to the eye of the pull tab of the zipper which goes around the inside of my BC. This makes the extra second stage easy for me to find and eliminates having to search for it or having a panicking diver tugging at my equipment trying to unfasten the Octopus wherever and however I might have it fastened.

The best advantage to this arrangement, however, seems to be that when another diver needs air in a hurry, you know right where to go to get it and with no more unfastening than simply opening your mouth and handing it to him. He then has the long hose which allows you more "elbow room", and with either hand you can get the short-hosed second stage in your mouth in a very few seconds. Of course, we always check out both second stages under water before each dive to make sure they are both functioning properly.

When the situation described above occurred to me on that cool January evening, I reluctantly but instantly handed the stranger the regulator out of my mouth and immediately reached for my chest where I found my reserve second stage. As I purged it both by blowing and pressing the purge button, air bubbles gushed from its exhaust ports, the sound of which was most reassuring. The air I inhaled was dry and with plenty of force.

Feeling comfortable that the stranger and I were then successfully breathing off my tank and convinced that he was in no frame of mind to linger, I eased my way toward the cavern entrance, hoping that my buddies would follow together. (both saw what had happened.) Moving through the water, even horizontally, proved to be not quite as difficult as I had anticipated. The practice sessions with the Instructors were again paying off with big dividends. Our success in moving together smoothly toward the entrance was also attributive to the good mental composure of the distressed diver and his positioning himself so he could retain the regulator during horizontal movement and in a few tight areas.

The trip to the entrance and through it took a little less than three minutes, although it seemed longer. Once we cleared the entrance, he released the regulator and freely ascended to the surface. By the time I broke the surface, the stranger was approaching the edge of the spring and immediately got out of the water in good condition. Later, he told me that he had misfigured his air supply by assuming that he had some reserve air and had gotten separated from his buddy. When he approached me under water the first time, his tank was completely empty.

In an earlier issue of NAUI News, I recalled an Instructor reporting a similar incident which happened to him at Crystal River, Florida in which he helped a diver out of air who was attempting to buddy-breathe somewhat unsuccessfully. At the time, I didn't think

that this type of situation would ever happen to me. But now I know first-hand that it can happen to any diver during any dive where others are present.

As divers, it seems we owe a duty to each other and to ourselves to be properly equipped and prepared. I feel we also owe each other the benefit of our personal experiences in which a potential diving fatality is successfully avoided. As for me, I was very pleased with the performance of my Octopus Regulator on this occasion and was very glad I had it. I think there is one other diver around who will agree.

* * * * *

ADDRESS CHANGE

Karan P. Exley, 10259 Crystal Springs Rd., Jacksonville, FL 32221
Sheck Exley, 10259 Crystal Springs Rd., Jacksonville, FL 32221
Robert C. Gomez, 4207 W. Gray St., Tampa, FL 33609
Randall C. Kidd, 4774 N. Banner Rd., Port Orchard, WA 98366
George D. Long, 276 McLeod Ct., Merritt Island, FL 32952
Aubrey E. Melton III, 505 37th Ave., Vero Beach, FL 32960
Mary Melton, 505 37th Ave., Vero Beach, FL 32960
William B. Porterfield, P.O. Box 91442, East Point, GA 30030
George Veni, 240 Rosemary, San Antonio, TX 78209
Douglas Woods, no forwarding address

NSS CAVE DIVING SECTION MEMBERS added since December 1978.

Gregory S. Flanagan, 402 S.W. 80th Blvd., Gainesville, FL 32601
Allen Frazier, 3548 Bronte Rd., Columbia, SC 29210
Karl S. Gowan, 7930 Bay Springs Rd., Columbia, SC 29206
Zane B. Greathouse, 636 NE 10th Ave., Gainesville, FL 32601
John Harper, Rt. 8, Box 727-C, Orlando, FL 32807
Gary D. Hill, 209 N.E. 39 Ave., Gainesville, FL 32601
William J. Jackson, 766 Flat Shoals Ave., Atlanta, GA 30316
Paul Chih Meng, Jr., Physical Ed. Dept., Univ. of Florida,
Gainesville, FL 32611
Dennis M. O'Donnell, 418a Belmont St., Manchester, NH 03103
William B. Oigarden, 5042 Marcia Place, West Palm Beach, FL 33407
John H. Ransom, Jr., 9131-2 Fontainebleau Blvd., Miami, FL 33172
Glenn H. Rawlings, Jr., 916 Haywood Rd., Birmingham, AL 35235
Rebecca L. Reeser, Rt. 2, Box 263H, High Springs, FL 32643
Jeffrey P. Reuschle, 3995 Stoneview Cir., Stone Mountain, GA 30083
Milutin Veljkovic, 124 S. Cordova St., Burbank, CA 91505

NEWSLETTER SUBSCRIBERS added since December 1978.

Cyrille Brandt, Victor Ruffy 52, 1012 Lousanne, Switzerland
Rodney M. Brown, 2404 Thornton St., Orlando, FL 32806
Mia Duay, 431-G Gaston Foster Rd., Orlando, FL 32807
R. T. Duncan, 9910 SW 73 St., Miami, FL 33173
Joe Hall, Rt. 1, Box 153, High Springs, FL 32643
Vaughan Maxwell, 7402 N. 56th St. #890, Tampa, FL 33617
Roger H. Werner, 2101 Tangerine St., Orlando, FL 32803

WE NEED ARTICLES FOR FUTURE ISSUES. PLEASE SEND TO THE EDITOR.

