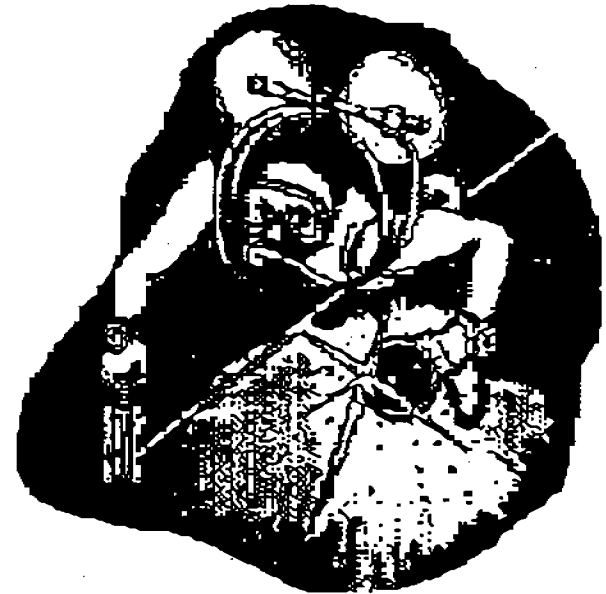


NSSCDS SPRING FESTIVAL
MAY 23rd-24th, 1987
PROGRAM GUIDE AND
REGISTRATION FORM



The Cave Divers' Divin-n-Cavin Festival

Chose from over 31 preplanned diving and caving activities or add your own additional preferences -- Plus a Bar-B-Que, Tall Tale Stories, and other paltries in the cave diving community.

CAVE DIVING SECTION
of the
NATIONAL SPELEOLOGICAL
SOCIETY, INC.
P.O. Box 950
Branford, FL 32008-0950

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29th NSSCDS Workshop

Spring Festival May 23rd - 24th, 1987

- Azure Cave** _____ 11:00AM SAT; Depart from BHS
 Maximum 6 people _____ 9:00AM SUN; Depart from Skiles Campground
 Prerequisite; Full Cave _____ 2:00PM. SUN; Depart from Skiles Campground
- Bonnet Spring Cave System** _____ 11:00AM SAT; Depart from BHS
 Maximum 2 Divers _____ 9:00AM SUN; Depart from Skiles Campground
 Prerequisite; Full Cave _____ 1:00PM SUN; Depart from Spr Sys Dive Ctr
 and Abe Davis Safety Award, or equal
- Blue Hole Ichetucknee Spring** _____ 11:00AM SAT; Depart from BHS
 Maximum 2 Divers _____ 9:00AM SUN; Depart from Skiles Campground
 Full Cave, Abe Davis, single Yand K _____ 1:00PM SUN; Meet at State Park Entrance
- Peacock III** _____ 11:00AM SAT; Depart from BHS
 Maximum 3 Divers, Prerequisite; _____ 9:00AM SUN; Depart from Skiles Campground
 Full Cave, Abe Davis, dbl 100's, single _____ 1:00PM SUN; Meet at Spr Sys Dive Ctr
 stage, must have staging experience
- Peacock-to-Olsen Cave System** _____ 11:00AM SAT; Depart from BHS
 Traverse (Air Permitting) _____ 9:00AM SUN; Depart from Skiles Campground
 Maximum 3 Divers _____ 12:00PM. SUN; Meet at Spr Sys Dive Ctr
 Prerequisite; Basic Cave, Dbl's
- Olsen Sink (upstream cave)** _____ 11:00AM SAT; Depart from BHS
 Maximum 3 Divers _____ 9:00AM SUN; Depart from Skiles Campground
 Prerequisite; Basic Cave, Dbl's _____ 12:00PM SUN; Meet at Spr Sys Dive Ctr
- Telford Spring/Sink to**
Terrapin Sink Traverse (air permitting) _____ 11:00AM SAT; Depart from BHS
 Maximum 3 Divers _____ 9:00AM SUN; Depart from Skiles Campground
 Prerequisite; Basic Cave _____ 12:00PM SUN; Meet at Spr Sys Dive Ctr
- Warrens Cave** _____ 6:00PM FRI; Depart from Ginnie Sprs
 Maximum 6 people _____ 11:00AM SAT; Depart from BHS
 Prerequisite; Desire to crawl around _____ 9:00AM SUN; Depart from Skiles Campground
 on your knees and have a good time
- How to Survey U/W Caves** _____ 8:00AM SAT; BHS. This will require 2 days
 (Part 1 of a continuing series)
 2 Days, Includes lecture, notes, and 2 dives
 Maximum enrollment, 20 students
 Prerequisite; Basic Cave, Dbl's
- Safe use of Diver Propulsion**
Vehicles (DPV's), Includes lecture and _____ 8:00AM SAT; BHS. This will require 1 day
 2 dives. Maximum enrollment, 12 students
 Prerequisite; Full Cave, Abe Davis Award, 7' octopus hose, Helmet, Toe Strap, DPV
- How to do Safe Single Stage dives**
 Lecture and two dives _____ 8:00AM SAT; BHS. This will require 1 day
 Maximum enrollment, 12 students
 Prerequisite; Full Cave, Abe Davis Award (must provide own stage bottle)
- The Fine Art of Side Mount Diving** _____ 8:00AM SAT; BHS. This will require 1 day.
 Includes lecture, notes, and two dives
 Maximum enrollment, 8 students
 Prerequisite; Full Cave, Abe Davis Award (must provide single 72's, one "Y" & "K" and hardware)
- Sign Installations** _____ At various locations
Line Maintenance _____ At various locations
Conservation Projects _____ At various locations
Cookout and Bonfire at the Skiles Campground; Silde And Video show.

Dear Cave Diver,

You asked for it and now you have got it, the **NSSCDS SPRING FESTIVAL**. Lots of diving and caving. Over 31 choices of preplanned activities, including new dive sites, special training programs, and local conservation projects. All dives will begin with site clean up projects and end up at an outdoor Bar-B-Que.

The Festival will begin Saturday morning at Branford High School and end at the Skiles Campground, located on the Suwannee Cove Restaurant Road, one mile West of US 27. The Bar-B-Que is included in your registration fee. If you wish to brin your non-diving family members it will cost as low as \$2.50 each with preregistration.

To register, just complete the registration below and be sure to list your preferences, from 1 to 4, of those dives you want to complete. Exact times will be assigned at the Workshop opening. List any other dives you would like to make, if there is enough intrest we will try to accomodate your desire. You will need to bring your certification card, Abe Davis award or proof of logged experience before being allowed to partiscipate in certain dives. Get your registration in early to assure your dive preferences.

Name: _____

Certification level: _____ Date of training: _____

Are you a current member of the NSS? _____ List member # _____

NSS member diver preregistration fee: \$7.50 each
 Nonmember diver preregistration fee: \$10.00 each
 Nondiving family members preregistration fee: \$2.50 each

Amount enclosed: _____ Ck# _____
 Make checks payable to "NSSCDS Spring Festival"

Registration fees at the door: Divers-\$15.00 each;
 nondiving family members \$5.00 each
 Please return registration form to the NSSCDS Spring Festival
 P.O. Box 950; Branford, FL 32008-0950 USA

THE CAVE DIVING SECTION OF
THE NATIONAL SPELEOLOGICAL SOCIETY, INC.
P.O. BOX 950, BRANFORD, FL 32008-0950
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Journal.....Wayne Marshall
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Safety (North).....Dale Purchase
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Advertising (E. Coast FL).....Sgt. Lloyd Phillips
Advertising (Workshops).....H.V. Grey
Foreign Correspondent.....Paul Smith
Grotto Correspondent.....Toni Williams

Underwater Speleology is the official newsletter of the Cave Diving Section of the National Speleological Society, Inc. (also known as the "NSS Cave Diving Section" and "NSS-CDS"). Section membership, which includes subscription to the newsletter, is open to all members in good standing of the National Speleological Society, Inc. ("NSS") at \$5.00 per year. Newsletter subscriptions for non-members are \$10.00 per year.

The Secretary-Treasurer collects and processes membership dues and subscription fees, and maintains the official membership list and newsletter mailing list. It is the Secretary-Treasurer, and not the newsletter Editor, who coordinates the actual addressing and mailing of the newsletter. Members and subscribers are urged to report any changes of address immediately to the Secretary-Treasurer (and not to the newsletter Editor) in order to insure continuity of receipt. Membership/subscription status, applications, and general information may be obtained by writing to the Secretary-Treasurer c/o the Section's permanent address:

Joe Prosser, Sec./Treas.
NSS Cave Diving Section
P.O. Box 950
Branford, FL 32008-0950

All current news items, reports, articles, photographs, negatives, slides, cartoons, or other submissions for the newsletter should be sent or telephoned in directly to the Editor:

H.V. Grey, Editor, UWS
P.O. Box 575
Venice, FL 34284-0575
(813) 485-0799 [weekdays]

CALENDAR

Mar. 20-22 - Undersea & Hyperbaric Medical Society/Gulf Coast Chapter - Annual Meeting, Wilson World, 7491 Spacecoast Parkway (Hwy 192), Kissimmee, FL; for information contact Hyperbaric Chamber, Box J-376, Shands Hospital, University of Florida, Gainesville, FL 32610-0376; (904) 395-0425

Mar. 28-29 - NACD Cavern Workshop for Open-water Instructors, Dive Masters, and Advanced Divers; Manatee Springs (Chiefland, FL) and Ginnie Springs (High Springs, FL). For registration information contact the Workshop Chairman: Steve Gerrard, NACD President, 5714 Ed White Ct., Tallahassee, FL 32301, (904) 877-8196.

May 23-24 - NSS-CDS Spring Cave Diving Festival, Registration at Branford High School, Branford, FL. Pre-registration package in this issue of UWS.

June 20 - NACD Speleo '87 - Workshop/Seminar. Theme: Environmental and Scientific values associated with Cave Diving. Branford High School, Branford, FL. For more information contact the NACD at P.O. Box 14492, Gainesville, FL 32604.

Dec. 26-27 - NSS-CDS Winter Cave Diving Workshop. Branford High School, Branford, FL.

ADVERTISING - FOR 1987 MEMBERS MANUAL

- by Pete Butt

This year's Members Manual is now in the process of being written and edited. Advertising for the manual is being accepted at the present time and up until April 30. If you offer any products or services that are of interest to cave and cavern divers, you may wish to consider placing an ad in this publication.

Over 2000 copies will be distributed to present and future members, and as information copies to other interested parties. We're asking all members to help us pass the word to anybody that might benefit from advertising in the Manual. Also, if any member has a service or product, even though it may not be germane to cave diving, and would like to help support production of the Manual, please contact us. The ad rates for 1987 are:

Full page.....\$150.00
 Half page.....90.00
 Quarter page.....50.00
 Business card listing.....15.00

Please send all camera-ready ad copy (black & white only) and payment by April 30 to:

Peter Butt
 Rt. 1, Box 152-H
 High Springs, FL 32643
 (904) 454-2001

JOE PROSSER RESIGNS AS NSS-CDS TREASURER

- by Joe Prosser

Effective Dec. 31, 1987, Joe Prosser will resign as Treasurer to pursue the office of Section Training Chairman. In his three years as Treasurer, he has incorporated many business practices which have helped the Section to obtain official Tax Exempt status with the State of Florida and the IRS. He has also engaged a CPA firm to represent the Section to these government agencies in the future.

Joe estimates that a new potential Treasurer should consider devoting 3-4 hours per week to maintain the accounts. This includes preparing deposits, forwarding orders to the appropriate Program Coordinator, and maintaining membership records and the Section accounting books. The demands of this job have been greatly simplified in the past three years. If you are a Florida resident--a legal must for this position--and have at least an elementary accounting background or some understanding of a computer, then you may wish to contact Joe directly for more details. He may be reached at (305) 592-3146 (office) or (305) 966-0619 (home). The Section has its current accounting records on MacIntosh and IBM-compatible computers. Dr. John Zumrick has provided the CDS with a computer to organize these records.

SPRING WORKSHOP-FESTIVAL

We still need volunteers to help with the upcoming Spring Cave Diving Festival, May 23-24. Since this workshop is to be conducted entirely out of doors and underwater, we need experienced cave divers willing to help lead dives, coordinate work projects, and assist with classes.

Please contact Chairman Steve Ormeroid if you would like to help:

Steve Ormeroid
 629 West 4th Street
 Marysville, OH 43040
 (513) 642-7775

MILLEdge MURPHEY ELECTED HEAD OF CMAS INTERNATIONAL SPELEOLOGICAL COMMISSION- reprinted from the Gainesville Sun

Dr. Milledge Murphey, a faculty member of the University of Florida's College of Health and Human Performance, was elected President of the International Speleological Commission of the International Confederation Mondiale des Activities Subaquatiques, or World Underwater Federation, known as CMAS.

Dr. Murphey has also been awarded the CMAS "Fourth Degree International" Award, the highest honor conferred by the Commission.

Dr. Murphey's nomination for the award was the result of an inspection of the UF academic diving program, which he heads. He is the first American to be so honored and will receive the award at the CMAS general assembly to be held May 9 in Paris.

CMAS was formed in 1959 by Jacques Cousteau and represents a membership of more than 9 million divers worldwide.

Dr. Murphey is also National Training Director for the National Association for Cave Diving.

NOVICE DIVER NEGOTIATES MAJOR RESTRICTION

Congratulations are in order to Dr. Susan Drake and husband Charles Futch of Tallahassee, FL on the birth of their daughter, Jennifer Drake Futch, Jan. 29, 1987. Susan writes: "Novice diver in major restriction! But she made it without a C-Section and is a lovely baby." Jennifer "surfaced" weighing 8 lbs, 13 oz.

SCUBA TRAINING MANUAL FOR THE HANDICAPPED DIVER - by Joe Prosser

In the most recent issue of the YMCA instructor magazine Assent Line, dated Feb., 1987, A. Dale Fox was listed as one of the co-authors of a new training manual for handicapped divers. Cmdr. Fox is a NSS-CDS Cavern Diving Instructor living in the Washington, D.C. area.

NACD - SPELED '87 - NACD Press Release

The National Association for Cave Diving (NACD) proudly announces our 19th Annual Seminar called SPELED '87 to be held in Branford, Florida on Saturday, June 20th at the Branford Community Center.

This year's Seminar will offer plenty for the cavern and cave diver! With booths displaying the latest innovative equipment used in cave diving, lectures focusing on important issues of the cave environment, beautiful slide presentations and a wide variety of underwater cave videos. All divers are invited to attend this big event. Don't miss it!

Registration at 8:00 am. Begins at 9:00 am.

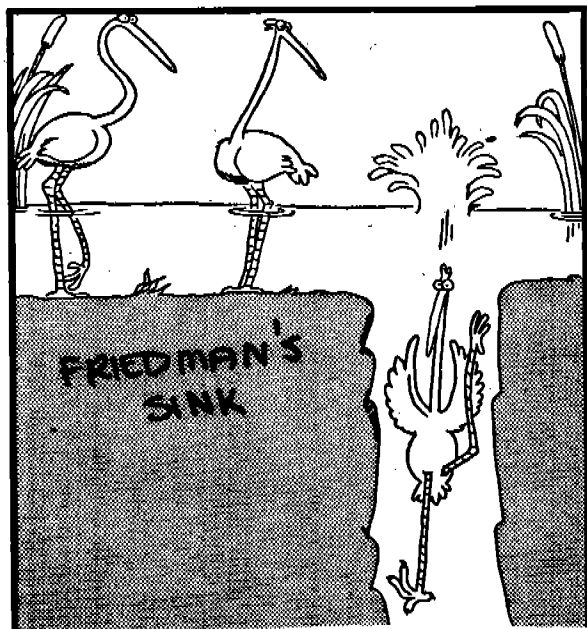
For more information contact the NACD: P.O. Box 14492, Gainesville, FL 32604.

NACD ANNOUNCES NEW VOTING MEMBERSHIP

NACD Secretary/Treasurer Judy Bauer writes that the NACD is now offering a new "Voting Associate Membership." Proof of full cave-diver certification must accompany the application, plus the usual \$15.00 NACD membership fee, or the individual will not be granted voting privileges. For more information, contact the NACD: P.O. Box 14492, Gainesville, FL 32604.

CAVE NEWS FROM MEXICO -

Joanna de Groot writes from Quintana Roo, Mexico that they've made the Naharon/Maya Blue connection. Congratulations!



CAVE DIVERS ENTERING FRIEDMAN'S SINK -
submitted by Judy Bauer

NACD - TECH '86 PROCEEDINGS

George Bortnyk, past Vice-President of the NACD and Director and Proceedings Editor of the NACD's summer Equipment Technology Seminar, "TECH '86", announces the completion of the TECH '86 Proceedings.

The 8-1/2" x 11", handsomely bound, soft-cover volume is over 100 pages in length and contains more than a dozen papers from the very well-attended NACD TECH '86 seminar last summer. The chapters include:

- History of Cave Diving Equipment
- Cave Diving Equipment in 1986
- Futuristic Cave Diving Technology
- Report on 103.5 Cu. Ft. Steel Cylinders
- Report on Decompression Computers
- Test Data on Poseidon Regulators
- Three Papers on UW Voice Communications
- Cave Diving on DPV's - Air Rules and Problems
- FET Switches for Primary Lights (No Holes)
- Emergency Oxygen & Physiological Effects
- UW Cave Warning Signs, Max. & Min. Impact
- NACD Goals for the Future
- List of TECH '86 Exhibitors

The Proceedings is filled with many articles of intense interest for all serious cave divers, and is well illustrated with diagrams, charts, graphs, and technical drawings.

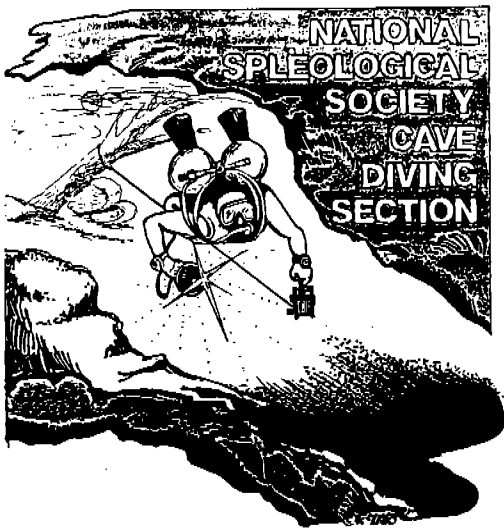
The book may be ordered directly from the TECH '86 Director and Proceedings Editor, George Bortnyk, by sending a check or money order made out to the NACD \$14.00 (\$12.00 + \$2.00 for postage, envelope, and fast delivery) to the following address:

George P. Bortnyk
13938 - 85th Terrace North
Seminole, FL 33542

NACD - SPELED '87 - CALL FOR PAPERS

The NACD is now soliciting papers for its summer Cave Diving Seminar.

Says George Bortnyk: "The theme is on the environmental and scientific values associated with cave diving. I intend to use this event as a vehicle to start up the [NACD] Conservation and Scientific Committees. A Proceedings document will be produced, even better quality than the TECH '86 Proceedings. Papers are due June 1st, 1987. Speakers are required to submit an article in order to be admitted to the agenda at SPELED '87. Location: Branford High School. Date: June 20th, 1987. More details to follow."



"A" - "SINGLE DIVER" T-SHIRT
 Logo on front, no pocket
 Design on back
 Sizes: Men's S, M, L, XL
 Colors: check chart

Short sleeve price:
 \$9.50 - members
 \$10.50 - nonmembers/UWS subscribers

Long sleeve price:
 \$11.50 - members
 \$12.50 - nonmembers/UWS subscribers



THE SHIRT

"B" - "TWO DIVERS" T-SHIRT
 Logo on front, no pocket
 Design on back
 Sizes: Men's S, M, L, XL
 Colors: check chart

Short sleeve price:
 \$9.50 - members
 \$10.50 - nonmembers/UWS subscribers

Long sleeve price:
 \$11.50 - members
 \$12.50 - nonmembers/UWS subscribers

COLLARED SPORTS
 Short sleeve
 NSS-CDS
 Sizes: Men's S, M, L, XL
 Colors: check chart
 Price: \$9.50 - members
 \$10.50 - nonmembers/UWS subscribers

CHART OF AVAILABLE STYLES, SIZES, AND COLORS

"A" = Single Diver	P	N	P	Y	L	L	L	D	L	B	R	W
"B" = Two Divers	U	A	I	E	T	A	T	K	T	L	O	H
Short or Long sleeves	R	V	N	L	V					A	Y	I
All sizes MEN's	P	Y	K	L	B	E	A	G	G	C	A	T
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	E	E	A	Y	Y	.	.	.
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"A" - Short - S	X	X	X
"B" - Short - XL	X	.	X	X	X	X	X	X
"B" - Short - L	X	X	X	X	X	X	X	X	X	.	.	.
"B" - Short - M	X	.	.	X	.	X	X	X	X	.	.	.
"B" - Short - S	X	X	X
"A" - Long - XL	X	X	X	.
"A" - Long - L	X	X	X	X
"A" - Long - M	X	X	X	X
"B" - Long - XL	X	X	X	.
"B" - Long - L	X	X	X	X
"B" - Long - M	X	X	X	X

COFFEE MUGS

White china glass with NSS-CDS logo and the Basic Rules of Cave Diving printed in black.

Size: 6 oz.

Price: \$5 - members

\$6 - nonmembers/UWS subscribers

S

ARE IN!



T-SHIRTS

White (with navy logo)
Navy (with white logo)
Price: \$3 - members
\$4 - nonmembers/UWS subscribers

CAVE DIVER'S EXCUSE SHIRT

Short sleeve
Black printing on front of shirt
Sizes: Men's M, L, XL
Colors: Gold, Orange

White printing on front of shirt
Sizes: Men's L (Green), XL (Green),
M (Maroon), S (Teale Blue)

Price: \$9.50 - members
\$10.50 - nonmem./UWS subscrib.

CAVE DIVER'S EXCUSE SHIRT

Can't go cave diving because

- can't find duct tape
- it's dark out
- fourth backup regulator not been overhauled in last two weeks
- Jupiter aligned with Mars
- cave is closed
- cave too small for double staging
- hundreds only filled to 3600 psi
- lost snorkel
- can't find valve chess set for decompression
- dry suit leaks
- wet suit leaks
- spent all my money having these stupid t-shirts printed up
- people say it's crazy

THE MAD FRANKSTER

ORDERING INFORMATION -

All prices include postage and handling. Send a check or money order made out to the "NSS-CDS" to:

NSS-CDS Publications
P.O. Box 950
Branford, FL 32008-0950

Allow four to six weeks for delivery.



PATCHES - with NSS-CDS Logo

Price: \$3 - members

\$4 - nonmembers/UWS subscribers

DECALS - with NSS-CDS Logo (back adhesive)

Price: \$1 - members

\$2 - nonmembers/UWS subscribers

BUMBER STICKERS (yellow vinyl) - NSS-CDS Logo & "I Support Safe Cave Diving"

GROTTO CORRESPONDENT REPORT

- by Toni Williams

Compass & Tape 4(1), Summer 1986. Map-Aid waterproofing for taking cave maps into damp caves; worked well for 23-hr. damp cave trip plus 5 min. H2O submersion. Crystal-Clear Krylon, sold with Krylon spray paints "in most hardware and dept. stores." Suggest two coats on ink side.

"3-D Cartography for the Rest of Us" - Making a 3-D model of a cave that can be scaled, rotated and otherwise manipulated, using Apple 512K MacIntosh with 2-disk drives and Multiplan, Excel, Switcher, or MacView programs and special spreadsheet template.

Island Underground, 1(4), May 1986. Jeff Forbes, Steve Grundy, Pat Shaw attempt underwater connecting of Malaspina View Resurgence with Thanksgiving Cave (Vancouver Island). Turned back due to silting & running out of line at 4th sump-- still within no-decompression limits.

1(6) - Reconnaissance of downstream sump in Windy Link Pot; silty, but looks good for a diving attempt; no large dividable sumps in Air Supply tributary suitable for hoped-for connection to Q5.

1(3) - Mike Evans, Paul Griffiths, Jeff Forbes, Pat Shaw dive first three sumps in Malaspina View Resurgence, hoping for connection to Thanksgiving cave.

Suck-in history to recruit divers for proposed !5 dive. Field report on cheap (\$15, probably Canadian) hip harness for tanks by Pat Shaw.

"Confessions of an Underwater Ouija" ("Ouija" or "Weegee" is British Columbian slang for novice). Subjective report of Mike Evans' first sump dive, in Malaspina View Resurgence.

Nittany Grotto News 33(2), Feb. 1986. Joe Troester reports measuring conductivity (4000 micro-ohms), temp. (27 degrees C.) and salinity (2 ppt) at the surface of water in Pozo Brunjo, (Guayabos, Isabela, Puerto Rico), which has been dived to 30m depth, 50m penetration.

Nylon Highway #21, Mar. 1986. Newsletter of the NSS Vertical Section (dues \$3/yr. to Bill Bussey, P.O. Box 3742, Gastonia, NC 28054). Filled with information, as always, for many CDS members who are also vertical cavers or have adopted vertical techniques for steep sinkholes, sumps in vertical caves, or high-flow situations, a Wes Skiles, e.g.: "A Lightweight Frame for the Simmons Roller," "More on Ascender Flotation," "The KISA Shock Absorber."

Huntsville Grotto Newsletter, Aug. 1986. Review of novel Jacob's Well by Stephen Harrigan; reviewed by non-diver who therefore won't comment on accuracy. However, he enjoyed the book.

Sept. 1986 - Reports on survey of

Roaring River Cave [see UWS 14:1]; the 12 July trip was cleverly combined with a cave-rescue practice, the "rescuers" providing sherpa service to the divers. Joe Dabbs describes the dive at his (Rail-road Cave) end as being shallow, silty at the beginning; had some problems with line tieoffs. Also, report of Jack Brightwell's heart attack 60 ft. down in Peacock.

The Toronto Caver, Dec. 1986. Keith Sawatzky updates his report in the Fall 1986 Canadian Caver of the multi-sump Ottawa River Cave. The survey shows 1,335 meters, and they've explored about 250 more meters. Main difficulties reported were cold water, and strong current in Sump 8: "We made progress by keeping to the edges...and by pulling ourselves up by the ridges on the floor." A sketch map accompanies the article. Final comment: "It seems that Ontario may soon claim the longest cave in Eastern Canada again, all of it underwater."

COMPUTER UPDATE - John Crea of Bainbridge, GA reports that he has put the CDS Safety Brochure on the following computer bulletin-board services: Compuserve, Genie, Diver-Net (Ft. Myers). John reports that there is a section devoted to cave-diving on the Diver-Net computer service.

John also reports that he is just about finished entering all of the Accident Analysis files into his computer.



by JOHN A. BOOTHROTH

HOW TO ASSUME YOURSELF INTO A STATISTIC

- by Stan Hankins

For years I had known about a spring cave at the head of Crab Creek on the Chassahowitzka River. I had free dived into the entrance a few times and had once pushed a tank inside to the first room and had my first "cave dive," solo no less! "Ignorance is bliss," as they say. About eight years later, after having been cave certified, my dive buddy at the time (Luis Menoyo) and I decided to check out my memory of the cave at Crab Creek.

We rented a flat-bottom boat, and using Luis' antique outboard, we made it the 200 yards downstream to the cave. Crab Creek, for those of you who have never seen it, is a short, shallow spring run into the Chassahowitzka River. The leadspring consists of three major openings to one large room, with two, possibly three leads, all low, dark-walled, and silty.

The spring flows green-colored, slightly saline water. Luis was diving double 80's and I was diving double 72's, both sets of which we pushed in ahead of ourselves. After donning our gear, rerunning our drills and tying off our line at the entrance, we began our exploration. We found visibility to be about 15 feet due to the water velocity picking up debris off the walls and floor. After just a short search, we were able to narrow our exploration to one direction. The cave is like the description of swiss cheese, with water flowing from the north side of the main room through a multitude of holes and cracks, many large enough to go through.

Luis ran the line and off he went down the largest of the available leads. After about 100 feet, the passage was so craggy and twisted that doubles were just not going to fit. Luis managed to wiggle and squirm another few feet and determined that the passage definitely continued on and down with no apparent offshoots. We tied off and exited after finding a very good shortcut right to where we ended our line from another entrance.

About a month later we returned--this time, armed with sidemounts and smaller light sources. After planning our dive and checking the equipment, we entered the entrance that was a shortcut to where we had ended our first trip. It was only about 30' long and it was no problem to get to our destination.

Luis again took the lead and tied to the end of his original line and off we went. The cave was definitely designed with sidemounts in mind and everything went well. After another 50 to 75 feet the cave leveled off to a bedding place at a depth of 80 feet. The floor was crusted mud, and the cave was 20 feet wide and 2 feet high, sloping to 1 foot. As Luis searched ahead for the best trail, I made sure the line

was secure and out of any obvious traps.

After about five minutes into this bedding plane, Luis signalled air turn-around, so out we started. Except now we had absolute zero visibility in a craggy, 40-degree upward-slant crack. Of course, everything which could get caught did at least twice. Funny how the cave topology changes as you exit a new system with no visibility!

After what seemed an eternity, the cave started to open up, but visibility was still zero. About 30 feet beyond where we had started our second dive, I came to the end of our original line at least 50 feet from the entrance where it had originally been tied. Flapping in the current was 10 feet of unattached line. From my memory, I could pretty well pinpoint where I was in the main room.

About the time I finally understood our predicament, Luis ran into my fins. I took his hand and led it to the end of the line. It is surprising how loud hands can scream underwater. I had double sidemounts so air to me was not a problem, but I knew Luis was definitely ready to leave the water.

As I was waiting for Luis to attach his reel (I left my gap reel in the boat; you know--just something else to get snagged) the current pushed me forward and caused me to break off the outcropping I thought I was securely anchored to. I had no line; I could not see Luis' light; so I figure it was time to save myself.

I knew the main entrance to the room should be at my upper lefthand side, so off I started following the flow of particulate matter in the water. At the top of the room, I found the end of our original line and an absolute removal of all the weight of the world was off my shoulders.

I said a sincere prayer of thanks and of apologies, and turned to shine my light for Luis. About 4 minutes later (1 minute = 1 hour of worry) I saw Luis' light as he rose in front of me from the floor of the room. As we broke the surface and took that first breath of the rest of our lives, we could read each other's minds by the size of our eyes. The next 5 minutes we just sat there and enjoyed the simple things in life that are so taken for granted--like sunshine, non-compressed air, horseflies, trees, etc. Also, I was glad I knew I was going to Heaven when I die.

Our analysis of our near disaster showed at least two major errors. First, we assumed the line we had originally put in a month before would still be there. Second, we did not plan for the adverse cave conditions that would be encountered exiting a tight, complex, silty virgin cave. One-third turn-around was not enough for a sidemount penetration of the type we made. To say the least, we learned a tremendous amount from that dive. Neither of

us panicked. We learned to plan for the unexpected, and the importance of streamlining our profile for this specialized aspect of cave diving. I learned many valuable lessons in a short time on the above dive and my hope is that the reader will also.

P.S. As far as I know, this cave is still unmapped. Anyone interested??? YOU CAN HAVE IT!!!!!!!

ABE DAVIS AWARDS - WINTER 1986

Mark Leonard, Abe David Award administrator, made announcement of last year's awards at the 1986 Winter Workshop.

The Abe Davis Award recognizes the safe completion of a diver's 100th cave dive. The recipients are listed (in no particular order), along with the location, date, and dive partner of their 100th dive.

MICHAEL S. ZIEMACKI - Devil's Ear, 7/15/84,
Steve Forman
STANLEY R. HANKINS, JR. - Telford Spring,
4/19/86, Don Wilson
CHARLES J. STROTHER - Devil's Eye, 7/14/84,
Jack Lorenzo
JAMES G. COKE, IV - Naharon, Quintana Roo,
Mexico, 2/17/86, Johanna de Groot
ROBERT D. MCGUIRE - Madison Blue, 4/13/85,
Dan Butler
DOUGLAS LEE CHAPPELL - Hidden Spring (FL),
4/24/82, Jon Paulding
RODGER KITT - Edwards Spring, 12/30/84, Era
Kitt, Gerry Borsky
WALTER ANDERSON - Peacock/Waterhole #3,
5/9/86, Arwyn Carr
LEE TIGHE - Little River, 10/11/86, Ben
Meeks
GERRY CHURCHILL - Die Polders III, 9/6/85,
Dori Churchill
DORI CHURCHILL - Die Polders III, 9/6/85,
Gerry Churchill
TIM DAVIDSON - Bonnet Spring, 6/28/86, Larry
Royal
DAVID PORTER - Roubidoux Spring (MO),
8/30/86, Gordon Watkins, Tom Breland
BOB GIBSON - Peacock Spring #1, 8/30/86,
Bob McGuire
RANDAL A. KWIATKOWSKI - Section 6, Dickenson
Co. (MI), 11/2/86, Robert Butt,
Art Dahons

CAVE DIVERS WORKING IN MEXICO

- by Ron Simmons

In the last issue of Underwater Speleology I read a very interesting article on some underwater cave exploration in Mexico. In the article a lot of CDS divers working in Mexico were mentioned. I'm sure that a lot of productive work is being done there that goes unreported. It is a shame that this information is not being recorded or reported so that other cave divers working in Mexico can learn of it other than by word of mouth.

There is a good way for this information to be collected and reported. The Association for Mexican Cave Studies, AMCS, publishes an Activities Newsletter about once a year that chronicles all the current caving work going on in Mexico. It has been in publication for over ten years now and is read by cavers world wide with an interest in Mexican caving. In fact the last issue had an article on Yucatan Cenotes by a Mexican cave diver.

It would be a shame for the valuable work of CDS divers to be lost to others because it is not reported. There is a lot of potential for underwater caves in Mexico. There is enough to go around and there is no sense in work having to be redone a second time because it was not reported the first. So I would urge cave divers that are locating, exploring and mapping underwater caves in Mexico to send information, maps and articles to the AMCS. In this way cave divers with an interest in Mexico can stay informed of what is going on. Also there are now a number of Mexican cave divers who will probably not learn of the activities of CDS divers in their country if not reported in the AMCS publications.

To get information on the AMCS, submit articles, or get a list of publications use the following address:

Association for Mexican Cave Studies
P.O. Box 7672
Austin, TX 78713

MCGUIRE'S FORUM

We are now soliciting articles, letters, questions, comments, etc. for a new UWS column to be entitled "McGuire's Forum."

As announced in the last issue of UWS, the purpose of this new "juried" column is to serve the needs of experienced cave divers who seek an exchange of ideas on the more advanced, and sometimes controversial, topics of cave diving--something that UWS has not always done in the past to everyone's satisfaction.

"The sole purpose of this forum," according to its originator and editor, Rob McGuire, "would be to invite ideas to improve the art of cave diving. Possible subjects would be: solo diving, staging, DPV's, equipment modifications, organizing experienced divers for exploration and surves, and similar items. The main purpose of this would be to have a central point to collect information and to present all aspects of the subject."

Please send your submissions directly to Rob:

SSGT R. D. McGuire
P.O. Box 5-024
MCRD, PISC 29905
(803) 525-9529

GINNIE SPRINGS SURVEY

- by John Burge and Frank Howard

Recently Frank and I made a trip to the Branford area to buddy together to do some advanced training under the able tutelage of Wes Skiles. One of the subjects we beat to death during the week was cave and cavern surveying techniques, as well as the need for more Section members to take an interest in surveying.

Frank and I both have been trying to accumulate detailed maps on many of the popular caves and have been surprised by the lack of map data even on many of the cavern areas which we feel would be of tremendous interest and assistance to beginning cave divers and the cavern-diving community. We were absolutely amazed that Ginnie Springs--probably the most dived cavern in the world--has never been surveyed.....at least not to the knowledge of any of the personnel there.

We were anxious to get out teeth into laying line and counting knots by the hundreds and asked Wes for his suggestion for a survey project.....you guessed it..... Ginnie Springs.

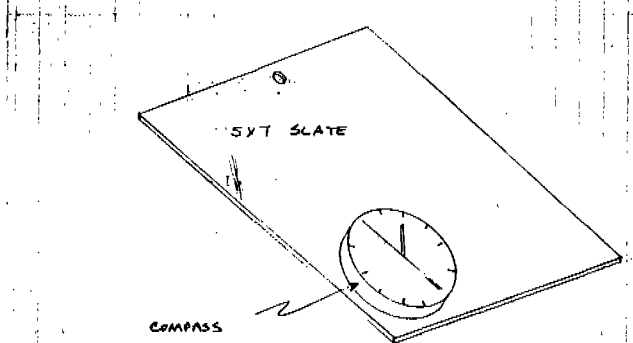
Although not the big-time, heavy-duty, kick-start, industrial-grade deep penetration with lots of stage bottles and deco tanks, Frank and I took on the project with gusto and laid out a plan to knock out this little exercise one evening after we finished a full day of "real" cave diving with Wes.

You guessed it again.....three dives and nearly six hours bottom time later, we completed the compilation of the data that is going into the final product, a copy of which we will send to the Cave Maps Files of the Section and a copy of which we will present to Ginnie Springs.

Frank and I both had a lot of fun doing this exercise. Since we both learned so much and felt that there is a real need for more surveying by Section members, we have written up this little paper and have submitted it to Underwater Speleology for consideration for publication. We both intend to do more surveys because we feel this is an area where we can make a real contribution, not only to the data base of the cave-diving community, but also to other areas such as safety and land/cave-owner relations as well.

First we took the time and bore the enormous expense to equip ourselves with true state-of-the-art instrumentation. This consisted of a spare wrist compass I had in my gear bag for use with open-water students, that we dismantled by removing everything but the compass itself, which we mounted on the corner of a 5 x 7 slate, such that the edge of the slate could be held against the survey line to act as the compass lubber line. The 7-inch side of the slate would facilitate taking azimuth

FIG 1 SPACE AGE SURVEY SLATE



readings quickly and accurately. (See Figure 1.) The remaining area of both sides of the slate was then laid out in the format of the data we planned to take:

AZIMUTH SEGMENT

Distance to Next Station	Azimuth to Next Station
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VERTICAL SEGMENT

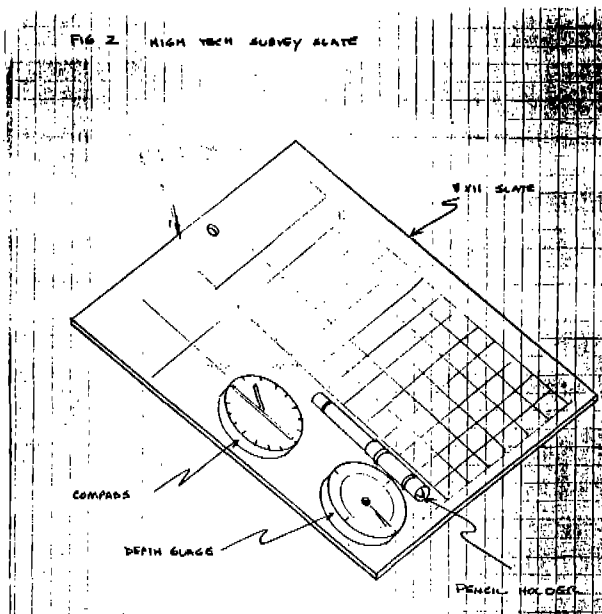
Station # /	Floor depth /	Ceiling depth
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CROSS SECTIONS

Station #	Features
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[NOTE: After returning home, I fabricated a much better instrument by mounting a compass and a depth gauge on an 8 x 10 slate and inscribed permanently marked lines in a convenient format for logging data. (See Figure 2.)]

FIG 2 HIGH TECH SURVEY SLATE



After laying out this highly sophisticated plan to do a double base-line survey and checking out our space-age instrumentation, we took the plunge (no pun intended). Frank laid in a survey line on one side at 17 feet, tying off at 10 stations and also terminating at the center of the grate. The rest of the dive was devoted to taking data and logging it on our slates.

Wes joined us for a while on this dive and took some cross-room measurements with a fiberglass tape for parity-bit purposes (which later proved very useful in detecting a station error and confirming some of our azimuth data via triangulation--so useful, in fact, that we have incorporated some select triangular measurements into subsequent surveys as part of our procedure). Frank and I thought that Wes took these data because he didn't trust us or he didn't have confidence in our high-tech instrumentation. He was pretty darn sneaky about it.

Then came the fun part. We took our polar-coordinate data in azimuth, depth and distance, and plugged it into Wes' "CAVE-FILE" program on his personal computer. [The "CAVEFILE" program was developed by Jeff Blair, Mike Schulte, and Wes Skiles.] After coping with some irritating data-entry problems (guess who entered the data), the "CAVEFILE" program began spitting out the Cartesian coordinates and computing the total distance surveyed, the straight-line distance from the center of the grate to the center of the entrance, and the azimuth of that straight line.

A sample of one of the printouts is attached. With this printout in hand we hastened to plot our survey to scale and watch the picture unfold. In the mean time, we did two more dives to gather additional data for a horizontal profile, additional data for cross sections, and side-wall and floor and ceiling features, which we completed in spite of a couple of harrowing experiences with some basic bubblers and several frightful scagent attacks.

Now.....you won't believe this..... Wes's "CAVEFILE" program proved that we closed the azimuth loop into within 2 feet on a 360-foot total survey length, and it computed the straight-line distance from the center of the grate to the entrance survey station at 89.301 feet with an azimuth of 295.087 degrees whereas our actual measurement by tape of this distance corrected for slant range by Pythagorean Theorem was 89.4 feet with a compass azimuth of 295 degrees. How about that???????

We have now reduced all the data and plotted the results in draft form and are working on the final cartography. After completion of this final phase, we will send Underwater Speleology a reduced copy for publication.

In summary, Frank and I have reached several conclusions:

- 1) Surveying is fun and rewarding even for the neophyte.
- 2) A little care and patience can produce very respectable accuracies.
- 3) There is a real need for the accumulation of more data on underwater caves.
- 4) Apparently very few divers are doing surveys.
- 5) With very few exceptions those surveys that do exist have been done by the early explorers of those caves and have been done primarily as "stick" surveys with emphasis on direction and depth, with limited passage description. Simply due to time limitations and objectives, only limited data have been recorded on features.
- 6) Much more time and effort is required to collect the data required to illustrate features, controlling geology, hydrographic info, cross sections, and profiles that can be extremely useful to cave divers in planning dives.
- 7) Contributions made in the area are generally appreciated by the cave-diving community.

We plan to take on a couple of surveys a year as our time permits. Our approach will be to start generating survey data in a notebook and add to it on each dive to the same location. When we accumulate enough data, we will reduce it to cartography and send it in to the Section Cave Files.

Since we completed Ginnie, Frank and Wayne McKinnon and I have completed an even more thorough survey of the lower room at Morrison Springs, taking 4 long dives with the 3 of us working. We are hoping that our efforts will contribute to dive safety there, since this has been a real problem site regarding accidents.

Our next survey project will probably be Twin Caves at Merritts Mill Pond at Marianna. If anyone would care to join in on any of these projects, our addresses and phone numbers are in the Section Membership Manual.

J80	1.1	277	53	LV FL56 CL51 ONGRATE		
J81	1.4	265	30	LV2 FL50 CL43 STATION ONLEFT EDGE BOLDER		
J82	1.31	270	42	LV FL46 CL40		
J83	1	298	40	LV FL40 CL34		
J84	1.47	300	38	LV1 FL38 CL30		
J85	.87	324	29	LV FL33 CL19		
J86	.49	278	23	LV2 FL26 CL20		
J87	1.33	270	22	LV-1 FL25 CL20		
J88	.87	295	20	LV FL21 CL24 9 ALCOVE LEFT OF STATION		
J89	1.39	5	17	LV FL19 CL17 15 FIGGUR LEFT OF STATION RUNNING PERP		
J810			17	ENTRANCE TO GINNIE SPRINGS		
	X= 0	Y= 0				
STATION	X	Y	DISTANCE	AZIMUTH	DELTA-X	DELTA-Y
J810	0	0	13.9	-175	-1.2115	-13.0471
J89	-1.2115	-13.0471	6.14639	119	7.40127	-3.45129
J88	6.18977	-17.2984	13.1488	90	13.1488	1.72351E-05
J87	19.3389	-17.2983	4.79687	99	4.75017	-.667589
J86	24.0887	-17.9659	6.3	146	3.92293	-5.22293
J85	27.6117	-23.1889	11.6228	120	10.0657	-5.81139
J84	37.6773	-29.0002	9.79794	118	8.65109	-4.89985
J83	46.3284	-33.6001	12.9464	90	12.9464	1.67699E-05
J82	59.2749	-33.6001	11.4891	105	11.0974	-2.97339
J81	70.3729	-36.9737	10.583	97	10.5041	-1.28973
J80	80.8766	-37.8634				
DISTANCE AND AZIMUTH FROM THE MOUTH OF THE CAVE:			89.301	295.087		