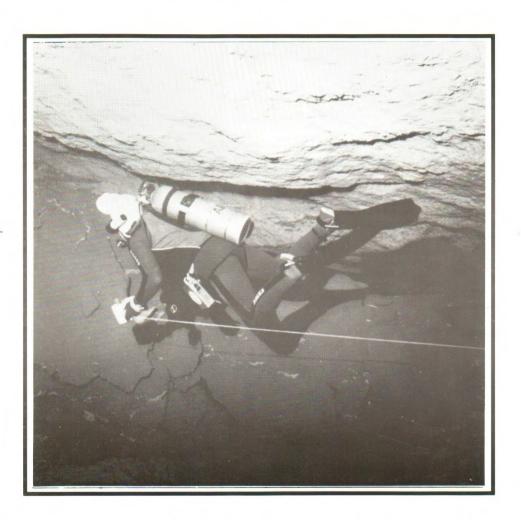
C.D.A.A. Newsletter

GUIDELINES

No: 35 - APRIL 1990



CAVE DIVERS ASSOCIATION OF AUSTRALIA

(Incorporated in South Australia)

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Cave Divers Association of Australia P.O. Box 290, North Adelaide, 5006

Front Cover: Engelbrechts East. Photo courtesy Ian Ploenges.

GUIDELINES is the newsletter of the Cave Divers Association of Australia, published four times a year – January, April, July and October. All articles for the following issue are to be sent to the Editor, P.O. Box 290, North Adelaide, SA 5006, prior to 10th June, 1990. Articles and information may be reproduced without prior permission provided reprints are credited to the authors and GUIDELINES. Private ads for caving and diving equipment may be advertised free. Opinions expressed in GUIDELINES are those of the individual authors and are not necessarily those of the C.D.A.A.

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DIRECTORY

The following is a list of people that can be contacted for C.D.A.A. matters. Please contact the most relevant person or, if unsure, write to our P.O. Box in Adelaide and your enquiry will be passed on.

enquiry win be passed on.			
National Director	Lance Mitchell	(03) 720 1205 (h)	(03) 407 2281 (w)
National Standards Director	Ian Lewis	(087) 38 5293 (h)	
Business Director	John Vanderleest	(03) 416 9370 (h)	(03) 619 6601 (w)
Records Officer	Peter Girdler	(08) 380 5205 (h)	
Training Manager	Tony Richardson	(03) 754 6163 (h)	
Secretary/Treasurer	Nick Jones	(03) 697 4502 (w)	
Research Group Co-ordinator	Andrew Cox	(03) 391 3935 (h)	(03) 619 9111 (w)
C.D.A.A. Publications	Tony Davis	(03) 781 3820 (h)	
"Guidelines"	Tony Davis	(03) 781 3820 (h)	
S.E. Representative	Maurice Parry	(087) 25 8323 (h)	
Promotions	Geoff Riddell	(03) 871 0519 (w)	

EDITORIAL

Well, here it is – the new look GUIDELINES. After many hours of deliberation, a tender was chosen to produce GUIDELINES, and what you're reading is the result.

As you can see we have gone very "up market", using gloss paper, and yes, finally, a photo front cover. I know many of you will say "I've heard it all before" but GUIDELINES will now be produced regularly every 3 months, in January, April, July and October, so for all you unbelievers out there – wait and see!!

Another new introduction this issue is advertising – yes, it's been decided to introduce paid advertising in an effort to subsidise the cost of producing a better quality publication, and we have been well supported by, among others, many of the professional dive industry operations. So, to those people, thanks heaps.

Now, a cry of help. Anyone out there that has anything interesting happening – how about writing an article for GUIDELINES. We need more articles all the time, so, hey, go for it!!! Any comments you wish to make on articles, advertising or anything at all to do with cave diving, can be sent to me at our ONLY P.O. Box in Adelaide, and I will publish them in the next issue.

Finally, a great deal has been happening over the last 3 months and much of it is described in this issue. So turn the page, read on, and enjoy our new look GUIDELINES.

TONY DAVIS. Editor

NATIONAL DIRECTOR'S REPORT

Welcome to the first Guidelines under the new Directorate. Many thanks to the Business Directorate and in particular The Editor Tony Davis, for both the quality and punctuality of this issue. You will notice several commercial advertisements in this and future editions. Although paid adverts of this nature have not been traditional. I believe there is a place for them in the future. They do provide for equipment and services often used by the membership and it is forecasted that the fees received will supplement the production costs up to a third, the intention being to increase the quality of Guidelines without drawing additional funds from membership fees.

At the centre of the issue is an explanation of our operating hierarchy; I would urge members to put this layout somewhere handy and when making any enquiries, phone the officer in control directly rather than the Directors. (Phone numbers inside front cover.) However, this is not to say as Directors we are no longer contactable. Should you need to discuss policy, direction, discipline, unsatisfactory action or areas of a broad nature, get in touch – that's what we're there for.

At a recent meeting of all those officers currently responsible for the associations operations, Syd Bale (a Queensland Cave Diver) was appointed our Representative in that state. Both Diving Concepts and politics will be quite different to what we have been used to.

Queensland has a Diving Inspector who is controlled by the Occupational Health and Safety Department under the Minister of Industrial Affairs. A letter of Introduction and Intention has been forwarded to the minister seeking official contact through a formal meeting with these government departments in control of cave sites in the near future. At first assessment it appears that the majority of sites are under the control of state departments.

A little closer to home, in the South East we have two sink hole sites and another penetration site under current negotiation. Please appreciate that in the best interest of the landowners we deal with and our credibility in the eyes of future landowners dealings, very little can be discussed publicly until signed, sealed and delivered.

The initial water monitering program associated with the C.C.A. scare in Mt. Gambier has been compiled. Again, until we get permission from landowners involved, the details cannot be released in general though as divers we have little to be concerned about.

Continued on Page 2

National Director's Report continued

I hope a brief of this report will be available in the next edition.

Over the past two months, we have had four well qualified American divers attending the Mt. Gambier Region, resulting in some pre-arranged reports fed back to the Research Manager, Andrew Cox, who I am sure will have them presented in the next available edition as well as some excellent public relations established between our countries. Any Australian members who may be thinking of going to America, contact Andrew for reference to our American counterparts.

In closing, I would like to re-emphasise that to some the change in the Association is happening too fast, and to others too slow. A balance of providing for current members and at the same time implementing progressive changes will be done at a rate that may be viewed as a bit slow, especially merging into new states. However, at the end of the two year period, I hope to be sure that there are few questions left unanswered and the credibility of the Association remains strong. Without our standing in the diving community, progression throughout Australia will be difficult.

Again, thanks for your feedback.

LANCE MITCHELL National Director

GOULDENS WATERHOLE

In the last few months people have been seen dumping rubbish into Gouldens. If you happen to catch anyone doing this could you please note the car rego. number and report it as soon as possible to the Lands Department at P.M.B. 124, Mt. Gambier 5290. Ph: (087) 24 1598.

Further to this it would be very much appreciated if that when diving in Gouldens you could collect any unsightly rubbish especially string, wire, etc., and dispose of it in the correct manner. Anyone interested in participating in a general cleaning of Gouldens should contact John Vanderleest on (03) 416 9370 (a.h.) and it will be organised.

CDAA NEWS

MEMBERSHIP RENEWALS

This will be the last Guidelines you receive before the end of June so a new application/renewal has been included in the centre pages. Please try and be as prompt as possible with sending your renewal off – a stamp self addressed envelope should be included with your card and your old photo will be re-used unless a new one is enclosed.

THANKS, TO CHRIS H.

A big thank you to Chris Hales of S.A. for all his work in handling the Barnoolut Landowner Indemnity Forms. Chris has moved from Adelaide and now finds it difficult to effectively continue with this role. The indemnities are now being handled by the records officer.

GUIDELINES TENDER

Seven tenders were received for the production and mailing of GUIDELINES. All tenders offered a similar level of production service, however two tenders were priced significantly cheaper than the remainder. After careful consideration, a publisher for the C.D.A.A. was chosen, this being "Footnotes" located at St. Kilda, Victoria.

NEW CAVE SITES

To the discoverers of new cave sites, the following should be considered:-

- 1. Do you have landowner's permission?
- 2. Do you require a permit?
- 3. Can you be accused of trespass?
- 4. Is your qualification matched to the dive site?

What are the broad affects, i.e. archeology, environment, artefacts, aboriginal heritage?

Please note the Association's official stand that it would like to promote all new site discoveries to be brought to the attention of the Association as soon as possible.

We will make all reasonable effort to involve the discoverers in the research of the site.

Thanks to some existing members who have already brought forward new sites currently under investigation.

CDAA EXAMINERS

The following examiners are available for information on training courses, advice on training techniques and equipment, and for any comments you may have on the CDAA operations. The Training Manager is Tony Richardson.

NAME	PHONE	NAME	PHONE
New South Wales		Victoria	
Ron Allum	(02) 534 6615	Bill Bernhardt	(03) 725 9716
Des Walters	(060) 25 3506	Stan Bugg	(03) 379 8791
Andrew Wight	(02) 428 2176	Scott Carpenter	(056) 25 2508
South Australia	, ,	John Dalla-Zuanna	(03) 370 1093
Chris Brown	(08) 79 1445	Barry Heard	(056) 59 7384
Glen Harrison	(08) 386 3237	Alan Joliffe	(03) 874 7669
Ian Lewis	(087) 38 5293	Phil Mann*	(03) 689 7791
Richard Megaw	(08) 263 3337	John McCormick	(03) 569 6948
Tim Miles*	(08) 389 2030	Tony Richardson	(03) 754 6163
Western Australia		Bob Wealthy	(03) 789 6389
Gary Kaal*	4	Frank Ziegler	(055) 26 5288
Hugh Morrison	(09) 409 9807	* Trainee	(===) = 0 0 = 00

ATTENTION GEAR FREAKS – COLLAPSIBLE TANKS

At last – the perfect tank for those long shore dives or Nullabor trip are here. Latest news from overseas is that the Japanese have developed a telescopic tank that gets smaller as you use up your air.

Made from titanium and machined to tolerances of 1,000,000 of an inch using laser guided cutting tools, the tanks are made into three tubular sections. Like three cylinders sliding inside each other, the tank collapses as the inside pressure reduces with air consumption. Plans for making these at home will be available next issue!!!

POSTAL ADDRESS

As from March 31st, 1990 the Melbourne and Mt. Gambier post office box addresses will no longer be in use. Please make sure any and all correspondence is sent to our Adelaide address ONLY i.e. P.O. Box 290 North Adelaide 5006.

C.D.A.A. PROMOTIONAL VIDEO

One of the proposed upcoming projects is the production of a C.D.A.A. promotional video. Anyone who has the equipment or expertise in this area and is interested in helping with production of this video is asked to contact John Vanderleest on (03) 416 9370 (a.h.) for further details.

BARNOOLUT

Please remember that any divers attending Barnoolut must have someone who has been there before, and if you haven't been there for some years, be certain you remember your way around before you lead the manager to believe you do.

Thanks to Colin Traeger, because he has patiently seen to and looked after a few divers who haven't quite played by the rules.

BABY BLUE MAPPING PROJECT

The mapping project began in late March. One of the first requirements for the project was to lay some reference lines. These lines will be left for the duration of the project. For people diving in Baby Blue, you are asked to observe but not to touch. The lines are for mapping reference and should not be used as guidelines. Please do not pull or hang off the lines.

The team members involved are Steve Arnel (Portland), Tony Davis (Melbourne), Noel Dillan (Melbourne), Barbara Hayes (Melbourne), Sue Lee (Melbourne), Chris Murphy (Adelaide), Graeme Pearse (Adelaide), Geoff Riddell (Melbourne), Ken Smith (Adelaide), John Vanderleest (Melbourne) and Greg Walker (Ballarat).

WHAT'S HAPPENING WITH TRAINING AND STANDARDS?

When the CDAA's new system was voted in, we received a 2 year changeover period to accomplish upgrading the CDAA's methods. Six months have passed and plenty is happening.

CHANGEOVERS

An inital "SINKHOLE" seminar was run in November for approximately 60 members and many compliments were received. The seminar covered new approaches to Sinkhole dive planning, modifications to equipment, rope and ladder work, and a review of past and current deco. tables and procedures. Further seminars are planned for all current Category 2 members, as listed below and in the diver's diary in this Guidelines.

These seminars will be run by panels of Examiners and members other than Category 2's are welcome. After participating, you will be rated as "SINKHOLE DIVERS" in the new system. New Cards are being developed at present and your names will be listed for them (probably available in the middle of the year).

Recently a "CAVE DIVER" Seminar was run following the final Category 3 test, along with accompanied dives. Further such seminars are now being arranged in Adelaide, Melbourne and Sydney and will be announced. Major components of these are new line techniques, twin tanks, helmet equipment use and emergency planning for confined areas. Dates will be announced.

NEW COURSES

A blue print for the new "SINKHOLE" courses have been circulated. There are major changes proposed from the old Category 1 & 2 "test" format. Octopus regulator use, mid-water navigation in gloomy conditions, gear lowering and inwater donning, line tangling solving, antisilting techniques will replace the old outdated buddy breathing and multi tie-off tests which simply don't occur in Category 1 & 2 holes. Courses are being developed for direct relevance and repeated practice sessions (involving dry land drills for these). Divers who have trialled these as "guineapigs" are very enthusiastic! I've received great support for these innovations in widespread

discussions with more experienced cave divers.

The new "CAVE DIVER" courses will be running within 2 months, as a result of preparation and trialling recently. Once these are established, attention will finally turn to "PENETRATION DIVERS". Thanks to all Category 4's who are patiently waiting – you already have good experience and better equipment than the other membership and are fairly few in number, so we've left your crossovers and courses until a little later.

SOME NEW EQUIPMENT

I've noticed on the market a couple of items which may interest many of you, so I thought I'd point them out.

New "BOS" Tanks: Steel 90cft tanks which are the size of 72's. Pump to 300 Bar or so with standard valves. Imported from Germany, and available from Diveline (Frankston), Southern Cross Divers (Geelong), Warrick's Dive Shops and Professional Diving Services (Portland). They cost about \$420 each but are the best



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tanks available for heavy duty diving at Category 4, etc.

Wetnote pads of all sizes: Small, A5, even A4 size in waterproof satchel packs. These would be very useful for the increasing number of research and survey divers – much more layout space than the little note book sizes. Available from Ern Irelands Diving Headquarters in Prahran, Melbourne.

"Knuckle" joints for Standard Second Stages: We are encouraging everyone to get these as we move into much greater emphasis on Octopus reg. systems and their convenience. If you don't want to buy a new "barrel" reg. – such as an Oceanic, Tekna or Poseidon – then get a Knuckle fitted to the long-hose second stage. Then the long hose can drop under your arm out of the way and the reg. sits better in your mouth. Available through John McCormick (03) 579 0570 or from Airdive in Melbourne.

Tether Clips: If you're sick of fumbling with those luff hooks, we've been getting hold of "scissor" clips, which work one-handed in any direction on a swivel. "Zenith" make them but at this stage you can obtain them through John McCormick who is supplying the cave diving specialty market when he can get supplies. When using these clips, spray a whiff of silicon on them to stop the inside springs rusting. Order from John on (03) 579 0570. These clips are easy and convenient to use.

BIOLOGY COURSE

Enquiries to Reg Lipson (as advertised in this GUIDELINES). I want to add my full support to this concept. Cave Divers have been operating at Mt. Gambier for 20 years or more and we still know next-to-nothing about our environment. This course will examine ponds and sinkhole micro life in considerable detail as well as geology and some hydrology of the region. You will learn about the deviant sex lives of innumerable aquatic bugs, as Reg is a specialist in aquatic reproduction! Above all, the CDAA wants to initiate a series of these courses with Reg's help, to set up "Research Diver" awards and encourage a much greater environmental enjoyment and appreciation of our magical mystery sinkholes. Please grab this opportunity! Go for it. IAN LEWIS

Director, Standards and Training

A note on Equipment

This comment for Category 2 Divers.

As Standards Director, I want to reassure all Category 2 divers/SINKHOLE DIVERS that it is not the intention of the new CDAA standards to expect you to outlay heaps of money on special extra equipment. Diving the sinkholes does not require twin tanks, helmets, high-tech climbing gear, etc., although all these things are useful and are recommended as good personal improvements.

Twin Tanks: We are only recommending that you look at a back-up air system, such as a second tank, or a little pony bottle, or a "Y-valve", in order to have a backup emergency air supply. These will not become required for SINKHOLES.

Lights: Your normal large light (e.g. Ocean Pro or Ikelite, etc.) is all that you need for SINKHOLES (plus backup light, of course). Helmet lights are very handy so you might like to experiment with them, but a big light attached to equipment as normal is fine.

Climbing Gear: Seminars will show you nifty ways of lowering gear, running safety lines, etc. Sinkhole Divers with some abseiling/ropework experience say it makes life much easier. You're not required to own gear to climb mountains!

SUMMARY

- 1. Standard Category 2 gear is appropriate for SINKHOLES.
- 2. New techniques will help you, though.
- 3. The new equipment will be required for CAVE DIVING for those who want to go on in the sport.

Coming Next Issue ...

- The "ins" & "outs" of jump reels
- New map of Engelbrechts
- Latest info on Tank Cave & 5L250
- Article on all the new H.P. tanks now available
- Biology of our fresh water wonderland

THE STORY OF PANNIKIN PLAINS CAVE DIVING **EXPEDITION - Part 1**

by Andrew Wight

Pannikin Plains Cave is near a lonely wayside roadhouse called Cocklebiddy, which is 1600km west of Adelaide. It is a deep cave which extends from a small lake, one hundred metres below the surface. The underground lake leads off into one of the deepest and longest underwater systems in the world. It was first dived by Ian Lewis and Bob Turnbull in 1972. Using snorkels, they found the existence of a deep tunnel, leading in a northerly direction. Their primitive equipment and poor lighting did not enable them to see that the tunnel continued on.

Over the next fifteen years, seven major attempts were made to reach the end of the cave, but the cave did not yield its secrets easily.

The underwater passages of Pannikin Plains are deep and over three kilometres long. To a cave diver, this presents many problems. Air consumption, nitrogen narcosis, and decompression sickness become serious hazards. Up until September 1987, only 1,075 metres of underwater passage had been explored. This was nearly all at a depth of thirty metres.

It was on a cave diving trip to the Nullarbor in September, 1987, when Chris Brown and Ron Allum, discovered a new and exciting lead which headed north and on into a large air chamber, which they called Concorde Landing, after their lights picked out a rock shaped like a Concorde wing.

The next day, Peter Rogers and I explored even further to find another air filled chamber we called Oval Room, and beyond a massive underwater chamber the size of a football stadium, christened Mega Chamber.

From this kilometre of newly explored cave, I started planning the Pannikin Plains Cave Diving Expedition of 1988. The objective was to push the boundaries of the cave to the limits of both human endurance and cave diving technology. We realised we were going beyond anything tried previously, and took complete responsibility for the consequences of our actions.

To fund such a large scale underwater expedition, it was necessary to raise \$60,000

to purchase equipment and stores. We would have to be completely self contained on the expedition. It was a lot of money.

One way was to produce a film about the expedition, and attract commercial sponsorship to finance the project. Normally a Product Manager for Coopers Animal Health and without any experience in producing documentary films, I embarked on my most ambitious project.

With the support of Australia's most experienced cave divers - Ron Allum, Dr Peter Rogers, Phil Prust and Chris Brown, as well as my wife Liz, and several other very experienced cave divers and cavers - we set about trying to unravel the mystery of the Pannikin Plains Cave.

The expedition was considered an underground, underwater equivalent of the scale of making an attempt on Mount Everest.

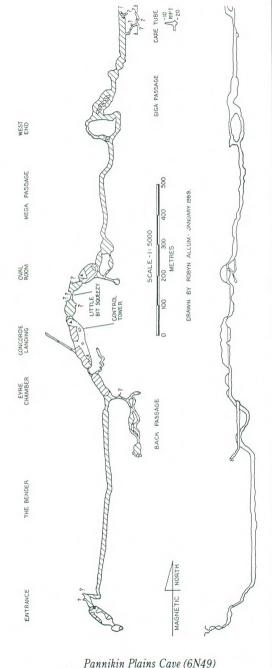
Our team, together with other Australians. held the world record for the longest underwater cave dive of six kilometres, set in 1983, at nearby Cocklebiddy Cave.

Cave diving is unlike any other pursuit. In a world where many other frontiers have already been pioneered, cave diving presents the most exciting challenge into the unknown. It is true exploration. Each discovery is a first. It also provides glimpses and experiences of places where no humans have ever been before. It is this lure that attracts cave explorers to a place like Pannikin Plains Cave.

Planning the expedition and the documentary film took just over twelve months from the formation of the original idea. I found the task quite daunting, considering the logistics of such an exercise.

This was to be the most ambitious cave diving exploration yet undertaken in Australia. This would be a scientific expedition, working closely with Dr. Julia James, Senior Lecturer in Inorganic Chemistry, and a leading world authority on cave atmospheres, minerals and waters.

The first thing I noticed when we arrived at Pannikin Plains Cave early Monday morning, November 14, was the purity and the



Nullarbor Plains, Western Australia

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113 Bentinck Street, Portland 3305 Ph: (055) 23 6392 Fax: (055) 21 7255 stillness of the air. The Nullarbor Plain is a wild landscape which was once an inland sea, and is now mostly desert. This was to be home for twenty-two people for the next four weeks. I had briefed the expedition in Adelaide on the extremes of temperature we would experience – from 45° celsius to sub zero. Fierce winds and dust would make the job of living in the Nullarbor much more challenging than the average camping holiday!

The first job was to get tonnes of equipment into the cave, ready for the dive. This required great effort. The gear, which included the latest technology, some of which we created, or adapted, was made up of diving suits, helmets, bedding, food, water and communication equipment. We also had underwater propulsion vehicles, called Aqua Zepps, the prototype of which was made by an East German who used it to escape across to the West.

We had generators and a compressor on the surface, sending down electricity and air along extended cables, and even a telephone. There was also a two way radio specially built by Ron Allum for the expedition. The system, which was capable of sending transmittable signals through solid rock, would play a critical role in the dramatic events which would subsequently befall the expedition.

The equipment was lowered down a series of flying foxes and steep vertical drops to reach a large chamber one hundred metres vertically beneath the earth's surface. At the end of the chamber was the small lake from where we would make many exploratory dives. The lake side became Camp One. Here we set up a filling station to replenish the eighty scuba cylinders we had lowered into the cave. We also had a 240 volt charging system, supplied by the cable from the service. This equipment was needed to charge our lights and the Aqua Zepps. It took a week to get everything ready for the real point of the expedition, the diving.

The next stage was to set up a forward base camp in *Concorde Chamber*, in the same style as climbing Mount Everest. This was done by the support divers who pushed large underwater sleds in front of them. These sleds contained the thirty tanks used for the exploratory dives as well as food, sleeping

gear and fresh water (the cave water is salty), for the long stays in *Concorde Chamber*.

My first trip back into *Concorde Chamber* was with Chris Brown. We both rode our Aqua Zepps and carried six tanks of air each. The whining of the Zepps motor and the exhaust of my air bubbles, were the only sounds to be heard. The tunnel goes down to thirty metres in depth and takes a right hand turn along a short passage and then veers left. Now heading north, Chris and I could shine our lights along the long water filled tunnel. Trying to stay close to the roof to conserve air and minimise decompression times, Chris and I streamlined our bodies on the 1.8 metre long scooters and headed for *Concorde Chamber*

Along the way, we encountered *The Squeeze*, a nasty, narrow and silty part of the cave, eight hundred metres from the entrance lake. To pass through, we alighted from our Zepps and swam through the narrow slot, pulling the Zepps behind us.

Entering *Concorde Chamber*, we could see the great beauty of this huge chamber,

Continued on Page 20



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TRAINING MANAGER'S REPORT

Implementation of the new system as far as training is concerned is proving to be a huge undertaking. It was therefore necessary to prioritize tasks that need to be done:

- 1. Crossing over existing members to their respective levels in the new system.
- 2. Development of training course outlines for the various levels.
- 3. Development of instructor certification procedures at the introductory levels.

In this report I will concern myself only with number one – the cross-over arrangements.

It was decided that all members would benefit from some sort of update program rather than just being issued with a new card. These "cross-over programs" are designed to reflect the latest standards in cave diving world wide and introduce new techniques and equipment requirements at the various levels.

The cross-over arrangements can be summarized as follows:

CURRENT RATING	CROSS-OVER ARRANGEMENT	NEW RATING
Category 2	Sinkhole Seminar	Sinkhole Diver
Category 3	Cave Seminar	Cave Diver*
Category 4	Phase 1: Cave Seminar Phase 2: Fixed line technique, practical training	Penetration Diver*

*Includes the rating of Sinkhole Diver

There will be a number of cross-over programs run over the next 18 months. There is no cost involved to current financial members attending these cross-over programs.

Details of the next scheduled programs are given in the "Diver's Diary".

TONY RICHARDSON Training Manager

CDAA HIERARCHY

During February, the National Directorate called a meeting of all people in the Association currently performing tasks of responsibility, to discuss the working relationships that would be needed to run under the new system and to discuss the tasks and budgets for the next four months.

All items on the agenda were discussed as a large group or in relevant working parties during the course of the weekend. The results of these discussions are included in the following paragraphs.

The Directorate comprises of three members: the National Director, the Business Director and the Standards Director. Each

Director then has a team under them who are the working bodies for the Association. The structure is as follows:

National Director is responsible for the:

- Business Director
- Standards Director
- Landowner Liaison Officers/Regional Reps
- Research Officer
- Solicitors
- Special Program Officers

Business Director is responsible for the:

- Records Officer
- Secretary
- Treasurer
- Publications Officer
- Public Relations Officer

Standards Director is responsible for the:

- Training and Development Manager
- Training Support Material Officer
- Instructor Training Body

Each area of responsibility has a body attached who will either perform the specific task or coordinate the specific task. This means that they will hold the responsibility for that area and that they will ensure that the job gets done. They will also act as a point of contact for members who have any queries in the area. Consequently, if you phone up one of the Directorate for a problem that can be handled by one of the Officers, you will have a nice chat and then get told to phone the relevant officer for the answer to your question.

Each issue of Guidelines will contain the names and phone numbers for each contact person.

Mail is a different story from the phone

calls. We have decided to keep only the South Australia Post Office Box as our mail address. All mail will be opened by our Records Officer who will extract the records items and direct all other mail to the Secretary. The Secretary will then keep a copy of all incoming mail and send the letter to the relevant officer. This may sound like a lot of double handling but it is in fact a very efficient method. Firstly it means that there will be no delay in records processing. Secondly all correspondence is recorded, thus allowing tracking of the mail. Thirdly, many of the letters we receive contain information and requests for more than one officer. The secretary will be able to photocopy the letter and send each bit to the relevant person.

Members are asked to send ALL mail to the CDAA post box as this is the only way we can keep track of the mail.

AREAS OF RESPONSIBILITY

The Publications Officer will be responsible for Guidelines, establishment of a reference library and miscellaneous printed material.

The Promotions Officer will be responsible for promoting the CDAA to the general public and to promote the services and activities of the Association to the general membership.

The Research Officer, Records Officer, Secretary and Treasurer Role will remain unchanged. The Financial System has changed. We will no longer maintain two separate accounts (S.A. and VIC.). Instead, we will have just one central main account with several working accounts underneath. The treasurer will be able to control all accounts from one central point. All Barnoolut Indemnity Forms are now being handled by the Records Officer. Please write to the CDAA if you require a copy of any of these forms.

The Instructor Training Body is new. These people will be responsible for the establishment of new CDAA Instructors. CDAA Instructors will be current instructors who are allowed to teach and certify to different levels. e.g. An instructor may wish to teach Sinkhole Diving but not teach any Cave or Penetration Diving.

The Training Support Officer is a temporary position. The role involves the coordination for the development of training

material needed for the new courses being developed by the current Examiner Body.

The Manager of Training and Development is the person responsible for the coordination of all CDAA instructors, crossover programs from the current category system to the new awards system and the coordination of all cave and penetration courses. (Refer to the cross-over timetable in this issue.) Cavern and Sinkhole courses will not be centrally co-ordinated by the Association at this stage, but will continue to be run in the commercial marketplace.

Landowner and Regional Reps. will be appointed as required. Their role is one of "first point of contact".

Special Program Officers will be appointed as required. (See National Director's Report on the Queensland Rep.)
BUDGET

The budget for the next four months was limited as we did not wish to enter into next year's finances. Items of expenditure for the next four months include:

- General running costs, e.g. phone bills.
- Liaison meetings with Land Owners at Mt. Gambier.
- L250 Research Project.
- Liaison with Government Reps. in Qld.
- New certification cards for the new certification system.
- Cross-over programs.
- · Guidelines.

The Directorate would like to thank all those who attended the meeting. Sitting down and talking for two days is not an easy task.

JOHN VANDERLEEST Business Director

CAVE DIVING BOOKS

A small number of copies of the book

"HAND SIGNALS FOR DIVING"

are still available for \$5.50 each (including return postage).

To order, send a cheque to "CDAA Books", P.O. Box 290, North Adelaide, 5006, including your name, address and CDAA number.

a.b. OCEAN DIVERS

ARE MOVING

As from May, AB Ocean Divers Moorabbin store will be at a new location in the area.

AND MORE NEWS ...

AB Ocean Divers Dandenong store has been sold. Therefore, AB Ocean Divers will be operating from their East Bentleigh and East Malvern store until the new super store opens.

To clear stock for the relocation, we are offering **20% off** to all CDAA Card Holders for the month April.

237 East Boundary Road, East Bentleigh, 3165 **579 2851**

57 Waverley Road, East Malvern, 3145 **571 6215**

GUIDELINES Advertising Rates 1990

AREA	1 issue	2-3 issues	4 issues	
Inside Fror Cover	1t \$170	\$150	\$125	These cost are PER ISSUE and can include
Body of Ma Full Page ½ Page ¼ Page ¼ Page	agazine: \$150 \$110 \$75 \$50	\$125 \$95 \$65 \$40	\$100 \$80 \$50 \$30	logos, diagrams, etc. Black & White photographs can also be included at an extra cost of \$15 per photograph.
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CATEGORY THREE TEST REPORT

Saturday the 17th of March saw 14 candidates assemble for the Category 3 test at Gouldens Hole. Mt. Gambier turned on another of its rare sunny days.

Congratulations to the 13 successful candidates – Stephen Arnell, Priya Cardinaletti, Brian Cornell, Ian Gothard, Graham Hankin, Sue Lee, Robert Lewis, Simon Osborne, Greg Osborne, Ken O'Donnell, John Sisley, Neil Vincent and Scott Walters.

Many thanks to the examiners - Chris Brown, Stan Bugg, a suffering Scott Carpenter, John Dalla-Zuanna, Glenn Harrison, Richard Megaw, Tony Richardson, Des Walters, Bob Wealthy, and trainees Phil Mann and Tim Miles. Thanks also to Ian Lewis for laying the guidelines, and Katrina Carpenter for supplying lunch for hungry examiners.

Of special note is the father-son combination – Des Walters (examiner) and Scott Walters (candidate). Surely this is a first for the CDAA.

On Sunday morning, all successful candidates, plus a few other existing Category 3 divers, attended the first Cave Diver Cross-over Seminar. This was well received with many commenting on the wealth of information that was disseminated.

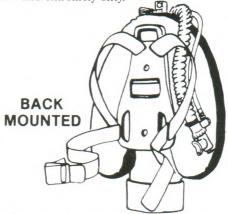
With a short break for lunch, the seminar was adjourned to the Pines and Fossil Cave, where each pair of candidates was taken on their first Cave (Category 3) dive by an examiner. Each candidate was required to wear twin independent tanks. The biggest grins were seen on the examiners' faces who couldn't believe their luck in doing an enjoyable cave dive on a Category 3 testing weekend!!!

These dives were useful trial for the type of training dives which will be occuring in the Cave Diver courses in the future.

TONY RICHARDSON Training Manager

Buoyancy Control "Wings"

A different BC configuration increasing in popularity amongst Australian cave divers are BC wings. These are used fairly extensively by American cave divers. Phil Prust and Chris Brown were among the first CDAA members to adopt this system for buoyancy control having seen them in use on a cave diving trip to Florida. They were used on the recent Pannikin Plains expedition as they are ideal for multiple tank set ups; and they are proving themselves in the current survey work in *Tank Cave* where the passage is predominantly horizontal and can be very low and extremely silty.



Basically BC wings (or back mounted BCs as they are sometimes called) consists of two long tubes, one on each side of the scuba

cylinders, with the vent near the top. Their major advantage is that they concentrate their lift around the diver's centre of gravity at the scuba cylinders, which helps to minimize the tendency to roll over onto one's back or for the diver to assume an upright position. They therefore go a long way to helping a cave diver achieve the ideal horizontal or slightly head down trim position.

BC wings are usually used in conjunction with an aluminium back-plate and a standard webbing harness. The back-plate is designed for use with twin tanks, the twin tank bands just bolting straight onto it. Wings can also be used just as successfully with a standard plastic back pack, with the added advantage that a single tank can be accommodated if desired.

Wearing a standard webbing harness reduces the chest clutter associated with the jacket style BCs. D-rings are used at appropriate points on the harness for attachment of second stages, guages, reels, etc. A "bum-bag" is used for minor items – slate, deco tables, etc. A quick release buckle on the shoulder and waist enables easy gear removal if the diver becomes hung in a squeeze.

BC wings can be a hard-to-get item in Australia. You probably won't find them in your local dive shop. If you are interested in purchasing a set of wings, contact Tony Richardson on (03) 754 6163 after hours.

Tony Richardson CDAA 641

ATTENTION ALL MEMBERS

As from **March 31st, 1990** the Melbourne and Mt. Gambier Post Office Box addresses will no longer be in use.

Please make sure any and all correspondence is sent to our Adelaide address **ONLY**.

C.D.A.A. P.O. Box 290 North Adelaide, 5006

Just who the heck was "ELAINE", anyway?

Mud Hole, The Hole Behind The Pines, Football Field, Cricket Pitch, Wire Cave, Scrub Hole, Dave's Hole, Alleyns Cave ... these are just a few of the many names which have been used by cave divers over the years to identify a large oval-shaped sinkhole known OFFICIALLY as "5L97" (the 97th cave feature formally numbered by the Cave Exploration Group of South Australia in the

Located in a well-established pine forest about 600 metres NNE of the popular waterfilled cave known as *The Pines* (5L61) and 500 metres NW of the infamous grated feature known as *Death Cave* (5L84/85), 5L97 probably gained its popular name *Elaines* through a minor misunderstanding which today causes quite a lot of ongoing confusion (see the sketch below).

Lower south east of the State).



Location Map of 5L61, 5L84/85 & 5L97.

The Woods and Forests Department have referred to *The Pines* and *Death Cave* as "Springs Cave and "Alleyns Cave" over the years, but L97–"Elaines"—had no recognised name at all. Efforts to track down historical records of cave names in the forestry industry have to date been unsuccessful, but it is likely that *The Pines* was (incorrectly) identified as being an active "spring" feature. *Death Cave's* alias of "Alleyns Cave" is more easily explained ... the property was previously owned by Mr Alleyn who still lives nearby.

From discussions with Mr Alleyn a few years ago, it was learnt that his name was "AL-LAIN" phonetically rather than "AY-LEAN", as it is commonly referred to around the traps. Since a quick pronunciation of "Al-

by Peter Horne, November 1989

Lain"would sound almost identical to "Elaine", my guess is that someone erroneously associated the phonetic "Al-Lains" with L97 rather than Death Cave. Consequently, we now have TWO caves with the phonetic name for Alleyns ... and "Elaines", being the late starter in the race, is totally inappropriate (and technically illegal, if you consider the Government's nomenclature guidelines).

Efforts by the CDAA to sort this mess out with the Woods and Forests Department about five years ago were not resolved ... they felt that an Aboriginal name should preferably be given to L97, so it was decided to use the very descriptive name "Mud Hole" until something better came along. Recent references to L97 by CDAA members as "Elaines" and "Alleyns" again have only helped to confuse the issue further, so hopefully this little article will provide a bit of an explanation about the whole situation.

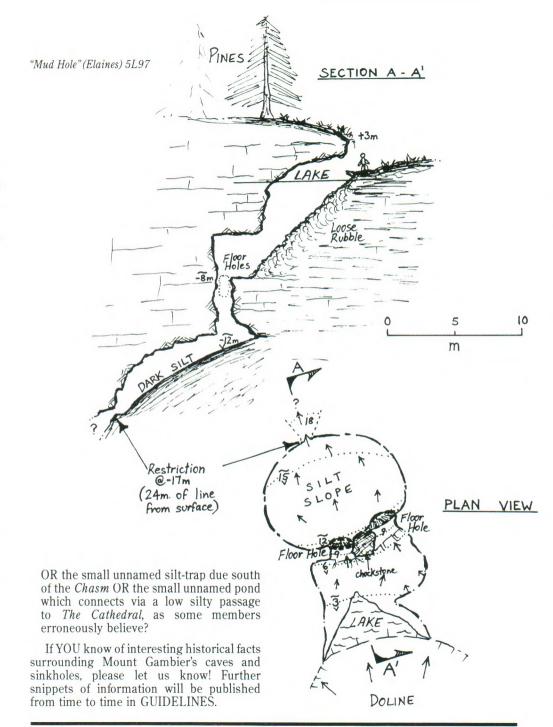
As a final point of interest, a submission to formally name the three features *The Pines, Allenyns Cave* and *Mud Hole* has been put to the Geographical Names Board for their consideration. Recommendations will later be made for further discussion between representatives of the landowners, the CDAA and the "dry" caving community so that all major viewpoints are considered.

Hopefully, *Elaines* will then be dead and buried. Of course, if Elaine should happen to come forward and identify herself as being the inspiration for the naming of this cold little hole (a jubious honour at best), we could have a bit of a problem!

And while we're on the topic of cave names ...

Did vou know that:

- "Ela Elap" is thought to be from the native words "lap lap", meaning small fish?
- "One Tree" and "The Pines" are both going to have identity crises after the tree dies and after Woods and Forests have cleared the pines in the next few years?
- the name "Turtle Pond" was originally allocated to a large, shallow pond some distances to the south-east of the main diving area of Piccaninnie Ponds by its discoverers, and it is NOT the big first pond



BOOK REVIEW

by Tony Davis, CDAA 1187

THE ESSENTIALS OF DEEP DIVING by John Lippmann, FAUI 561 Published by FAUI 1989

At last, an up to date compilation of both theoretical and practical aspects of deep diving is available to both instructors and students of this fascinating and increasingly popular facit of our sport.

All the facts are presented in this well illustrated publication in clear, concise, and most importantly easy to understand language. Designed as a textbook for the FAUI Deep Diver specialty course the chapters follow a logical pattern with important points highlighted in bold type and a summary of key points included at the end of each chapter.

Section one gives a very up to date description of the maladies associated with deep diving, and makes very interesting reading in that it describes not only the problem itself, but also why it is thought to occur.

Continued from Page 8

painted in the silhouettes of our powerful diving lights. The chamber is one kilometre into the cave system, one hundred metres directly below the highway. It is here, twenty metres above the water of the lake, that we made our camp, on top of the boulders.

Climbing out of the water we could see the small camp of food, water and sleeping gear left by our sherpa divers. It would be a lonely night for Chris and I, beneath space blankets, sleeping on a bed of rocks. It is a strange feeling when you realise that you are trapped beneath the earth for the next three days with the only exit being through one kilometre of water filled tunnel.

Damp, tired and affected slightly be the elevated carbon dioxide level of the air, Chris and I made our first underground meal of the trip. We needed to stay in *Concorde* for twenty-four hours before our next dive to allow the excess nitrogen our bodies had accumulated on the first dive, to dissipate.

In the endless darkness we slept, occasionally waking with the sound of an

The large section on decompression tables goes into the relative advantages and disadvantages of all the popular tables, and also some newer not as well known ones, and gives many unbiased comparisons, letting the diver decide which table they may wish to use.

Section three covers many special procedures such as omitted decompression and oxygen therapy, as well as a very interesting and eye-opening chapter on those underwater wonders – Dive Computers.

Section four on planning gives among others all you sinkhole divers the information needed to conduct a safe and enjoyable deep dive.

In summary, *The Essentials of Deep Diving* offers exceptionally good value to all divers interested in deep diving, and should form part of every divers library.

Ed Note: The above text has been endorsed by FAUI and the director of the Divers Emergency Service. The American edition has been endorsed by the Divers Alert Network, and directors of training of both PADI and NAUI. Negotiations are also underway to have the book published in Germany.

interstate truck passing overhead. The morning without the sun or birds would see us preparing for our turn to push the cave to the limits.

Unlike mountaineering, our objective for the dive was unknown. Nobody had been where we were about to go. Chris and I would have to plan for a multitude of disaster scenarios, which would include, out of air, being lost or trapped or equipment malfunction at the fartherest point of our exploration, with cold and fatigue to fight on the swim back.

Chris carried the 400 metre spool of guideline we would use to mark our presence in the unexplored cave to show us the way home. The line must be continuous so we can retrace out return. I carried the compass and waterproof paper to map the cave. We both rode Aqua Zepps and carried five air tanks and one oxygen bottle for our big dive.

The expedition had been in the Nullarbor for ten days and had made two "push" dives along with numerous support dives. Chris and I planned to leapfrog Peter and Ron's push



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dive, retracing their newly laid guideline to the last point explored.

Then to the planning of our exploratory dive was more like planning for a multitude of disaster scenarious. The cave diver must be prepared to cope with any contingency from loss of air supply, silt out and lost, to equipment malfunction, possibly thousands of metres from the safety of air.

The other difficult aspect of cave diving is not knowing where the cave goes or how deep the dive will be. It is necessary to plan air consumption and decompression schedules for theoretical dives and then, once the dive has started, to continually upate and modify the plan according to the changing cave environment.

The approach to be used on the *Pannikin Plains* "push" dives was to be similar to the classic Everest mountaineering expedition; climb a little way, establish a camp, survey the route ahead and climb some more, each time increasing the distance climbed.

On each dive our theoretical dive plan was 120 minutes bottom time at a maximum depth of 27 metres using Canadian Armed

Forces decompression tables. This incurred a decompression schedule of:-

- 8 minutes at 9 metres
- 31 minutes at 6 metres
- 95 minutes at 3 metres

An impressive 134 minutes of decompression time with a minimum surface interval of 24 hours after each dive. To add a safety factor into the lengthy decompressions, pure oxygen was breathed at the 6 and 3 metres stops instead of air. This practice accelerated the rate of loss of "bends" causing nitrogen absorbed into our tissues after such long exposure at depth. Each pair of push divers would take enough air and oxygen to complete the theoretical dive. Remembering the cave diving rule of 1/3 of the air supply on the way in, 1/3 on the way out with 1/3 in reserve.

Our time had come to push to the end of the cave. It was now thirty-six hours from our surface preparations to the point of departure, in the north lake of *Concorde Chamber*. We had eight diving lights each, and four hundred metres of guideline.

Continued Next Issue.

CDAA CAVE ACCESS

Remember: Access is a privilege, not a right. Please be considerate of landowner wishes.

CAVE	CAT	OWNER	PERMISSION
Ewens Ponds	Nil	Dept. of Lands PMB 124, Mt. Gambier (087) 24 1598	Groups of 6 or more, phone/mail to Dept. of Lands. Smaller groups, no need. Ponds are closed 1 September – 30 November each year.
Horse & Car Tea Tree		Mr. Don Telford PO Box 2629, Mt Gambier (087) 38 4003	By phone or mail, 1 week prior.
Little Blue (Baby Blue)	1	Port MacDonnell	Little Blue – permission not required – must carry card.
Allendale	3	Port MacDonnell	Obtain key from Mt. Gambier Tourist Information Centre.
Gouldens 2 Sisters Fossil	1 1 3	Dept. of Lands PMB 124 Mt Gambier (087) 24 1598	Contact Dept. of Lands by phone/mail prior to diving. Stay out of Gouldens when pump is operating.
Ela Elap One Tree	2 2	Mr. Peter Norman Private Bag 67, Mt Gambier (087) 38 5287	By phone or drop in before diving. Accommodation also available.
Swim Through	2	Valerie Earl C/– PO Allendale 5291	From lessee, Mr David Easton, 8 Tarandi Road, Mt Gambier (087) 25 0938. Phone/Mail one week prior.

CAVE	CAT	OWNER	PERMISSION
Piccaninnie Ponds	2	NPWS 11 Helen Street, Mt Gambier (087) 24 1579	Permit holders by phone. Be aware of delicate vegetation.
Hells Hole Pines Elaines		Woods & Forests PO Box 162 Mt Gambier (087) 24 2711 Forests Clerk Barry Phelan	Contact Woods & Forests by mail or phone and arrange permit. No diving on total fire ban days.
Black Hole Ten Eighty Bullock Hole	2	Mr. Colin Traeger, Manager, Barnoolut Station PO Box 12, Mt Gambier 5290 (087) 26 6215	Contact CDAA Committee for diving deed. THEN mail to Colin Traeger 2 weeks prior stating names/qual. of all divers and AM or PM time slot. Must include somebody familiar with Barnoolut property and procedures.
Max's Hole	3	Mr. Trevor Edwards PO Box 1319 Mt Gambier (087) 26 8277	Phone or mail 1 week prior to dive.
Shaft	3	Mr & Mrs Ashby	ONLY by contacting designated "guides" who will arrange access.
Engelbrechts – East – West	3 4	Mt Gambier Council	Obtain key from Mt Gambier Tourist Information Centre.
Three Sisters	s 4	Millicent Council	Currently closed until new access arrangements completed.

TRADING POST

DRY SUIT: My drysuit is for sale at present. It is a silver-grey neoprene low-volume suit with short neck and wrist seals. The zip is in perfect working order but there are small pinhole leaks along parts of the leg seams so some work would be needed. I'm happy to loan it for "try-outs". Will sell for around \$450. Ring my answering machine for details. IAN LEWIS (087) 38 5293.

FOR SALE: Mares MR3 reg. and occy. Sea Hornet 63 cub.ft. tank in test, built 1985. Tabata Tusa b.c. jacket, velcro waist band, brand new bladder. \$750 the lot. Wayne Wilson, CDAA 1828. Phone: (03) 338 3144 B.H., (03) 336 3332 A.H.

DRY SUIT: Seasuits drysuit, boots incorporated in suit. 7mm, shoulder entry, scuba fed inflator. Good condition. \$350. Wayne Wilson, CDAA 1828. Phone: (03) 338 3144 B.H., (03) 336 3332 A.H.

OCEANIC Omega II 1st stage only, in excellent condition. \$200. Tony Davis, CDAA 1187. Phone: (03) 781 3820.

DIVING MANUAL Complete U.S. Navy Diving Manual Parts 1 & 2, on air and mixed gas diving. In original folder. Usual price \$140 – sell for \$100. Tony Davis, CDAA 1187. Phone: (03) 781 3820.

Should you wish to place an ad in the "Trading Post", send details marked "GUIDELINES TRADING POST to: P.O. Box 290, North Adelaide, 5006.

CDAA YELLOW STICKERS

By now, you should have received one free CDAA sticker. If you would like additional stickers, they are available from: CDAA, P.O. Box 290, North Adelaide, 5006.

Quantity		Cost
2	\$1	-50c each
10	\$4	-40c each
20	\$7	-35c each
50	\$17	-34c each
100	\$32	-32c each

You **must** send a stamped self-addressed envelope with your order.

	DIVER'S DIARY					
LOCATION	TYPE	DATE	VENUE	CONTACT		
Adelaide	Sinkhole Cave Penetration (Phase 1)	April 29th 2-5pm	Clapham Primary School	Richard Megaw (08) 263 3337 4.30pm-8pm		
South East (Mt. Gambier, Portland, Hamilton, Warrnambool, etc.)	Sinkhole Cave Penetration (Phase 1)	ТВА	ТВА	Ian Lewis (087) 38 5293		
Melbourne	Sinkhole Cave Penetration (Phase 1)	May 16th 7-10pm	King Club 137-141 Mountain Hwy. Wantirna	Tony Richardson (03) 754 6163 4pm-6pm		
Sydney	Sinkhole Cave Penetration (Phase 1)	TBA	TBA	Andrew Wight (02) 428 2176		

Please note that bookings are **essential**. With approximately 1000 members in the Association, it will not be possible to accomodate all members in these initial seminars.



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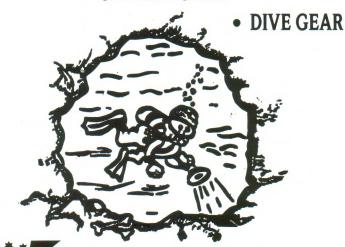
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