

# GUIDELINES

SEPTEMBER 1994 – ISSUE No: 53

New  
format



CAVE DIVERS ASSOCIATION OF AUSTRALIA  
(Incorporated in South Australia)

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## DIRECTORY

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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 P.O. Box 290, North Adelaide, 5006 and your enquiry will be passed on.

**National Director (temporary)**  
Lisa Bernasconi (055) 61 2805 (h)

**National Standards Director**  
Ian Lewis (087) 23 2220 (h)

**Business Director**  
Karen Kennedy (087) 25 0335 (h)

**Treasurer**  
Wayne Wilson (03) 338 2975 (h)

**Training Manager**  
Greg Bulling (08) 265 4978 (h)

**Instructor Training Manager**  
John Dalla-Zuanna(055) 61 2805 (h)

**Site Access, Mapping & Research Manager**  
Peter Horne (08) 295 6031 (w&h)

**Representatives**  
South East:  
Phil Argy (087) 23 0879 (h)  
Western Australia:  
Andrew Poole (09) 249 4048  
New South Wales:  
Neil Vincent (043) 97 1798 (h)

**Regional Training Co-ordinators**  
Western Australia:  
Hugh Morrison (09) 344 1562 (w)  
New South Wales:  
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John Vanderleest (03) 416 9370 (h)

**Records Officer**  
Glenn O'Connell (03) 464 0969 (h)

**Guidelines Editor**  
John Vanderleest (03) 416 9370 (h)

## FRONT COVER

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Entry into Ewens Ponds.  
Photo taken by Phillip Mann.

**Cave Divers' Association of Australia, P.O. Box 290, North Adelaide, S.A. 5006**  
GUIDELINES is the newsletter of the Cave Divers' Association of Australia, published four times a year – March, June, September and December. All articles for the following issue are to be sent to the Editor, John Vanderleest, P.O. Box 290, North Adelaide, S.A. 5006 prior to 10th November, 1994. 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.



## EDITORIAL

**H**ello. Welcome to the "new look" CDAA "Guidelines".

Even the least astute of you will notice the difference in size. This new size will allow us to achieve many plans that our previous two editors, Peter Girdler and Tony Davis, have been trying to implement over the last few years.

Each issue will attempt to concentrate on one theme. For example, the next issue will concentrate on DEEP DIVING. Not only will the issue be kept on one theme, you will get an opportunity to add your thoughts. Articles are needed, but "Letters to the Editor" or experiences and stories also make for interesting reading. I, like many people, enjoy reading "Letters to the Editor". I learn as much from these two scripts as I do from full articles.

As an Association, we all have equal say in what and how our sport is run. We vote in Directors to take care of the day-to-day business and to make sure that things happen. But Directors are not three individuals operating in isolation to the rest of us. They are our representatives and they need to hear our opinions. Guidelines is one mechanism for us to have our thoughts heard by, not only the Directors, but the rest of the Association as well.

With a large format Guidelines, we will have the space needed to allow members to write more (or less) than articles. This is not a new thought for Guidelines, but one which the previous two editors have been hoping to implement. Fortunately for me, budget will now allow to finally try.

by JOHN VANDERLEEST

## AWARD

### PADI's Safety Award to CDAA

**A**t the recently held AGM, the Directorate proudly announced to the meeting a special award.

PADI Australia, the largest diver training agency in Australia, congratulated the CDAA and awarded it a plaque commemorating the CDAA's contribution to 20 years of safe cave diving in Australia.

Truly, the CDAA has achieved an enviable record of safe diving in a sport considered by many to be the most demanding of all.

It is this opportunity that causes us to remember the many CDAA Committees and now Directorship, or more accurately, the members who served on those committees.

The past 20 years has seen the evolution of the Association's systems and procedures for diver

training and progression through the level of competence as defined by the various cave sites.

Coupled with this, the dedication of all the ancillary sub-committees (Research, Guidelines, Records, Liaison, and even Finance) have all assisted in the operation of a strong and proud Association.

The plaque will be on display at the Lady Nelson Information Centre and has been noted by the District Councils and local media.

So, once again, thank you PADI for the recognition of our Association's work. Thank you past committee and Directorship members for your guiding and effortless contribution and finally, thank you CDAA members for your dedication, commitment and safe diving practices.



*Karen Kennedy (Business Director), Lisa Bernasconi (National Director) and Ian Lewis (Standards' Director) holding CDAA's Safety Award from PADI.*



# AGM REPORT

## APPRECIATION TO PETER HORNE

The year has been a long one, fraught with change, challenge, deliberation and reflection. With only a few months remaining before we usher in '95, it's time to think of, appreciation and be grateful for the 15 years of dedicated work of Peter Horne.

This month Peter tendered his resignation and it was regretfully accepted. Perhaps not personally, but as a result of his hard work, enthusiasm and support for the CDAA, Peter would be known by at least 80% of our membership, a figure he should be proud of.

Manager of Mapping and Research, he has chartered the majority of our major dive sites, simultaneously accepting the entrepreneurial responsibility of liaising with Landowners in order to gain access.

In these various capacities he has gained the respect and friendship of those he has worked with and it is on behalf of the entire Association that I thank Peter, most sincerely and wish him well.

from THE NATIONAL  
DIRECTORATE

## FOUND

Found in Iddlebiddy Cave

One rescue roller

Obviously lost by an aging,  
absent-minded plumber.

Must be colour blind  
as silver roller  
is engraved BROWN.

*Can be claimed by  
paying an extra large reward  
to Gary Barclay.*

## Annual General Meeting Minutes Summary

### National Director's Report

- Kilsby's closed at request of police due to safety issues.
- Shaft closed due to family illness.
- Rejected any form of personal abuse towards Directors from members.
- Welcomed responsible input from members.
- Goals include -
  - Landowner liaison to be controlled by Directorate.
  - re-addressing Guide system and access arrangements.
  - develop a new 3-5 year plan.

Discussion re: personal pre-voting mail out that was sent to a number of members.

### Standards' Directors Report

- Final draft of Instructors' Manual out.
- Penetration Manual now being used.
- Cave Manual improved.
- Sinkhole Manual being compiled.
- PADI Award for recognition of 20 years safe cave diving in Australia.
- Climbing course - insurance to be finalised.

Chris commented on the personal pre-voting mail out that was sent to a number of members and read a letter from a member regarding this.

Discussion re: climbing course, mixed gas dives.

### Business Director's Report

- Kilsby's account unconstitutional, and closure of account supported.
- Guidelines now under control of John Vanderleest.
- Budgets and spending of Association monies will be tightened up in the next financial year.

Discussion on minute taking, personal pre-voting mail out to a number of members, availability of membership details and information.

### Financial Report Tabled

- Kilsby's account unable to be audited.
  - Auditor's opinion was that the Association is in fine shape.
- General queries on financial statements.

### Insurance

Lisa explained the need for insurances -

- a) Association liability, and
- b) Other liability.

Covers member to member, member to director, etc. Has had solicitor's opinions and approval. Support expressed by membership present.

### Membership

Increase in membership proposed to cover costs associated with Insurances, etc. No membership rise in some years. Members present generally supported an increase after discussions on limited successes in raffles and other revenue raising ideas. Amounts of between \$5-\$8 per annum discussed.

General discussion on mixed gas diving - Directors to form a policy.

General discussion on changes to Guide systems - Directors to address.

General discussion on constitutional interpretations, Ian Lewis. With regards to Ian's instructor's suspension the National Director has sought legal opinion on the issue and membership will be advised of outcome of Director's decision.

One minute's silence observed as a mark of respect for Paul Cavanagh, CDAA Instructor, who passed away earlier in the year.



# ADVENTURE

## Operation Appendix

**T**here is a tunnel which runs around the back of Pines, commonly referred to as the "Back Passage".

There is another less popular section leading off from this which a few people have dived recently. To continue the anatomical theme in naming these areas it has been christened "The Appendix". (In fact, in order to complete the series an exit is being sought at the bottom of the back passage; prizes [by who? - Editor] will be awarded for the most imaginative name for this feature.)

The Appendix is appropriately situated as an adjunct to the Back Passage and is a squeeze, silty area to the right of a horizontal squeeze. Various left-bearing grovel-throughs bring you to a peg placed directly in front of a particularly daunting squeeze. Few people seem to have gone beyond this peg and the area needs to be treated with a good deal of respect. Side-mounted tanks would appear to be necessary and it is probably best treated as a solo dive. [The CDAA does not condone solo diving - Editor]

Beyond the peg is a squeeze which is tight, even with side mounts, decorated with handsome piles of mud which explode into clouds of black silt if you touch them. Then follows a low flattener offering no convenient tie-off point. The boulders here are unstable and there is a tale of someone being trapped when one of these slid down. Obviously they got out o.k. Beyond this the passage opens into a terminal room with dunes of silt. It bottoms out at about 35-36m.

The view when you turn to make your exit is unforgettable - the clouds of black silt rolling down the slope have a lovely cosy feeling. On exit I had the hilarious experience of seeing my line disappear into a tiny hole in the rock, about 2 inches in diameter. There are lots of amusing line traps to provide hours of entertainment whilst you enjoy the silt.

On another dive two people enter-

ed the squeeze. The lead diver (diver A) was wearing side-mounts and got through with a minimum of difficulty. He was followed by a buddy wearing back-mounts (diver B) who, through a combination of brute strength and a total lack of intelligence, managed to get in on his fifth attempt. He didn't stay for long because he couldn't see anything at all and he turned around to find that he absolutely couldn't get out.

After head-butting the rock for fifteen minutes, diver B felt someone tentatively probing his nether regions. It was diver A. Diver A was not expecting this. In the dive plan it was agreed that he would pass this squeeze alone. In the pitch blackness of a total silt-out, diver A resolved that what he had run into was, in fact, someone's bum. Upon realizing the gravity of the situation he almost added a new dimension to the term "penetration diving".

Diver B, meanwhile, had come to the discouraging realization that the only way he was going to get out was by taking off his tanks, which he did. With no tanks on, he got past the squeeze and dressed himself, but only after he had woven himself a string vest from the guideline.

Diver A, by this time, was thinking "bother, what a nuisance" and wondering how long it would take to dissect diver B.

Finally, diver B managed to sort himself out and emerged with most of his gear on, back to front and upside down. On the surface diver A congratulated diver B on his initiative in altering the dive plan and providing such an amusing interlude. My, how they laughed!

The purpose of this article is not to encourage people to try this dive out - quite the reverse in fact. It's a very hazardous, nasty grovel with scant reward at the end of it. In some ways it is interesting and it's certainly challenging, but unless you're ready for the gamut of cave-diving hazards, give it a miss.

by ANTHONY KEANE

### NEXT ISSUE

**Should the CDAA condone or condemn diving deeper than 40 metres?**

Should the CDAA condone or condemn diving below 40m?

Is diving on air to 50m safe?

Where did the 40m limit come from? Why are we limited?

A lot of Sydney divers are wreck diving to 60m!

Should we train people in Nitrox diving?

Should we recommend Nitrox and Oxygen as a decompression gas?

Should we train divers in Trimix or Heliox?

Should we adopt ANDI or IANTD standards for mixed gas diving?

Is diving deeper than 40m any more dangerous than stage tank diving?

Is deep diving more dangerous than a lot of the penetration diving we do?

The CDAA must develop standards on deep diving. Send your thoughts, experiences or articles on this topic.

**Please send your letters and articles to:**

**"The Editor"  
Guidelines  
P.O. Box 290  
North Adelaide, S.A. 5006**



# CDAА DIRECTORATE

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## National Director's Report

**W**ith the AGM and voting out of the way, I'm happy to be able to write my first report as the new National Director.

The response from the membership was astounding, and Karen, Ian and myself all won with a strong majority. I don't believe that I can talk about member response without mentioning the mailout a number of members received from Ian, Karen and myself prior to the vote count. I believe I have the right to discuss this in my report as it was an issue at the AGM, and I have received a rather damning letter (from only one member) that was tabled at the AGM, concerning the mailout.

### The Green Sheet

The green sheet (as it was referred to) was a purely personal attempt from the three of us to get your votes, and from your response I can safely say that it worked. I don't believe that anything like this has ever occurred within the Association and I believed it was about time that it did. Ever since I have been a part of the Association at this level, it has never ceased to amaze me, the amount of gossiping, back-stabbing and malicious verbal attacking that goes on, always, it seems, when the person in question is never about. As a Director I continually received calls from people who were doing exactly as I stated above, or questioning aspects of the running of the Association but felt they could not do it openly in Guidelines for fear of retribution from the people they saw as running the Association. It was all this and more that prompted me to agree to the mailout. I believed that if I openly raised issues that were only being whispered about, and some that directly affected the members, in writing with my name and phone number, I could begin to put an end

to all this. I also believe that by the response I received that the membership wants things out in the open. Being a Director I could substantiate all the points raised - all people had to do was ring me, which many did. I now believe that through better, continual communication to the membership, the political issues that disrupt the Association can be brought to your attention so that at the time of voting, you are fully informed of what has gone on throughout the year, not just what has occurred and been placed in the last Guidelines. At the AGM, Karen was questioned as to where we obtained the members' names and addresses. Karen did not help with the actual mailing, so she was unaware that I had a membership list, which, as Directors, we all have on hand.

### Standards' Director

Another important issue was raised at the AGM, that of the legitimacy of Ian Lewis' nomination, as Ian was under an instructor suspension at the time he nominated. I contacted the Association solicitor in Adelaide, Rob Norman, to seek legal advice in regard to the Regulation. The Regulation does not affect Ian's ability to be the Association's Standards' Director in anyway. Rob also provided me with several recommendations for changes to the Regulations which you will find included in this issue.

### Air only Regulation

One of the Regulations concerns divers using only clean, fresh breathing air when diving any of our certified sites. This issue was raised at the AGM, as well as at the Landowner Liaison Committee meeting the Friday before the AGM. With the Landowners present, it was decided that this was necessary for

both diver safety, landowner safety and the Association. Karen, Chris and myself all supported this decision. When the CDAА was started, and throughout our history, all our Standards, Regulations and Constitution were written for Cave Divers using only Air in their tanks. The Directorate believes that the CDAА need to write a policy concerning mixed gas diving, but until that time, Air only must be used. Any divers found to be breaking this regulation will face severe penalties. All our Landowners will be contacted and informed that any dives that they may allow to take place on their properties, by divers using mixed gas will have to be without the Association's approval, and therefore our indemnities and insurance will not be valid for that dive.

### Insurance

The AGM also raised the issue of insurance. I have secured a complete cover for the Association that gives us better protection than we have ever had. The insurance covers all possible avenues for cases against either our Directors, members, officials or guides. The cost of the insurance is high - it totals \$8,532. This cost was decided on by the number of members we have insured. So it works out at around \$8 per member, which I believe is very reasonable for the cover we have. It does also raise the issue of how it should be paid. According to the Constitution 10a, fees may not exceed the CPI (which allowed for a rise of \$1), unless determined at an AGM. A vote was taken at the AGM which allowed for a rise of \$5, which will contribute directly to the cost of the insurance. Any members who wish to send in the extra \$5 would have it gratefully accepted as the insurance is in place from this year, which puts us in the position immediately of having to cover the cost without the extra revenue. All members not having renewed are asked to pay the \$45 annual fee, and those renewing next year will be asked to pay the extra \$5. I think it is without question that the Association have this cover, and it



was not an easy cover to come by. The insurance company will be asked to review the costs for each year that we have no claims, and going by our safety record, this should be no problem. You will find in this edition a form that we need to have signed by every member and returned as soon as possible to the Records' Officer, to be kept with everyone's file. It is essential that members sign this indemnity and that you also read the changes to the Regulations that have been included in this edition. If you are diving any of the sites that require the use of a Guide, including Tank Cave, you will be asked if you have signed the indemnity. The Guides will have indemnities available, otherwise you can present the one in this issue signed, for them to forward to the Records Officer, or if you have sent an indemnity to the Records Officer they will be able to check your name on an updated list of those who have returned the signed form.

### **Cavers' Hut**

I was contacted by Alan Jevons of the Speleological Council about the availability of a house to rent in Naracoorte. The Cavers Hut is 3 bedroom, lounge with combustion heater, kitchen-electric stove, laundry, bathroom, toilet (separate), tank water/bore/gravity fed, garage. The rent could be covered partially by us and the A.S.C. and rent collected by divers and cavers using it. I realise most of our activities centre around Mount Gambier, but I would like membership input as to whether they would like us to consider getting involved in securing the hut. Only a periodic or annual lease would be considered by the Government Employee Housing in Mount Gambier who manage the property. If I receive no input I won't continue with it.

### **Black's Hole**

A lot of members have been inquiring about the situation with Black's. The dive site will re-open this year, but divers will be asked to meet some new Landowner requirements. You will find an article in this issue regarding the climbing frame

the Association has installed, and the equipment that is needed to use it. Colin may at any time heck divers for this gear, so it is mandatory that all groups visiting the property to dive Black's has all the required gear. Not meeting the requirements will mean the dive is cancelled, and any member found not to be acting safely at all times when at the site will come under severe penalties. Black's will reopen after shearing in December. Once again I believe the Association must thank Colin and Shirley for all their efforts in supporting safe cave diving in Mount Gambier.

### **1994/95**

By the time you all receive this, the new Directorate would have met a number of times. I have a lot of things I wish to achieve with Karen and Ian this year and would like to outline them for you. As the three year plan is drawing to a close I wish to start another, which would naturally include issues brought to my attention by the members. Not only will I try to increase the amount of communication to the membership from the Directorate, but will hopefully increase good communication from the membership to us, so we know what you want - Guidelines is the ideal forum for this to occur. I want to review both the Regulations and the Constitution for any irregularities, additions and ambiguous clauses. Also a protocol needs to be set in place for people to air grievances, or bring breaches of standards to the attention of the Directorate. This, I believe, should be set into the Members' Manual and finalised as soon as possible. I also wish to become more involved in access - both in contact with the landowners and access arrangements. This, I believe, will always have the membership in mind when arrangements are made. Hopefully the membership will see that this Directorate is doing its best to pull the Association back to always acting in the best interests of the membership. Karen will receive the utmost assistance from me in regard to tighter spending of your money,

and, if possible, I will discuss the possibility of having another overseas speaker coming across, but only if money raised can cover all the costs.

### **State Meetings**

You will notice in this issue, times and dates for three state meetings, I hope members will be interested enough to come along. At least two Directors will attend each meeting and they will all be "open-forum", so that we can simply take questions from the floor.

by LISA BERNASCONI

### **CDA REPS**

**Queensland Representative:**  
Simon Bendal (077) 71 5433

**Australian Speleological Council Representatives:**  
Peter Girdler (08) 380 5205  
David Holmes (08) 370 3178

### **STATE MEETINGS**

#### **Perth**

Sat. 15th October, 7:00pm  
Fremantle Maritime Museum  
Function Centre  
Cliff Street, Fremantle  
All enquiries please contact  
Gary Bush (09) 527 9211

#### **Melbourne**

Saturday 22nd October, 8:00pm  
AB Ocean Divers Clubrooms  
237 East Boundary Road,  
East Bentleigh (entry via lane)  
(Dinner 6:00pm,  
Boundary Hotel, East Bentleigh.  
Bookings 579 0138)

#### **Adelaide**

Sat. 19th November, 7:30pm  
Aviation Institute  
St James Schofield Drive  
Adelaide

#### **Sydney**

To be advised next issue.



**ATTENTION ALL  
MEMBERS:  
C.D.A.A.  
MEMBERSHIP  
FEE IS NOW  
\$45 PER YEAR**

### **POSITION VACANT**

The position for CDAA Records Officer is now available for someone to fill.

For further details contact the current Records Officer, Glenn O'Connell on (03) 464 0969, or the Business Director, Karen Kennedy on (087) 25 0335.

### **STATIC ROPE 11mm**

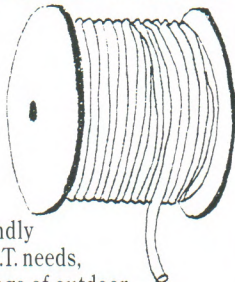
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### **STANDARDS DIRECTORS REPORT**

is contained within "Tank Cave  
Site Information Bulletin" and  
inserts.

## **The Plan**

In the beginning there was a Plan  
and the Plan was based on Assumptions  
and the Assumptions were without Form  
and the Plan was completely without Substance and was Void  
and darkness fell upon the Members  
and they bade their spokesperson to relay the Message:

*'It is a Can of Shit and it Stinks'*

and the spokesperson went unto the CDAA Instructor and said:

*'It is a Pail of Dung and none can stand the Odour thereof'*

and the Instructor went until an  
Instructor Training Committee Representative and said:

*'It is a Container of Excrement and is very Strong  
such that none here may abide it'*

and the Training Committee Representative presented the Facts  
to the Training Committee saying:

*'It is a Vessel of Fertiliser and none can abide by its Strength'*

and the Training Committee after much deliberation  
presented to the Standards' Director the Conclusion:

*'It contains that which aids Plant Growth and is very Powerful'*

and the Standards' Director reported to the National Director saying:

*'It promotes Growth and is very Powerful'*

and the National Director presented to the Sinkhole Review Group  
a Plan stating:

*'This Powerful New Plan will actively promote Growth and Efficiency  
for the CDAA'*

and the Sinkhole Review Group looked upon the Plan  
and saw that it was good

**AND THE PLAN BECAME POLICY**



# CDAА DIRECTORATE

## Business Director's Report

**A**fter the hustle and bustle of the AGM it was great to relax - no rest for the wicked though, and before the end of the week, it was all systems go.

I am pleased that the situation with Ian Lewis has been resolved and we can now progress as a cohesive team.

### Over the last month:

**Regulations** - upon receipt of legal advice the Directorate has followed this advice and amended some regulations, details of which are available to members.

The Association has been presented with an award from PADI in recognition of 20 years of safe cave diving in Australia.

The City Council of Mount Gambier has congratulated the Association on receipt of the award from PADI and has agreed to the Award being on public display at the Lady Nelson Tourist Information Centre in Mount Gambier. All members can feel proud of this award!!!

**Emergency Contact List** - has been updated and issued to State Emergency Services in all states, copies sent also to each district representative and to the local Mount Gambier emergency services.

The Directorate has had two meetings since the AGM - summaries are available to members upon receipt by the Business Director of a self-addressed, stamped envelope.

**Information Forums** are planned for WA, NSW and SA in the coming months - details in this Guidelines. If you have any particular queries please notify the appropriate Director prior to the Forum so that

any researching chasers can be done prior.

We are planning a stand at the **Underwater Exhibition** in Melbourne in October - any volunteers, ideas, donations or help would be greatly appreciated. There will be a new range of CDAА clothing, posters and prints available, and the three Directors will be attending.

The Association has for sale two electric typewriters and an industrial stapler - for further information contact me.

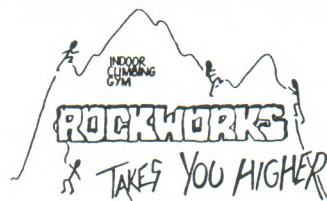
We are requesting that all CDAА records, files, student info and property (other than that required to be held by Instructors) be pooled together and kept in a central location. Our new insurance requires accurate record keeping and we are in the process of sourcing a suitable location in Mount Gambier for office/storage space. If you have any CDAА property, including research equipment, records, files, etc. could you please let me know.

Requests for **proposed budget** expenditure has gone out to all office bearers - if it's not budgeted for and I am not advised of it then don't expect the Association to pay for it! We are serious about cost cutting! If you have a project planned and have not received the request for your proposed budget, please contact me.

Looking forward to some fine weather and clear water!

by KAREN KENNEDY

**New address for  
KAREN KENNEDY  
P.O. BOX 1153  
MOUNT GAMBIER  
S.A., 5290**



1/74 Lipton Drive, Thomastown, Vic. 3074

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GLENUNGA SA 5064  
Phone / FAX (08) 379-8188



# GREECE

## The Vouliagmeni Spring-Lake ... Is the Mystery Solved?

**T**he Vouliagmeni spring-lake is situated 25km north-east of the centre of Athens, by the Vouliagmeni Highway. The dimensions of the lake alone are 170m x 45m and its depth ranges from 50cm to 10m.

On the surface, the temperature of the water is 20°C (constant all the year), while deeper into the cave system it reaches 35°C. The lake is known for its mineral properties owing to the presence of hydrogen sulphide, a result of physical and chemical action.

Geologically, the subsoil of the area consists of, to the east - lower marble, to the north-east - Pleistocene marine marlaceous, and to the north - a strip of alluvial sand.

Further to the north of this strip is the Hartschiefer of Athens, north-west are found the Quarternary accretions and Pleistocene deposits.

To the east, the "Neck" of Vouliagmeni, as it is called - a strip of land protruding into the sea, consists of alluvial sand and of Pleistocene marlaceous from there until Cape Zostir.

### The Vouliagmeni Project

From 1989 to the present day, there have taken place a series of explorations which have brought to light important information about the underwater cave-system of the lake.

47 cave dives in all were made from the winter of 1989 to December 1992. The goal of the project is to reveal the magic and the mystery of a world that cannot be easily approached by the evidence, a world that is hidden under the ground. The existence of a unique underwater cave system has been discovered.

The total of the horizontal

penetrations that were made is 1.150m and the depth ranged from 34m to 95m. Surely, the Vouliagmeni spring-lake is one of the biggest cave systems to be discovered to date in the whole world. At the same time, the existence of rare organisms in its waters make the explorations more enchanting.

The whole project was organized and led by the cave diver Kostas Thoctarides along with a team consisting of support divers and scientists.

The first phase of the cave diving exploration of the Vouliagmeni cave system was conducted during the years 1989-1991 and the unique nature of the spring-lake was revealed.

During the second phase of the cave diving exploration, in February 1992, it was confirmed that the lake is supplied by an underground river which renews the water and raises the level of the lake approximately 50cm above sea-level and then pushes the water with a constant flow through small holes towards the sea. The underground river has formed a whole underwater cave system north of the lake.

The third phase of the exploration lasted twenty days, from 24th November to 14th December 1992. The team was consisted by: George Apostolopoulos, Andreas Konstantineas, Dr. Kostas Lagios, Eleftheria Mantzouka, Kostas Papakonstantinou and Dr. Photinos Santas.

One of the most important things to be made, was to change the guideline because it was covered by huge blocks of limestone fallen from the roof. Then, two guidelines were set, one on the bottom and one on the roof. The constant release of blocks from the roof has created innumerable passages, a thing which makes more difficult and dangerous the exploration of the cave system. Preliminary cave dives were made in order to put the stage tanks in the appropriate spots. A total of 28 tanks were used for the final cave dive.

The horizontal penetration reached during the third phase was 310m and stalactites were discovered at a depth of 68m. Kostas Thoctarides, on 8th December, reached a depth of 95m, using Trimix. The cave dive lasted 5 hours and 34 minutes. During the first metres he used a scooter (Aquazepp, made in Greece), in order to make the penetration easier and less tiring. Also was used an underwater headphone for music during decompression.

The following mixtures were used with total success during the cave dives: Nitrox, Trimix, 100% Oxygen and air.

### Varieties of Water Mixtures

Some preliminary analysis of the water was conducted from the surface down to the 40m mark by





taking samples of water every 5m. It was thus found out that the underground river supplies the lake with warm sea water of 20°C-35°C. A discovery which strengthens the supposition that the underground river in its turn is supplied by a cesspool. The most obvious possibility is the cesspool of Vouliagmeni (also known as "well", in Greek "Pegadi") which is found 3km east of the Vouliagmeni spring-lake, in the second small gulf off Vouliagmeni.

At this point, it must be noted that at the 17m depth in the cave there has formed a thin layer of fresh water which mixes with sea water. So, brackish water forms which reaches up to the surface of the lake, having a stable temperature of 20°C. The natural mixture of the water becomes noticeable in the cave by virtue of temperature difference which can be up to 5°C per metre. Along with the temperature difference, optical illusions are created as a result of the different density of the water.

### Underwater Life in the Lake

Due to the special environment of the spring-lake (water temperature 20-27°C at the surface, brackish water 17%, of which 12% is sodium chlorate), the life in it is constricted. Another cause for this is the great amounts of sodium which are poured into the lake to protect the swimmers from the various bacteria.

In spite of these factors, the lake has revealed a few micro-organisms as well as small fish. The chances of discovering new species in the waters of the lake are high and there is room for surprises.

To date there have been observed the following fish species:

- a) *Cottus Gobio*. This is a tiny fish which is mainly found in the fresh waters off Central and Northern Europe. It is the first time that this fish has been observed in Greece.
- b) *Poecilia Shenops* or *Poecilia Hydrid*. This fish is mainly found in the fresh or brackish water in Central America. Strangely enough, its presence has been observed in Vouliagmeni Lake.

There are two possible explanations. According to the first, the fish has been imported into the lake. If we follow the second one, there was a parallel evolution.

c) *Mugil Cephalus*. This fish adapts easily to fresh and brackish waters. Probably it has penetrated to the lake from the underground outlets to the sea.

d) *Anquilla-Anquilla* (Eel). Known as "the ghost fish", the eel has been observed in the waters of the lake. It is possible, since they have not yet been closely studied, that these particular eels could belong to another family.

Apart from the rather interesting fauna, there were noteworthy observations made of the flora in the waters of the lake. What is very interesting is the remarkable underwater growth of the flora. Seaweed of enormous size is to be found, in addition to sea anemones and plants with bulbous roots approximately 15cm in length.

The fish and the greater part of the underwater life have gravitated towards the spring. One exception is the large clumps of seaweed which grow along the banks of the lake.

### The Biological Aspect of the Lake

Dr. Santas Photinos, who was responsible for the biological analysis of the waters of the lake, states: "The lake is of great interest biologically, because of the particular environmental conditions - salinity fluctuations, the constancy of temperature and, in particular, the conductivity and the various dissolved ions found in particular concentrations which leave open the possibility of discovering fossils in the waters of the lake."

"Also, the observation of the fish, 'cottus gobio' and 'poecilia shenops' poses a lot of questions about their presence in Greece."

by **KOSTAS THOCTARIDES**

*Editor's Note:*

*Kostas Thoctarides has been on the mailing list of Guidelines for several years, as a resident of Greece.*

## MOUNT GAMBIER ACCOMMODATION

Mount Gambier holds an extremely large number of accommodation centres. These centres vary from very cheap (e.g. Peter Norman's) to the comforts of the motels.

As a general rule, divers have elected the more "middle-of-the-road" accommodation such as Jubilee and Pine & Country resort centres. These centres offer the advantage of being able to prepare your own meals.

For the divers who are more interested in having their beds made, and their meals cooked, there is always the Commodore and International Motels.

The new owners of the International have expressed a keen desire to attract cave divers. They are offering competitive rates, indoor heated pool and spa, in-house movies, and a special divers' menu in their restaurant.

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# RESEARCH

## CDAA Site Access and Research Report 1993/94



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PROP. TRACY, JUDY & VALDIS IEVINS

**W**hile mapping and research activities were fairly quiet this year, site access negotiations and concerns kept a lot of people very busy.

With numerous (often complex) legal obligatory aspects being tackled, the the Association's Directors and supporting officers, and a great deal of time (and not a small amount of money) was spent while the CDAA investigated the finer points of legal liability and insurance/indemnification of members, office-bearers, property owners/managers, guides, etc.

Protracted access and research-related negotiations over the past couple of years finally resulted in members recently being allowed to gain recreational access to Nettle-Bed Cave (5L2990) - an interesting dual-chamber system which members may recall contains aspects of possibly considerable significance to the archaeological community.

Black's Hole will again be opened soon (see associated article). Through the efforts of Chris Brown, Rob Tebeck, Allan Skinner, Keith Mills, Phil Argy, Cess Devos and Douglas MacLeod, they installed some stairs at the bottom of Ten-Eighty's slippery ramp to make it a lot safer for divers to get to the water. Thanks also to these divers for their efforts on Black's Hole.

Other construction work has or will include new fencing for McKay's Shaft and for The Swim-Through; modifying the access ramp in Goulden's Hole; Phil Argy (S.E. Rep.), Tim Collins (DENR) and Kevin Mott (CEGSA) have begun to co-ordinate a cave identification system which will help emergency and rescue organisation to reach sites quickly in future. This need

arose from delays in rescue groups arriving at Black's Hole to assist with evacuation of an injured diver.

The local newspaper *The Border Watch* covered the Allendale East "live" dive on video weekend (see previous Guidelines) in great detail and it received very positive coverage on Channel 9's evening news in Adelaide, thanks to reported David Kellett (who, incidentally, is now a diving member!).

Some other important publicity events also occurred to highlight the 20th Anniversary of the Association's existence late in 1993, and these turned out to be extremely successful as far as landowners/site access representatives were concerned. *The Advertiser* newspaper produced a 2-page, full-colour article on Mount Gambier cave diving and the CDAA's 20th Anniversary, and of course our very successful 20th Anniversary celebrations.

Research-wise - the mapping of the Little Blue Lake by Ken Smith and others is nearly completed, and the long-awaited Engelbrechts Cave mapping project was finally published in an effort to update the CDAA's research records while The Black Hole project was put on hold due to its closure.

In closing, this is my final Site Access Manager's Report, as I have decided to stand down from the position I have held for the past few years. After having been heavily committed to the CDAA for the past 12 years, I feel it's time for a break.

To the many landowners, managers and members who have assisted me with my work - thank you.

by **PETER HORNE**

*Manager Site Access/Landowner  
Liaison and Mapping/Research*



# EQUIPMENT

## Cliff-Edge Roller

**H**i members. Just a word on cliff-edge rollers and a few ideas on construction.

First of all, a cliff-edge roller is exactly that – it sits on the edge of a cliff (clever – hey!). It has a couple of roles. Firstly, it protects those costly hauling ropes. Secondly, it reduces friction, thus making hauling and lowering gear a lot easier. Thirdly, it protects the environment – no more unsightly rope gouges out of the cliff edge.

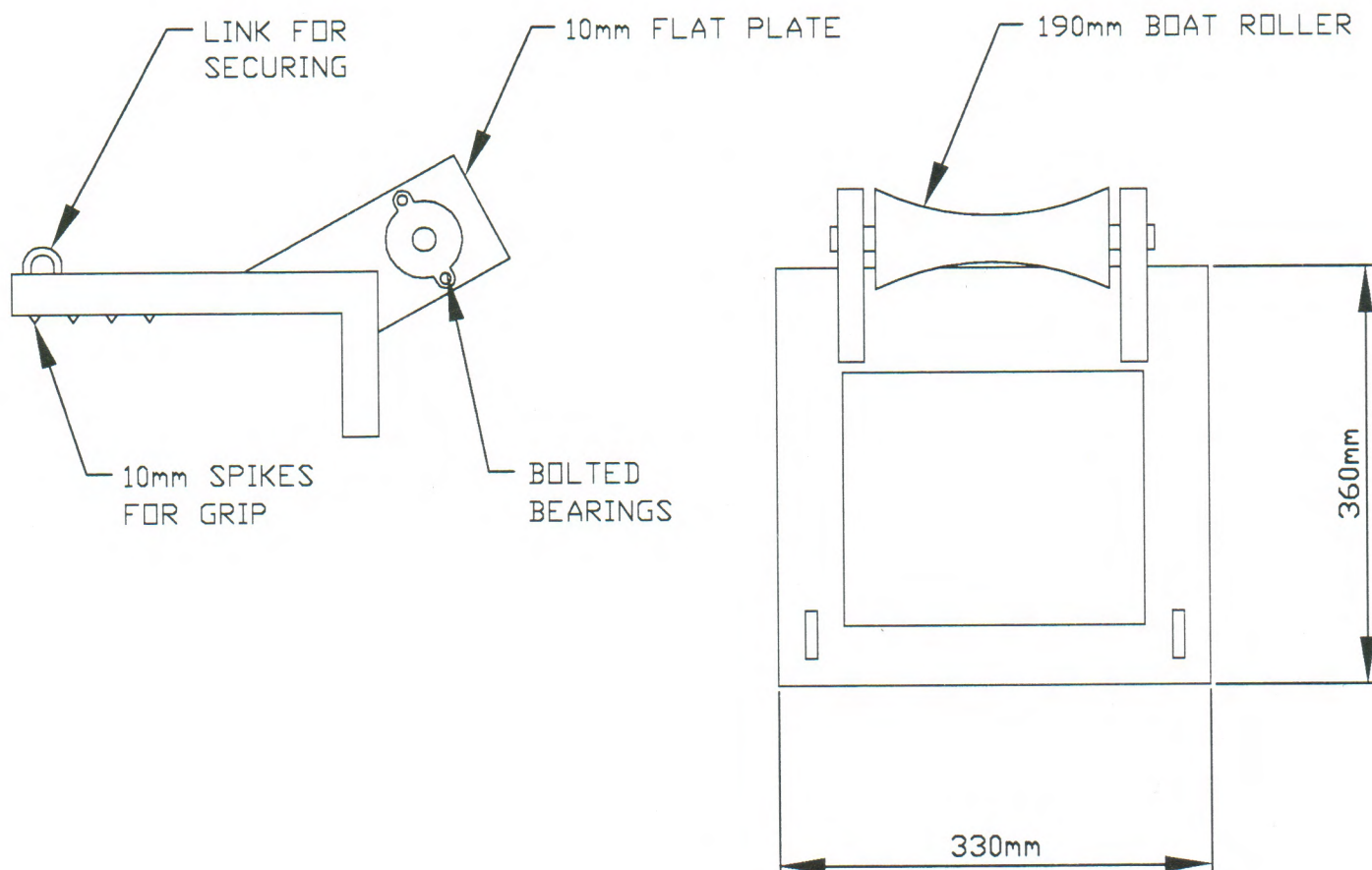
**Materials:** 1 x boat roller  
Angle iron  
Bolted bearings  
Flat steel.  
(See illustrations.)

Cliff-edge rollers are an item of trial and error, so experiment with sizes. I have made mine small, but very heavy (11 kilos), the main reason being it makes it very stable. You can make it without bearings – it seems to work o.k. but bearings do make it very smooth and keeps the roller

centralised. The chain link tie-offs secure the roller to the edge.

This cliff-edge roller has proven itself from Hell's Hole to Cocklebidy and in between and can be used almost everywhere with great success. Also, knowledge in Single Rope Techniques is very helpful for success in managing your roller – correct belays and descenders, etc. So play it safe and happy caving.

by GARY BARCLAY





# INTERVIEW

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## An Interview with Chris Brown

### **1. Were you surprised by the election results?**

Yes I was. I was surprised by the number of people who voted. I was happy to see that number of votes, however I don't believe the current Directors should have won. If I lost on an even playing field or had a chance to respond to allegations, I wouldn't mind so much.

### **2. Did you achieve what you set out to do 2 years ago?**

No. It took me the first year just to understand the job. The second year was spent just getting the Instructors' Manual finished. I've been trying to get manuals for all levels. There is a Penetration Manual and a first rough draft Cavern and Cave. My three year plan was to get all the manuals finished.

### **3. Do you have any advice for Ian now that he has taken over your job?**

A lot of decisions have been made so he will have to make sure that he doesn't go against these decisions.

### **4. How do you think Ian will go?**

If he gets the Training Committee going again and listens to them then he should go o.k.!

### **5. There are rumours that you are trying to get rid of Ian. is this true?**

No, definitely not. He was voted in by the members!

### **6. What do you plan to do with your spare time now?**

I have several major expeditions planned for Australia and overseas but I won't expand on these in case others dive there before I get there.

### **7. How has the mixed gas diving in the Shaft been going?**

Very well. The first thing was to find out how to do it correctly. It took several years of research to find out how to mix the gases, what gases to use, dry suits, thermals and other things. It has been very interesting and it will continue.

### **8. Apart from the Shaft, have you got plans for any other sites?**

Yes, two in Mount Gambier but the Association needs standards before we can approach the land owners or others could do it without doing the work we did.

### **9. Is any person in the group trained in deep mixed gas diving or have you all been experimenting?**

Yes, Phil Prust was taught by Sheck Exley. You must

remember that you couldn't get mixed gas training in Australia at that time.

### **10. What standards would you like to see for CDAA mixed gas diving?**

I don't believe we can use IANTD or ANDI standards. The group I am diving with are setting their own standards.

### **11. How is the mapping in Tank Cave going?**

Very well. Lots of tunnels are now being tied in together, however we are finding we have to go back and check many of our measurements.

### **12. How often are you mapping?**

Every four or five weeks.

### **13. To get to the furthestest points you are having to use advanced penetration techniques such as triple tanks, staging bottles and scooters. Would the average penetration diver be capable of this sort of diving?**

Yes, after some practice and experience but not just after their penetration course. They only learn these techniques in theory.

### **14. Where do people learn these techniques?**

It's not hard - they can find out from other divers.

### **15. Would an advanced penetration course or mini courses be a good idea?**

Yes, but it's not hard. Once you've been told what to watch out for, it's just a matter of trial and error.

### **16. How many cave dives have you done?**

750 dives - 200 penetration, 11 Nullarbor trips, Jenolan, Florida, Bahamas.

### **17. With this experience, would that make you our best cave diver?**

Top five - Phil Prust, Ron Allum and Pete Rogers are better than me.

### **18. Is there anything you would like to say?**

Yes. I didn't like the election. I wouldn't mind losing if it was a level playing field. I felt insulted. Lisa and I used to work as a team but once she became National Director she overrode a few of my decisions. I guess my fault was that I used to do things and not tell her.



# CLIMBING

## Black's Hole New Climbing Frame

**B**arnoolut contains three of the more popular sinkhole dive sites at Mount Gambier. Two of these three sites require a small cliff to be negotiated before you can enter the water.

Veterans of Nullarbor diving tend to smile at such a small cliff, but the techniques, preparation and execution are no different – only the length of rope is different. A piece of falling equipment or a falling person will be just as damaging.

Black's Hole at Barnoolut has been shut for some time now, due to a diver falling and severely damaging their back. The accident was probably the most common in climbing – the belief that because this distance is short, a safety rope is not required. Unfortunately, skulls and backbones only require a fall of a few feet to be broken.

Although we are taught climbing

techniques as part of our sinkhole course, the course can only teach us techniques. It cannot teach us common sense. Unfortunately, it is human nature to believe that it cannot happen to me.

The accident in Black's Hole only reinforces the importance of safety in climbing cliffs. A few basic rules can make the difference between safe and unsafe. The use of a safety line is the most important of these basic rules. Whether you are climbing a ladder or abseiling a rope, a safety line is your cliff equivalent of a twin-independent system. If one fails, then the second system still exists. Both systems must be capable of sustaining your life.

To make life easier, a frame has been erected at Black's Hole. You will still need your wire ladder plus safety and hauling ropes, but your anchorage and belay points are now

well fixed (refer photograph). The frame will not save you from your own stupidity or laziness, but it does remove the temptation not to set up the equipment because you feel it is too difficult.

Minimum equipment you must have:

**Protective helmet with a chin strap**  
**Approved climbing or rigging harness**  
**Ladder (or rope for SRT)**

**4 carabiners (steel, screw gate preferred)**

**Safety line**

**Approved friction device for belaying and lowering equipment**

Optional items:

2 pulleys (for double reduction on gear haulage)

Spare harnesses

Spare helmets

Climbing slings.

Colin (Manager, Barnoolut) may request to view this equipment when checking qualifications. Divers not using safety ropes will be asked to leave the property.

A few photos and rules have been placed on the structure at Black's Hole as a guide to divers. Whilst the photos are examples of one form of rigging, the rules are firm.

With Barnoolut shutting for shearing in a few weeks, Black's Hole will remain closed until December. Divers wishing to book diving at Barnoolut are reminded that bookings more than six weeks in advance are not accepted.

Thanks must go to all those members, especially the locals, who put in so much effort at many sites, for the work in building the structure.





# EXPLORATION

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## Tank Cave ... the exploration continues

**I**n the last year, since access has been regained into Tank Cave, the known length of the system has been increased due to two major discoveries.

In June last, Greg Bulling and Tony Carlisle pushed through a restriction and discovered a wide, low, silty tunnel system heading south. This was progressively explored and mapped to add more than 700m of passage with the furthest point over 500m from the entrance.

This discovery was significant on three counts. Firstly, it broke through a line where all other known passages had stopped. Secondly, the tunnels in this section run almost due south whereas most other known tunnels in Tank Cave run on the typical NW-SE bearing for Mount Gambier caves. Finally, this section led to the finding of the first accessible air chamber in the cave by Ron Allum in February, although the chamber is reported as being low with a thick mud slope leading to the roof.

The second major discovery occurred on Good Friday this year when Greg Bulling and Tony Richardson, on a "warm-up dive" in a different section of the cave to that described above, managed to negotiate their way over a rockpile at the 480m mark. This led to the discovery of a large keyhole shaped passage which was dived to 580m. Returning that afternoon armed with a fully loaded reel and a 50 c.f. stage bottle each, the divers explored to 730m. Another rockpile had been discovered at 630m followed by smaller passage before again dropping into large keyhole passage. This terminated in a low room filled with clay blocks quite unlike others

found in Tank Cave or Iddlebidy - these being much smaller with sharper edges. This room was named the "Jigsaw Room". Shining lights across the azure blue water gave the appearance of more passage leading off across the room.

After two long dives and a total distance swum of close to 3km, a rest day was called for.

The plan for Easter Sunday was to use 88 c.f. stages and lay another reel of line through the Jigsaw Room and beyond. The stage bottles were dropped at the 400m mark and with well-pumped tanks, the two divers arrived at the Jigsaw Room with ample air. Line was layed across the Jigsaw Room and up a new tunnel which appeared to be closing down when the dive was turned at the 850m mark due to an empty exploration reel. A smaller tunnel off the Jigsaw Room was explored for 50m with a safety reel on the return. The maximum depth of 18m combined with the long duration, caused the Aladin Pros to click into decompression mode on the return journey but still 600m from home. The last 20 minutes of this 130 minute dive passed quickly as the dive was discussed in detail on slates while decompressing in the entrance restriction.

This discovery naturally caused a great deal of excitement as it is not every weekend that over 400m of new cave is explored. When this Easter Extension was drawn up on the map it was found to run parallel to the previous longest tunnel, the 560m tunnel. This tunnel has been found and mapped in earlier explorations by Paul Arbon, Chris Brown, and Phil Prust. A connection between the two was a possibility.

Returning a few weeks later on the Anzac long weekend, two further exploration dives were again made by Greg Bulling and Tony Richardson. On the first, diving in another area of the Jigsaw Room led to a new 125m tunnel running between the Easter Extension and the 560m tunnel and terminating at 860m. Checking out some possible leads off the early part of this new tunnel became the objective for the second dive. The first lead to be checked was heading towards the 560m tunnel but was wide, low, and silty. One diver proceeded in carefully for about 20m. The tunnel gave no indication of getting any bigger but, just at the point of turning, marks were noticed on the clay floor - evidence of a previous dive from a different direction. Continuing on for another 5m and the 560m line was reached. The connection had been made and Tank Cave had revealed another of her secrets.

Interestingly nearly all the exploration diving described above in both the South Section and Easter Extension has been done with side mounted cylinders. Other divers have since dived most of the new cave with back mounts but side mounts made it easier initially for the exploration divers to find the way through into new tunnels.

Diving in the Eastern Extension requires stage bottles to be carried for part of the dive. The additional redundancy from having three tanks each in the cave means that these dives are now considerably safer - a loss of an air supply is equal to losing a maximum of one third of your total air supply rather than one half as with twin tanks.

Decompression in the entrance restriction is not a problem as there is room for two divers with stage bottles and still a wide path for other divers to enter or leave the cave.

Tank Cave is now the most extensive underwater cave system in Australia with close to six kilometres of mapped passage. On a world scale it is harder to ascertain, but from all accounts it would rate about sixth.

by TONY RICHARDSON





*Photo of Gary Barclay in Tank Cave, taken by John Dalla-Zuanna, August 1994.*

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## **ENGELBRECHTS WEST NOTICE**

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# Cave Divers' Association of Australia Inc

## INDEMNITY AGREEMENT

In consideration of being allowed to continue as a member of the Cave Divers' Association of Australia Inc. (the "Association"), and in accordance with Regulation 8 of the Regulations made under the Constitution of the Association, I agree to indemnify the Association and any officer, employee, instructor, or guide of the Association, or any other person organizing, controlling, or assisting with a function, event, dive, expedition, training, testing, or administrative task or obligation, associated with the Association, from and against all claims, costs, demands and lawsuits that I have or may have, for personal injury or property loss, whenever occurring, against the Association or any of those people, arising out of or in relation to any function, event, dive, expedition, training, testing, or administrative task or obligation, associated with the Association or with the sport of Cave Diving.

.....  
Member's signature

.....  
Member's name - printed

.....  
CDAA No.

.....  
Witness

.....  
Date:

.....  
Director

.....  
Date

**All members are asked to carefully read this Indemnity Agreement and, if in agreement, complete the form and post to:**

**CDAA**

**P.O. Box 290**

**North Adelaide, S.A. 5006**



# REGULATIONS

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## Amendment to Regulations V3 – August 1994

**R**esolved by a majority decision of the National Directorate:

that the Regulations of the Association be amended –  
1. by repealing Regulations 7 and 8 and inserting in lieu thereof the following regulations –

### **“7. MEMBERSHIP**

A person becomes an Association Member when the National Directorate has received and issued a receipt for, a completed signed and dated application form, two recent photographs of the person, and current membership fees.

### **8. INDEMNITY AGREEMENT**

A person who wishes to be or remain a member of the Association shall enter into an indemnity agreement with the Association in the following terms; and any member who has failed to enter into such an agreement shall be liable to have his or her membership terminated by the National Directorate.

#### **terms of agreement**

“I agree to indemnify the Cave Divers Association of Australia Inc. and any officer, employee, instructor, or guide of the Association, or any other person organizing, controlling, or assisting with a function, event, dive, expedition, training, testing, or administrative task or obligation, associated with the Association, from and against all claims, costs, demands and lawsuits that I have or may have, for personal injury or property loss, whenever occurring, against the Association or any of those people, arising out of or in relation to any function, event, dive, expedition, training, testing, or administrative task or obligation, associated with the Association or with the sport of Cave Diving.” ”

### **NEW REGULATION**

- 12c. A CDAA member shall not dive in any certified CDAA site, on any gas mixture, other than pure, clean, compressed breathing air.

**In 1991 motions were passed to amend the Constitution and Regulations. These amendments were:**

**Constitution 17(c)5** should now read “Consider any application for instructor and at his discretion endorse the appointment after the applicant has met all requirements as outlined in the Instructor standards.”

**Regulations** – A new regulation should read “Twin independent tanks of equal capacity with a minimum of 60 c.f. are mandatory equipment for cave and penetration dives.”

### **REGULATION 20**

- b. Before any penalty is imposed, the National Directorate shall inform the member who is alleged to have committed a breach of these Regulations, BY REGISTERED MAIL, of the details of the allegation or allegations against him or her, and shall afford the member the opportunity to answer the allegation.
- c. Any allegation concerning a breach of the Constitution or these Regulations shall be put into writing, signed and dated by the person making the allegation, and forwarded to A DIRECTOR for consideration by the National Directorate. IF THE ALLEGATION IS AGAINST A DIRECTOR, THAT DIRECTOR CANNOT BE PART OF THE DECISION-MAKING PROCESS ON THAT ALLEGATION.
- d. The National Directorate shall ONLY consider any such allegation where the alleged breach is LESS than 3 months prior to the date of the written allegation BEING RECEIVED BY THE DIRECTORATE.
- f. If an allegation involves two or more of the Directors, it may be heard and determined by a Committee appointed at a Special General Meeting of members held for that purpose, but the allegation must not be more than three months old at the time the Special General Meeting is called. Such Committee and the persons against whom the allegation is made shall be bound by this Regulation as if the Committee were the National Directorate.
- g. AFTER RECEIVING AN ALLEGATION IN WRITING THE DIRECTORATE MUST MAKE A DECISION AND IF APPLICABLE MUST IMPOSE A PENALTY WITHIN SIXTY DAYS.
- h. Where a penalty is imposed that comprises a reduction in Certification Level, Suspension, or withdrawal of Association Membership, the National Directorate, in imposing such a penalty, shall fix a time for the penalty to conclude, and in the absence of fixing such a time, the penalty shall remain in force for a period of six months from the date it was imposed.



# CDA A SITE ACCESS

**Remember: Access is a privilege, not a right.**

**Please be considerate of landowner wishes.**

**CN = CAVERN**

**S = SINKHOLE**

**C = CAVE**

**P = PENETRATION**

SITE	LEVEL	OWNER	ACCESS DETAILS
<b>MOUNT GAMBIER - SOUTH AUSTRALIA</b>			
<b>Ewens Ponds</b>	Nil	DENR P.O. Box 1046 Mt Gambier 5290 (087) 35 1177	Groups of 6 or more, phone/mail to Dept. of Environment & Natural Resources (DENR). Smaller groups, no need. Ponds usually closed 1 Sept-30 Nov. yearly (phone to check). Indemnity form to be completed.
<b>Horse &amp; Cart Tea Tree</b>	CN CN	Peter Cunningham PO Box 643, Mt Gambier 5290	By phone or mail, 1 week prior. Ph: (087) 38 4003
<b>Little Blue</b>	S	Port MacDonnell	Little Blue - permission not required - must carry card.
<b>Allendale</b>	C	Port MacDonnell	Obtain key from Mt. Gambier Tourist Information Centre.
<b>Gouldens 2 Sisters Fossil</b>	CN CN C	DENR P.O. Box 1046 Mt Gambier 5290	Contact DENR by phone/mail prior to diving. Stay out of Gouldens when pump is operating. Indemnity form to be completed. Ph: (087) 35 1177
<b>Ela Elap One Tree</b>	S S	Mr. Peter Norman Private Bag 67, Mt Gambier 5290	By phone or drop in before diving. Accommodation also available. Ph: (087) 38 5287
<b>Swim Through</b>	C	Valerie Earl PO Allendale 5291	Currently CLOSED pending new access arrangements.
<b>Piccaninnie Ponds</b>	S	DENR P.O. Box 1046, Mt Gambier 5290	Permit holders by phone. Be aware of delicate vegetation. Indemnity form to be completed. Ph: (087) 35 1177
<b>Hells Hole Pines Mud Hole</b>	S C C	Primary Industries S.A. (Forestry) PO Box 162 Mt Gambier 5290	Contact Primary Industries S.A. (Forestry) by mail or phone to arrange permit. Collect permit from Regional Office, Jubilee Hwy., Mount Gambier. No diving on total fire ban days. Permits will ONLY be issued Mon-Fri between 8.30am-4.30pm. Ph: (087) 24 2759
<b>Kilsby's</b>	S	Landowner leased to S.A. Police	Contact Lisa Bernasconi. Restricted access conditions apply. Refer Guidelines Issue 47 (April 1993). Twin tanks are required.
<b>Shaft</b>	S	Mr & Mrs Ashby	ONLY by contacting designated "guides" who will arrange access. Refer Guidelines Issue 48 (July 1993). Twin tanks are required.
<b>Ten Eighty Bullock Hole Black Hole</b>	S S	Mr. Colin Traeger PO Box 12, Mt Gambier 5290 (087) 26 6215	Contact CDA A Records Officer for diving deed THEN mail Booking Form to Colin Traeger 2-6 weeks prior, stating names/qual. of all divers, and time slot - 1pm Saturday, 9am or 1pm Sunday. WEEKENDS ONLY. <b>Closed October-November for shearing.</b>
<b>Max's Hole</b>	C	Mr T. Edwards PO Box 1319 Mt Gambier 5290	Phone or mail 1 week prior to dive. Ph: (087) 26 8277
<b>Engelbrechts - East - West</b>	C P	Mt Gambier Council	Obtain key from Mt Gambier Tourist Information Centre. Access agreement must be signed prior to diving.
<b>Three Sisters</b>	P	Millicent Council	Contact Peter Horne. Access available for experienced Penetration divers only. Low profile or side mounted independent air systems required. Access agreement must be signed prior to diving.



# CDAA SITE ACCESS

CN = CAVERN

S = SINKHOLE

C = CAVE

P = PENETRATION

SITE	LEVEL	OWNER	ACCESS DETAILS
<b>MOUNT GAMBIER - SOUTH AUSTRALIA (continued)</b>			
<b>Iddlebiddy (5L250)</b>	P	Primary Industries S.A. (Forestry)	5L250 open 1st & 3rd weekend of month. 5L290 open any weekend. Max. 4 divers per dive per day, 1 dive per day for each site. Only
<b>Nettle-Bed (5L290)</b>	P	PO Box 162 Mt Gambier 5290	Penetration divers completed practical in-water cross-over. Bookings via Forests Clerk - key from Lady Nelson. Must show permit & card. (087) 24 2759
<b>McKay's Shaft</b>	S	Mr. McKay	Contact Phil Argy (087) 23 0879. Small groups of about 4, ladder climbing & SRT skills required. Access agreement to be signed prior to dive.
<b>Tank Cave</b>	P	Mr. & Mrs. Dycer	Apply in writing to: CDAA Tank Cave Diving, c/- 4 Rosella Street, Modbury Heights, SA 5092. Access conditions apply, see Guidelines 48.
<b>SOUTH AUSTRALIA - Narrina Lake Cave</b>			Access under negotiation - closed until further notice.
<b>NULLARBOR - WESTERN AUSTRALIA</b>			
<b>Cocklebidy</b>	C	Regional Manager	Must apply for permission to dive at least 4 weeks in advance of trip.
<b>Murra El Elevyn</b>	P	C.A.L.M.	Ph: (098) 41 7133.
<b>Tommy Grahams</b>	C	44 Serpentine Rd,	
<b>Weebubbie</b>	C	Albany 6330	Small dive site next to main chamber: Sinkhole
<b>NULLARBOR - SOUTH AUSTRALIA</b>			
<b>Warbla</b>	P	NPWS Ceduna	Currently CLOSED to all diving subject to draft management policy.
<b>WELLINGTON CAVES - N.S.W.</b>			
<b>Lime - Kiln (McCavity)</b>	P	Wellington Council P.O. Box 62	Apply for permit at least 4 weeks in advance of trip. (Water Cave is affected by CO <sup>2</sup> [high] during Summer/Autumn.)
<b>Water</b>	CN	Wellington 2820	David Hearn, Caves Manager, Ph: (068) 45 1418, Fax: (068) 45 3354
<b>Mitchell</b>	CN		
<b>Cathedral</b>	CN		

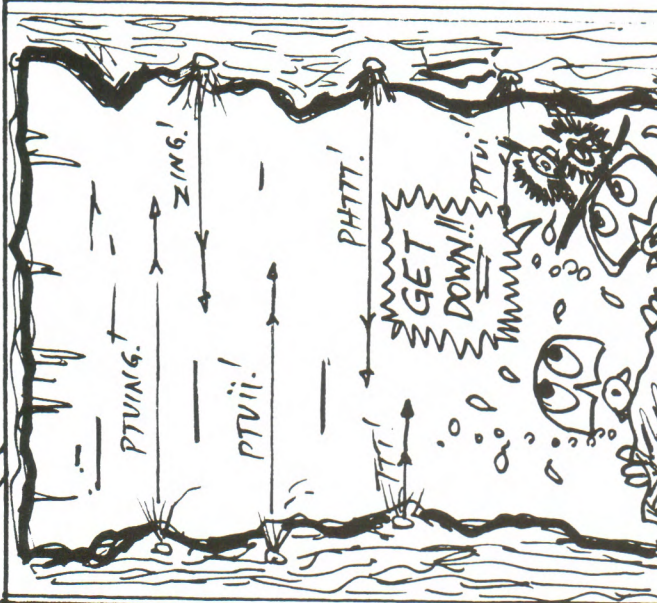
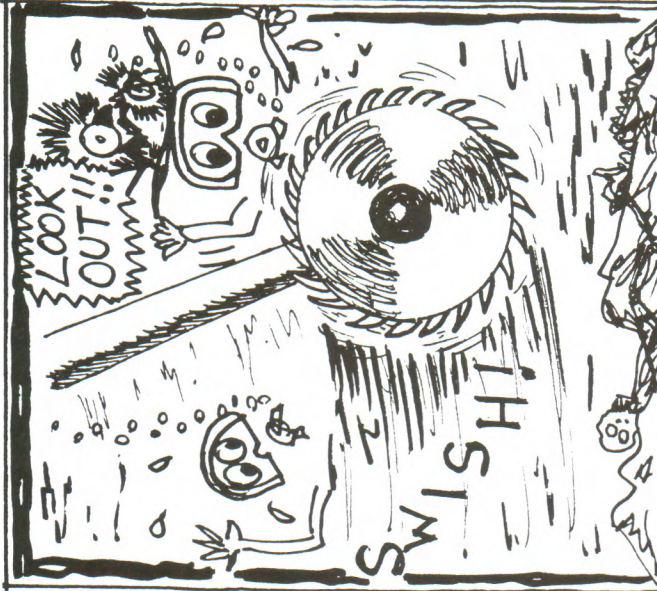
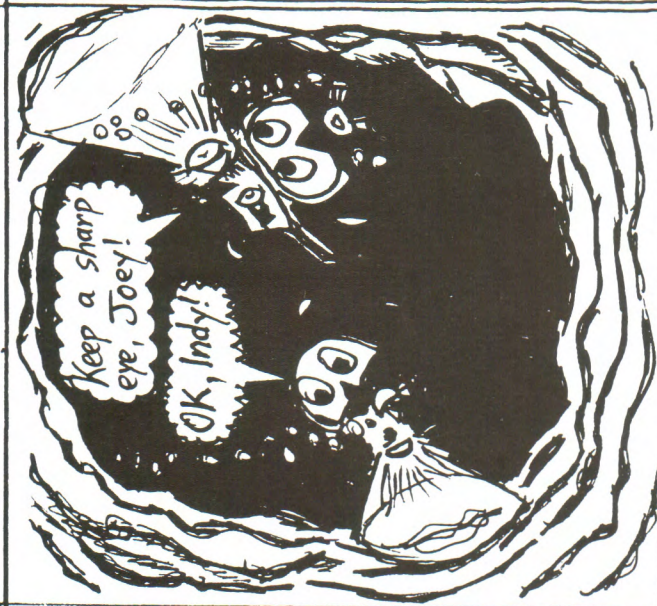
# CDAA INSTRUCTORS

INSTRUCTOR	CN	S	C	State	Telephone (h)	INSTRUCTOR	CN	S	C	State	Telephone (h)
Stephen Arnel	•	•		VIC	(055) 26 5230	Simon Jones	•	•	•	WA	(09) 344 4343
Bill Bernhardt	•	•	•	VIC	(03) 725 9716	Max Marriott	•	•		SA	(08) 47 3360
Chris Brown	•	•	•	SA	(08) 269 5793	John McCormick	•	•	•	VIC	*(03) 579 0570
Marilyn Boydell	•	•		WA	(09) 349 5646	Richard McDonald	•			SA	(08) 278 1829
Stan Bugg	•	•	•	VIC	(03) 379 8791	Warrick McDonald	•	•		VIC	*(03) 579 2600
Greg Bulling	•	•	•	SA	(08) 265 4978	Richard Megaw	•	•	•	SA	(08) 344 1733
Gary Bush	•	•	•	WA	(018) 318 837	Hugh Morrison	•	•	•	WA	(09) 409 9807
Brian Cornell	•			VIC	(059) 85 2514	David Ogilvie	•			NSW	*(02) 417 2800
Terry Cummins	•	•		NSW	*(02) 417 2800	Andrew Poole	•		•	WA	(018) 928 028
John Dalla-Zuanna	•	•	•	VIC	(055) 61 2805	Tony Richardson	•	•	•	VIC	(03) 754 6163
Ian Gothard	•	•		VIC	(03) 486 1810	John Vanderleest	•	•	•	VIC	(03) 416 9370
Glen Harrison	•	•	•	SA	(08) 386 3237	Des Walters	•	•	•	NSW	(060) 25 3506
Barry Heard	•	•	•	VIC	(056) 27 5511	Bob Wealthy	•	•	•	VIC	(03) 789 6389
Alan Jolliffe	•	•	•	VIC	(03) 874 7669	Liz Wight	•			NSW	(02) 428 2176
Nick Jones	•	•		VIC	*(03) 282 4502	Frank Ziegler	•	•		VIC	(055) 26 5288
* Work phone number						* Work phone number					



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	<b>Cave Diving Communications.</b> A manual from NSS-CDS dealing exclusively with all u/w communications used in cave diving. Including touch, torch & line signals, & use of line arrows & jump reels. A must for all cave diver's bookshelf.	<b>\$12.00</b>	
	<b>Cave Diving. A Blueprint for Survival.</b> By world-renowned cave diver Sheck Exley, this is a case study of a number of accidents that have occurred in the USA and how to avoid them.	<b>\$10.00</b>	
	<b>Basic U/W Cave Surveying.</b> The standard publication for anyone remotely interested in research and survey techniques used in water filled caves.	<b>\$15.00</b>	
	<b>Cave Diving - The Cave Diving Group Manual.</b> Completely new edition from the pioneers of the sport, the British. Covers every possible aspect including sump rescue solo diving and advanced oxygen and mixed gas theory. Reviewed in Guidelines No. 37.	<b>\$40.00</b>	
	<b>CDA Occasional Paper No. 2 - from Natitonal Conference 1981.</b> Includes topics such as Fossil Cave, Belay Techniques & Cocklebidy 1979	<b>\$8.00</b>	
	<b>S.R.T. Single Rope Techniques - published by the Sydney Speleological Society.</b> This is the definitive work on all aspects of vertical travel in caves. Should answer most questions on rope work for cavers and cave divers alike.	<b>\$23.00</b>	
	<b>DES Emergency Handbook - Revised 1990 edition by Lippmann &amp; Bugg.</b> Printed on water-proof paper this essential first aid manual should be part of every cave divers' kit.	<b>\$15.00</b>	
	<b>NSS Cave Diving Manual - The standard reference manual in Cave Diving covering just about every conceivable topic. New edition.</b>	<b>\$28.00</b>	
	<b>Research Handbook for Cave Divers - Peter Horne.</b> This book is a compendium of years of experience from various sources. A valuable addition for those interested in the other side of cave diving. As reviewed in Guidelines No. 36.	<b>\$15.00</b>	
	<b>Wukulla Springs Project.</b> The U.S. Deep Caving Team edited by William C. Stone.	<b>\$59.00</b>	
	<b>The Darkness Beckons - Martyn Farr.</b> The history & development of cave diving.	<b>\$59.00</b>	
	<b>Deep Diving - Bret Gilliam, Robert Von Maier.</b> An advanced guide to physiology procedures and systems.	<b>\$30.00</b>	
	<b>VIDEOS</b>		
	<b>Nullabor Challenge (Video).</b> Produced by Hanger 137. The true story of the exploration of the largest single limestone cave region in the world.	<b>\$29.95</b>	
	<b>CLOTHING - NEW STYLE</b>		
	<b>"20th Anniversary" T-Shirts - long sleeve, Airforce Blue, medium &amp; large only</b>	<b>\$18.00</b>	
	<b>T-Shirts - Grey Marle, medium/large/extra large</b>	<b>\$15.00</b>	
	<b>Windcheaters - Airforce Blue, medium/large/extra large</b>	<b>\$25.00</b>	
	<b>CLOTHING - OLD STYLE</b>		
	<b>Windcheaters - red/black logo, white/purple logo or blue/white logo. 18, 20, 22, 24.</b>	<b>\$12.00</b>	
	<b>Polo Shirts - blue/white logo or red/black logo. 18, 20, 22, 24.</b>	<b>\$ 8.00</b>	
	<b>T-shirts - blue/white logo or red/black logo. 16, 18, 20, 22, 24.</b>	<b>\$ 5.00</b>	
	<b>MISCELLANEOUS</b>		
	<b>CDA Keyrings - blue with gold motif, CDA P.O. Box on back.</b>	<b>\$5.00</b>	
	<b>CDA Stickers - yellow. You must include a stamped, self-addressed envelope.</b>	<b>\$0.80</b>	
	<b>Stubbie Holders Red with black logo. Foam/plastic shell.</b>	<b>\$2.00</b>	
	<b>Tank Cave Poster Full colour 14 1/2" x 25" poster of Tank Cave by Peter Rogers. Price includes postage and handling.</b>	<b>\$8.00</b>	

Name: \_\_\_\_\_

Sub Total \$

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Plus postage & handling **\$5.00**

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# DIVING INDEMNITY

**This indemnity is to be used for diving Piccaninnie Ponds, Fossil Cave, Gouldens and The Sisters – this is not a diving permit.**

Surname: \_\_\_\_\_

Christian Names: \_\_\_\_\_

Postal Address: \_\_\_\_\_

\_\_\_\_\_ Postcode: \_\_\_\_\_

Telephone: work (\_\_\_\_) \_\_\_\_\_ home (\_\_\_\_) \_\_\_\_\_

C.D.A.A. Category (Show date course completed)

Cavern \_\_\_\_\_ Sinkhole \_\_\_\_\_ Cave \_\_\_\_\_

C.D.A.A. Number \_\_\_\_\_ Expiry Date \_\_\_\_\_

## Conditions for Piccaninnie Ponds:

1. No person shall dive unless wearing a full length wetsuit and fins.
2. Minimum of two and maximum of four divers per group to dive in the ponds, except for supervised first dives.
3. No person shall dive deeper than 36.5 metres (120 feet). (Remember 39.6m [130 feet] is the maximum safe depth for diving with compressed air.)
4. No person shall dive unless a depth gauge is worn.
5. A C.D.A.A. approved guideline must be used when entering side caverns.
6. No testing or training in the ponds except for police and army by special arrangement.
7. Divers to enter water at allocated time must be out of water before time expires.
8. Decompression dives to be avoided.
9. No entry into restricted areas as shown on the map on the permit.

## General Diving Indemnity:

I HEREBY AGREE that I or my estate will not make any claim or initiate any proceedings whatsoever against the Minister for Environment and Natural Resources, the "State of South Australia", the South Australian Government or any of its servants or agents and that I will indemnify and hold harmless the South Australian Government and its servants and agents against all demands, claims, actions and proceedings, damages, costs and expenses arising out of or in any way connected with:

- (a) The granting of an appropriate permit; or
- (b) Any advice or information given to me by the South Australian Government or any of its servants or agents relating to my entry upon Piccaninnie Ponds Conservation Park, Fossil Cave, Gouldens Waterhole or The Sisters and any diving which I may undertake pursuant to the permit; or
- (c) Any incident howsoever caused occurring while I am in or near any of the waters of Piccaninnie Ponds or any sinkhole within the Piccaninnie Ponds Conservation Park, Fossil Cave, Gouldens Waterhole or The Sisters; or
- (d) A claim which may arise from a third party.

Signature \_\_\_\_\_

Send to:

**DENR,**

**P.O. Box 1046, Mount Gambier, S.A. 5290**

**Tel: (087) 35 1177**

**Fax: (087) 35 1110**



## DIRECTOR'S REPORT - Training, Standards & Diving Operations

The first report for 1994/95 is presented in a slightly different format due to the special inclusion on Tank Cave. My position deals with a wide range of the CDAA diving activities, and a recent priority was to help clarify the Tank Cave access for the information of all members.

The new Directorate met with the Tank Cave Access Committee and we all agreed that it was time for a Site Access Bulletin with explanations of the access procedures. This is included here as an A3 folder. The Guides were keen to provide the information to all the memberships, not just Penetration divers, as this cave is one of Australia's most outstanding underwater sites. I haven't dived in it myself yet, and found the map extremely interesting. There are 6 kms of passage!

The Director's Position; It is some years since I sat in this position, at the time when the CDAA was restructuring from the old "Category" system to a more systematic training-based organisation. Since I was last in office as National Director 3 years ago, the Training Section has produced a detailed Instructors Manual which tidied up many loose ends and regulations etc, to standardise our training methods. I am utilising this as a basis for our current operations and it makes my job easier than in the past.

There are some areas in the manual that need refinements and I am beginning to allocate some different tasks to various Instructors to work over the next 6 - 12 months. However, I am also allocating some of the administration tasks to non-instructors who have special skills, which provides wider outside input into what is a rather small group (approx 30 instructors). This also allows a better distribution of the overall workload in my division, which only has finite resources.

I am making myself as available as possible to all. I am in Mount Gambier until at least Christmas, on 087-232220. I check the message machine daily and change the message so you know I got the one you left. I am constrained by Budget considerations and will be reducing phone times once the delegation process is fully running. I'm even doing a short night course on people management to improve my abilities (at my own cost), since this is a "management" job. There is no time for diving - even though I live here, in the middle of it all.

Instructor Movements; At present we only have 4 Penetration instructors, 3 in Adelaide and Tony Richardson on his own in Melbourne. Working with these 4 have been two other instructors - Barry Heard and John Dalla-Zuanna - who are being encouraged to complete their training in the next few months. This will give 3 Penetration instructors in Victoria and South Australia, which spreads the load. The Directorate is at this moment giving particular attention to the needs at this level and "Cave" level in West Australia and New South Wales, with meetings scheduled in the next few months.

Also close to completion of Instructor rating are Brian Cornell and Richard McDonald (Sinkhole) and John Vanderleest (Cave), with a number of applicants now on hand and training at Cavern Instructor level. These flow-throughs bring in enthusiasm and the new perspectives a small organisation needs. A review of the Instructor Training weekend programmes is beginning, so that the process is manageable but also economical and can be programmed in advance and adequately staffed.

Some brief points of ongoing interest.: There will be a 5-day full-time Penetration Course scheduled for Easter 1995, with 3 bookings on it already. We may also run a double weekend course in late summer. Set dates for future such courses will be decided soon and announced 6-12 months ahead to allow planning, holiday bookings etc for candidates to be made.

I will be responding to Glen Harrison's AGM request for a mixed gas diving policy after a meeting in Sydney in October, where the issue will be discussed at a National level.



David Whomes will continue to represent the CDAA on the SA Speleo Council, and Tim Paine/Chris Brown will continue to advise me on developments regarding climbing requirements in our courses as these are further worked through.

- Gates:
1. Please hook the strap on the Ela Elap gate at the main road, as Peter Norman's horse has figured out how to open it with his nose if it's not secured.
  2. Iddlebidy lock has been replaced as it clogged up recently. Thanks to Phil Argy, John Vanderleest and Wayne Wilson.
  3. The Mount Gambier boys are completing proper fencing around McKay's Shaft at present. Murray McKay has been unwell recently and we hope to see him around and OK soon.

Regards to you all from Ian Lewis



*The enclosed letter is directed to Penetration Divers.*

*This letter is a follow-up to the one received by you a month or so ago. I wanted to answer questions and main points at the A.G.M. but time did not give me the opportunity to do so. However it may be better for all if it appears in writing.*

*Since the AGM, I have been given a great deal of additional information and advice regarding the situation of Tank Cave access. With Lisa, I have met with Phil Prust and discussed Tank Cave at length, and now realise that Phil has had the unenviable position of having to juggle Tank Cave access, with member demand and landowner wishes. My comment that your Penetration qualification was not enough to gain you access to Tank Cave may have been a little misinformed.*

*Divers have written to dive Tank Cave with most gaining access on their first approach. A few have been asked to gain further experience, others requested to wait the 12 month period needed at Penetration level, others did not reach the criteria or had incorrect paper work or simply did not read the paperwork correctly. No-one has been denied access. I now realise that divers had the opportunity to write for access information, as instructed in Guidelines. If members feel they require more information, they may now contact either Phil Prust or Lisa Bernasconi. The Directorate is now dealing directly with Phil, who has pointed out to us recently the risks in the cave and the limitations on it's use by us all. We have to consider the following factors:*

- 1. the landowners limitations on dive numbers*
- 2. the landowner limitations on vehicle access, particularly in the wet and with stock around.*
- 3. the landowners requirement that they do 2 accompanied orientation dives due to the long distance "isolation" factor that our other site may not have.*
- 5. the visisbility "hazes" after divers go through, and may last a week or two. Therefore the Guides try to stretch out the visits to ensure maximum vsibility for each dive group.*

*As I've stated above, Phil is the landowner contact officer, not the other guides who purely handle the on site running of Tank Cave dives. Pre-requisites were printed in Guidelines in 1993, however now with Phil and the Directorate the current criteria has been endorsed which appears in the accompanying Bulletin. This was also done with input from the Guides, and you will be updated on this. We appreciate all Phil's assistance with this and are confident that the membership will be happy with the results they will see in the near future.*

*Ian Lewis*



## **SPECIAL SITE INFORMATION BULLETIN NUMBER 5**

### **5L230 - TANK CAVE**

*(This is the fifth in a series of special Information Bulletins which have been prepared for the education and interest of Cave Divers Association of Australia (CDAA) members and the general public, to highlight special values and / or considerations which are felt to be of importance in our more sensitive cave diving sites.)*

*A Co-production of the Tank Cave Access Committee and the 1994/95 CDAA National Directorate*

#### **BACKGROUND**

The aim of this article is to try to provide some general information and dispel some of the mystique which surrounds Tank Cave. Not long after the exploration in 1989 (reported in an article in Guidelines 34) Tank Cave was closed on the advice of the national Directorate, due to problems associated with suitable access indemnity. The cave remained closed for almost three years with the property ownership changing several times.

In 1992 contact was made with the new landowners, Rob and Katrina Dycer, to try and re-establish diving access. After several meetings, the Dycers kindly allowed limited access to a number of divers who had been involved in earlier work there. The agreement was that these divers would survey and reline certain areas of the cave, with the view to allowing more general access in the future. The early dives under this arrangement went well and the Dycers were soon able to see, through slides and video, the importance and magnitude of the cave on their property.

#### **REASONS FOR CHANGING THE LINE SYSTEM**

The question of exactly how to re-line the cave was a difficult one. It was felt that when "new" divers came to dive the site, they would want to see some of the most interesting sections of cave, without being task loaded with very complex dive plans, involving multiple jumps and T-ed lines. After carefully studying the way in which similar caves in the USA were set up and talking to divers who had recently dived in such caves, the survey team decided on a strategy which involved the use of several thicker new lines, set up in three main ways.

The new type of system was enforced in many caves in the USA after an accident there several years ago. In a popular, well controlled site, two trained cave divers (with little practical experience) following a straight forward permanent line, encountered primary light failure. While changing lights they floated to the roof. On their descent they inadvertently picked up another line in the silty water, which had the same characteristics as the line they were originally following. They followed this wrong line for some distance before realising their error and then in the ensuing confusion and panic, one of the divers ran out of air and drowned.

#### **THE NEW "GOLD LINES" AND "LOOP SYSTEM"**

The first of the new gold lines was installed to incorporate some of the best and most diverse passage the cave has to offer. It involved following a route which before the change had 5 jumps! The idea of the line is that it is T-ed at only two specific points, enabling divers to eventually do a circuit dive (more about that later). The two other gold lines follow relatively straight long passages, including the 410 m long, main tunnel. The gold colour of the line and its larger diameter were specifically used to make it quite distinct from other lines in the cave.

To set this new system up took a considerable number of dives. Firstly, almost one kilometre of new gold line was installed in the areas mentioned. Old survey data was then tied into the new lines, with changes being necessary where the new and old lines differed. All the old line then had to be removed and the line junctions moved back out of general view, to avoid confusion with other lines. Being set back some distance, a reasonable jump is now required to move off the gold line to avoid similar problems.



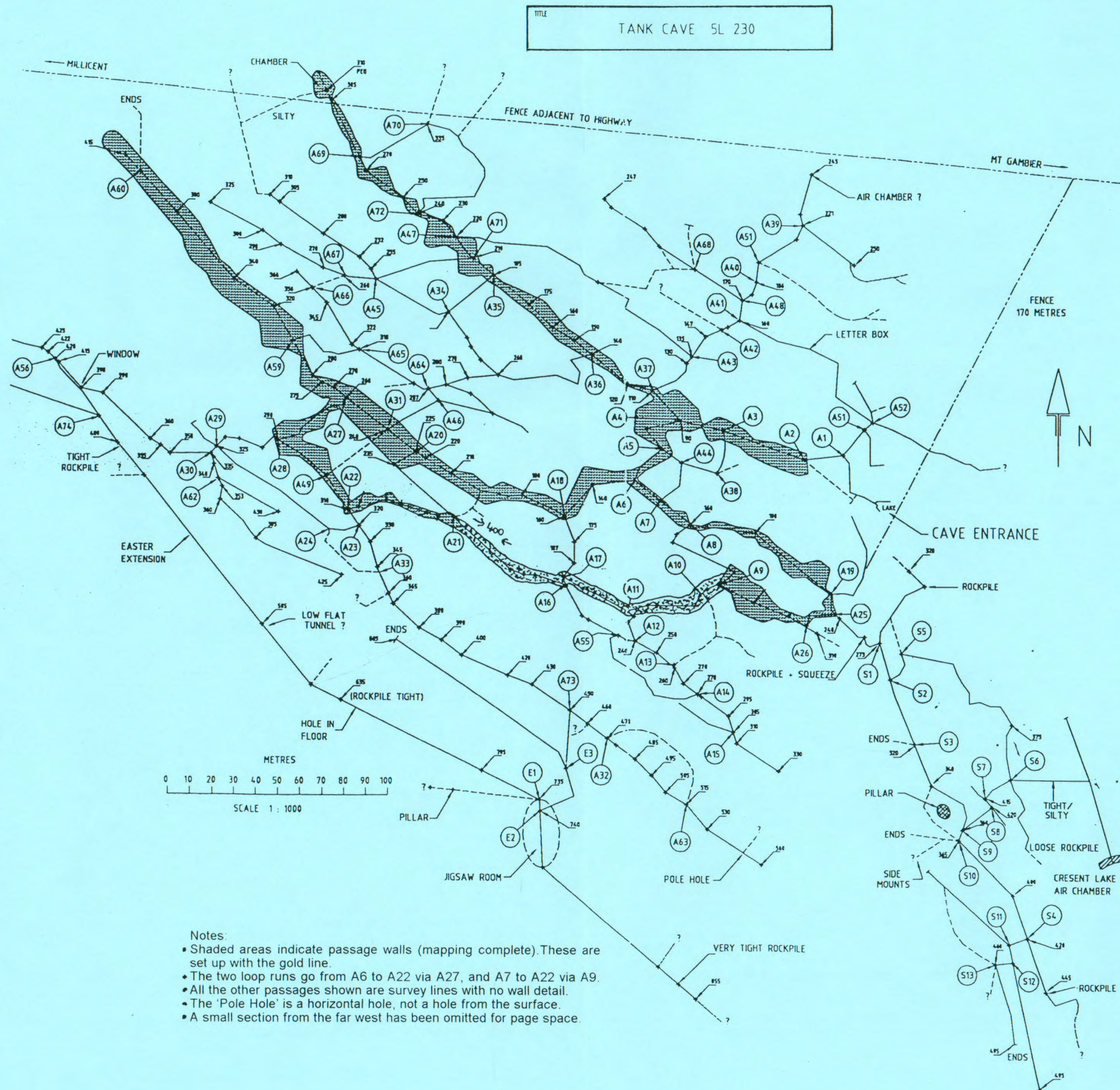
## LANDOWNER ACCESS CONDITIONS

Once the new lines had been established the landowners were agreeable to small groups of new divers entering.

A number of conditions were then negotiated, these were:

- That the divers were not only suitably qualified but also experienced in the type of conditions which would be encountered during the dives.
- That new divers be accompanied on their first few dives by other divers who already had considerable experience in diving the cave.
- That contact only be made by one of four nominated people from the original survey group, and that one of these people need to be on site and be responsible for the group.
- That only six divers and three vehicles would be allowed on any one day, and that trips for new divers would be limited to one weekend a month.

With everything set to go interested new divers were called for in Guidelines 48. In October 1993 the first group of four new divers entered Tank Cave, since that time 29 other people have applied and there have been 26 new approvals (as of September 1994). With very few new applications, nearly all of these people have now been able to dive on several occasions.



## APPLYING AND PRE-REQUISITES

So what happens when you feel you are ready to dive Tank Cave? The first thing to do is to write to:

CDA Tank Cave Diving,  
C/- 4 Rosella Street,  
Modbury Heights. SA 5092

You will be sent an application form which will ask you to list some of your diving experience. The basic pre-requisites which will need to be covered on the form include:

- a current CDA Penetration rating, held for at least twelve months.
- a minimum of 20 dives in CDA approved penetration sites
- a broad range of experience in a number of CDA approved penetration and cave sites including exposure to restrictions, limited visibility and isolation (> 150m), with a minimum of four such dives in the last six months.

All of these pre-requisites relate to the landowner conditions referred to previously.

Once your form has been returned it will be reviewed by the Tank Cave Access Committee to ensure the pre-requisites have been met. With forms that are well presented and show clearly the dives done, this is a very straight forward process.

Delays have occurred in processing some applications in the past, because people did not clearly outline when and where they did their pre-requisite dives, but rather made general statements about their experience.

Remember that like many similar forms, the onus is on the applicant to provide evidence of meeting the pre-requisites. It is important to remember that the application is judged purely on its merits and that personal knowledge of the applicant is never an issue.

After your application has successfully been reviewed you will receive written confirmation. Your application will then be given priority, and are contacted by phone to ascertain their availability on selected weekends, which is usually the first weekend in every month. Times and other arrangements are then made before the weekend. If space is available, repeat divers on this list will have an opportunity to do more dives.



## ON SITE

Prior to access you will be asked to complete and sign an indemnity form and then on the weekend follow the directions of the Site Access manager, in relation to movement of the property. Once on site you will be introduced to another new diver as well as an experienced person who has a good knowledge of the cave and will accompany you and your partner (occasionally it may just be you and the experienced person due to numbers etc). A detailed map of the cave will be available and you will be asked to select the section of the cave you would like to visit and then plan accordingly.

The only restriction placed on you will be to stick to a single dive plan and choose one of the four routes with gold line. Divers who would like to dive the circuit must first dive both ways along the circuit on a third dive; ie to approximately A22 from either approach.

This is a standard procedure with this type of dive and ensures the diver has seen all of the passage to be negotiated and is happy they can complete the dive within safe air margins. The total distance of the main circuit is approximately 800 m.

## THE DIVE

Once you and your buddy have decided on a dive plan it is communicated to the person who will dive with you and gear is assembled. Once kitted up it is then only a short walk to the cave entrance. A climb of 3 metres down a heavy fixed ladder is next undertaken before final in-water checks. The initial part of the dive involves one diver at a time following a heavy permanent line through a rather tight restriction. Once through they communicate via the line and the subsequent divers enter. This first section is generally very silty and stays that way for the entire weekend. The heavy line continues along quite silty passage for 40 metres or so before emerging in a large tunnel. At this point the gold line starts and it is now a matter of following it and sticking to the dive plan.

The most basic dive plan simply involves following this line along the main passage, to its end at 410 metres (Point A60). Along the way three intersections on the gold line will be encountered. If diving to one of the other passages is part of your dive plan, it would then be necessary to place a marker and branch off. During the dive the experienced diver will simply follow you around and make sure you are comfortable and don't become confused.

The numbers on the individual weekends will determine exactly how many dives you can do with only one being guaranteed.

So all those who have the pre-requisites, get organised, send off your letter, and join the growing list of happy Tank Cave divers.

*This Bulletin has been prepared by the Tank Cave Access Committee and written by Greg Bulling, following a joint meeting between the Committee and the CDAA National Directorate to clarify site information of this special cave for all the CDAA membership. The 1994/95 Tank Cave Access Committee consists of 4 "Site Access" Managers (formerly Guides) - Phil Prust, Paul Arbon, Chris Brown and Tony Richardson.*

*The CDAA National Directorate wishes to thank Greg Bulling for his contribution in preparing the text for this bulletin.*