

### 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: Tank Cave. Photo courtesy Peter Rogers.

Peter Horne

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, Peter Girdler, P.O. Box 290, Golden Grove. SA 5125, prior to 10th March, 1993. 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 P.O. Box 290, North Adelaide, 5006, and your

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(Pager) (08) 273 5000 Peter Girdler Quote No: 56857

## **EDITORIAL**

I figure, as I am writing this editorial, that I have survived my first issue of Guidelines as Editor. I would like to thank those who have offered constructive comments, praise, and assistance. This is appreciated and encouraged.

The terms "Nitrox, Trimix, Heliox" are ever increasingly becoming part of our normal discussion when we consider those deep or extended dives. The subject of Nitrox was discussed in issue 43 by an excellent article written by Dick Rutkowski and I commend that article for further reading.

More recently, a seminar was held in Adelaide with consideration being given to the hazards of this type of diving which may present a different picture of the future for Nitrox diving.

I am convinced that we need to know what the full implications of this activity are before we start filling our cylinders with modified air. "Does the sports diver really need this technology to dive safer to the recommended maximum depth of 40 metres?"

We need to examine both side of the issue, with an open mind, thoroughly and objectively. I found Dick Rutkowski's article to be very convincing, but have the hazards and disadvantages, if any exist, been fully examined.

Early next year, a seminar is being organised by an Adelaide-based dive shop and a member of the International Association of Nitrox Divers, (IAND) will be the guest speaker. Details of this seminar are published in this issue.

We cannot help but be reminded that the festive season is still with us as we notice that the wet suit has shrunk since that dive before Christmas. By the time you read this issue, it will be too late to wish you all the best for Christmas, but not to late to wish you all a happy and safe new year. Safe diving for 1993,

Pete Girdler

### NATIONAL DIRECTOR'S REPORT

Welcome to 1993. Since stepping back into the role in September 1992, I have experienced a willingness and co-operative attitude from office bearers and the Directorate to work towards Association agendas that will see a very productive year.

Strengthening this, the Directorate has met twice since the A.G.M. to focus on a business plan for the Association. Many members will have experience with this as it is common place in private industry and gaining favour in government utilities. The busines plan will be principally designed to give the membership and their officials ongoing direction for 3-year periods, set parameters for focusing where our efforts should be channeled and establishing procedures for communicating and reporting results to the membership at regular intervals.

A draft plan has been established by the Directorate and was consolidated through the

involvement of our office bearers at a workshop on the weekend of the 23rd and 24th of January.

It can now be sent to the membership for feedback and subsequent modifications as necessary. I ask each of you to lend your support by giving that feedback so the plan best fits the majority view.

As National Director the more specific issues in my portfolio relate to:

- Association liability/protection members, Directors, office bearers, instructors and guides:
- Assisting to establish national relationships with Government, private landowners and affiliate bodies to further our access to wet karst areas in a collaborative manner:
- To investigate lease, ownership, deed and agreement options to better control the sites Continued overleaf

## NATIONAL DIRECTOR'S REPORT continued Continued from previous page

we access:

• Ongoing research, mapping and monitoring of sites to establish our environmental responsibilities:

• Establish political patronage of the Association at a Federal and State level to better place us in the decision process made on National and International agendas, i.e. World Heritage, aboriginal sites and tourism.

I also intend to capitalise on the credibility we established in the late 80's through the Sinkhole liaison committee in the South East, by reestablishing ties with the representatives and encouraging similar groups to be set up in each state.

As always, any ideas or feedback you have, feel free to contact me.

Jane R Mitchell

Lance Mitchell

Thanks for your support,

## BARNOOLUT ACCESS

The Manager from Barnoolut Estate, Colin Traeger, has requested that divers applying for access to dive on Barnoolut, send their Booking Form between TWO and SIX WEEKS prior to the date planned to dive. Any earlier or later, and your Booking Form will be returned, without permission being granted.

On pages 12 and 13 in Issue 45 of Guidelines is the Booking Form which you should copy and complete for access to Barnoolut (and other Mount Gambier sites), and don't forget to include a stamped, self-addressed envelope for the reply.

### **CDAA NEWS**

#### BUSINESS DIRECTOR'S CONTACT DETAILS

Please note that due to the change of address of the Business Director, Lisa Bernasconi, she will advise us of her new telephone number in the next issue of Guidelines. Any matters regarding the Business Directorate should be forwarded via the National Director, Lance Mitchell, with Lisa following up any further details.

#### PETER GIRDLER'S NEW CONTACT NUMBER

Guidelines Editor, Peter Girdler, will now be contactable via his pager, making it easier and quicker to receive a response. Telephone (08) 273 5000 and quote pager number 56857, and leave as long a message as required, including your name and return telephone number.

#### SITE ACCESS

As many site access details are constantly changing, it is advisable to refer to your latest edition of Guidelines for arrangement details. Any queries regarding site access can be forwarded to the Site Access and Mapping and Research Manager, Peter Horne on (08) 295 6031.

#### **GUIDELINES ARTICLES**

If you have any interesting tales to tell of your cave diving expeditions, read any good diving-related books, or even if you have any funny stories or photos to share, send them to the Editor, Peter Girdler, P.O. Box 290, Golden Grove, S.A. 5125. Should you need the article and photos, etc. returned, please provide a stamped, self addressed envelope. (Be sure to check the inside front cover of Guidelines for the deadline for the following issue.)

#### CDAA PYRAMID - THE THREE YEAR PLAN

The pyramid is the basis of a three year plan being developed by Lance, Chris and myself. It comprises an objective for the Association, success factors we are heading towards and have already achieved. Activities we wish to pursue and an improvement projects area which we hope the members will give some input.

The business plan as a whole is still being

by Lisa Bernasconi, CDAA Business Director

formulated and there was a meeting held during January with all the officials of the Association to further discuss our ideas. This way, by the time you receive your next Guidelines (April 1993), an update will be ready.

Lance, Chris and I welcome any ideas, suggestions or criticisms the membership have, so please feel free to contact us.





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# **WANTED:**MORE ARTICLES FOR GUIDELINES

We are always looking for more articles to be published in YOUR newsletter. Any interesting dive trips you've recently completed, or even anything relating to gear used or seen, funny photos or stories relating to any aspect of your cave diving – dry caving included.

Send your typed manuscript, with any photos or drawings, to the Editor, Peter Girdler, P.O. Box 290, Golden Grove, SA 5125

Should you request your photos to be returned, include a stamped, self-addressed envelope.

## MEMBERS MANUAL:

All orders for the CDAA Members Manual are now \$20, due to severe postage increases.

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#### **CAVE DIVING HELMETS**

Cave diving is an exercise in task loading, where the skills of our sport are based around the diver's ability to perform an increasing number of tasks at once. This is especially so for cave and penetration level.

All cave divers, from sinkhole diver on, would do well to consider helmet mounted lights in order to free-up hands.

Commercially-made diving helmets do not seem to exist, so industrious and inventive divers are making their own. Before you dismiss this as a job for a gifted tradesperson, let me assure you that it is a simple exercise which requires only a few basic tools, some logic, a little imagination, and every true cave diver's most important skill – copying off your fellow cave diver!

The only rule for making a helmet is that there are no rules! However, here are a few ideas that we hope will be useful.

#### **CHOOSING A HELMET**

The helmet serves two functions:

- a) to protect the head
- b) to hold lights.

Do not overlook the first function entirely. A helmet with an inner cradle will offer more protection than one without it.

We have seen the following modified for diving:

- i. Plastic canoeing helmets. These already have water drain holes, and flaps which protect the temple and ears.
- ii. **Industrial hard hats.** These have an adjustable inner cradle. These helmets



An industrial hat with <u>basic</u> loops of shock cord

- by Stan Bugg, Brian Cornell and Des Walters are made of soft plastic which can be cut with a sharp knife.
- iii. **Bicycle helmets.** The most expensive of these three options, but offering the greatest amount of impact protection.

#### DRY CAVING vs. UNDERWATER USE

A helmet that is ideal for dry caving may not be suitable for diving. The true enthusiast may have two helmets. However most of us will seek a compromise configuration that serves both purposes.

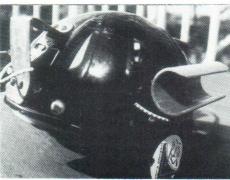
To achieve this, the helmet will need to be easily adjusted, as the diver's head size increases when a wetsuit hood is in place. An adjustable internal cradle and an adjustable chin strap will be needed. As such adjustment will be made in dark, cramped and unstable conditions, it should be simple to achieve.

When checking the helmet for suitability, ensure that it feels balanced and comfortable, that it is stable, that the shell or cradle does not push onto the mask causing it to leak, and that, when you tip your head back the helmet does not interfere with head movement.

#### MOUNTING LIGHTS

Most divers want at least two lights on their helmet. Many have three. I have even seen FIVE! (He looked like an underwater Range Rover!!!)

Mounting systems can range from functional to high tech:



A canoe helmet with a PVC tube bracket

- a) permanent metal brackets into which torches are bolted.
- b) metal clips allowing torches to be inserted and removed during a dive.
   NOTE: this option is often used for the diver to stow his primary hand-held light while tasks are being performed.
- c) slit PVC tubing, forming a clip type mount that torches can be clipped in and out of during a dive. These can be attached to the helmet by one central bolt which allows the diver to swivel the torch, thus changing the beam direction.
- d) loops of rubber shock cord or inner tubing.
- e) any other way you come up with. Remember, there are no rules!

However you decide to mount your lights, try to keep the weight as low as possible, so the helmet feels stable. This is especially important topside. To achieve this, mount lights just above your ears. Also remember to balance the load on each side of the helmet.

#### MODIFYING THE HELMET

- 1) Drill several holes in the crown to allow exhaust bubbles to escape.
- 2) If you are adding bolts, rivets etc. insert them from the inside out, so the protruding end is on the outside. In this way, if you get hit on the head (helmet!) the rivet, bolt etc. is not poked into your head.
- When choosing bolts, rivets, etc. choose brass, stainless or galvanised to reduce corrosion.
- 4) Many find it difficult to come up with a chinstrap that is easily adjustable, provides stability, yet does not interfere with the mask. With a snugly-fitting helmet, a single velcro strap may suffice. However, more stability will be achieved with a Y-shaped strap. Bayonet-type snap clips are popular. Easy adjustment is desirable during a dive, when wetsuit squeeze causes the helmet to become loose.
- 5) As for all cave diving gear, reduce entanglement points. Have nothing dangling or protruding from your helmet.

Continued overleaf

# **NITROX**

IS IT A SAFER MIX?

Educational Seminar being conducted by Rob Cason from I.A.N.D. Australia (International Association of Nitrox Divers)

WHEN:

Monday 22nd Feb 7.30 p.m.

WHERE:

Venue to be arranged

COST:

\$6.00

WHY:

To try and get a better understanding of Nitrox Diving

Come along so you can judge for yourself.

For further information, venue and tickets, contact Divers Services

Ph: (08) 346 3422

#### CAVE DIVING HELMETS

Continued from previous page

#### **CHOOSING TORCHES**

These factors are relevant when choosing torches:

- a) size of the torch;
- b) type of beam spot or flare;
- c) burn time;
- d) intensity;
- e) ease of operation

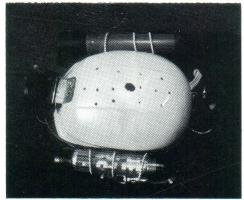
**Size:** A helmet-mounted torch obviously cannot be too large if the unit is to be comfortable. If a large torch is your choice, it will need to be hand held.

The following are commonly seen on helmets:

TEKNA 8 cells (AA batteries) and TEKNA 4 cells, any of the types with three C cells, e.g. IKELITE Q3, SCUBAPRO, Super Q.

Beam Type: Beam type needs to be considered in relation to tasks. A wide angle beam for large caves, a spot type for mapping, reading gauges, compasses. Consider at least one of each type on your helmet.

**Burn Time:** This will be affected by size and intensity. Ideally every torch you carry will have a burn time which exceeds the planned dive time.



The industrial hat with 3 torches mounted: (top to bottom) Q3 (3 C cells), Ikelite Satalite & battery pack, Super Q.

**Light Intensity:** Light intensity should be sufficient that *at least* one helmet light can serve as a backup primary light.

Ease of Operation: If a helmet-mounted light is to be a labour saving item, it must be easily and quickly turned on and off. Torches and switches allow one handed operation, and as such, are easier to activate than those where the torch head is rotated.

Note that CDAA gear regulations call for the following torches:

Cave diver: at least three lights Penetration diver: at least four lights.

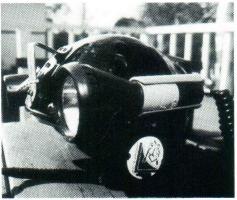
It is assumed that *a light* will last for the duration of the dive. So, if you have one enormously powerful light that only last for half the time, you need an additional light.

Rather than fit your existing lights to a helmet without further thought, we prefer divers to consider their whole lighting system as one item of equipment By so doing, the diver is persuated to think about what light does what, if one fails, which one is used in its place, where is each one mounted, etc.

#### **USING THE LIGHTS**

It makes no sense to have all torches turned on throughout the dive, although I see some divers who do this. Usually a

maximum of two torches should be turned on at a time. At most times one will be enough.



Canoeing helmet showing an Alpha light in the bracket.

Once you have experienced the freedom that helmet-mounted lights offer, you will never look back, and you will probably wonder why it took you so long to make the step.

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### PRODUCT REVIEW – DIVE RITE "NEUTRALITE" HIGH INTENSITY LIGHTING SYSTEM

by Andrew Wight

The Neutralite U/W lighting system from Dive Rite Manufacturing in Florida USA is the flagship in a range of products from the Dive Rite range of specialty and hi tech diving equipment. Dive Rite began the manufacture of cave diving equipment to meet the highly demanding needs of cave divers in the North Florida cave systems. Ten years later they are the largest manufacturer of specialist and high tech diving equipment in the USA.

If you want a light that has been used by more cave divers in the world than any other, then you should consider looking at a Neutralite. The demands of cave diving means that any light that can be regarded as a standard piece of cave diving equipment will also be highly suitable for other forms of recreational diving. Night, deep and wreck diving will be greatly enhanced by a robust and powerful light like the Neutralite range of dive lights.

The main considerations for divers who are choosing a light for diving in low light situations are reliability, power and duration.

The light must also be robust and easy to mount for use underwater. There is just no comparison to diving with a bright, powerful light as opposed to one that is barely bright enough to see your gauges with.

The Neutralite is a truly modular lighting system, available in 12V, 24V, and 36V systems, and with different optional light heads, which can cater for the specialty diver and underwater cinematographer. The standard light is powered by a 12V, 12A/H battery pack, and comes with either a variable focus adjustable head, or a smaller fixed focus head.

The light heads are made from high grade aluminium,

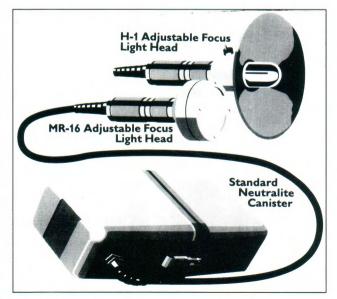
and are precision turned to ensure compatibility. The switching mechanism is via a twist handle type or alternatively a toggle switch on the canister. If you choose the twist handle type you can purchase both head types, and have the perfect light for almost any situation.

Either light head will accept various bulbs up to 100 watt, and all 12V systems come standard with a 50 watt quartz halogen bulb.

For the Video enthusiast or underwater cinematographer, the 36V system is available with up to a 400 watt head, and a great dual head video system is also available. This system comes with the large battery and canister, two video light heads, both with 100 watt colour corrected video bulbs, mounting arms and brackets, wide angle diffusers and a spare bulb. Everything you need to light the most difficult underwater application.

With the range of options available, the Neutralite system can easily be tailor-made to suit individual needs.

Mounting the light is also easy. You can opt for belt mounting, tank mounting, or



when using twin tanks, a "Butt Mounting" kit, allowing the battery case to sit up under the base of your tanks, out of the way and allowing a far more streamlined profile.

Each Neutralite also comes complete with a compact International charger, allowing charging from either 240V or 110V at the flick of a switch. A great feature for the travelling diver. A 12V Auto charger is also available for expeditions and the like.

The real secret behind the light is the unique injection moulded, two-piece structural foam canister. Specially designed internal ribs hold the battery so tightly that the case, ribs and battery become a solid unit that will easily withstand pressures down to 120 metres. The ribs create just enough air





space so that, when combined with the light weight of the structural foam, the entire unit is very close to being neutrally buoyant. If you have ever worn one of the heavy, oldstyle cave diving lights, or "sinkers", you will appreciate this feature of the Neutralite.

Another huge advantage is that by being a two piece canister, and not a completely sealed one piece unit, you can easily carry two batteries, replacing the discharged one with a fresh unit as needed, and not having your light out of action when the batteries need charging.

Liz and I have been using the Neutralite systems for the past two years in our Deep Probe filming expeditions with great results. They come highly recommended as being a good bright light with good burn time. The Neutralite system is highly dependable and very robust, able to withstand the rigorous demands of expedition diving. The light is easy to charge and maintain, and batteries can be readily replaced. With over one hundred dives with the Neutralite in both cave, night dive and filming situations, it is our primary light of choice.

The 12 volt Neutralite system with either light head retails in Australia for around \$1,000. This may at first seem expensive, but once you dive with the light and "see" the difference a really powerful, quality light can make to your diving pleasure and safety, the expense is well worth it.

For further information on Neutralites, and the complete range of Dive Rite specialty and high tech equipment, including the location of your nearest stockist, contact the Sole Australia Distributor:

SPELEONAUT EQUIPMENT 44 Queen Street, Frankston, Vic. 3199. Ph: (03) 781 3820

G

### ATTENTION ALL MEMBERS

Due to many members' details changing, with regards to home and business hours' phone numbers especially, it is difficult to keep those published in Guidelines accurate. Should you discover any discrepancies, please contact the Editor, Peter Girdler, to amend these for the following issue.

J-9" of the Never !



Anonymous 'Puddles', 1992!

#### INCIDENT REPORT

by Anthony Keane

Three divers who, for the purpose of this article I will refer to as divers A. B & C. penetrated the narrow section of tunnel at the back of Pines sinkhole irreverently referred to as the "Back Passage". The tunnel is generally narrow with some difficult squeezes, both horizontal and vertical and is very much a "solo" area - no possibility of swimming side-by-side through most of it.

The tunnel bottoms out at about 100 feet in a fairly narrow section just beyond a particularly tight vertical squeeze. Diver A was leading the dive and carrying the reel. diver B next in line, diver C at the rear.

At almost the extreme bottom of the dive. diver B's regulator went into full free-flow. In spite of attempting some sub-aquatic repairs in which diver B dismantled the reg. prodded at it aimlessly and beat it against rocks, the reg failed to respond.

Diver C, at the rear, having witnessed the clouds of bubbles, suspected something was amiss; a suspicion which was confirmed when diver B turned towards him with a handful of springs and diaphrams and a streaming hose. Signals were exchanged between diver B and C to "call" the dive and to swap places so that diver B would lead the exit. Diver C attempted to signal diver A who was several metres ahead but was unable to attract his attention. He decided to stick with diver B who was down to one air supply.

The exit was accomplished without further incident

The incident raises several important points:

• It is difficult to see how this situation could have been safely recovered without twin independent air systems: conventional buddy breathing would be impossible through much of this passage and very difficult in a large number of other very popular sites, highlighting the desirability of twin independent air systems.

- It seems that there are a number of sites which offer "multi-discipline" diving, i.e. sinkholes with penetraton areas. Perhaps there is a need to reconsider some of the categorisation.
- There is an understandable tendency to try to stretch out the periods between fills to avoid the cost of another fill and sometimes it is possible to get a few dives on one set of twins. An incident like this highlights the need for conservatism. It's really nice to know tha you have plenty of air when something goes wrong.
- All in all, it endorses all of our training. The rules and systems have been based upon the actual experience of others, experience which has been very hard-won in many cases.





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#### STANDARDS DIRECTOR'S REPORT

by Chris Brown

Firstly, I must thank all the members who voted me into the position of Standards Director. I was quite taken with the large amount of support shown in my favour and I only hope I can live up to your expectations.

The handover from Glen Harrison to myself has gone very smoothly. Glen's work has been very meticulous and he has left me a very hard act to follow. He has strived and succeeded to maintain high standards with the Instructor ranks. Thanks Glen for a job well done.

Now onto other matters. At present there is a lot of activity going on within the Standards Directorate. Max Marriot has taken on the job of revamping the Cavern Course and writing the Cavern Manual while Barry Heard has taken up the challenge of producing a new look Sinkhole Course and

writing the Sinkhole Manual. At Cave Level, Glen Harrison will produce the Cave Manual. Two Penetration courses have been run by the Association with many positive comments coming from the participants. Members wishing to take part in a future Penetration Program should contact Greg Bulling, Training Manager, and register their interest.

Over the next few months I intend to hold a National Instructors meeting. The purpose of this meeting is to have a serious look at the direction that standards and course structure will head in the future.

If any members have any queries or problems with anything relating to courses or standards please feel free to ring me and discuss your problems.

That's all for now. Safe cave diving.

# After diving Mt. Gambier D

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### **NEXT ISSUE...**

- Details of the three year plan by Directorate for the Association.
- Kilsbys Hole article.
- Equipment reviews

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#### **CDAA STANDARDS DIRECTOR REPORT 1991/92**

by Glen Harrison

When I was elected as Standards Director in 1991, my main objectives were to ensure a period of consolidation was established for our newly elected standards and that standards remained high and were observed by all instructors and members. To that end the following was achieved –

- Finalisation and amendment of all instructor course materials to reflect the newly voted-in standards.
- 2. Preparation of new Course evaluation forms to reflect standards. This included a new procedure whereby every student received a course evaluation form which was posted to the student with their final card and included a stamped, self-addressed envelope for their reply. This has enabled good feed-back on adherance to standards as well as highlighting problem areas within each course.
- 3. A complete set of revised course standards was sent to all active instructors prior to the implementation of the new standards on 1st February 1992.
- A set of general instructor standards was developed and distributed to all instructors.
- A document was developed and implemented which ensures that all CDAA instructors maintain some degree of cave diving currency.
- 6. A Penetration Course Policy was written and established.
- A draft Penetration Instructor Guide was produced and is currently being ratified by the Standards Review Group. The

Cave Level Instructor Guide is currently being developed.

- 8. The Penetration Diver Exam was written.
- 9. Three Penetration courses were run two in Adelaide and one in Melbourne.
- 10. An update seminar was conducted in Sydney for NSW members.
- 11. A number of phase two Penetration Crossovers were conducted including one in NSW.
- 12. A CDAA Instructor Program was run in Mt. Gambier for one Cavern and two Sinkhole candidates.

It has now been 8 months since the newly voted standards were implemented by all instructors. During this time, courses of all levels have been successfully run by instructors with only a few minor problems being raised. These problems were generally a result of mis-interpretation of the standards and were in most cases easily resolved.

I would like to personally thank Greg Bulling, Tony Richardson and Chris Brown for their hard work and support over the past year. The CDAA is fortunate to have such experienced and dedicated members who donate their time to the betterment of our association.

The CDAA can be proud of our remarkable safety record, and it is only through maintaining high standards that this achievement can continue. While standards are high and fatalities are non-existent, the CDAA can pursue new access agreements, and you - the members - can keep diving.

#### INTRODUCING THE NEW BUSINESS DIRECTOR

by Lisa Bernasconi

I'd like to introduce myself to all members of the C.D.A.A. My name is Lisa Bernasconi and I've taken over from Tony Davis as Business Director. I've been cave diving for seven years and I'm married to John Dalla-Zuanna, so hopefully a few of you already know me. Tony's been terrific in helping me settle into the job and through the initial

discussions with Lance and Chris, we have developed a long term business plan and I feel we are going to make a great team.

I hope everyone will feel free to ring me with any concerns, ideas or questions that they may have. Also anyone willing to donate time to assist in the running of things is more than welcome.

#### SITE ACCESS & RESEARCH REPORT - PART 2

by Peter Horne (assisted by Andrew Cox), Site Access Committee Research Rep. and Manager, CDAA Mapping & Research Group 1992-93

Continued from Guidelines No. 45 October 1992

#### 2. SITE ACCESS NEGOTIATIONS

Negotiations for renewed access to the feature known as THE THREE SISTERS (5L13), near the old Tantanoola Forest Headquarters, during the past year and a half have recently been successful, and the cave is expected to be available to Penetration-rated cave divers in the near future, once a preliminary assessment dive has been carried out there by divers wearing standard backmounted twin cylinders ... it is uncertain whether this configuration is the best in this cave, and side-mounts or other set-ups may be needed if the standard method creates access or exiting difficulties. Whatever system is recommended, I am keen to undertake an underwater survey in this feature for the benefit of both cave divers and the landowners (Millicent Council), who have been extremely understanding and supportive of our access negotiations. Therefore, any Penetration divers who might want to put their rusty surveying skills to good use are invited to write to (or phone) me!

All divers visiting The Three Sisters will have to sign each page of the Divers Deed and take SPECIAL NOTE of the conditions mentioned on the forms ... for instance, only CDAA Penetration-rated members will be permitted to enter the cave, and someone must guard the entrance on the surface while the gate is open, etc. Divers will also have to pay the Millicent Council \$5 for processing of same before they will be allowed to pick up the key (or get it sent out to them – key issuing still to be finalized).

Two other significant sites which have been the subject of very lengthy (and recently, successful) access negotiations are McKAY'S SHAFT (see article in last issue of Guidelines) and the fabulous KILSBYS HOLE, which will both be made available to suitably-qualified divers under necessarily stringently-controlled conditions. Gone are the days of just hopping over fences and not having to worry about landowners rights and litigation! In the case of McKay's Shaft, a

formal access agreement was negotiated because too many non-CDAA divers were beginning to hear about the site. The cave contains some very delicate and rare speleothems and because its "carry capacity" has not yet been determined, diving will necessarily involve only a few people at a time at fifst.

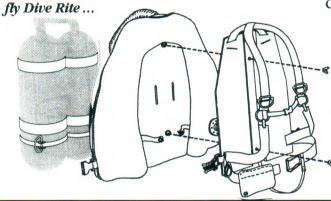
However, the requirements for access to the much larger Kilsbys Hole are very clear, thanks to the efforts of the landowner (Mr Ross Kilsby) and the S.A. Police Department's Underwater Recovery Unit (which now holds the lease for the sinkhole). Mr Kilsby and the Police realise that Kilsbys Hole is one of the most spectacular waterfilled sinkholes in Australia and thev are willing to provide access to the sinkhole as long as every effort is made to protect the divers and the landowner/lessees from any possible litigation. Because of the delicate nature of these negotiations and the need for CDAA divers to be seen as being responsible people, all dives during the first year (one weekend every three months) will be official CDAA-authorised trips with representatives on site to ensure that all of the many important conditions are adhered to. As is the case with The Three Sisters, the payment of a small fee may be required, and only CDAA members will be allowed to enter the property (under certain very specific conditions, e.g. between certain hours and as a single party of 10 or less, etc.). Please also note that CDAA members are NOT to contact Mr Kilsby directly regarding access; some information bulletins will be produced in the near future to more fully outline the various requirements.

Finally, access negotiations regarding the very extensive TANK CAVE (5L230 - Phil Prust co-ordinating) which we all know about and the picturesque WARBLA CAVE (on the Nullarbor) have momentarily stalled for various reasons including concerns about liability and conservation aspects which are of importance to the landowners, but they are still being strongly pursued at every

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## SITE ACCESS & RESEARCH REPORT PART 2

Continued from previous page

opportunity and members will be kept advised of the latest significant developments as they occur.

So, as you can see, a lot of people have been hard at work behind the scenes during the past couple of years! Access should NEVER be taken for granted or considered to be an inalienable "right" of a caver or cave diver; it can take only a tiny incident to cause the loss of a much-valued diving site.

Members (and landowners) are welcome to contact myself or the CDAA at any time if they would like any additional information regarding the Site Access Committee. In the meantime, we would like to take this opportunity to especially thank those landowners/property Managers and lessees who have been so helpful and willing to accommodate the CDAA in our desire to access some of the best cave diving sites in the world!

Happy diving!

## TRADING POST

FOR SALE: 2 regulators - both with Poseidon Jetstream 1st stages, 300 bar DIN & standard yoke connection, Oceanic Omega 2nd stage and Tekna combos (one with knife & compass). All in very good condition. Shop price over \$2000, sell for \$1400.

Two Boss 70 cu.ft. steel tanks. As new condition with DIN valves, mesh & boots. Shop price \$800, sell for \$575 ONO. Tony Davis, (03) 781 3820 CDAA 1187.

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### **CDAA INSTRUCTORS**

INSTRUCTOR	Cavern	S'hole	Cave	State	Telephone (h)
Ron Allum	•	•	•	NSW	(02) 398 4610
Stephen Arnel	•			VIC	(055) 26 5230
Bill Bernhardt	•	•	•	VIC	(03) 725 9716
Chris Brown	•	•	•	SA	(08) 269 5793
Marilyn Boydell	•	•		WA	(09) 349 5646
Stan Bugg	•	•	•	VIC	(03) 379 8791
Greg Bulling	•	•	•	SA	(08) 265 4978
Gary Bush	•			VIC	(03) 510 9081 (w
Paul Cavanagh	•	•	•	NSW	(02) 804 7888
Terry Cummins	•	•		NSW	(02) 888 5899 (w
John Dalla-Zuanna	•	•	•	VIC	T.B.A.
Ian Gothard	•	•		VIC	(03) 459 9220
Glen Harrison	•	•	•	SA	(08) 386 3237
Barry Heard	•	•	•	VIC	(056) 27 5511
Alan Jolliffe	•	•	•	VIC	(03) 874 7669
Nick Jones	•	•		VIC	(03) 282 4502 (w
Simon Jones	•	•	•	WA	(09) 344 4343
Ian Lewis	•	•	•	SA	(087) 23 2220
Max Marriott	•	•		SA	(08) 47 3360
John McCormick	•	•	•	VIC	(03) 579 0570 (w
Richard McDonald	•			SA	(08) 278 1829
Warrick McDonald	•	•		VIC	(03) 579 2600 (w
Richard Megaw	•	•	•	SA	(08) 344 1733
Tim Miles	•	•	•	SA	(08) 289 2030
Hugh Morrison	•	•	•	WA	(09) 409 9807
David Ogilvie	•			NSW	(02) 888 6899 (w
Tony Richardson	•	•	•	VIC	(03) 754 6163
John Vanderleest	•			VIC	(03) 416 9370
Des Walters	•	•	•	NSW	(060) 25 3506
Bob Wealthy	•	•	•	VIC	(03) 789 6389
Andrew Wight	•	•	•	NSW	(02) 428 2176
Liz Wight	•			NSW	(02) 428 2176
Carol Wright	•			NSW	(066) 53 6087
Frank Ziegler	•	•	•	VIC	(055) 26 5288

## CDAA SITE ACCESS

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

		I lease be consider	ate of larido where with	
CN = CAVERN		S = SINKHOLE	C = CAVE	P = PENETRATION
SITE LEVEL		CONTACT	ACCESS DETAILS	
MOUNT GA	MBIER	- SOUTH AUSTRAL	JA	
Ewens Ponds	Nil	Dept. of Lands PMB 124, Mt. Gambier 5290 (087) 35 1111	Groups of 6 or more, phone/mail to Dept. of Lands. Smaller groups, no need. Ponds are usually closed 1 September - 30 November early ear. Phone to check.	
Horse & Car Tea Tree		Peter Cunningham PO Box 643, Mt Gambier 5290 (087) 38 4003	By phone or mail, 1 week prior.	
Little Blue (Baby Blue)	S	Port MacDonnell	Little Blue – permission not required – mucarry card.	
Allendale	С	Port MacDonnell	Obtain key from Mt. Gambier Tourist Information Centre.	
Gouldens 2 Sisters Fossil	CN CN C	Dept. of Lands PMB 124 Mt Gambier 5290 (087) 35 1111	Contact Dept. of Lands by phone/mail prior to diving. Stay out of Gouldens when pump is operating.	
Ela Elap One Tree	S S	Mr. Peter Norman Private Bag 67, Mt Gambier 5290 (087) 38 5287	By phone or drop in before diving. Accommodation also available.	
Swim Through	С	Valerie Earl C/- PO Allendale 5291	Currently CLOSED pending new access arrangements.	
Piccaninnie Ponds	S	NPWS 11 Helen Street, Mt Gambier 5290 (087) 35 1177	Permit holders by phone. Be aware of delicate vegetation.	
Hells Hole Pines Mud Hole	S C C	Woods & Forests PO Box 162 Mt Gambier (087) 24 2759	Contact Woods & Forests (Lois Kettle) by mail or phone and arrange permit. Collect permit from Regional Office, Jubilee Hwy. Mt. Gambier. No diving on total fire ban days	

SITE LEVEL		CONTACT	ACCESS DETAILS
MOUNT GAM	BIER	- SOUTH AUSTRAL	IA continued
Black Hole S Ten Eighty S Bullock Hole S		Mr. Colin Traeger, Manager, Barnoolut Estate PO Box 12, Mt Gambier 5290 (087) 26 6215	Contact CDAA 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, or 8am (weekdays). Closed October-November for shearing.
Max's Hole	С	Mr. Trevor Edwards PO Box 1319 Mt Gambier 5290 (087) 26 8277	Phone or mail 1 week prior to dive.
Shaft S Mr &		Mr & Mrs Ashby	ONLY by contacting designated "guides" who will arrange access. Refer Guidelines Issue 42 – January 1992.
Engelbrechts - East - West	C P	Mt Gambier Council	Obtain key from Mt Gambier Tourist Information Centre.
Three Sisters	P	Millicent Council	Currently closed until new access arrangements completed.
Iddlebiddy (5L250)	P	Woods & Forests P.O. Box 162, Mt. Gambier, 5290 (087) 24 2759	Open 1st and 3rd weekend of each month. Only penetration divers who have completed a practical in-water cross-over. Phone Forests Clerk, Lois Kettle, for bookings. 4 divers per group per weekend. Collect key from Lady Nelson. Must show permit. No permit – no key
Mackays Shaft	(087) 25 9192 about 6 people, with one		4 weekends per year for first year. Groups of about 6 people, with one member having good rope & ladder skills. Indemnity forms will be provided.
NULLARBOR	- WE	ESTERN AUSTRALIA	
Cocklebiddy Murra El Elevyn Tommy	C P	Regional Manager C.A.L.M. 44 Serpentine Rd, Albany 6330	Must apply for permission to dive at least 4 weeks in advance of trip.
Grahams Weebubbie	C	Ph: (098) 41 7133	Small dive site next to main chamber: Sinkhole
NULLARBOR	- SO	UTH AUSTRALIA	
Warbla	P	N.P.W.S. Ceduna	Currently CLOSED to all diving subject to draft management policy.



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Basic U/W Cave Surveying. The standard publication for anyone remotely interested in research and survey techniques used in water filled caves.

Cave Diving - The Cave Diving Group Manual. Completely new edition from the pioneers of the sport, the British. This is easily the finest reference manual on our sport currently available. Covers every possible aspect including sump rescue solo diving and advanced oxygen and mixed gas theory. Expensive but well worth it. As reviewed in Guidelines No. 37.

**Deep into Blue Holes** – *by Rob Palmer*. This is the project manual written about his trips to the Bahamas, diving some of the most advanced and spectacular caves in the world. As reviewed in Guidelines No. 35.

**CDAA Occasional Paper No. 2** – *from Natitonal Conference 1981*. Includes topics such as Fossil Cave, Belay Techniques & Cocklebiddy 1979

**S.R.T. Single Rope Techniques** – *published by the Sydney Speleological Society.* 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.

**DES Emergency Handbook** – *Revised 1990 edition by Lippmann & Bugg.* Printed on waterproof paper this essential first aid manual should be part of every cave divers' kit.

**NSS Cavern Divers Manual** – The standard reference manual in Cavern Diving covering just about every conceivable topic. Also covers most principals behind safe sinkhole and cave diving.

**Research Handbook for Cave Divers** – *Peter Horne*. Written by our most experienced research diver, the 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.

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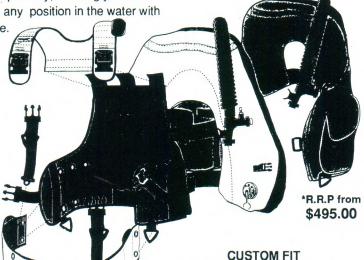
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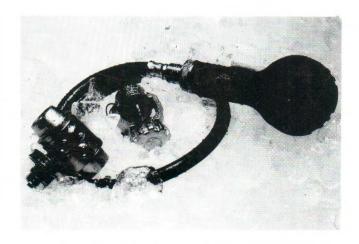


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