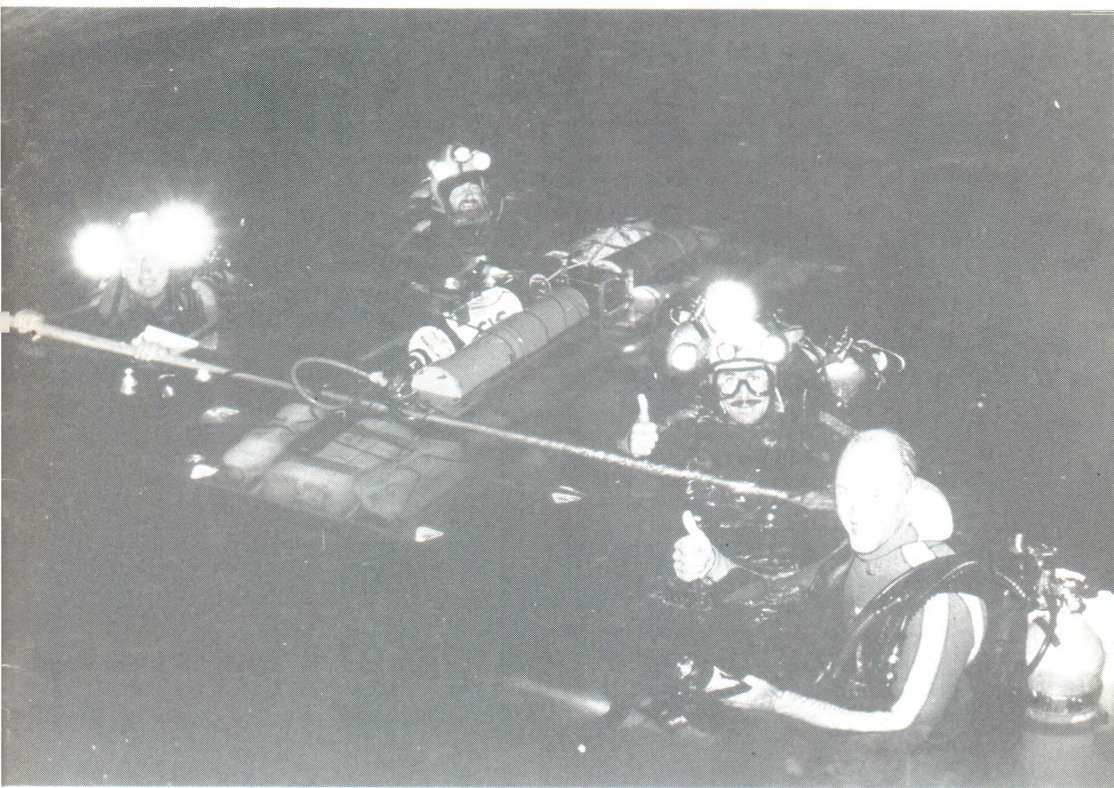


C.D.A.A. Newsletter

# GUIDELINES

No: 42 – JANUARY 1992



**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:** Cocklebidy – see pages 19-21 for story. Photo by Russell Millard.

GUIDELINES is the newsletter of the Cave Divers Association of Australia, published four times a year – January, April, July and October. All articles for the following issue are to be sent to the Editor, P.O. Box 290, North Adelaide, SA 5006, prior to **10th March, 1992**. 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.

## 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 enquiry will be passed on.

**National Director**  
Ian Lewis (055) 21 7608 (h)  
**National Standards Director**  
Glen Harrison (08) 386 3237 (h)  
**Business Director**  
Tony Davis (03) 781 3820 (h)  
**Treasurer**  
Lisa Dalla-Zuanna (03) 370 1093 (h)  
**Training Manager**  
Greg Bulling (08) 265 4978 (h)  
**Instructor Training Manager**  
Tony Richardson (03) 754 6163 (h)  
**Mapping & Research Manager**  
Andrew Cox (060) 25 5122 (h)

**Representatives:**  
S.E. – Phil Argy (087) 25 9192 (h)  
WA – Andrew Poole (09) 249 4048  
NSW – Neil Vincent (02) 891 2588  
**Regional Training Co-ordinators:**  
Victoria – Phil Mann (03) 689 7791 (h)  
WA – Hugh Morrison (09) 344 1562 (w)  
NSW – Terry Cummins (02) 888 5899 (w)  
**Promotions**  
Geoff Riddle (03) 740 1828 (h)  
**C.D.A.A. Publications**  
Noel Dillon (03) 363 6745 (h)  
**Records Officer**  
Sue Riddle (03) 740 1828 (h)

## CONTENTS

Editorial <i>Tony Davis</i>	1
National Director's Report <i>Ian Lewis</i>	1
CDAA News	2
CDAA Examiners	3
The Shaft Access Arrangements	4
Overseas News	4
Letter: Retiring S.E. Rep. <i>Andy Kirk</i>	4
Conservation and Cave Diving <i>Tony Richardson</i>	7
Redundancy – or why one B.C. is not enough <i>Tony Davis</i>	9
Update on Recent Cave Diving Incidents – June 1991 <i>Peter Horne</i>	10-12
New S.E. Rep. Profile <i>Phil Argy</i>	13
AquaCorps Subscription Form	14
Letter: Dept. of Conservation & Land	15
“What did you do last night?” <i>Pat Bowring</i>	16-17
CDAA Members Manual Order Form	18
Cocklebidy Cave – “Toad Hall” Expedition 1991 <i>Greg Bulling</i>	19-21
Advertising Rates	22
New Gear – Reels <i>Wayne Wilson</i>	22
Upcoming Penetration Courses	23
Trading Post	25
CDAA Site Access	26-27
CDAA Products	28

## EDITORIAL

Ho! Ho! Ho! – I trust you all had a great Christmas and New Year – for the lucky ones a few dives as well. The Mount was a popular place this year and a few well known personalities were seen diving into some amber colored holes in search of I don't know what, as well as the crystal clear waters (huh?) of the local caves and sinkholes.

With all going well, there will shortly be another couple of sites for us to dive – access negotiations are nearing completion for both a Sinkhole and Penetration site.

The first 12 months of diving in our newest site – 5L 250 or Iddlebidy has finished without incident and I am pleased to say diving will continue – see National Director's report for more details. Diving in the Shaft will also continue as per normal. A list of Guides and dates appears on page 4.

On page 14, you will see a subscription form for a new magazine Aqua Corps. Yes, it's expensive, and it caters exclusively for the growing number of divers interested in hi-tech, deep and mixed gas diving. For the most up-to-date info on these very interesting and controversial areas give it a try.

That's is for now. Safe Cave Diving,  
*Tony Davis*

## FROM THE NATIONAL DIRECTOR



I was recently reviewing CDAA history and suddenly realised how important the first week of January 1992 is in our sport. *20 years ago exactly* (from the time of this writing) the first exploration of the Nullarbor caves began with Cave Divers from Adelaide. Our gear was top of the line then, but some early photos in “The Darkness Beckons” show how much has changed since! I've always believed that Australian cave diving achievements and developments on the Nullarbor reflect very highly on our sport here, with our emphasis on safety and teamwork.

Reading some of the overseas exploits with such solo “gung-ho” emphasis encourages me that our training philosophy of “inter-dependence” is a better value on human life and experience that “solo” independence training, and Penetration Diver training is being constructed on this theme. Since the new Directorate took over we have met several times to design an ongoing management programme for the next two years. A very brief summary of my priority tasks is listed here for your information.

**New South Wales:** A major membership meeting was held in Sydney last November, headed by Glen Harrison and myself. NSW cave diving access negotiations are progressing well. There was much interest in NSW Sump Diving techniques, which we are looking at developing as a regional specialty rating.

**Overseas Guests:** The directorate is looking to bring out a specialist Cave Diver and speaker from overseas (eg USA) to give members and public presentations in several states, tapping into the increasing International interest.

**“No Go” Zones in Caves:** Several caves undergoing access negotiations at present have sensitive natural features in certain areas. I am working with member consultants on ensuring access to the sites, whilst simultaneously protecting the special features by “No Go Zones” and educating divers at those levels to respect the caves. More in next issue.

**Caving Skills:** The world of Cave Exploration and Management is moving towards more skill levels by cave visitors to limit possible damage to “non-renewable” systems (i.e. caves). Before long it may be that CDAA training will require some elementary caving/conservation input as a prerequisite

*Continued overleaf*



## NATIONAL DIRECTOR'S REPORT

*Continued from Page 1*

by (mainly) Government landowners. Policies on this will be developed throughout 1992.

**Research:** As incoming Director I am reviewing all CDAA research projects with the aim of allocating more support and encouragement to them, and speeding them up with publication of results. This important area needs and deserves more recognition.

### Specific Sites:

1. Three Sisters: Negotiations are progressing very positively.
2. McKays Shaft: Indemnities and Agreements are now virtually completed.
3. Engelbrechts: A temporary restriction

## CDAA NEWS

### NEW S.E. REPRESENTATIVE

With the birth of their second child, Andy Kirk and his wife Debbie have decided to opt for a return to the civilisation of Adelaide. The position of S.E. Rep. has now been taken over by Phil Argy. His contact details appear in the Directory and a short introduction on page 13. Most of us who dive the South East had some contact with Andy, and all have benefited from the work he did whilst in his position, and on behalf of the entire Association, I would like to thank him for a great effort over the past couple of years.

### BARNOOLUT ESTATE

Please note during the Summer months entry to Barnoolut will be subject to weather conditions - at the manager's discretion.

1992 CLOSURE: Barnoolut will be CLOSED TO ALL DIVING during all of OCTOBER & NOVEMBER 1992. Early advice for those planning their diving in advance.

### NEW TREASURER

With Sue Riddle taking over the position of Records Officer, we needed a new Treasurer. Lisa Dalla-Zuanna has offered her services for the position as of 1st February. Her contact details appear in the Directory.

needed in January whilst locks are were replaced.

4. Tank Cave: Currently in legal hands. Please do not pressure me on this.

5. Warbla Cave: Discussions to be re-opened. I will be personally running this.

6. Iddlebiddy: New arrangements are this - available the first and third weekend of each month. Due to the site having a fixed line installed only penetration divers who have completed a practical in-water cross-over will be eligible to dive this site. Bookings through Forests Department from February onwards. Maximum group size: 4 divers. Pick up keys from Lady Nelson Park. You must have Woods & Forests permit to pick up key. No Permit - No Key.

Thank you all, and good diving!  
Ian Lewis

### NEW RECORDS OFFICER

Effective immediately, the new Records Officer is Susan Riddle. After years of tireless work as Records Officer, Pete Girdler has decided to step down from one of the most important positions in the Association and concentrate his considerable skills into other equally important areas. I would like to take this opportunity to thank Pete on behalf of each and every member, and a special personal thanks from myself for continually putting up with the most menial and, at times, frustrating job the Association has available. Thanks mate! Tony Davis.

### PHONE ENQUIRIES

With a couple of changes in people's positions within the Association, it is most important that when you have a query you use the Directory on the inside front cover and phone the MOST RELEVANT PERSON for your query. If unsure of who to contact, write to the P.O. Box address, and your enquiry will be passed on to the most relevant person. All Records enquiries are now to be directed to Sue Riddle.

### VICTORIAN REGIONAL TRAINING CO-ORDINATOR

Phil Mann has been appointed the Regional Training Co-ordinator in Victoria. Standards enquiries from that region may now be addressed to Phil. His contact phone number can be found on the inside cover of Guidelines.

## CDAA EXAMINERS

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) 379 1445
Marilyn Boydell	•			WA	(09) 349 5846
Stan Bugg	•	•	•	VIC	(03) 379 8791
Greg Bulling	•	•	•	SA	(08) 265 4978
Gary Bush	•			WA	(09) 521 8121
Scott Carpenter	•	•	•	VIC	(056) 25 2508
Paul Cavanagh	•			NSW	(02) 804 7888
Terry Cummins	•	•		NSW	(02) 888 5899 (w)
John Dalla-Zuanna	•	•	•	VIC	(03) 370 1093
Ian Gothard	•			VIC	(03) 481 0474
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	•	•	•	VIC	(055) 21 7608
Phil Mann	•	•	•	VIC	(03) 689 7791
Max Marriott	•			SA	(08) 47 4460
John McCormick	•	•	•	VIC	(03) 579 0570 (w)
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)
Andrew Poole	•			WA	(09) 249 4048
Tony Richardson	•	•	•	VIC	(03) 754 6163
John Vanderleest	•			VIC	(03) 416 9370
Des Walters	•	•	•	NSW	(060) 25 3506
Bob Wealthy	•	•	•	VIC	(03) 789 6389
Frank West	•			QLD	(049) 43 5983
Andrew Wight	•	•	•	NSW	(02) 428 2176
Liz Wight	•			NSW	(02) 428 2176
Carol Wright	•			NSW	(066) 53 6087
Frank Ziegler	•	•	•	VIC	(055) 26 5288

### ADDITIONAL STANDARDS INTRODUCED

A meeting of the National Directorate during December has resulted in the inclusion of the following Training Standards. These standards will become effective as at 1/2/92 and are additional to the Training Standards voted by membership at the A.G.M.

- 1) Prior to the commencement of a Sinkhole OR Cave level course, each candidate

must provide proof of having been certified, with an entry SCUBA certification, for a period of at least twelve months.

- 2) Prior to the commencement of a Sinkhole course, a period of at least 14 days must have elapsed from the final supervised dive of the Cavern course before any aspect of a Sinkhole program begins.



## THE SHAFT – ACCESS ARRANGEMENTS 1992

As per standard arrangements now, there will only be a roster of dates for diving – one weekend per month. It is up to the Dive Leader to organise a guide who is available for the weekend they wish to dive, from the list detailed here.

It is recommended you start to organise a guide at least 4-6 weeks in advance, in case you have trouble finding an available guide.

It must be stressed that it does not matter if you do not know the guide personally. If you fulfill the entry requirements and wish to dive the Shaft, then start phoning the list of guides provided.

<b>Rostered Dates 1992:</b>	July 11/12
February 8/9	August 8/9
March 14/15	September 12/13
April 11/12	October 10/11
May 9/10	November 14/15
June 13/14	December 12/13

<b>Shaft</b>	Ron Allum	(02) 534 6615
<b>Guides:</b>	Paul Arbon	(08) 265 2098
	Chris Brown	(08) 379 1445
	Tony Carlisle	(08) 278 7429
	Ian Lewis	(055) 21 7608
	Phil Prust	(08) 370 6000
	Peter Rogers	(03) 527 7969
	Peter Stace	(085) 82 2426

## EXPRESSIONS OF INTEREST

Any members who are CERTIFIED ACCOUNTANTS and are interested in helping with the managing of the Associations financial records are asked to call the Business Director Tony Davis on (03) 781 3820 to discuss the possibilities further.

## OVERSEAS NEWS

### FRANCE

Pushing the frontiers even further a recent expedition to the cave “La Doux de Coly” has gone past the edge of sanity – or almost it seems.

Legendary explorer Oliver Isler, supported by a strong team of English & European divers has pushed his 1984 limit of exploration from 3,100 metres out to a staggering 4,050 metres.

“What”, you say. Our own Cocklebidy is much longer than that. However “La Doux de Coly” is a SINGLE SUMP – with no air chambers, and the majority of the dive is conducted at depths OVER 50 METRES, with a maximum depth of 60 metres.

Using twinned Aquazep scooters, Isler completed the dive in only 14 hours, confirming that this is the longest single penetration dive in the world.

## LETTER FROM RETIRING S.E. REP.

Dear members and landowners,

Due to an impending work transfer to Adelaide, I resign my appointed position as CDAA South East Representative.

In consultation with the National Director, I have selected Phil Argy as the new S.E. Rep. Phil is a police officer stationed at Mt. Gambier as a crime scene examiner, and intends to stay in the Mt. Gambier area for many years.

He has already built a strong rapport with landowners in the two years he has been stationed here, and I am confident he is the best person for the job. His report can be found on page 13 in this issue of Guidelines.

To all I have been in contact with in my role as S.E. Rep., I thank you for your co-operation and assistance, and in particular I thank Colin & Shirley Traeger of Barnoolut – their patience and assistance shown to all divers has never ceased to amaze me.

Good luck and safe diving to all,

Yours in diving,  
ANDY KIRK,  
S.E. Rep. for the CDAA



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## CONSERVATION AND CAVE DIVING

by Tony Richardson

This can be adapted for cave diving:

*"Take nothing but pictures,  
Leave nothing but bubbles."*

I have drafted a policy on Cave Conservation which has been forwarded to the CDAA Directorate for their consideration.

This is tabled below.

### DRAFT POLICY - CAVE CONSERVATION

1. Always leave a cave as you find it
  - no litter or graffiti
  - remove personal waste
  - do not disturb or remove geological or biological material.
2. Protect the cave environment
  - practice correct buoyancy control and anti silting techniques
  - limit survey markers or line pitons to only where absolutely necessary
  - streamline equipment to avoid accidental damage
  - place fixed and temporary lines in positions where no damage will be caused by the passage of divers
  - stick to known paths/routes
3. Improve the cave environment
  - collect any rubbish left by others
  - promote cave conservation practices to other cave divers

Cave divers are frequently reminded of the need for cave conservation each time they dive in Mount Gambier. We are witness to large amounts of graffiti which has been carved into the rocks by the unthinking divers of the past. Fortunately, this practice seems to have mostly ceased with the introduction of the CDAA training system and the general increase of awareness of the need to conserve the environment.

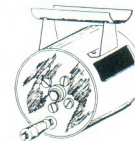
On a recent trip to cave dive on the Nullarbor, the need for a policy on conservation occurred to me. It is my opinion that conservation by cave divers should not be limited to the cave itself but also the environment in which the caves are located, whether that be private property under agriculture, or a conservation park.

The two recent additions to our list of cave diving sites in Mount Gambier - Iddlebidy (5L 250) and Tank Cave (5L 230) - both contain areas which can easily be permanently damaged. These are pristine white areas of clay bottom which are about the consistency of butter. It only takes one careless fin stroke or a piece of equipment dragging along the bottom and the clay is permanently marked. Cave conservation will play a large part in determining future access arrangements to both these sites.

The National Speleological Society (NSS) in the USA has a cave conservation motto:

*"Take nothing but pictures  
Leave nothing but footprints  
Kill nothing but time."*

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Phone/Fax: \_\_\_\_\_

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## REDUNDANCY – or why one B.C. is not enough

by Tony Davis CDAA 1187

*You hit the water right on time. Looking down into the "Gin Clear" expanse below it was obvious this was going to be a dive to remember. Equipment check over, with a quiet sigh the final air escaped your B.C. and you submerged.*

*The dive went well. Slowly descend to the rockpile at 40 metres then off to the side of the cave and commence circuiting round the walls – often the floor vanishing into the inky blackness over 60 metres down. At this depth, with your wetsuit compressed to ¼ of what it was at the surface you inject more air into your B.C. – hearing the overpressure valve open, allowing excess air to escape. Continuing on and down, another squirt into the B.C. – and then the problems started.*

*The overpressure valve stuck open – all your precious buoyancy going fast. Your B.C. now empty, you plummet towards the bottom whilst wildly flashing your torch at your buddy. When he finally sees you, you are at 55 metres and falling fast. When he reaches you, you are at 65 metres – and panic almost taking control of things. With a fully inflated B.C. your buddy is still having trouble stopping the wild descent. The twin steel tanks and large torch housings adding to your troubles. The air was seeming very hard to get at – you are feeling dizzy with the effects of Narcosis and, shit, what a spot you are in ...*

The above scenario is fictitious – this time. Although a distinct possibility for those of us who explore the fresh water sinkholes or "cenotes" that abound in the Mount Gambier region. Redundancy is something that is drilled into us right through our Cave Diving training. Hey, we use 3 or more torches, twin tanks, two regs, some also use two masks and two knives. But almost EVERYONE only uses one B.C.

Considering all the other paraphernalia we Cave Divers use – heavy torch housings, twin steel tanks, etc. it's no wonder the old B.C. gets a thorough workout. You would be surprised just how negative you really are carrying all this stuff. Add the compression factor of your wetsuit at depth and without a B.C. you are looking like a Polaris Missile in reverse. Most of us still use a jacket style B.C. – and it is very easily adapted to taking a set of

B.C. Wings as well. Simply slip them on your tank bands before bolting on your usual B.C. and you're away.

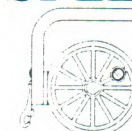
I know what you must be saying right about now – "These guys never give up. We may as well tow a full set of gear behind us for that problem that may never arise." Well, considering the environment we choose to dive in – mostly steep sided sinkholes – how else are you going to get out if your B.C. should fail? If you do manage to crawl up the sides you'll probably run out of air half way or get bent doing it. Great choice, huh?

A dual B.C. system makes very good sense for deep diving anywhere – not just Cave Diving – and you won't know it is there, until you need it. Some have started using twin B.C.'s. I'm not saying I advocate it for everyone, but it does seem to make sense, doesn't it? After all, what's your life worth?

*Ed Note: The opinions expressed in this article are those of the Author only, and should not be taken as those of the CDAA.*

G

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# UPDATE ON RECENT CAVE DIVING INCIDENTS - JUNE 1991

by Peter Horne

During the past 12 months or so, a disturbing number of serious cave diving incidents have occurred around the country involving divers of all levels of experience; incidents which could quickly have turned into fatal ACCIDENTS if the victims had not been rescued by others or kept their "cool" while sorting out their problems. In these days of more advanced training, techniques and equipment, such stories are indeed cause for concern; it is with the hope that other cave divers will avoid the dangers of such situations that the following summaries are presented.

The most dangerous incidents involved sudden out-of-air (OOA) situations - caused by human error rather than equipment malfunction - and unstable rockpiles or boulders, or a combination of both factors.

**1. AIR SUPPLY PROBLEMS - the "terrible twins"?**

At our new Cave and Penetration levels, where cave divers cannot reach the surface by simply ascending, they obviously need to be sure that a failure of their main air supply will not endanger their lives. We now have several caves "in the system" which require much greater safety planning and awareness that was required to safely explore the sinkholes known to the Association just five years ago. However, the simple act of donning two scuba cylinders does not automatically mean that a diver is safer; indeed, such divers can feel overconfident and may neglect the safety advantages offered by the "buddy system". Because they can penetrate further from the surface, they can also find themselves getting into more serious trouble.

One case involved an experienced diver who had been inactive for a while, was unfamiliar with the gear he was using and had not set up his regulators correctly. Beginning his ascent from considerable depth with his companions, the diver reached the limit on his first tank and proceeded to change regulators ... unknowingly initiating a series of simple mistakes which rapidly combined to create a life-threatening situation.

Although the diver knew that his No. 1 regulator's purge button was faulty (in fact, it was completely inoperative), he did not anticipate any problems changing over to his No. 2 regulator (which worked normally), and neglected to take a deep breath before removing his first regulator from his mouth. However, when he THEN attempted to find his No. 2 regulator, he could not locate it where he thought it would be and he suddenly realized that he had a problem.

Equipped only with his now-flooded first regulator (which could not be purged) and lacking his No. 2 regulator (which, because it was not held in place by a neck-strap or similar tether, had become hooked up behind his tanks), the diver suddenly found himself completely deprived of an air supply!

Struggling to locate his missing regulator, the diver did not attempt to signal his crisis to his dive buddies, and it was only through the attentiveness of his nearest diving companion that his emergency was recognised. This diver instantly rushed to his aid and provided both emergency air and much-needed positive buoyancy, and with the assistance of one of the other divers nearby, they were able to ascend safely.

Other life-threatening OOA emergencies involved very experienced divers who, through becoming distracted while setting up for their dives or using unfamiliar equipment configurations, accidentally turned their air supplies OFF and then only PARTIALLY ON immediately prior to descending. Even the most experienced cave divers need to concentrate on what they are doing if they want to avoid extra problems.

Failure to know whether a tank has been partly turned on or off is a very common problem which most of us would have experienced. While partially-activated cylinders can usually be readily detected and corrected without too much fuss in open-water or sinkhole environments (where there is a buddy to help or immediate access to the surface), such remedial action is not available while divers are negotiating squeezes or low, one-person passages. Unfortunately, it is precisely during such

relatively hazardous activities that OOA emergencies are most likely to occur through accidental bumping of equipment against the ceiling or walls of the cave.

Although snagged and ruptured hoses and connections have been reported previously, impact between divers' exposed (and barely turned-on) taps and rock surfaces has caused the total shut-down of air supplies in recent cases. One diver barely survived after he lost his main air supply in this manner while negotiating a squeeze; recognizing a malfunction by the sudden increase in inhalation effort, he held his breath and reached for his No.2 regulator ... only to find that, due to it having an overly-long neck-strap, it had become tightly jammed between his chest and the boulder! With his buddy oblivious to his distress and disappearing into the distance, the diver had only seconds to play with and pushed forward and to one side, fortunately succeeding in forcing the trapped regulator to slip free for his immediate use.

It is interesting to note that, while it is possible that such accidental ceiling-bumps could conceivably turn any tap, every incident reported to date has involved only DIN valves. Perhaps divers need to take extra care with how they set such units up for cave diving.

## 2. UNSTABLE BOULDERS AND ROCK-PILES

Near-entrapment involving the unexpected shifting of boulders and rubble in water-filled caves caused extreme anxiety for several divers during the past year. In every case, the divers were pushing areas which had only been cursorily explored previously (if at all!) because of the nature of each site. While open caves in themselves may be considered to be extremely stable features, unstable mounds of introduced rubble are to be found in many of the popular sinkholes (especially under cut ramps and near roadways), and divers need to realize that these unnatural, teetering additions can quickly collapse at the mere presence of an avid diver who attempts to manoeuvre along the base. Several divers learned about such unstable mounds the hard way, but fortunately they were able to extricate themselves from the area before too many

rocks fell on them!

Even some of the well-known, frequently-visited caves contain natural regions of instability in their more restrictive regions, and it only takes a single accidental push on the wrong object to suddenly cause a seemingly-stable slab to suddenly slide and settle, perhaps cutting off a cave-diver's only escape route.

One of the most potentially-serious incidents of this nature recently occurred just after a diver had exited from a very small entry pool, ahead of his companion who was still underwater a few metres behind him. A huge boulder - more than a metre long - suddenly slid down from just above water-level and fell into the narrow underwater passage, completely silting-out the exit tunnel for the second diver and blocking his way! Feeling that his exit was obscured, he realized that his only hope was to try to slide the boulder further down under his body ... a desperate ploy which fortunately worked, thanks to the boulder's shape, size, underwater weight, angle of fall, the fact that the

*Continued on next page*

## After diving Mt. Gambier

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## UPDATE ON RECENT CAVE DIVING INCIDENTS - JUNE 1991

*Continued from Page 11*

(experienced) diver managed to keep calm ... and, no doubt, a lot of sheer good LUCK!!!

### DISCUSSION

It is the author's belief that the number of "close calls" reported recently (or heard about through discrete sources due to victims' unwillingness to come forward themselves) involving the use of twin scuba cylinders, in anything more than a simple "pony bottle" setup, indicates that many divers fail to appreciate that the use of such systems, like all facets of diving, requires training and a good appreciation of the special problems inherent in their use.

Independent twin tanks provide both a reliable source of additional air for more lengthy penetration AND another management headache if things are not set up correctly. It is **STRONGLY** recommended that divers **ALWAYS** perform a final check before they enter the water (... Is the air really ON or almost OFF? Is that old J-valve lever still taped to the "on" position, etc?), and to detect other regulator faults and the like, divers should always perform an UNDER-WATER regulator check on each of their units **IMMEDIATELY** prior to commencing their descents. These checks will quickly show up leaky exhaust valves and (usually) partially-turned on tanks, among other things (e.g. foreign objects such as lumps of clay or algae inside the mouthpiece).

The reports of rock movement (and other less-serious instances of falling blocks etc. which are by no means rare, and this danger has to be appreciated by cave divers who, after all, are entering the subterranean world; there are no guarantees of safety once you leave the comfortable sunlit surface of our planet. While some may feel the need to criticize divers who wish to push the less-inviting regions of our underwater realm, it would be wise to remember that it was only through such determined diving practices that many of the recent major discoveries (e.g. Engelbrechts, Three Sisters, Tank Cave) were made. Such exploratory diving should **NEVER** be attempted by all but the most experienced cave divers who have had

the benefit of many years of slowly-gained experience to guide them in their risk-assessment and decision-making.

The author would like to thank those divers who, despite their fear of ridicule about their mistakes or techniques by their peers, were brave enough to report their rather hair-raising experiences for the benefit of their fellow members. Such responsible action is very much appreciated and it is hoped that other cave divers will likewise be willing to discuss such instances to enhance the safety of cave divers should they occur. Members are invited to forward any information regarding their cave diving problems to the author via 12 Addison Road, Hove, S.A. 5048, or the director of "Project Stickybeak" (Australia's diving accident reporting organisation), Dr Douglas Walker, P.O. Box 120, Narrabeen, NSW 2101.

### COMING NEXT ISSUE

- Nitrox Diving
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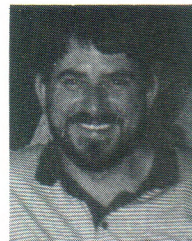
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## NEW S.E. REP. PROFILE

PHIL ARGY, CDAA 1789



As from early 1992, I will be taking over as CDAA South East Representative from Andy Kirk.

I live a relatively hectic lifestyle, working for the S.A. Police Department as a "crime scene examiner" in Mount Gambier, married with two children, involved with the local S.E. Divers Club and represent the Police Association as Union Delegate. (I do get some time to dive, however!)

I have only been diving since 1986 and completed my Cat. II (Sinkhole) in 1989 with Greg Bulling (Instructor) and Chris Brown (Examiner), and will be doing a Cave Diver classification later this month (January) with Ian Lewis. I am able to be contacted at home or at the Police Station.

My ideals in cave diving are "safety and conservation". I look forward to meeting some of you in the Mount.

## MEMBERS MANUAL:

All orders for the CDAA Members Manual are now \$15, due to severe postage increases.

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## Page 15



### Introduction to the Article by Pat Bowring entitled "What Did You Do Last Night?"

*The instructor who conducted this cavern course was given permission by me to conduct the training dives in salt water rather than freshwater. This was to determine if the CDAA techniques could be applied to salt-water equally as well as fresh water. Preliminary investigations indicate that they worked just as well. A detailed report will be forthcoming.*

Alan Jolliffe, CDAA Standards Director 1990/91

## "WHAT DID YOU DO LAST NIGHT?"

by Pat Bowring

"Well, while you guys were down at the pub, or snug at home with your feet up watching the footy on TV, I was swimming around in the dark, in water at 13°C, bumping into bits of garden furniture and getting hopelessly tangled in what was supposed to be my guideline."

Over the years, you get used to the cries of derision that follow such simple explanations of the pursuit of the finer points of diving. Most people – including divers – just don't understand. Which is a pity.

Actually what I and six other souls were doing that cold night in the middle of winter was engaging in the first organised Cavern Diving course conducted by the CDAA in New South Wales.

For years Cave Diving has held a curious position in the minds of divers in this state. We have read and seen the wonders that lie around Mt. Gambier and under the Nullarbor. There have even been some spectacular finds closer to home. Yet for most, Cave Diving seemed a bit out of reach.

On the other hand, you would have to be a myopic diver indeed, not to be aware that the cave diving community has pioneered many of the developments all divers take for granted, such as buoyancy compensators and octopus regulators. The more sane wreck divers also carry some form of line and reel.

Now finally, with the continuing expansion of the CDAA and the introduction of its new system of classifications, an organised attempt to pass on the knowledge acquired by caverners in southern states to divers in New South Wales.

So there we were, bumping into garden furniture while coping with temperatures with which we were decidedly unaccustomed, while learning to our embarrassment just how little we really know about the sport we pursue so avidly.

Each of the six students was an experienced diver. All had numerous deep wreck penetrations under their weight belts. Every one of us thought we knew all about buoyancy control and how to avoid silting-up dive sites. We weren't arrogant about it. We knew we could use a little fine-tuning.

What we underwent was a complete re-think. Techniques which had somehow kept us out of trouble in the past, were clearly inadequate. This was particularly brought home the following weekend, when the pool was substituted by the waters of Jervis Bay and the caves that line its boundaries.

It is difficult to nominate the most valuable lesson learned in the four dives that followed. Probably it was the inadequacy of what I had learnt previously, especially when it comes to wreck diving.

Buoyancy control which was previously thought to be pretty good, was lousy. Reel work was perfunctory, at best. Finning techniques were little better than those practised by the most inexperienced open-water student. Even my gear profile in the water (one of the things I had prided myself on after seeing too many tourists plough coral reefs with their gauges and regs) needed critical attention.

In fact, there wasn't much about my diving technique about which I was happy. By the end of the first day of the practical part of the cavern course what confidence may have remained under normal circumstances, was obliterated by the task loading of instructor Paul Cavanagh and his "buddy" Geoff Sutton.

Blacked out masks, simulating silt-outs, were accompanied by air-sharing and line-following. And just when you were getting that right, they would help you get entangled in that loose loop of line you were struggling to reel in. The result was a mess that would

defy Houdini.

Fortunately our level of experience was such that doing these procedures in confined spaces was not a particular problem. But that merely allowed Cavanagh and Co. to place other difficulties in our path.

Of course the task loading paid dividends. Problems began to be thought through, instead of acted upon instinctively. Techniques improved remarkably, especially with the help of video replays of our efforts made possible by one of our number, Walter Gibson.

And ultimately confidence was restored to the point where my buddy Rick and I did encounter an out-of-air situation, one which had been developing under Paul's supervision of a "dummy" air-sharing run with blacked-out masks. When the real problem occurred it was handled with more ease than most of the manufactured dramas that had been tossed our way.

Why? Because we had been training for just such an emergency. And that is the point of the entire exercise. Even if divers are not actively engaged in cave diving, the courses

offered by the CDAA are invaluable in improving diving techniques.

Without over dramatising the situation proof of this came home the following weekend, back in Sydney. The boat I was on was anchored off a wreck sitting in about 210 feet. It was a wreck that we dived regularly.

It was decided we would dive in three groups, with the first getting back on board as the last left the boat. That would give everyone plenty of room on the deco bars.

Well, the second and third groups didn't get to do their dive. The pair on the first dive became separated as they began their return to the anchor. One diver had used his reel that was tied-off onto the anchor line. The other hadn't. He became separated and ended up doing a long lonely blue-water deco, while the rest of us on the boat called in the rescue helicopter and search vessels.

The "missing" diver was quickly recovered. But the point is he should never have been lost and perhaps would not have been if he had received the benefit of a CDAA course now, thankfully, finding their way north.

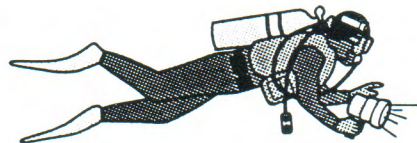
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## COCKLEBIDDY CAVE – “TOAD HALL” EXPEDITION 1991

by Greg Bulling

Recently a group of South Australian cave divers returned from yet another expedition to the world famous Cocklebid dy Cave, situated 1600km west of Adelaide on the Nullarbor Plain.

The cave first attracted the interest of divers in the early seventies, who found a large underwater tunnel that seemed to head endlessly northward. In 1983 a record breaking dive saw the explored length of the cave extended to 6,240 metres.

The objective of our recent expedition was to visit “Toad Hall” an isolated dry section of the cave situated over 4km from the entrance. Once in Toad Hall we planned to capture for the first time, video of this isolated chamber.

To reach Toad Hall, over 3.5km of flooded passage must be negotiated. To complicate matters, a rockpile collapse at the 1km mark means all equipment must be moved over a pile of steep, unstable rocks which are over 20 metres high. Once over this obstacle the equipment must then be re-assembled before the final 2.5km unbroken section can be tackled.

A plan was devised which would use a total of 8 divers. The 3 lead divers, Tony Carlisle, Karel Langs and I would make the push to Toad Hall. We would be supported by a back-up team of 8, made up of divers and above water helpers, who would assist us with equipment transport, filming and the host of other miscellaneous tasks associated with such a large expedition.

It was calculated that the three of us would need a total of 33 cylinders to enable us to travel the total distance to Toad Hall, of these 27 would be needed for the final 2.5km section.

Through the generous support of various divers involved in previous large scale Nullarbor expeditions, an equipment sled was obtained to transport much of the equipment. It consisted of an aluminium frame which supported 18 cylinders, dry tubes, lights, cameras, water and food. An improved buoyancy system meant the sled could be easily pushed by three divers and kept neutrally buoyant, regardless of depth.

After deciding against the use of scooters, one of the most important aspects of our preparation was attention to fitness. We all needed to be in good physical and mental condition to enable us to endure the rigors of swimming long distances underwater, with heavy loads. Over a period of 6-8 months, many hours were spent in the pool, culminating in fin swimming sessions of up to 6km, twice a week or more.

Early on in our preparations we vowed to “road test” all the equipment we would be using during the expedition. This was done mainly in Mount Gambier, where a variety of twin, triple and quad cylinder systems were tested and refined. Pressure testing of “home made” housings, video lights, and dry tubes were also done in the deep sinkholes of the South East.

Finding a suitable location to practice pushing a loaded sled was more difficult! The most convenient location proved to be Encounter Lakes, a man-made saltwater lake system 80km south of Adelaide, which provided an uninterrupted swim of several kilometres.

As the expedition date grew closer, we began to accumulate an enormous amount of equipment. With the production of a documentary as part of the expedition, various sponsors were found to help offset the cost of such a stockpile. Many local divers also chipped in with the loan of cylinders and miscellaneous equipment.

After 18 months of planning, 2 compressors, 64 cylinders, 40 regulators, 50 torches and several tonnes of diving, filming and miscellaneous equipment was packed, ready for the 1600km trip west from Adelaide to Cocklebid dy. Despite heavy rain, the trip over was soon completed and the camp hastily assembled. Once this was done rigging the cave was the next step.

To enable us to easily transport so much equipment to the lakes edge, we set up a flying fox. The gear was first lowered over the 40 metre sheer side of the cave using an A-frame. It was then transferred to the flying fox and run several hundred metres to within



## COCKLEBIDDY CAVE - "TOAD HALL" EXPEDITION 1991 - Part 2

*Continued from page 00*

a short distance of the lake. This rather complex procedure involved the use of 2 vehicles, 2 A-frames and considerable co-ordination, made possible through radio communication at strategic points. To make gear assembly and filming easier, three 240V-500W lights were run from a surface supplied generator. A telephone was also installed with the surface to aid in communication.

After 2 hectic days of preparation, we were finally ready on the third morning for the initial dive. The purpose of this dive was to transport all of the equipment required for the Toad Hall attempt to the rockpile chamber and store it on the far side. This would involve the movement of 28 air and oxygen cylinders through the first sump along with other relevant equipment. To achieve this, the sled was loaded with 20 cylinders and each of the 8 divers in triples but returned with twins.

The dive proved to be an eventful one. With the sled so heavily laden, buoyancy proved to be a problem. On several occasions it followed a rather erratic path from floor to

roof. With visibility in the first section being quite poor, orientation of the sled was also difficult. One of the divers also suffered a second stage failure which caused his brand new regulator to breath water rather than air! Finally after a 1½ hour journey, we arrived at the rockpile chamber.

After resting and having a quick bite to eat, we then spent the next five hours manhandling the equipment over the rockpile. It was an arduous task as many of the rocks were unstable and slippery. The humidity and carbon dioxide levels were also high which made exertion even more unpleasant.

Fortunately the return leg proved to be much more relaxed. With no sled and only twin cylinders, we settled down and enjoyed the experience. Those at the rear were able to turn off their lights and follow the progress of others 100 metres or so ahead. It was after 1.00am by the time we crawled from the entrance lake, almost 16 hours since venturing in that morning. Our thoughtful support crew had fresh sandwiches and drinks waiting for us and these were quickly devoured before we wearily trudged up to the stillness of the Plain.

The next few days were spent organizing

chores around camp. Cylinders were refilled, diving and camera gear checked and batteries recharged, ready for the push to Toad Hall. Most of us also took the opportunity to travel into "town" (the roadhouse) to have a shower, even if it was only salt water!

Clear skies greeted the morning of the Toad Hall attempt. After an early rise, last minute packing was taken care of and we descended into the cave at 9.00am. The lakes edge was a hive of activity as we began our final preparations. Interstate media and tourists were an added distraction as we tried to focus on what lay ahead. Finally we were ready, we waved those at the lake farewell and paddled across the lake to begin the first leg to the rockpile chamber.

Once at the rockpile chamber, last minute checking uncovered several leaking cylinder valves. This rather annoying situation meant reshuffling some of the cylinders on the sled. With everything finally in place, we slowly submerged the sled at a little after 4.00pm and headed off on the second 2.5km leg.

As our nerves settled and the sled maintained an accurate train, we relaxed and began to fully appreciate the splendour of Cocklebidy. As we progressed, we experienced sights seen by few others. In a scene more suited to a Science Fiction movie - the 50W sled light probed into the darkness which lay ahead.

Although always heading northward, the passage is far from being dead straight. It takes numerous kinks and bends, and is continually changing from huge cathedral-like rooms to lower tunnel sections which are almost perfectly rectangular.

After an hour of silent finning, we parked the sled on the roof and stopped for a short break. We took this opportunity to replace fluid lost from breathing the dry air. This was achieved by drinking fruit boxes and by sucking from modified intra venous drip bags stored in our vest pockets. With a little practice the latter could be consumed without removing the regulator mouthpiece.

As the dive progressed, two potential problems arose. Firstly, progress of the sled proved to be much slower than anticipated. This was caused by substantial drag created by the bulky underwater camera and lighting systems. This meant that our budget at 2½

cylinders per person for the inward leg (excluding decompression and buoyancy requirements for the sled) was looking less conservative than we had planned for.

The second problem occurred as the depth of the cave increased at around the 3,000 metre mark. Having spent over 2½ hours underwater, we all began having difficulty in equalizing our ears. At one stage, with only 500 metres to go, my right ear refused to clear and several minutes were spent persuading it otherwise. Eventually we scraped the sled along the roof past the offending deep section and continued.

Finally, after almost 3½ hours of swimming, a large lake above our heads signified that we had reached our objective - Toad Hall. After finding a suitable place to park the sled, at a depth of 3 metres, we spent the next 40 minutes decompressing on oxygen. After 240 minutes underwater, we finally surfaced and began unpacking for our 2 night stay.

With 3 days spent underground, we felt it was important to have communication with the surface. Using an idea first developed by Ron Allum on one of the early expeditions, Tony had developed a radio which was capable of penetrating the 100m of limestone which was now between us and the surface.

Unfortunately, as we were almost an hour overdue, we failed to make radio contact on the first night. We knew this would be a concern to those on the surface, but we had a

*Continued on page 24*



*Preparing to leave for Toad Hall (L-R) Karel Longs, Greg Bulling, Tony Carlisle (photo: R. Millard)*



*Members of the successful "Cocklebidy Cave - Toad Hall Expedition 1991", along with some of the equipment used. (Photo: Greg Bulling)*



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## NEW GEAR NEW GEAR NEW GEAR

### NEW RANGE OF CAVE DIVING REELS AVAILABLE

by Wayne Wilson CDAA 1828

A new range of reels is now available. The reels are imported from Florida, USA, and made by the largest manufacturer of specialist Cave Diving equipment anywhere – Dive Rite Manufacturing Limited. Dive Rite have been making specialist gear for over 10 years and their new range of reels are an indication of their dedication to providing the finest equipment available.

The reels are being imported by SPELEONAUT EQUIPMENT, and all seem to be exceptionally well made, utilising anodised aluminium frames with stainless steel shafts, injection moulded lexan spools that are said to be virtually unbreakable, and all come with line and a handy gear clip allowing the reel to be clipped out of the way when not in use.

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The reels are not cheap – The Cavern/Safety starts at app. \$100 and the larger Primary models start at app. \$175-\$185, but if you want the quality, you have to pay for it. When you are putting your life in the hands of an item like this, it is good to know that it should work flawlessly for years.

The reels and a host of other Dive Rite products including B.C. Wings and high intensity lighting systems are available at selected Dive Shops throughout Australia. Call Speleonaut Equipment on (03) 781 3820 for your nearest shop.

## UPCOMING PENETRATION COURSES

The C.D.A.A. has scheduled the following dates for Penetration Courses to be run in Adelaide and Melbourne.

### ADELAIDE COURSE 1

DATES	ACTIVITY	VENUE
30/3/92	Theory	To be advised
31/3/92	Theory	To be advised
2/4/92	Theory	To be advised
3/4/92	Theory	To be advised
4/4/92	Training	Thorndon Park
5/4/92	Training	Thorndon Park
11/4/92	Supervised Dives	Mt. Gambier
12/4/92	Supervised Dives	Mt. Gambier

### ADELAIDE COURSE 2

10/8/92	Theory	To be advised
11/8/92	Theory	To be advised
13/8/92	Theory	To be advised
14/8/92	Theory	To be advised
15/8/92	Training	Thorndon Park
16/8/92	Training	Thorndon Park
22/8/92	Supervised Dives	Mt. Gambier
23/8/92	Supervised Dives	Mt. Gambier

### MELBOURNE COURSE 1

10/3/92	Theory	To be advised
16/3/92	Theory	To be advised
21/3/92	Training	To be advised
22/3/92	Training	To be advised
23/3/92	Theory	To be advised
30/3/92	Theory	To be advised
4/4/92	Supervised Dives	Mt. Gambier
5/4/92	Supervised Dives	Mt. Gambier

### MELBOURNE COURSE 2

5/10/92	Theory	To be advised
12/10/92	Theory	To be advised
17/10/92	Training	To be advised
18/10/92	Training	To be advised
19/10/92	Theory	To be advised
26/10/92	Theory	To be advised
31/10/92	Supervised Dives	Mt. Gambier
1/11/92	Supervised Dives	Mt. Gambier

### ATTENTION ALL MEMBERS

All members who have not yet attended a formal cross-over program will receive a letter in the near future detailing the procedure for crossing over to the new levels. People who fail to reply to this letter will automatically drop one level in the new system.

### PENETRATION PRE-REQUISITES

- Hold a current C.D.A.A. Cave diver award
- provide proof of a minimum 15 unsupervised cave dives totalling a minimum of 10 hours underwater, using a C.D.A.A. approved twin independent SCUBA system and showing a broad range of experience.
- Minimum age 18 years
- Current diving medical (12 months)
- Climbing experience recommended
- The Training Manager can reserve the right to deem if an individual's experience is insufficient to commence the course, even if the pre-requisites are met.

If you satisfy all pre-requisites, and are interested in making application, please contact the Training Manager, Greg Bulling on (08) 265 4978. Penetration courses to be run in other regions can be arranged by contacting the Training Co-ordinator for that region.

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## COCKLEBIDDY CAVE - "TOAD HALL" EXPEDITION 1991

*Continued from page 21*

contingency plan for another try at 8.00am the following morning.

Toad Hall is an interesting place. From the entrance lake, a steep narrow rockpile rises to over 30 metres before almost touching the roof. The base of the rockpile is relatively flat and sits about 3 metres above the water, providing an ideal area for cooking. A suitable sleeping location is more difficult to find - the most suitable area was found on top of the rockpile where a large roof slab (10 x 5metres) has fallen down, providing a relatively flat surface.

Sleeping in Toad Hall on the first night proved to be difficult. Although the temperature is a constant 23°C, the relative humidity is around 99%. This combined with higher than normal CO<sub>2</sub> levels makes relaxing rather difficult! The total silence found underground can also be quite daunting, even cylvume sticks were found to be noisy!

At 8.00am sharp the next morning, the radio jumped to life and contact was established with the surface. It transpired that the support crew has given up trying the night before only minutes before we had began transmission.

With breakfast out of the way, the vast expanse of Toad Hall was explored and captured on video. From the sleeping area the cave opens out and is relatively flat until dropping down to a small lake at the far north side. A preliminary survey was undertaken along with the collection of water and gas

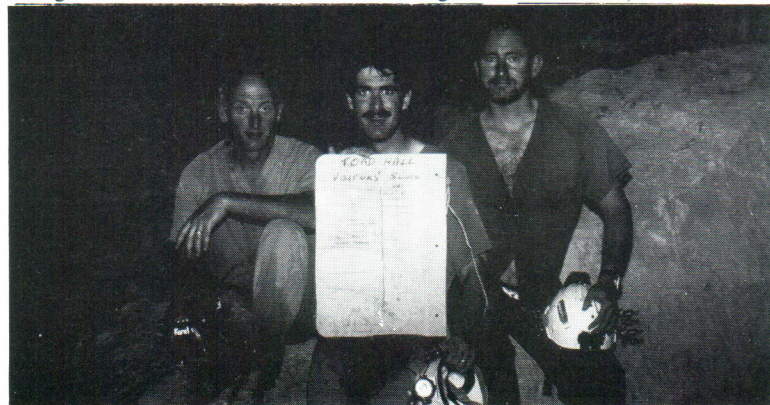
samples from various points of the cave. Of special interest was a small skeleton found near the sleeping area. Later examination by experts has confirmed it to be a bat, but the species and its origins are still a mystery.

On the second morning, the sled was repacked and we began our long journey home. We were all very anxious to begin with, fearing trouble with our ears which were still very sore. We knew that with a limited air supply, turning back would not be an option. Fortunately the deep section was passed without incident and we began to relax. The trip proved to be slow but incident free, with the only real problem being the buoyancy change in the sled. With almost 50kg of air being consumed, it had become very buoyant and more difficult to control. Finally after a 222 minute dive and 40 minutes decompression, we surfaced at the rockpile chamber, to cheers and questions from our support crew. Although still over one kilometre from the entrance, we were over the greatest challenge.

The next six hours wa probably the hardest of the expedition for Tony, Karel and I. All of our equipment was hauled back over the rockpile and reassembled. We were tired and hungry and really not able to do a lot of heavy work in defiance of decompression sickness. Our support crew were fantastic - they worked tirelessly in what were difficult conditions.

At 9.00pm, after 3 days underground, we finally emerged to the cool, clear air of the Plain.

To the Toad of Toad Hall - "Many have wondered, few will know".



(L-R)  
Karel Longs,  
Greg Bulling &  
Tony Carlisle  
in Toad Hall  
with the  
visitor's slate.  
(photo:  
G. Bulling).

## CAVE DIVERS - Stay Warm & Dry

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## TRADING POST

**For Sale:** Cave Diving Torch. Alpha Lite 2. 8 A/H Battery Pack with 50 watt compact head. 1.5 hour burn time. Complete with charger & neoprene cover. In E.C. Retail \$450, Sell for \$325 ONO. Wayne Wilson CDAA 1828 Ph: (03) 338 2975 A/H.

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If you wish to sell any cave diving or scuba diving gear in Guidelines' Trading Post, post your details to The Editor - Guidelines, P.O. Box 290, North Adelaide, S.A. 5006, complete with descriptions, prices, and contact phone numbers.

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# CDAA SITE ACCESS

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

SITE	LEVEL	OWNER	ACCESS DETAILS
<b>MOUNT GAMBIER - SOUTH AUSTRALIA</b>			
<b>Ewens Ponds</b>	Nil	Dept. of Lands PMB 124, Mt. Gambier (087) 35 1111	Groups of 6 or more, phone/mail to Dept. of Lands. Smaller groups, no need. Ponds are closed 1 September - 30 November each year.
<b>Horse &amp; Cart Tea Tree</b>	CN CN	Mr. Don Telford PO Box 2629, Mt Gambier (087) 23 1519	By phone or mail, 1 week prior.
<b>Little Blue (Baby 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	Dept. of Lands PMB 124 Mt Gambier (087) 35 1111	Contact Dept. of Lands by phone/mail prior to diving. Stay out of Gouldens when pump is operating.
<b>Ela Elap One Tree</b>	S S	Mr. Peter Norman Private Bag 67, Mt Gambier (087) 38 5287	By phone or drop in before diving. Accommodation also available.
<b>Swim Through</b>	C	Valerie Earl C/- PO Allendale 5291	Currently CLOSED pending new access arrangements.
<b>Piccaninnie Ponds</b>	S	NPWS 11 Helen Street, Mt Gambier (087) 35 1171	Permit holders by phone. Be aware of delicate vegetation.
<b>Hells Hole Pines Mud Hole</b>	S C C	Woods & Forests PO Box 162 Mt Gambier (087) 24 2759	Contact Woods & Forests (Forests Clerk - Lois Kettle) by mail or phone and arrange permit. No diving on total fire ban days.

SITE	LEVEL	OWNER	ACCESS DETAILS
<b>MOUNT GAMBIER - SOUTH AUSTRALIA continued</b>			
<b>Black Hole</b>	S	Mr. Colin Traeger,	Contact CDAA Records Officer for diving
<b>Ten Eighty</b>	S	Manager,	deed THEN mail Booking Form to Colin
<b>Bullock Hole</b>	S	Barnoolut Estate PO Box 12, Mt Gambier 5290 (087) 26 6215	Traeger 2 weeks prior, stating names/qual. of all divers, and time slot - 1pm Saturday, 9am or 1pm Sunday, or 8am (weekdays).
<b>Max's Hole</b>	C	Mr. Trevor Edwards PO Box 1319 Mt Gambier (087) 26 8277	Phone or mail 1 week prior to dive.
<b>Shaft</b>	S	Mr & Mrs Ashby	ONLY by contacting designated "guides" who will arrange access. Refer Guidelines Issue 42 - January 1992.
<b>Engelbrechts - East - West</b>	C P	Mt Gambier Council	Obtain key from Mt Gambier Tourist Information Centre.
<b>Three Sisters</b>	P	Millicent Council	Currently closed until new access arrangements completed.
<b>Iddlebidy (SL250)</b>	P	Woods & Forests P.O. Box 162, Mt. Gambier, 5290 (087) 24 2759	Open 1st and 3rd weekend of each month, only to 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.
<b>NULLARBOR - WESTERN AUSTRALIA</b>			
<b>Cocklebidy Murra El Elevyn Tommy Grahams Weebubbie</b>	C P C C	Regional Manager C.A.L.M. 44 Serpentine Rd, Albany 6330 Ph: (098) 41 7133	Must apply for permission to dive at least 4 weeks in advance of trip.
			Small dive site next to main chamber: Sinkhole

## NULLARBOR - SOUTH AUSTRALIA

<b>Warbla</b>	P	N.P.W.S. Ceduna	Currently CLOSED to all diving subject to draft management policy.
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CN = CAVERN      S = SINKHOLE      C = CAVE      P = PENETRATION





## CDA A PRODUCTS

Please send orders, with cheque or money order ONLY, to  
CDA A, P.O. Box 290, North Adelaide, S.A. 5006

### BOOKS

**Cave Diving Communications.** A new 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.

**Cave Diving. A Blueprint for Survival.** 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.

**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.

**CDA A Occasional Paper No. 2 - from Natitonal Conference 1981.** Includes topics such as Fossil Cave, Belay Techniques & Cocklebidy 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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### MISCELLANEOUS

**CDA A Yellow Stickers** You must include a stamped, self-addressed envelope.

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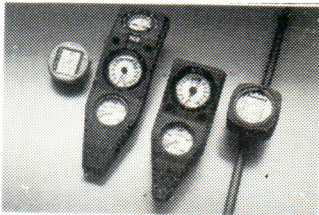
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