

C.D.A.A. Newsletter

GUIDELINES

No: 74 - DECEMBER 2000

CAVE DIVERS ASSOCIATION OF AUSTRALIA

(Incorporated in South Australia)

Print Post No. PP 381691/00020



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Editorial

Another year gone already!

Thanks must go to Chris Edwards for the help he has given me this year with Guidelines.

I would like to wish you all a Merry Christmas and safe diving in the New Year.

Glenn O'Connell
Editor

ARTICLES FOR GUIDELINES

Members wishing to submit articles for inclusion in guidelines can do so in the following manner:

- Send articles & photos via post to:
The Editor, Glenn O'Connell,
P.O. Box 290, North Adelaide, S.A. 5006.
- Email to glenn@vds.net.au
- Any files for inclusion should be saved in "TEXT" or "ASCII" format. Hardcopy should also be provided wherever possible.

ADVERTISING RATES

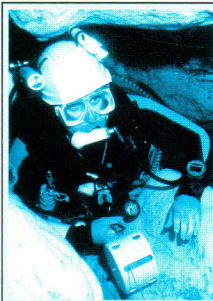
FOR SPACE - APPLY TO THE EDITOR

"Guidelines" magazine is circulated to over 1200 members and retail outlets.

Back Page	2 colour	\$350.00
Inside Front Page	Black & White	\$300.00
Inside Back Page	Black & White	\$300.00
Full Page	Black & White	\$250.00
Half Page	Black & White	\$150.00
Quarter Page	Black & White	\$100.00

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Front cover:

Murra El Elevyn
Gary Bottomley

CAVE DIVERS ASSOCIATION OF AUSTRALIA

P.O. BOX 290, NORTH ADELAIDE,
S.A. 5006

GUIDELINES is a newsletter of the Cave Divers Association of Australia. All articles for the following issue are to be sent to the Editor, Glenn O'Connell, P.O. Box 290, North Adelaide, S.A. 5006. All articles and submissions shall automatically constitute an expressed warranty by the contributor that the material is original. We assume no responsibility for unsolicited material. Articles and information may be reproduced without prior permission provided reprints are accredited to the authors and GUIDELINES. Private advertising for caving and diving equipment may be advertised free at the discretion of the Editor. Opinions expressed in GUIDELINES are those of the individual authors and are not necessarily those of the C.D.A.A.

CDAA DIRECTORY

The following is a list of people that can be contacted for CDAA matters. Please contact the most relevant person or, if unsure write to:

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If you know who you want to write to, please address your letter to the relevant director.

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CDAA INSURANCE

Combined Public/Products liability policy limit \$10,000,000
Insurer: Jardine Underwriting Agency Pty Ltd
Policy number: 980 703 12
Expiry date: 11/7/01



INTERNATIONAL MOTEL

Mount Gambier

"The Cave Divers home away from home"

Facilities Include:-

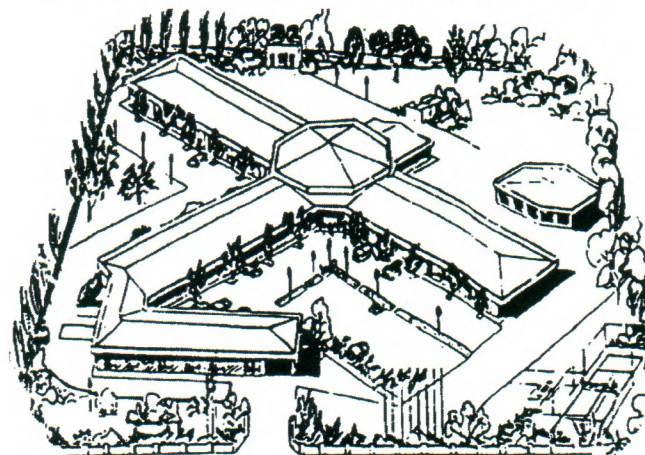
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CAVE DIVERS ASSOCIATION OF AUSTRALIA

MINUTES OF THE 2000 ANNUAL GENERAL MEETING THE INTERNATIONAL MOTOR INN SATURDAY 21ST OCTOBER 2000

Opened by chair Kevin Burrowes at 10.07am.

Apologies from John Mackenzie, Jane Bowman, Ellen Garratt.

Minutes as published, moved and seconded to be accepted. Discussion took place with regard to accuracy. Central to the discussion was concern reTank Cave. Motion was to put to amend minutes to remove disputed section. Minutes as amended and accepted to be published in next Guidelines.

Directors Reports were presented. Question from Phil Argy as to access problems in Englebrechts. Steve Arnell explained that discussions with council and Lifeline were ongoing including possible improvements to lighting and platforms in both Easts and Wests.

Request from floor that financial reports be published at least two weeks prior to AGM. Directorate acknowledged that, if possible, this would occur.

Phil Argy put motion of thanks to Andrew Seifried for excellent accounts presentation. Chair also agreed that work was of a very high standard and thanked Andrew also for his work as outgoing Business Director.

Question with regard possible change to course Standards and whether that would require certification upgrades? Response

from Standards Director was that it was a grey area and could well be require individual assessment.

All reports accepted by meeting.

Kevin Burrowes nominated and accepted as auditor for following financial year.

Kevin Burrowes then announced results of ballots on Constitutional Changes. They were as follows. Lapsed Membership Motion - passed. Temporary Membership Motion - passed. Alteration to fee Structure - Flat Fee increase passed. (New sections of Constitution are published elsewhere in Guidelines#74, Dec 2000)

KB then announced result of Office Bearer elections Business Director - Richard Price elected unopposed. Standards Director - Paul Axton returned with 63 votes to Max Marriot 43.

General Business.

Question from David Doolette with regard to lapsed member proposal. The Nat Director replied that as the Directorate had not put forward the proposal they were not able to answer the enquiry. Discussion took place as to best method of informing lapsed members of new provisions.

Meeting closed 11.10am.



CAVE DIVERS ASSOCIATION OF AUSTRALIA

1999 ANNUAL GENERAL MEETING MINUTES OF MEETING THE INTERNATIONAL MOTOR INN

1. Welcome and opening

The Annual General Meeting was opened by Kevin Burrowes, the Public Officer of the Association.

2. Apologies

Apologies were received from Steve Sturgeon 2430, Glen Harrison 931, Steve Arnel 680, Chris Edwards 2247, Jane Bowman 1880, John Dalla-Zuanna 236.

Minutes of the 1998 Annual General Meeting

Minutes of the 1998 AGM were proposed as a true and accurate account of proceedings. Moved: Tony Davis, Seconded Maree Toogood. Carried.

3. Business arising from the Minutes of the 1998 Annual General Meeting

There was no business arising from the 1998 Minutes.

4. 1999 Directorate Reports

The 1999 Directorate report, (as published in the December 1999 issue (#70), of Guidelines) was read by Andrew Seifried.

It was proposed that the 1999 Directorate report be accepted. Moved Tony Davis, Seconded Warrick McDonald. Carried.

4. Business arising from the 1999 Annual Directors report.

There was no business arising from the 1999 Directorate Report.

5. 1999 Financial Statements

The 1999 Financial Statements were presented by the Business Director Andrew Seifried. There were a couple of questions to clarify specific details. It was proposed that the 1999 Financial Statements be accepted. Moved Peter Rogers, Seconded Warrick McDonald. Carried.

6. Appointment of an Auditor for the 2000 Year Accounts

Moved by Andrew Seifried that Kevin Burrowes be appointed Auditor for the 2000 year. Seconded Tony Davis. Carried.

7. Results of Office Bearer Elections

Andrew Seifried 2941 elected unopposed to the position of Business Director.

Steve Arnel 680 elected unopposed to the position of Site Access Director.

Chris Edwards 2247 elected unopposed to the position of Publications and Records Director.

Andrew Seifried advised the meeting that the vacancies of Standards Director and National Director would be filled by the elected Directors.

8. General Business

There was discussion predominantly concerned with issues relating to Tank Cave. Further detail was reported in Guidelines September Issue # 73.

Some discussion relating to fee levels and structures including a tiered fee structure.

Some discussion related to a paid administrative position.

It was moved by Peter Rogers that past disagreements between the National Committee and Phil Prust be put aside. Seconded (Unknown)

9. Meeting closed at 12.10pm

Notes to the Financial Statements Year Ending 30th June 2000

Cave Divers Association of Australia

1. The lower figure for instruction materials is reflected in a reduction in joining and rating upgrade fees. In the 2000 year there were 78 new members compared to 110 in 1999.
2. Member's manuals have been included in the Trading account, even though they distortion to the material's purchases figure. The net expense for member's manual are not a production for this year has been shown as a loss in the trading account and transferred as an expense to the profit and loss account
3. The breakdown for joining, (cavern), and rating upgrades - sinkhole, cave and penetration are: joining - \$1560, sinkhole - \$1580, cave - \$920 and penetration \$140. They are all charged at \$20 per upgrade, ie 78 new members for 2000.
4. The figure for Guidelines advertising relates to advertisements placed and paid for. The amount of \$900 was not received until September 2000, hence the \$900 figure for Advertising Debtors in the Balance sheet.
5. The fees for Tank Cave applications were charged at \$220 per diver. In a small number of cases a reduced fee was payable. The payments received were for the current term of the license; to July 14 2001. The fees paid were allocated at \$110 per year of access. Where a diver qualified for a reduced fee, \$110 was allocated to 2000-2001 Tank Cave Fees and the balance to the current year, (1999-2000 Tank Cave Fees) account. The Tank Cave license fee was \$7500 for the 2000 year, hence a shortfall in application fees received of \$3475. As at June 30 2000 38 divers had paid the application fee.
6. Interest received comprises amounts from the Term deposit (\$1446.95) and the cheque account, (\$930.48).

7. The Advertising written off refers to advertisements printed in Guidelines without the advertiser's consent during the 1999 income year and listed as owing as at June 30 1999, for which no amount was paid. Of the \$1550 shown as owing as at June 30 1999, only \$450 was for valid advertisements.
8. The increase in credit facility, (merchant fees), charged to the Association reflects the increased usage by members of credit cards to pay fees.
9. Guidelines production costs are for four issues as is the case for the 1999 figure.
10. AGM Director's expenses include meals and accommodation at the International Motel for Committee members, including the Tank Cave

Access Manager and Records officer, for the AGM weekend. It also includes an amount relating to the 1998 AGM.

11. Other meeting expenses cover all other expenses associated with official meetings of the CDAA Directorate and include State meetings, hearings into member transgressions, landowner liaison and site access.
12. Accrued expenses are amounts relating to the 2000 financial year, but unpaid at June 30th 2000. These expenses are reflected in the 2000 Income and Expenditure statement. They relate mainly to the June penetration course, the June issue of Guidelines and instruction materials printing.

CAVE DIVERS ASSOCIATION OF AUSTRALIA INCORPORATED

ABN 65 062 259 956

TRADING ACCOUNT FOR YEAR ENDED JUNE 30 1999

SALES:	2000	note	1999	1998
CDAА Products	\$ 3,271.45	2	\$ 6,831.55	\$ 7,784.90
Instruction Materials	\$ 6,789.00	3	\$ 10,225.00	\$ 9,670.00
LESS COST OF SALES:				
OPENING STOCK:				
CDAА Products	\$ 5,230.46		\$ 1,687.84	
Instruction Materials	\$ 57.58		\$ 315.00	
Members Manuals	\$ 3,521.70		\$ 650.00	
ADD PURCHASES:				
CDAА Products	\$ 7,779.94		\$ 8,738.58	
Instruction Materials	\$ 2,267.06		\$ 2,574.73	\$ 1,982.09
Members Manuals	\$ 1,078.50		\$ 3,943.45	
LESS CLOSING STOCK:				
CDAА Products	\$ 10,749.85		\$ 5,230.46	
Instruction Materials	\$ 1,308.54		\$ 57.58	
Members Manuals	\$ 3,269.75		\$ 3,521.70	
TOTAL COST OF SALES:				
CDAА Products	\$ 2,260.55	2	\$ 5,195.96	\$ 5,723.49
Instruction Materials	\$ 1,016.10		\$ 2,832.15	
Members Manuals	\$ 1,330.45		\$ 1,071.75	
GROSS TRADING PROFIT(LOSS):				
CDAА Products	\$ 1,010.90		\$ 1,635.59	\$ 2,061.41
Instruction Materials	\$ 5,772.90		\$ 7,392.85	\$ 7,687.91
Members Manuals	\$ 1,330.45		\$ 1,071.75	
LESS:				
Postage:				
CDAА Products	\$ 129.50		\$ 139.55	\$ 300.35
Instruction Materials	\$ 422.20		\$ 389.50	\$ 520.95
NET PROFIT(LOSS):				
CDAА Products	\$ 881.40	2	\$ 1,496.04	\$ 1,141.76
Instruction Materials	\$ 5,350.70	3	\$ 7,003.35	\$ 7,166.96
Members Manuals	\$ 1,330.45	4	\$ 1,071.75	

Andrew Selfried
CDAА Treasurer

CAVE DIVERS ASSOCIATION OF AUSTRALIA INCORPORATED

ABN 65 062 259 966

STATEMENT OF INCOME AND EXPENDITURE FOR THE YEAR ENDED JUNE 30 2000

INCOME:	2000	note	1999	1998	1997
CDAА Products net income	\$ 881.40	2	\$ 1,496.04	\$ 1,141.76	\$ 661.92
CDAА Instruction Materials net income	\$ 5,350.70	3	\$ 7,003.35	\$ 7,166.96	\$ 2,400.00
Membership fees	\$ 36,235.00	4	\$ 38,570.00	\$ 38,755.00	\$ 37,735.00
Instructor's membership fees	\$ 1,400.00		\$ 1,310.00	\$ 1,440.00	\$ 1,045.00
Late membership fees	\$ 4,100.00		\$ 3,870.00	\$ 1,795.00	\$ 355.00
Joining and rating upgrade fees	\$ 4,200.00	6	\$ 5,560.00	\$ 5,880.00	\$ 4,450.00
Nitrox endorsement fees	\$ 500.00		\$ 1,110.00	\$ 1,210.00	\$ 80.00
Guidelines advertising income	\$ 900.00	7	\$ 3,650.00	\$ 2,550.00	\$ 5,565.00
Tank Cave Fees 1999-2000	\$ 4,025.00	8			
CDAА Fundraising income	\$ 60.00			\$ 1,355.00	
25 Anniversary receipts	\$ -		\$ 1,560.00		
Grants and Donations received	\$ 70.00		\$ 1,000.00	\$ 1,590.00	\$ 10.00
Fines	\$ 45.00		\$ 48.00	\$ 200.00	
Penetration course receipts	\$ 4,800.00		\$ 7,240.00	\$ 6,680.00	
Interest income	\$ 2,377.43	9	\$ 975.77	\$ 1,594.86	\$ 1,109.02
TOTAL INCOME	\$ 64,944.53		\$ 73,193.16	\$ 73,861.62	\$ 60,389.94
EXPENSES:					
Administrative expenses	\$ -			\$ 33.00	
Accounting and Audit Fees	\$ 350.00		\$ 350.00	\$ 925.00	\$ 750.00
Aquatech commission expense	\$ -		\$ 740.00	\$ 1,043.83	
Advertising written off	\$ 1,100.00	10		\$ 762.00	\$ 2,320.00
Bad debts	\$ -		\$ 20.00		
Bank fees	\$ 70.37		\$ 28.00	\$ 288.80	\$ 461.33
Computer expenses	\$ 225.95		\$ 335.00		
Courier/Taxi fares	\$ -		\$ 132.72		
Credit facility fees	\$ 1,025.33	11	\$ 682.43	\$ 66.00	
Govt. financial taxes	\$ 90.00		\$ 175.15	\$ 208.84	
Depreciation expense	\$ 1,405.30		\$ 2,861.65	\$ 3,643.50	\$ 3,309.00
Discounts allowed	\$ 150.00		\$ 100.00		
Insurance	\$ 9,406.75		\$ 9,325.00	\$ 3,390.00	\$ 8,802.00
Insurance: CDAА Products	\$ -				\$ 245.55
Members Manuals	\$ 1,330.45	4	\$ 1,071.75		
Postage	\$ 1,073.75		\$ 2,614.95	\$ 2,507.59	\$ 2,383.56
Printing and Stationery	\$ 1,128.56		\$ 1,053.47	\$ 3,133.42	\$ 8,029.00
Penetration course disbursements	\$ 4,800.00		\$ 7,200.00	\$ 6,400.00	
Repairs & Maintenance	\$ 307.96			\$ 191.83	
Research and Mapping expenses	\$ -		\$ 20.00		
Site expenses	\$ 58.13		\$ 171.50	\$ 70.00	\$ 46.85
Sundry expenses	\$ -			\$ 251.55	
Subscriptions	\$ -			\$ 50.00	\$ 55.00
Tank Cave Licence Fee	\$ 7,500.00	8			
Telephone	\$ 1,433.83		\$ 3,001.21	\$ 1,953.53	\$ 3,987.13
CDAА Fundraising expenses	\$ -			\$ 708.00	
25 Anniversary expenses	\$ -		\$ 2,402.12		
Lamar Hires expenses	\$ -		\$ 2,233.21		
Guidelines production	\$ 14,250.00	12	\$ 14,514.90	\$ 14,138.88	\$ 10,926.64
Guidelines postage	\$ 2,081.09	12	\$ 1,833.62	\$ 1,240.21	
Annual general meeting expenses	\$ -		\$ 1,446.05	\$ 1,381.11	\$ 1,870.35
AGM Directors expenses	\$ 918.79	13	\$ 940.14		
Other meeting expenses	\$ 972.70	14	\$ 2,090.15	\$ 3,158.78	\$ 2,776.43
TOTAL EXPENSES	\$ 49,678.96		\$ 55,343.02	\$ 48,048.71	\$ 46,372.84
NET INCOME	\$ 15,265.57		\$ 17,850.14	\$ 25,812.91	\$ 14,017.10

ASSETS

	2000	note	1999	1998	1997
Current Assets					
National Australia Bank Cheque account	\$ 76,679.07		\$ 55,752.63	\$ 62,245.92	\$ 29,370.42
National Australia Bank Term Deposit	\$ 31,711.30		\$ 30,264.35		
ANZ term deposit	\$ -			\$ 8,963.72	\$ 8,829.78
Debtors-(Advertising)	\$ 900.00		\$ 1,550.00	\$ 700.00	\$ 3,552.00
Debtors-(CDAAs Products)	\$ -			\$ 1,449.00	
Debtors-(Other)	\$ -		\$ 50.00	\$ 20.00	
Withholding Tax Deducted	\$ -		\$ 203.55	\$ 203.55	\$ 203.55
CDAAs products closing stock	\$ 10,749.85		\$ 5,230.46	\$ 1,707.69	\$ 4,887.16
Instruction packages closing stock	\$ 1,308.54		\$ 57.58	\$ 1,065.00	
Members Manuals closing stock	\$ 3,269.75		\$ 3,521.70		
Total Current Assets	\$ 124,618.51		\$ 96,630.27	\$ 76,354.88	\$ 46,642.91
Non-Current Assets					
Property, Plant & Equipment	\$ 7,189.70		\$ 7,169.70	\$ 7,069.70	\$ 5,119.70
less: accumulated depreciation	-\$ 6,044.00		-\$ 5,390.00	-\$ 4,045.00	\$ 2,801.00
Office equipment	\$ 11,203.59		\$ 11,203.59	\$ 11,133.64	\$ 9,724.20
less: accumulated depreciation	-\$ 10,893.45		-\$ 10,142.15	\$ 8,625.50	\$ 6,226.00
Total Non-Current Assets	\$ 1,435.84		\$ 2,841.14	\$ 5,532.84	\$ 5,816.90
TOTAL ASSETS	\$ 126,054.35		\$ 99,471.41	\$ 81,887.72	\$ 52,459.81
LIABILITIES					
Current Liabilities					
Memberships received one year in advance	\$ 12,900.00		\$ 12,695.00	\$ 16,000.00	
Instructor fees received one year in advance	\$ -			\$ 40.00	
Overpayments	\$ 530.00		\$ 500.00	\$ 350.00	
Penetration course deposits	\$ 400.00		\$ 400.00		
Accrued expenses	\$ 7,475.92	15	\$ 1,073.55		
Creditors	\$ -		\$ 150.00		
Tank Cave Fees Received 2000-2001	\$ 4,180.00				
Total Current Liabilities	\$ 25,485.92		\$ 14,818.55	\$ 16,390.00	
Non-Current Liabilities					
Memberships received two years in advance	\$ 3,450.00		\$ 3,050.00	\$ 1,895.00	
Memberships received three years in advance	\$ 550.00		\$ 650.00	\$ 350.00	
Memberships received four years in advance	\$ 300.00		\$ 50.00	\$ 150.00	
Memberships received five years in advance	\$ 100.00			\$ 50.00	
Total Non-Current Liabilities	\$ 4,400.00		\$ 3,750.00	\$ 2,445.00	
TOTAL LIABILITIES	\$ 29,885.92		\$ 14,818.55	\$ 18,835.00	\$ 15,220.00
EQUITY					
Member's Equity as at 30/6/99	\$ 80,902.86				
add: 1999/00 Net Income	\$ 15,265.57				
CDAAs Member's Total Equity as at 30/6/2000	\$ 96,168.43		\$ 80,902.86	\$ 63,052.72	\$ 37,239.81
NET ASSETS	\$ 96,168.43		\$ 80,902.86	\$ 63,052.72	\$ 37,239.81

represented by:

NET ASSETS

TANK'S A LOT

It could be said that I was a doubter. You see, I had trouble justifying why I should spend \$220.00 to dive a site in Mt Gambier. Well, I've got to admit I was sadly mistaken. Sadly, because I could have been diving Tank Cave a long time ago. Mistaken, because I wouldn't or couldn't believe that it could compare to the Nullabour or the many overseas caves I had previously dived in.

I was wrong and I admit it. Tank Cave is spectacular, it is impressive in size and requires a very high and therefore challenging skill level. Want to be a silt pig" fine, but prepare to wear the wrath of other divers who share a common entrance tunnel. Having only completed 5 dives in the "A" tunnel areas, sure doesn't make me an expert but if what I have seen in six or so hours is anything to go by, it is surely the best site in Australia.

Jane and I paid our fees a couple of months ago and got to do our dives late in October. The delay was because we were busy on the dates that Harvey Grantham (site access manager) chose for us. This is a great system, because new applicants get first priority. Stephen Watson (Whatto) was our "guide" and his briefing and organisation was superb. The "guide's" deserve full credit for the work they do, unpaid and not always a pleasant experience, after all how many times can you dive the "gold" line area and not get a little bored, or frustrated.

Talking to other divers on the day, some who had over 50 dives in Tank Cave and

were still trying to see the discovered runs, just demonstrates how big this site is. Flattners galore (entrance to Nettlebed's second chamber only some of these are 10-20 metres long), twisty tunnels (back of Pines, Penetration rated area) everywhere and hard bottom, soft bottom you name it you will see the lot. Did I mention that this is all ON THE "GOLD" LINE!!! This is where new Tank Divers go! What about the fossils - everywhere, mud bricks, just interesting stuff wherever you look!

Is the current fee of \$220.00 too much, nah, I would pay more! Richard Price, the new Business Director has taken on the task, set by the Directorate, of coming up with a formula for payment of the new lease and promises that it will be less of a slug, and you will be able to pay per dive. Let's see what happens! About 40 divers are taking advantage of Tank Cave at the moment, personally I don't care if nobody else wants to, as long as I can, if they want to miss out, bad luck! Tank Cave is the pinnacle of sites, this is what all members should be striving for, reach the rating (Penetration Level), get up the requirements and go diving.

There is one draw back, if everyone gets into Tank Cave, nobody will dive anywhere else! Hmmm, maybe I should start digging again.

Warrick McDonald.

Memoirs of a CAVERN / SINKHOLE STUDENT

Hi every-one, I recently completed a Cav/Sink Course with three other buddies, Grant Langdon, Jeff Giddons and Rob Ellan. We had new experiences and challenges thrown at us over a four day period but it was worth it as I've come out of it with a wealth of knowledge.

I've also become a member of the Blink Bonney Symphony Orchestra and I don't mean in the barn with drums and guitars with Phil, I mean something else, more on that later.

So there were plenty of incidents on the course including a memorable one involving our instructor - Linda Clarridge, poor Linda after putting up with three Yobbo's and a Pommy she locked up the dive trailer with all the gear stowed away with the four padlocks snap locked. She's suddenly said OH! where are the car keys? and yes that's right they're in the locked trailer as well!

I travelled to the mount with Grant and our first incident happened about one hour from home, with Grant driving, we got lost in Ballarat, can you believe that we got lost in Ballarat. What basically happened is that a young lady was walking across the road and admiration of a particular part of her structural make-up was being discussed by the driver in mention and therefore we missed the turn off.

So what is the Bonney Symphony Orchestra. As most people would know, most men snore and also make another noise in bed whether asleep or not! Well the three older students, Grant, Jeff and Peter made plenty of the noises in unison, and to their credit on some nights they were in perfect timing with each other with Grant being the provider of the bass tones and Jeff providing those other noises I spoke about in the higher pitch range.

They also reckon that I was in extreme form on one particular night that another guest of the lodge opted out of the bunk provided and slept on the lounge room floor. But that was fruitless 'cause Jeff got up early, put on some toast, not knowing the toaster was set for crumpets he almost smoked out the lodge and of course the smoke detector directly above John's head went off didn't it. And after all that we put John through he still offered us to join him and his friends on the completion of our course to dive one tree. This was an excellent dive, except someone left some white foam balls in the water attached to items under the water so we gathered them up and turfed them out. (Only joking, no need to be alarmed Stan and Steve).

We had a young lad from England and he couldn't for the life of him retain the answer to the hand signal of turn around and during the exam he commented: 'I know this one it's the one I kept mucking up', but it wasn't the signal. The poor bugger thought he finally got it right but to no prevail. So it was a really good experience and finally getting into pics was grand, what you see on the surface and what you get at 30 metres is a totally different and amazing. I loved it. The young fella, as we called him, and I did a night dive at Ewans and we finally had clear skies so switching off our torches and looking at the stars at 8 metres was an event in itself. A night dive in pics would be brilliant!

By the way Phil and I did do some jamming on the guitars and drums, he even showed me some fancy stuff on the keyboard. So if there are other guitarists out there including bass we should dive the mount together one time and form up a band.

Peter Dignum CDAA 3452

ON THE SUBJECT OF OXYGEN PROVISION...

Last issue I published a description of a device called EMOX. I put this in purely for information purposes. It was not intended to be an endorsement.

Several members have contacted us with concerns about the device and thanks particularly to Steve Simmons and D.Yates for your feedback. With the permission of the authors I have reprinted here an evaluation, originally published in the DAN SEAP magazine.

Negotiations are still underway to arrange a suitable location and training for operators for a dedicated unit in the Mount and elsewhere in this issue you will find an article calling for tenders to supply Oxygen provider training specifically for CDAA guides and Instructors and later for all members.

My personal belief (and it is shared by many) is that if people are conducting dives that put them at risk of DCI then it should be up to them to take all necessary safety precautions, including obtaining the correct equipment and training.

OXYGEN ADMINISTRATION FOR DIVERS

Comments by
Dr. Simon Mitchell & John Lippmann

Provision of 100% oxygen is the cornerstone of adequate first aid for diving injuries such as pulmonary barotrauma and near drowning. For this

reason various diving medical and safety organisations and specialists have strongly advocated the need to have high concentration oxygen delivery systems and appropriately trained personnel available wherever diving activities are conducted.

It is important to appreciate that the oxygen concentration delivered to an injured diver should be as near as possible to 100% to provide the maximum benefit. In most diving situations, if only a limited supply of oxygen is available, it should usually be administered in as high a concentration as practicable until the supply becomes exhausted.

There is a large range of oxygen delivery systems available. However, many of these are not capable of providing sufficiently high inspired oxygen concentrations to be of great benefit in certain diving accidents.

The simplest way to provide high inspired concentration oxygen to a breathing victim is via an appropriate medical oxygen demand valve. Such devices can deliver concentrations usually between 70-100% depending on factors such as the mask seal, the type and tuning of the demand valve and the position of the victim.

THE EMOX

The EMOX unit has been available in other parts of the world for many years

but has only recently been marketed in the Asia-Pacific Region. This unit utilises a chemical reaction to produce oxygen. It is a relatively lightweight unit that is designed to be easily carried to remote locations. It does not rely on compressed oxygen and can therefore be more easily taken on an aircraft.

The EMOX consists of a plastic flask in which the chemical reaction takes place, with delivery tubing connecting the closure cap to a mask. Pre-packed quantities of the powder are placed in the flask and a measured amount of water added. The chemical reaction commences immediately and the flask is then closed to direct the oxygen produced via the delivery hose to the facemask.

Although the system has advantages in certain situations, it is most definitely not suitable for use in the treatment of divers with decompression illness. The most important reason for this is the inability of this system to provide anything near to 100% oxygen to the injured diver. The advertised mean flowrate of 6.4 litres per minute (lpm) is often incapable of producing inspired oxygen concentrations higher than about 30/40% using the supplied delivery system.

Moreover, independent testing suggests that the manufacturer's advertised mean flowrate may be a significant overestimation. A series of six preliminary tests conducted by one of these authors produced a maximum flow rate of 6.8 lpm (for one minute). However, the average flowrate over all the tests was 1.6 lpm and the average

duration was 17.6 minutes. In addition, on two occasions it took six minutes before any oxygen flow at all was generated.

Proponents of the EMOX have stated that it is a cheap, easy way to provide oxygen at the dive site. We believe that this is a false sense of economy. The cost of an EMOX unit is similar to that of purchasing a cheap but reliable medical oxygen demand valve and regulator. It is also relatively inexpensive to hire an oxygen cylinder and so have the ability to provide much higher and more consistent concentrations of inspired oxygen, more easily.

It has also been stated that no training is required in order to provide oxygen to an injured person using this unit. We strongly disagree with these views and these views are certainly not supported by current guidelines published by the Australian Resuscitation Council.

It is acknowledged that the EMOX unit has legitimate applications in certain but somewhat limited, medical scenarios. However we strongly believe that the EMOX in its current configuration has no place in the management of scuba diving injuries and other injuries that require the provision of high concentrations of oxygen.

Dr Simon Mitchell Specialist Diving Physician

John Lippmann
Executive Director,
Divers Alert Network SEAP
Author, Oxygen First Aid

XS DECOMPRESSION SOFTWARE

The following appeared recently in the British publication "Cave Diving Group Newsletter"

A few months ago I sent a copy of my decompression software to Fred Winstanley. Recently, Fred has got in touch again and I have had a great response from other CDG members. With the popularity of XS growing I think it is time to give a little background on it.

About eighteen months ago I started thinking about some dives I was planning in the Gouffre de St Sauveur in France. The dive involved multiple gas switches and a sawtooth profile. I knew it was going to be difficult because the only software I had access to was Proplanner, which had failed so dismally on earlier dives there and in the Ressel. Six levels are nowhere near enough. So I went to work on XS.

First thing was to gather the information. I chose the Buhmann ZHL16 algorithm because it is well tested but Prof. Buhmann's book (in English) is long out of print. I got the half-times and a/b values from internet sources, the theory from many books and a lot of the mathematics I had to work out from first principles, such as numerical series and logarithmic decay. And I hadn't been near an algebra lecture in ten years! Another big source of help was the decompression ftp site on the internet (<ftp://ftp.decompression.org>) which has many good papers posted to it, and people like Bill Hamilton and Richard Pyle on their mailing list. I took what I found and bundled it all together.

The next hurdle was learning how to write a computer program. Armed with books and software I taught myself, and I wrote a lot of

the code at work when no-one was looking (now you know why the electricity board charges so much). After a few nights of finishing at 4am I got version one running. An e-mail from German caver Juergen Bohnert solved my biggest headache and I sat back, hit the "Send" button on my e-mail program and sent copies of XS around the world for testing. It was about 100 lines long (tiny), worked well (amazing) and other people sold theirs for £150+ (shocking). The reports came back and everyone was happy, October came around and I did the dives I had planned without getting bent.

At this stage XS was text based and looked awful. One e-mail mentioned its potential if it was torted up and sparked by this I started work on a Windows 95 version. This meant a total rewrite and learning another programming language. I worked on it from December 1998 to February 1999 and the end result was pretty much as it is today. At this stage it was still a commercial project, estimated price was £35. I sent versions to various magazines (Scuba World reviewed it in the spring) and retailers, as well as demos to the public. Liability issues changed my mind and I decided to make it available free of charge.

It is basically a straight Buhmann model, sixteen tissues for helium and nitrogen. Time, depth and gas mix are entered and the gas loadings in the tissues are calculated. This can be done any number of times. Early versions allowed for O2 analyser errors of +/- 1% (i.e. +1% for CNS tracking, -1% for tissue loading) but experience showed this was unnecessary so I took it out.

When the profile has been entered an m-value is calculated for each tissue. This is a function of the a/b values and indicates how much supersaturation (when the load rises above ambient pressure) each tissue can tolerate, which translates into a depth of water. Out of the sixteen m-values, the biggest is the controlling tissue and shows the shallowest depth to which the diver can ascend without developing DCI symptoms. It also controls the depth on a multi-level, sawtooth dive. The ascent ceiling is rounded up to 3m multiples (e.g. -20m to -21m, -4m to -6m, etc.) to give the depth of the first stop.

Tissue loading (ongassing) and unloading (offgassing) in XS happen at different rates. Also if the diver is working XS assumes that ongassing will be even faster as blood flow increases. Similarly if the diver is cold then offgassing is made even slower to compensate for reduced blood flow to the extremities. These features can be adjusted by the user.

Decompression is calculated by looking at what happens when the diver spends 1 min at the stop breathing a certain gas. The ascent ceiling is recalculated and if it is more than 3m shallower than the current stop then it is safe to go 3m up. If not then another 1 min is spent there and the ceiling calculated, and so on until the ascent ceiling changes by 3m. The total stop time is the total number of 1 min intervals at each stop it takes to change the ascent ceiling by 3m - this is known as iterating. XS uses a 15 second interval for greater accuracy.

I feel that on longer dives the circulation becomes less efficient so the last stop gets lengthened by 1 min for every 10min of required time. The depth of the final stop can be adjusted. 3m is traditional but 6m is considered optimal for safe oxygen "window" effect. In habitats 9m is possible but oxygen below this is inherently risky from toxicity and oxygen bends (it starts to ongas at around

1.92bar). Any gas is available at any stop depth.

My big criticism of Proplanner was not that its deco was too short but too shallow. In general XS makes the first stop deeper, but I incorporated other techniques. Deep stops are widely accepted as being beneficial and the first technique I incorporated was Richard Pyle's. Pyle stops are a way of slowing the ascent in the deep section and the method is well documented. Next Juergen Bohnert suggested another idea that I liked. A seventeenth tissue was added to the model, extremely fast but with a very small supersaturation tolerance. This made the first stop very deep and caused the ascent to go in 3m/1min stop intervals until the normal deco started. Overall the total deco time stayed the same as without it, but the stops were better distributed. Using this method I also feel safe missing out up to half of the final 6m stop (not recommended for safety reasons - everyone is different). Finally I added a gradient method similar to Eric Baker's as a less extreme option for trimix dives (air/nitrox dives get greatly increased).

Most software ignored the no-deco limit but it is often useful to know, especially on multi-level nitrox dives. As far as I know XS is the only means of planning a multi-level no-deco dive where nitrox is being used: even PADI's Wheel is limited to air. It is simply the time it takes to make the ascent ceiling change to deeper than 0m, in computing terms it only take a couple of lines of code, but it can be valuable.

XS always predicted the amount of gas needed for any dive but I felt this was not adequate. I wanted to see how much gas I had available at any point during the dive so the Gas Manager was added for real time tracking.

For altitude diving, XS allows an acclimatisation period for changes in altitude.

This makes the resulting plan much shorter than it would be by just typing an altitude and going straight to the plan. Again this is a feature which Proplanner lacks.

Finally, with the growth of rebreathers, closed-circuit functionality was added. This is the first release with rebreathers and it is still rudimentary, but it does allow for any diluent, no-deco calculations and open circuit bailouts.

Future developments are planned. I'd like to make it easier to use, make bail-out plans automated, improve rebreather functionality, add in a report feature (where the dive details can be output to a text file, including tissue loadings and surfacing m-values) and allow Excel spreadsheets to be generated from dive plans. I would also like to link it to survey

program output for dive planning e.g. you pick your start point on the survey, pick your end and XS plans the dive. XS is an ongoing project and will remain available free of charge to CDG members. However, for liability reasons, attention is drawn to the disclaimer that XS should not be used for planning actual dives, but obviously I cannot control what the end user does with it.

Available from

<http://www.lizardland.freemove.co.uk/download.html>

Stuart Morrison

CDG Newsletter 135- April 2000

UP-COMING COURSES

CAVERN/SINKHOLE

12th - 21st January 2001

4 days practical and 20 hours theory

Exceeds minimum requirements for the same costs.

For further information please contact Max B Marriott CDAA 1268

Phone (08) 8447 3360 or email: dive69@senet.com.au

CAVE

26th February • 30th April • 30th July • 26th November

For more information please call Warrick McDonald on 0408 374 112

or email abocean@dingley.net

CAVERN / SINKHOLE

5th February • 11th June • 3rd September • 5th November

For more information please call Warrick McDonald on 0408 374 112

or email abocean@dingley.net

FORESTRYSA / CDAA SITE ACCESS INFORMATION

GENERAL

For access to ForestrySA dive sites the following conditions apply:

- Permits for Pines, Mud Hole, Hells Hole, Nettle Bed & Iddlebidy may be obtained by one of the following:
 - e-mail - forestry.recreationse@saugov.sa.gov.au
 - fax - (08) 8724 2885
 - post applications to - ForestrySA, PO Box 162 Mount Gambier, SA. 5290
 - phone (08) 8724 2876 between 8:00am and 4:30pm weekdays
- Permits can be picked up from the Carter-Holt Harvey Mill gatehouse, Jubilee Highway East, Mount Gambier.
- The forest is closed to the public on days of Total Fire Ban.
- Forest Work Bans (which also exclude public entry) may be imposed by ForestrySA on extreme fire danger days.
If in doubt, check with Ranger Trevor Wynniat, although signs are generally erected at diving sites to indicate such bans.
- Specific permission is required to operate a petrol driven compressor during the Fire Danger Season, ie November to April inclusive (to be included with permit application)

NETTLE BED AND IDDLEBIDDY: *(Please note changes)*

- **Nettle Bed:**
 - Restricted to - maximum of 4 divers per day, (Penetration rated) 1 dive per day
 - Applicants to specify preferred day(s), as this site may now be multiple booked each weekend (Saturday or Sunday)
 - Bookings to be in writing (e-mail ok)
 - Key picked up from Lady Nelson Visitor Centre
- **Iddlebidy:**
 - Open every Saturday
 - Restricted to - maximum of 4 divers per day (Penetration rated) 1 dive per day
 - Bookings to be in writing (e-mail ok)
 - Key picked up from Lady Nelson Visitor Centre

HELLS HOLE:

- Gate key can be picked up from Lady Nelson Visitor Centre

BAKER'S CAVE ACCESS DETAILS

LEVEL: CAVE

OWNER: Mr R. BAKER

ACCESS DETAILS

The ownership of the property has been transferred from Mrs J. Baker to her son and the CDAA has entered into a new agreement with him.

The site will be open the last weekend of every month, October through to April inclusive. There will be one group of up to six divers given access each day between 10:00 a.m. - 3:00 p.m. (SA time). At least one member of the group must have dived the site before.

Once a new indemnity has been obtained, (refer to website or CDAA Site Director) completed and returned to the CDAA Site Director, divers may apply for access. Write or email the CDAA Site Director one month in advance. Successful groups will be contacted in writing with further access details

All divers must enter and leave the property in one group keeping cars to a minimum.

All divers require full SRT climbing equipment although there is an "A" frame at the site.

No Compressors are to be run on site.

No smoking is permitted.

There must be one diver on land at all times.

DIVING AGREEMENT

THIS AGREEMENT is made on the date in the Schedule hereto **BETWEEN** the person named and described in such Schedule (hereinafter together with his or her administrators and executors is called the "Diver") of the first part AND **ROBERT EDWARD BAKER or SHELLY LYNN BAKER** of Stock Route Road, Mt Schank, South Australia, 5291, (the "Owner")

WHEREAS:

- A. The Owner is the owner of the land known as Haven Hill at Mt Schank (the "land") on which there exists an underwater cave known as Bakers Cave (the "Cave")
- B. The Owner will permit the Diver to dive at the Cave if the Diver complies with certain conditions and requirement of the **CAVE DIVERS' ASSOCIATION OF AUSTRALIA INCORPORATED** (the "Association") and indemnifies the Owner against claims made against the Owner as a result of granting such permission.

NOW IT IS HEREBY AGREED AS FOLLOWS:

- 1. In consideration of the payment of the sum of ONE DOLLAR (\$1.00) to the Owner by the Diver, which sum is payable on demand, the Owner will permit the Diver to enter and dive in the Cave provided that the Diver complies with the terms of this Agreement and all the requirements of the Association on each and every occasion that the Diver dives in the Cave.
- 2. The Diver enters and remains in the Cave solely at the Diver's Risk.
- 3. The Diver agrees that he or she has undertaken proper training and testing programs so that prior to diving in the Cave the Diver has satisfied the Association and has passed tests which show that the Diver is capable of diving safely therein and is aware of the dangers and characteristics of the Cave and is capable of safely handling and facing those dangers and characteristics, and without derogating from the generality of the foregoing is aware of the dangers and likelihood of silting of the waters and the reduction in visibility and other dangers and hazards of deep water diving including nitrogen narcosis and decompression sickness and further is capable of using hand lines to exit from the Cave safely in conditions of low or zero visibility.

- 4. The Diver acknowledges that he or she is aware of the characteristics and dangers of the Cave.
- 5. The Diver Agrees that he or she will not dive in the Cave unless -
 - (1) The Diver is accompanied on any dive by a current member of the Association.
 - (2) The Diver has been tested by and has current approval from the Association to dive in the Cave; and
 - (3) The Diver is equipped in the manner specified by the Association.
- 6. The Diver agrees that he or she will not make any claim or initiate any proceedings against the Owner or any of them which may result from or relate to the Diver's presence in the Cave.
- 7. The Diver agrees that he or she will indemnify and hold harmless and will keep indemnified and held harmless the Owner and each of them from and against all claims, demands, costs, damages, losses, expenses, actions or proceedings arising out of, connected with or in any way related to -
 - (1) This Agreement; and/or
 - (2) Any diving that the Diver may do in the Cave; and/or
 - (3) The presence of the Diver in or around the Cave; and/or
 - (4) Any advice or information given to the Diver by the Owner or any of them.
- 8. If the Diver is a member of the Association, when on the land he or she shall produce his or her current Association membership card to any of the Owner upon request.
- 9. The Diver will ensure that no damage is sustained to the property of the Owner by the Diver or persons accompanying him or her and that any property will be left after any dive in the same or better state as found on entry.
- 10. The Diver hereby acknowledges that by signing this Agreement he or she has read and fully understands the obligations contained in it.

THE PARTIES TO THIS AGREEMENT EXECUTE IT:

SIGNED by the **DIVER**

In the presence of:

..... Witness

SIGNED by **Robert Edward Baker or Shelly Lynn Baker**

In the presence of:

..... Witness

THE SCHEDULE

DATE OF AGREEMENT:

**FULL NAME AND RESIDENTIAL
ADDRESS OF THE DIVER**

.....
.....

CONSTITUTIONAL CHANGES

There was recently a number of items put to the membership. The following is the result of that vote.

AMENDMENTS TO CONSTITUTION AND REGULATIONS.

Constitutional Amendment Number 1

Amend Section 8 to read:

8. MEMBERSHIP CATEGORIES

- (1) There are four (4) categories of membership: - full membership, life membership, associate membership and inactive membership.

AND

Insert New Section:

9A INACTIVE MEMBERSHIP

- (1) Inactive membership is available to full members, with current membership only.
- (2) Inactive members have no diving or access rights, but subject to Section 9A(3) retain the rights and responsibilities of full membership
- (3) Inactive members may vote at elections or on member motions, but an inactive member may not stand for election, nor nominate any person for a directorate position, nor propose or second any motion.
- (4) A full member, who has paid membership fees in advance of the current membership year, will not be entitled to a refund of any fees, should an inactive membership election be made.
- (5) A member's CDAA membership card must be surrendered before an inactive membership is valid.
- (6) An inactive member may regain full membership status by applying to the CDAA Directorate and paying the prescribed full membership fee.

CONSTITUTIONAL AMENDMENT NUMBER 2

Amend Section 11(4) to read:

An associate member has no rights, including diving or access rights, (unless a temporary visitors permit has been issued by the National Committee), nor any obligations and cannot stand for election, vote, propose or second motions.

Amend Section 12(3) to read:

Associate members are not eligible to dive in CDAA sites unless a temporary visitors permit has been issued by the National Committee.

ALTERATION TO THE PRESCRIBED MEMBERSHIP FEE

According to the provisions of Section 13(2) a postal ballot was conducted and the results reported at the Annual General Meeting on October 21 2000. The results were to set the full membership fee at \$70.00 and the inactive membership fee at \$45.00. These fees are to apply from July 1 2001.

Alteration to the Regulations

Schedule 2: Fees, Levies and Charges

Delete

Annual Membership Fee \$50 (due July 1 each year)

Insert

Annual Full Membership Fee \$70 (due July 1 each year)

Annual Inactive Membership Fee \$45 (due July 1 each year)

RESEARCH & MAPPING PROJECTS

ONE TREE PROJECT

With the assistance of September and October's great water clarity, the initial base markers have been put in place and basic reference lines run throughout the sinkhole. The visibility has enabled divers to achieve quick results and easily position good reference points. Detailed mapping is anticipated to begin in November with a concentrated effort by multiple dive teams.

All data will be compiled and maps are to be presented to the CDAA for publication and subsequent use by all members.

The project team appreciate the patience of other members during mapping periods and apologise in advance for any inconvenience it may cause. Divers should feel free to dive as normal during times survey work is being conducted.

3 yrs warranty

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MURRA FROM WITHIN

By Gary Bottomley

Into the darkness we gather on the edge of rocks and dust. Descended from the surface we stand wearily. Perspiration drips its toll of exhaustion upon the earth and clay beneath our feet. Yet before us, Murra reveals its allegoric pool. We garb ourselves in strange adornments, breathing pipes and metal sacks of air; masks of glass, reels of cord and needled gauges.

We then submerge into emotion, and in abstracted pools of thought we pass through the water filled narrowing.

Angular slabs of rack collapse close in, like the dying limbs of soulless people. Momentarily I am clasped. Somewhere I hear, somewhere I feel the grinding. It grabs at my consciousness and wakes me. I twist and keyhole my body until my mind is free to wander as I am released.

In a gap between my thoughts, I propel onwards. Deeper into the cavity, into the silence, into the space. My released breath leaves its fingerprints of beaded mercury upon the ceiling. It pauses, then rolls slowly into a wavering mirror above me. I stare upwards at this strange phenomenon. And there I linger, until off to the right, I notice my companions have gone.

The opening before me is low. Through the mouth of the silty flattener I am summoned. It demands concentration less the silt spirits are disturbed. In the confinement, we steal past its sleeping breath, until suppression breaks into space.

White curved soulless sculptures converge towards me, as we lay out the umbilical cord behind us. The surrounds expand like sorcery. We feel small, finite beings in an infinite space. Like insect helicopters, we hover above this limestone wilderness. But there are no sounds here, only bubbles; teetering and gathering upwards, away from our beams of light and disappearing into the dark oblivion behind us.

We find ourselves ascending, drawn upwards, we rise higher to the peculiar shimmering above us. Like a silver halide mask, the mirror envelops us, as we pierce its skin to gain the surface. Water droplets fall from our faces as we are encapsulated in an isolated atmosphere, a long way from anywhere; a long way.

But here rests the remnants of a long forgotten sea. For we are surrounded by its crystallised spirit, and here the bejewelled salts thereof, adorn and sparkle, like no other place that I have ever seen. I breathe this rare air and speak in echoes, this wonderment, this; and I am lost for words. This is a secret place and I am struck with awe.

In another corridor, a soft subterranean river of shapes I find myself, and therein myself, I ask myself, where was I? And then I argue my existence with myself until the shadows of my companions wisp along the walls, to travel alongside their other selves. My gaze is transfixed upon this strange apparition until inadvertently I tilt my head and hence my torch beam, causing

their shadows to crossover, and their essences to return. And I am still here.

As the passage moves around us, we move through it. It undulates gently; its proportion and form engage my feelings. Beauty passes by on either side. In a dreamlike suspension, we fin onwards in syncopated rhythm. Those who are not here could not know, could not feel this aquiferous entity, a realm for all thoughts.

But still we endeavour onwards. Down this endless path we head, bending its edges, while its static pose paradoxically moves. It seizes my mind to soothe the angst that haunts me; but then surreptitiously stares back at me in my face, stirring time to deal its hand; and to leave my question begging.

In another corridor, a soft subterranean river of shapes I find myself, and therein myself, I ask myself, where was I? And then I argue my existence with myself until the shadows of my companions wisp along the walls, to travel alongside their other selves. My gaze is transfixed upon this strange apparition until inadvertently I tilt my head and hence my torch beam, causing their shadows to crossover, and their essences to return. And I am still here.

TENDERS INVITED

The CDAA invites all interested parties to submit tenders to run Oxygen Provider Courses. Courses ideally would run at Mount Gambier, and in the first instance would be run for Guides and Instructors. At a later stage any interested members may apply to participate. Interested persons should apply in writing outlining intended costs and time details to the Standards Director, PO Box 290, North Adelaide. SA. 5006.

For further information please phone either Paul Axton or Chris Edwards (details in Directory).

As the passage moves around us, we move through it. It undulates gently; its proportion and form engage my feelings. Beauty passes by on either side. In a dreamlike suspension, we fin onwards in syncopated rhythm. Those who are not here could not know, could not feel this aquiferous entity, a realm for all thoughts.

A signal erupts into my presence. All accept and we turn back from whence we came, from deep within, from wherever we were. We reach forward to reel in the umbilical. It has been called upon to keep the allusion, to keep the

truth, to keep us safe, to bring us back, to bring us home. To remember the allegoric pool of Murra El Elevyn.

And finally the emergence. Water dissipates, pours from my body, pools upon my mask revealing my companions. They appear from behind blurred droplets, which cover my vision, cover my sight. I remove my mask of glass, and although I now see quite clearly, I do not see things quite the same. In this atmosphere of air I breathe. I breathe. And I have little else to say, except that we are back, and I have returned.

UNAUTHORISED FIXED LINES IN CDAA RATED SITES

On a recent trip to the Nullarbor I was disappointed to find yet another fixed line placed (poorly placed I might add) in a CDAA rated site without approval. So what?, you may ask, it's only a line to find our way in and out of the cave.

Let's quickly look at accepted line protocol and start with Guideline classification:

Temporary guidelines are intended for installation only for the duration of the dive(s) planned at one location by one group of divers and are removed upon completion of the dive(s).

Permanent guidelines are intended to remain in the cave indefinitely to provide directional assistance to divers along the main passageways and frequently visited side passages. They are carefully installed to remain away from the ceiling, avoid line traps and are laid low in the passage to avoid line entanglements. Permanent lines are marked with appropriate markers (typically line arrows) to indicate the direction to the exit and often include the distance to the exit. They usually start back inside the passage to deter non trained divers from following them.

So back to our unauthorized fixed line in Murra-El-Elevyn. The line started close to the entrance lake, it did however require a short line to connect it to the surface. From there the line zig-zaged it's way along the tunnel forcing you to cross over it several times. It passed down into the low flattener where it then ran along the roof forcing you to pass under it. The line then ran against the wall as the tunnel curved to the left making it extremely difficult to maintain physical contact with the line in the event of an emergency.

What are some of the implications of the above example? Firstly confusion, several divers new to the site were unable to orient themselves properly in the cave because the official maps that they used to plan their dive did not show this new line and therefore their main point of reference, the official fixed line, appeared to be in the wrong place. Secondly the potential for divers to venture well out beyond their own comfort zone existed because of the temptation to follow the "nylon highway" rather than lay a temporary line and explore only as far as they were comfortable.

The decision to place a permanent fixed line in a cave is not to be taken lightly. Apart from the previously mentioned problems other factors need to be considered. Part of the attraction to the sport of cave diving is the thrill of exploration, even if hundreds of people have been to the same part of the cave before, your first time there is still just as exciting if you are exploring and laying your own line. Unnecessary fixed line in a cave is just as much graffiti as is some ones initials carved into clay blocks.

If you feel strongly that a certain site needs a fixed line the correct procedure is to put forward a proposal to the Directorate for consideration, there may be factors to be taken into account that you hadn't realized. On the other hand you may just get the go ahead and it's corresponding 15 seconds of fame.

Safe Diving

Paul Axton.

P.S. Found 150m white braided nylon line only used once, contact CDAA Standards Director for details.

WARBLA CAVE - NEW SECTION AND LAKE DISCOVERED

Compiled by Paul Hosie (CDAA 3040)

Completion of an underwater survey of Warbla Cave by ASF (Australian Speleological Federation) and CDAA cave divers with the Sydney University Speleological Society (SUSS) has uncovered a whole new section of the cave. The new section includes over 200m of submerged passages, Avens, a large room named 'New Kingdom' and a previously unseen lake named 'The Lost Lake' by its discoverers. The divers also managed to connect a 200m circuit between the Bathtub Tunnel and the floor of the New Kingdom room.

A full downloadable map of the underwater cave is available at the Cave Diving section of www.trimixdivers.com



Cave Diving Videographer Paul Boler

THE CAVE

Warbla Cave is located on the Nullarbor Plain on the SA side of the WA/SA border and lies within the Nullarbor National Park. The cave has been closed as a reference site to cavers and cavedivers

alike for some years, but the NPWS granted access to SUSS so they could map the cave, as well as collect water chemistry and bacterial samples for analysis to assist with ongoing research into Nullarbor cave formation by the Sydney University. It was the author's good fortune to be invited to join the group and dive some of the Nullarbor's more obscure wet caves under the group's permits and ASF auspices. See related article "Nullarbor 2000" for full cave diving trip report.

Those of you who have seen the excellent video 'Nullarbor Dreaming' will know that the entrance to Warbla cave is via a 50m vertical pitch into the massive sinkhole doline. The abseiler then finds themselves on the side of a rockpile in the mouth of the cave. A 200m walk down and across fallen rock collapse leads to the diminutive and aptly named Bat Dung Lake. The lake is down the edge of the dry cave's terminal rockpile under an enormous Dome roof structure, a typical feature in the Nullarbor giants. Exit from the cave is via 20m of caving ladders rigged at the highest point of the talus slope which can be used as an alternative descent point for those averse to big abseils!!



The Pitch Down into the Mouth of Warbla Cave



The Abseil into Warbla Cave

The underwater section of the cave is arguably the most beautiful of the twelve wet caves currently known on the Nullarbor. It has a very diverse structure including phreatic and breakdown passages criss-crossing each other on at least three different levels, two (now three!) beautiful lakes that can currently only be accessed by cave divers and the mysterious Avens – circular holes in the tunnel roof and floors that resemble solution tubes but are more

closely related to blowholes in structure. Cracked clay blocks in some parts of the cave give indications of ages past when water levels were up to 20m lower than they are today. There are also bacterial colonies found in the cave and they are discussed in more detail in the associated full trip report forwarded with this article.

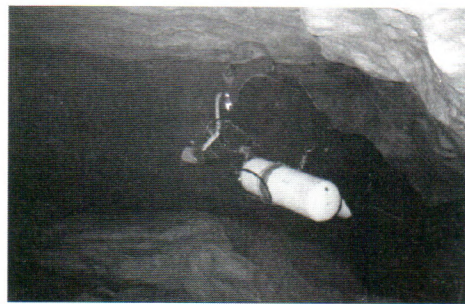


Paul Boler exiting a Restriction

THE DISCOVERY DIVES

Following earlier survey work by the WA cave diving group the PACK Rats, SUSS and CDAA cave divers remapped the underwater sections of the cave in Sept 2000 during an 'Escape the Olympics' trip. The divers, wearing sidemounts, entered a low flat section of passage that started high on the wall of the cave near the Hammerhead Passage. This passage seemed to end after 50m at a boulder choked, low flattener restriction some 80cm high and 1.5m wide. As a black void was seen past the choke, the divers removed the offending blocking rocks and passed the restriction at a depth of 10.7m. The low flat passage immediately opened out into the New Kingdom room – a vertically oriented rectangular box shaped room 19m long, 9m wide and 13m from bottom (depth 18m) to top (depth=5m). Tunnels were seen leading straight ahead (SSW) across New Kingdom, down to the left (East) at 13m. Curious boulder choked

floor holes were also seen. Heading straight across to the obvious lead, the divers followed the tunnel for 22m and explored an Aven chamber in the roof that almost went to surface (-3m) before turning around to exit the cave on thirds.



Rod O'Brien on Sidemounts

On subsequent dives, the New Kingdom floor holes revealed a connection to the Bathtub Tunnel, which was later traversed. It was however, the Eastern lead at 13.5m depth that revealed the new lake. Another rockpile collapse had choked the way on some 30m past New Kingdom so an underwater redecoration party was held which cleared the way on for access to the Lost Lake and discovery of another 90m underwater loop connection. The new lake is smaller than the other submerged lakes and slightly smaller than the entrance – Bat Dung Lake (so named after the bat guano dust that settles and floats on the lakes surface in clumps which sticks to you like _ _ _ _!) The Lost Lake has no such problem as even the bats can't get to it – not until the water level drops at least 14m or passage collapses in from above – either event being highly unlikely in our lifetimes. Because of the small size of the room above the Lost Lake, the air is quickly becoming foul with divers' exhaled CO2.

Surveying dives were completed by buddy pairs using a 30m tape, compass and home made survey slates. Reverse magnetic bearings were taken to reduce the influence of steel tanks, regulators and the like. It was found that the existing maps of Warbla were not a good representation of the underwater passages, the new map now offering a far more accurate representation. The map is available for all to download from the Nullarbor Cave Diving section of www.trimixdivers.com



The reason it's called Bat Dung Lake !!

CAVERS AND CAVE DIVERS

Noting recent discussions in Guidelines, this subject may be contentious among some CDAA members. The author's experience with the SUSS group demonstrated very clearly the strengths and benefits of cavers and cave divers working together. We could not have accessed some of the sites we did without involvement of the ASF and caving/cave diving under their Code of Ethics & Conservation as well as the ASF Minimal Impact Caving Code. It is now completely obvious to the author that cave diving comprises two important aspects: caving AND diving !! In a lot of the sites around Mt Gambier, this is generally not a consideration – you pretty much just flop in the water. On the Nullarbor and most other diveable caves in

Australia, you don't have this luxury - you have to go dry caving before you get wet to go cave diving.

Cavers and cave divers working together help one another better understand cave formation, passage structure and where new leads are likely to be found. Although the discovery of the new passages in Warbla came about through systematic cave surveying, it has helped reveal aspects of the development of Warbla and other caves on the Nullarbor. In the future, it is hoped that this knowledge will help to reveal new passages – both above and below water. It is the author's opinion that ONLY by dry cavers and cave divers working closely together will cave diving

in Australia be substantially furthered from where it is now.

The survey data is available at the ASF Cave Diving website <http://www.ee.usyd.edu.au/~keir/surveys/surveyIdx.html>

A downloadable copy of the Warbla underwater map, as well as details about other cave diving sites in Australasia can be found under the Cave Diving section of www.trimixdivers.com

Thanks go to NPWS for allowing access by the SUSS group which it is hoped will be continued in the future in order that more of this magnificent cave might be revealed.

ENGELBRECHTS EAST WORKING BEE

Engelbrechts East would have to be one of the most interesting cave sites to dive in Mt. Gambier. Admittedly, though, it has also been a site that I have avoided in recent times. Dropping water levels have made it a lot more challenging and the memory of clambering over rocks with twins on my back to get into tunnels often didn't appeal

However, with several of my dive buddies having recently gained their cave certification, interest was renewed and after obtaining a key from Lady Nelson Information Centre one day in June, we made our way to Engelbrechts East. Much to our bewilderment, the key would not unlock the light boxes. Undeterred, we continued with our dive torches lighting the way. Having reached the lake, we found it

impossible to light the lake up enough with our SL4s to judge the water depth, so I briefed the group on our usual procedure of launching into the lake on the left and floating towards the entrance. Since there was only three inches of water in the lake, we decided to wade in a little further until We found enough depth to launch into. Instead, we sank knee deep into the silt. Of course the cloud then rolled down into the entrance and we had to abort the dive filled with frustration and confusion. When we enquired about the light situation, we could not obtain any explanation other than there was an ongoing dispute between the CDAA and Lifeline.

Six weeks later, we were back in Mt. Gambier and we decided to give it another go. As we were preparing, we bumped into

one of the Lifeline guides who we asked about the lights. He voiced his frustration at not being able to reach a resolution with the CDAA regarding the silting of the lake by the divers and we explained our frustration and our last experience of attempting to dive the site the previous month. So together we went and had a look at the lake with all the lights on. Much to our surprise, the water level was in fact so low; that we had stood no chance of entering by our usual procedure from the left of the lake. The only place to launch successfully was directly ahead and even then the deeper water was too far away to do this successfully without wading through the shallows first. We pondered over this for a while. Then we set a wooden plank across the lake into the deeper water. We did a trial dive, walking the plank to launch further across the lake. This worked a treat, except that the plank was unstable and that if we had to do this without lights as well, it would be very dangerous.

So together with Lifeline we planned a working bee to build a platform and stairs down the mound into the water for launching into the lake, without disturbing the silt. Before leaving that weekend we installed an underwater light into the lake as a gesture of goodwill towards Lifeline to aid their lighting effects for their tours.

After some ground work and Lifeline organising a donation of 60 blocks of limestone from a local quarry, we arrived in Mt. Gambier on the 9th of September, for some hard work. Many divers and Lifeline guides worked together all day, carrying the limestone down to the lake and digging the blocks into the mound to form a platform and a staircase. After using up all 60 blocks (2 palettes) of limestone we were a little short to finish the platform, so one of the guides volunteered to go home and return with 6 more blocks which he donated to finish the job. As we stood exhausted at the end of the day and looked

at our work, we felt an enormous sense of achievement and satisfaction.

The next day we returned early in the morning to test our staircase! The entrance was effortless....the dive fantastic....the end result....a crystal clear lake. From the divers' point of view, the stairs provided an entrance which allowed for a most enjoyable dive. From Lifeline's point of view, the clarity of the lake and the interest created for the tours, were greatly appreciated.

Credit for the success at Engelbrechts East needs to go to a lot of people. I would like to thank Stafford & Earle Quarry for their donation of the 60 blocks of limestone and to Kevin Mott for the additional donation of the extra 6 blocks of limestone from his home. I would like to thank the following

Lifeline guides for their hard work on the day: Cliff Collier, Kevin Mott, Neil & Bernice Dickens, David Klemm and Jerry Coghlin. Also the following divers and friends for their determination and hard work to make Engelbrechts East a pleasure to dive again: Andrew Higgins, Jurgen Gehrer, Mike Eccles, Rod Smyth, Mike Reed & Debbie Saunders.

It's very important for us to remember that diving in Mt. Gambier is a privilege and that cooperation and respect always achieves the best results. Needless to say, we once again have access to lights at Engelbrechts East. Happy diving!

Helen Genitsaris CDAA 3067



CDAA SITE ACCESS

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

CN = CAVERN S = SINKHOLE C = CAVE P = PENETRATION

SITE	LEVEL	OWNER	ACCESS DETAILS
MOUNT GAMBIER - SOUTH AUSTRALIA			
Ewens Ponds	Nil	DENR P.O. Box 1046 Mt Gambier 5290 (08) 8735 1177	Groups of 6 or more, phone/mail to Dept. of Environment & Natural Resources (DENR). Smaller groups, no need. Indemnity form to be completed.
Horse & Cart Tea Tree	CN CN	Peter Cunningham PO Box 2168, Mt Gambier 5290	By phone or mail, 1 week prior. Ph: (08) 8738 4003.
Little Blue	S	Port MacDonnell	Little Blue - permission not required - must carry card.
Allendale	C	Port MacDonnell	Obtain key from Mt. Gambier Tourist Information Centre.
Gouldens	CN	DENR	General Diving: Divers to contact DENR and notify of date and site to be dived. Divers must have the correct CDAA diving endorsement for the site. The onus of proof of CDAA status is on the diver and is provided by presentation of CDAA membership card or DENR checking the membership list supplied by CDAA. If there are problems with the diver not being a current financial member DENR will not be chasing the records officer to sort out the problem. This will be the responsibility of the diver. The diver must have signed an indemnity with DENR before access is permitted. Training: The Instructor is to notify DENR of the date the sites are needed and to forward signed indemnities from each student and their temporary card number. membership number.
2 Sisters	CN	P.O. Box 1046	
Fossil	C	Mt Gambier 5290 Ph: (08) 8735 1177	
Ela Elap One Tree	S S	Mr. Peter Norman Private Bag 67, Mt Gambier 5290	By phone or drop in before diving. Ph: (08) 8738 5287
Swim Through	C	Valerie Earl PO Allendale 5291	Currently CLOSED pending new access arrangements.
Piccaninnie Ponds	S	DENR P.O. Box 1046, Mt Gambier 5290	Permit holders by phone. Be aware of delicate vegetation. Indemnity form to be completed. Ph: (08) 8735 1177 Faxed copies of cards no longer accepted when booking.
Hells Hole Pines	S	ForestrySA	Contact ForestrySA by mail, phone or fax to arrange permit. Collect permit from Regional Office, Jubilee Hwy., Mount Gambier. No diving on total fire ban days. Forest Work Bans may be applied by PISA Forestry if forest fire danger is expected to reach extreme. Such bans also exclude the public from entering the forest. If in doubt, please check with Trevor Wynniat, although signs are generally erected at diving sites on such days to indicate such bans. Permits will ONLY be issued Mon-Fri between 8.30am-4.30pm. Ph: (08) 8724 2876 Please use this number for all bookings and enquiries etc. Fax: (08) 8724 2885 Email: wynniat.trevor@saugov.sa.gov.au. Written confirmation required.
Mud Hole	P/C	PO Box 162	
	C	Mt Gambier 5290	
Kilsby's	S	Landowner leased to S.A. Police	Restricted access conditions apply - refer Guidelines Issue 54. Twin tanks, maximum of 40 metres depth. Write to: 40 School Road, St. Andrews 3761, Email: mpain@hipex.com.au, 4 to 6 weeks prior to wanting to dive. Please enclose stamped self-addressed envelope (Do not contact landowner). Access date now the first weekend of every month. No animals permitted. No mid-week diving.
Shaft	S	Generally open one weekend a month L. Claridge P.O. Box 290 North Adelaide 5006	For access dates contact Linda Claridge. Also, see Special Access Bulletin in Guidelines issue 69. Nitrox as a diving mix is not allowed in the shaft. Deco mixes ATTACHED to a shot line are permissible. Divers applying to dive in the Shaft must have documented experience of a least 5 twin-tank dives. Sept 2/3, Oct 2/3, Nov 4/5, Dec 9/10, Dec 30/31.
Ten Eighty Bullock Hole Black Hole	S S S	Mr. Colin Traeger PO Box 12, Mt Gambier 5290 (08) 8726 6215	Sundays only Mail Booking Form to Colin Traeger 2-6 weeks prior, stating names/qual. of all divers, and time slot. Please include stamped self addressed envelope. Closed October to November for shearing.

CDAA SITE ACCESS

SITE	LEVEL	OWNER	ACCESS DETAILS
MOUNT GAMBIER - SOUTH AUSTRALIA (continued)			
Max's Hole	C		Phone or mail 1 week prior to dive. Ph: (08) 8726 8277 Currently closed pending access arrangements with new owner.
Hann's cave	P	P & A Lasslett	Groups of four divers only apply in writing to Site Director. Limited groups will be allowed access over the summer months. The site is very delicate and therefore only limited access is available. Divers applying will be notified as to further access details. Please include a stamped self addressed envelope.
Engelbrechts - East - West	C P	Mt Gambier Council	Obtain key from Mt Gambier Tourist Information Centre. Access agreement must be signed prior to diving. Key must be returned by 5pm Sunday, 2 divers must sign out keys, all divers must sign in advising which groups they are diving with.
Three Sisters	P	Millicent Council	Contact Linda Claridge. Access available for experienced Penetration divers only. Low profile or side mounted independent air systems required. Access agreement must be signed prior to diving. Please allow 4 weeks for indemnities to be processed.
Iddlebiddy (5L250)	P	ForestrySA PO Box 162	5L250 open 1st & 3rd weekend of every month. 5L290 open every weekend. Max. 4 divers per dive per day, 1 dive per day for each site. Only Penetration divers completed practical in-water cross-over. Bookings from Forestry Office - key from Lady Nelson. Contact ForestrySA by mail, phone or fax to arrange permit. Collect permit from Regional Office, Jubilee Hwy., Mt. Gambier. No diving on total fire ban days. Forest Work Bans may be applied by PISA Forestry if forest fire danger is expected to reach extreme. Such bans also exclude the public from entering the forest. If in doubt, please check with Trevor Wynniat or Forestry Office, although signs are generally erected at diving sites on such days to indicate such bans. Permits will ONLY be issued Mon-Fri between 8.30am-4.30pm. Ph: (08) 8724 2887. Please use this number for all bookings and enquiries etc. Fax: (08) 8724 2885 Email: wynniat.trevor@saugov.sa.gov.au. Written confirmation required.
Nettle-Bed (5L290)	P	Mt Gambier 5290	
McKay's Shaft	S		Contact Phil Argy at Mt. Gambier as access can be arranged.
Tank Cave	P	Mr. DY CER	Access Manager: Harvey Grantham Email: lemaire@senet.com.au Ph: (08) 8370 9816
Baker's Cave	C		Please write to the Site Access Director to dive in Baker's Cave. Include stamped self-addressed envelope. Climbing equipment required.
NULLARBOR - WESTERN AUSTRALIA			
Cocklebiddy	C		Apply in writing for permission to dive at least 4 weeks in advance of trip to: District Manager, C.A.L.M., PO Box 234, Esperance, W.A. 6450.
Murra El Elevyn	P/C		Phone: (08) 9071 3733 Fax: (08) 9071 3657
Tommy Grahams	C		
Weebubbie	C		Apply to Gerry Falleiro, A/Assistant Project Officer, South East Region Land Administration Services Branch Phone (08) 9273 7215 Fax (08) 9273 7414 Email: gerry_falleiro@dola.wa.gov.au PO Box 2222 Midland WA 6936
N.S.W. - WELLINGTON CAVES			
Limekiln (McCavity)	P/C		Both Penetration and Cave Level are being accepted for this cave depending on it's water level at the time. The cave has a restriction at the entrance which is underwater making it a Penetration Dive. During drought, the water level drops to form a small lake below the restriction allowing experienced Cave Divers access to this delicate cave.
Water (Anticline)	C		Affected by high CO ₂ levels during Summer/Autumn. Access arrangements are co-ordinated with an already commissioned research group. Contact Greg Ryan (02) 9743 4157 h, gregr@cs.usyd.edu.au
Rum Jungle Lake	S		No specific access arrangements.
Berry Springs			
Burrinjuck	S/C/P		This is a tri rated site. Please see details elsewhere in this issue. There are no specific access arrangements.



CDAA NOTICES

GUIDELINES DEADLINES

If you would like to contribute to Guidelines, you should note the following deadlines for submission of materials:

Deadline	for publication
15th February	March

NOTICE FOR INSTRUCTORS

Procedure for ordering student packs:

1. Check you are insured & financial.
2. Send order & cheque or by phone/credit card.
3. Allow 14 days from when the order is received - so allow plenty of time.
4. Student kits cannot be returned.
5. Instructors must be active.
6. Please do not pass my number on to dive shops - you should deal with them not me.

• INSTRUCTOR RENEWALS •

Several instructors have not yet renewed their CDAA ratings. Instructors must lodge their current insurance details and renewal fee or packages will not be issued and certifications rejected.

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Instructor Materials Officer

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STANDARDS DIRECTOR:

Paul Axton

Telephone: 0419 346 442

(email) 61419346442@mobilenet.telstra.net

INSTRUCTOR	CN	S	C	STATE	PHONE	INSTRUCTOR	CN	S	C	STATE	PHONE
NSW & ACT						WESTERN AUSTRALIA					
Nick Jones	.	.	.	ACT	0408 423 017 m	Gary Bush	.	.	.	WA	0402 339 652 m
Peter Grills	.	.	.	NSW	(02) 4950 6262						(08) 9367 4701 h
					(8am - 12 midday)	Marilyn Boydell	.	.	.	WA	(08) 9349 5646 h
Gary Norgard	.	.	.	NSW	(02) 4968 4588 h	Steve Sturgeon	.	.	.	WA	(08) 9527 7667 h/w
Andrew Robertson	.	.	.	NSW	(02) 9525 0995 h						0418 940 143 m
					0414 412 563 m	VICTORIA					
Des Walters	.	.	.	NSW	(02) 6041 1405 h	Stephen Arnel	.	.	.	VIC	(055) 26 5230 h
					(02) 6025 3506 w	Paul Axton	.	.	.	VIC	0419 346 442 m
Liz Butler	.	.	.	NSW	0409 463 176						(03) 9782 1671 h
SOUTH AUSTRALIA						Gary Barclay	.	.	.	VIC	(03) 5565 8793 h
Greg Bulling	.	.	.	SA	0409 095 927 m	Jane Bowman	.	.	.	VIC	(03) 9579 2600 w
					(08) 8265 4978 h	Stan Bugg	.	.	.	VIC	(03) 9379 8791 h
Glen Harrison	.	.	.	SA	0407 608 609 m	Linda Claridge	.	.	.	VIC	(03) 5565 8793 h
John Hanson	.	.	.	SA	(08) 8269 1083	Brian Cornell	.	.	.	VIC	(059) 85 2514 h
Max Marriot	.	.	.	SA	(08) 8447 3360 h	John Dalla - Zuanna	.	.	.	VIC	0407 887 060 m
Richard Megaw	.	.	.	SA	(08) 8344 1733 h						(03) 9484 1216
Richard McDonald	.	.	.	SA	(08) 8295 4140 h/w	Chris Edwards	.	.	.	VIC	0417 116 372 m
						Barrie Heard	.	.	.	VIC	(03) 5627 6474 h
											0419 401 276 m
						Warrick McDonald	.	.	.	VIC	(03) 9579 2600 w
						Bob Wealthy	.	.	.	VIC	(03) 5985 8338 h
						Timothy Vernon-Smith	.	.	.	VIC	0418 325 309 m
						Frank Zeigler	.	.	.	VIC	(055) 236 392

TANK CAVE DIVING SCHEDULE 2000

JANUARY 2000		DATE	FEBRUARY 2000		DATE
Saturday		15th	Saturday		12th
Sunday		16th	Sunday		13th
Saturday		29th	Saturday		26th
Sunday		30th	Sunday		27th
MARCH 2000		DATE	APRIL 2000		DATE
Saturday		11th	Saturday		8th
Sunday		12th	Sunday		9th
Monday (Labour Day VIC)		13th			
			Friday (Good Friday)		21st
			Saturday		22nd
			Sunday		23rd
Saturday		25th	Monday (Easter Monday)		24th
Sunday		26th	Tuesday (ANZAC Day)		25th
MAY 2000		DATE	JUNE 2000		DATE
Saturday		13th	Saturday		10th
Sunday		14th	Sunday		11th
Monday (Adelaide Cup)		15th	Monday (Queen's Birthday)		12th
Saturday		27th	Saturday		24th
Sunday		28th	Sunday		25th
JULY 2000		DATE	AUGUST 2000		DATE
Saturday		8th	Saturday		5th
Sunday		9th	Sunday		6th
Saturday		22nd	Saturday		19th
Sunday		23rd	Sunday		20th
SEPTEMBER 2000		DATE	OCTOBER 2000		DATE
Saturday		2nd	Sunday		1st
Sunday		3rd	Monday (Labour Day SA)		2nd
			(Queen's Birthday WA)		
Saturday		16th	Saturday		14th
Sunday		17th	Sunday		15th
			Saturday		28th
Saturday		30th	Sunday		29th
NOVEMBER 2000		DATE	DECEMBER 2000		DATE
Saturday		11th	Saturday		9th
Sunday		12th	Sunday		10th
Saturday		25th	Saturday		23rd
Sunday		26th	Sunday		24th

WANTED



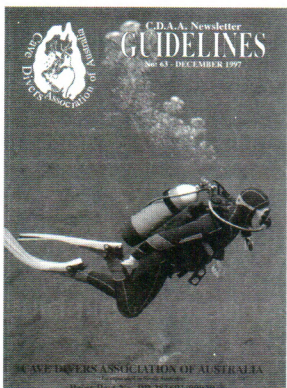
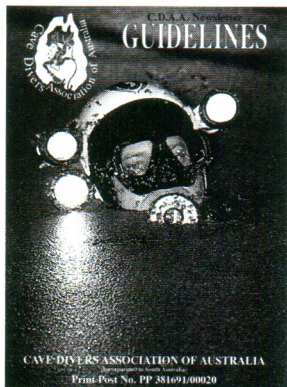
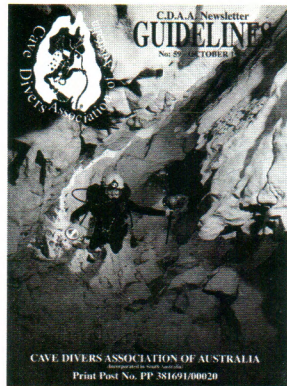
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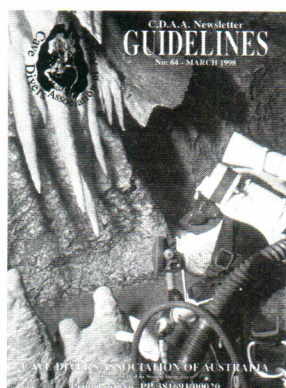
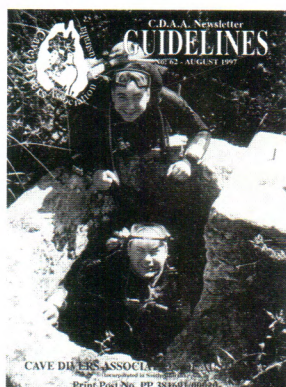
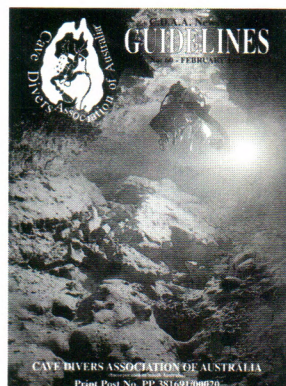
**The Editor, Glenn O'Connell
P.O. Box 290, North Adelaide, S.A. 5006.**

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BOOKS		Cave Diving Communications. A manual from NSS - CDS dealing exclusively with all underwater communications used in cave diving. Including touch, torch and line signals, and use of line arrows and jump reels. A must for all cave divers bookshelves.	\$17.50	
		Cave Diving - A Blueprint for Survival. A book by the world-renowned cave diver, the late <i>Sheck Exley</i> , this is a case study of a number of accidents that have occurred in the USA and how to avoid them.	\$15.00	
		Basic Underwater Cave Surveying. The standard publication for anyone remotely interested in research and survey techniques used in water filled caves.	\$30.00	
		CDAA Occasional Paper No. 2, From National Conference 1981. Includes topics such as Fossil Cave, Belay Techniques and Cocklebidy 1979.	\$2.00	
		S.R.T. Single Rope Techniques. Published by the <i>Sydney Speleological Society</i> . This is the definite work on all aspects of vertical travel in caves. Should answer most questions on rope work for cavers and cave divers alike.	\$27.00	
		DAN Emergency Handbook. Revised 1995 edition by <i>Lippmann and Bugg</i> . Printed on waterproof paper this essential first aid manual should be part of every cave divers' kit.	\$17.00	
		NSS Cave Diving Manual. The standard reference manual in cave diving covering just about every conceivable topic. New Edition.	\$55.00	
		The Darkness Beckons. By <i>Martyn Farr</i> . The history and development of cave diving.	\$55.00	
		An Introduction to Technical Diving. By <i>Rob Palmer</i> .	\$45.00	
		Deep Into Blue Holes. By <i>Rob Palmer</i> . This is the project manual written about his trips to the Bahamas, diving some of the most advanced and spectacular caves in the world.	\$55.00	
		NSS Cavern Divers' Manual. The standard reference manual in cavern diving covering almost every conceivable topic. Also most principles behind safe sinkhole and cave diving.	\$30.00	
		Caverns Measureless to Man. <i>Sheck Exley</i> .	\$46.00	
		Cave Practice & Equipment. Edited by David Judson British Cave Research Association. Updated 295 Page book fully illustrated with over 200 line drawings & 33 pages of dramatic photographs. Full chapter on cave diving by <i>Martyn Farr</i> .	\$40.00	
		New Edition of Peter Horne's Lower South East Cave Reference. An illustrated catalogue of the Lower South East Region of South Australia.	\$130.00	
		Australian Caving Diving - A Contrast. By <i>Tony Carlisle</i> . Four short documentary type videos on Warbla Cave, Three Sisters Cave, The Road to Toad Hall and Tank Cave. Reviewed in Guidelines 54.	\$25.00	
VIDEOS		Australia "Nullarbor Dreaming". A world record exploration into a desert cave. During November 1988, a team of Australian cave divers set out on an amazing adventure to explore the mysterious subterranean waters of the Panikkin Plains cave. This epic underwater exploration nearly ended in tragedy when a freak cyclone storm hit the area and the cave collapsed trapping the expedition below. The program is a graphic account of the expedition and their escape from the cave. Executive Producer - <i>Andrew Wight</i> .	\$29.95	
		Florida "Window to a Hidden World". The ultimate cave diving adventure. <i>Andrew and Liz</i> with fellow cave diver-explorer <i>Wes Skiles</i> , take us on a journey to discover the beauty and danger of the Florida aquifer. Beneath the surface of Florida lies one of the planet's largest freshwater reserves. The intricate system of water filled caves is now under increasing environmental threat from the population above. Producers: <i>Andrew & Liz Wight</i> .	\$29.95	
		Mexico "Water of the Gods". An exploration of ancient Maya ruins and underwater caves. Under the dense jungle of Mexico's Yucatan Peninsula lies a vast freshwater source relied upon by the ancient Mayas - a mysterious and complex people who built and occupied complex limestone cities in this region for over two thousand years. The <i>Wights</i> explore their hidden caves, uncovering their beauty and mystery, and providing a link to the past. Producers: <i>Andrew & Liz Wight</i> . Director: <i>Liz Wight</i> .	\$29.95	
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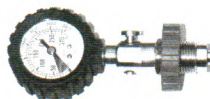


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