



C.D.A.A. Newsletter

GUIDELINES

No: 58 - JUNE 1996



CAVE DIVERS ASSOCIATION OF AUSTRALIA

(Incorporated in South Australia)

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EDITORIAL

Welcome to issue no 58. Let me begin by explaining the delay for the previous edition of the Guidelines. As you all would be aware, in an attempt to change over from the previous format a number of changes needed to be made, the most important being the need for advertising to help pay for the Guidelines. A publisher in Sydney attempted the task without success and pulled out at the last minute. I won't bother you all with the detail of the chain of events in finding a suitable publisher, except to say that it is truly a thankless and time consuming process. Anyway, I hope you all enjoy the new format.

While on the subject of advertising. I would like to remind you all that the people who advertise in the Guidelines pay for it and, in turn, support you. It is appropriate to recognise this and support the advertisers. I am not advocating that we all go out and buy shares in their business, but all it takes is, while speaking to them, just to let them know that you read about them in the Guidelines. It gives the advertisers a measure of the success of their advertising.

In this edition, you will read an article by Des Walters about the benefits of twin independent crossover manifolds. To balance this article, Greg Bulling has offered an alternate, but not entirely different view. Regardless of your opinion, crossover manifolds are a serious challenge to the traditional view that twin independent systems are the only safe way to cave dive.

For quite some time now, twin crossover manifolds (isolation type) have been used in sites at Mt. Gambier. Their use,

while isolated, has been accepted by a number of respected cave divers, even though they have not been specifically ratified by inclusion in the standards. One cannot ignore the benefit of their use in certain situations of cave diving.

It is disturbing to learn that common sense is not being applied by some members of the CDAA. I heard that recently some Melbourne divers were refused entry to the Shaft, because two of them had twin crossover manifolds. It is difficult to imagine a more ideal environment for this system to be used than in sinkholes such as the Shaft. There is more chance of divers being struck by lightning than seriously damaging their manifold on the roof of such a cave. I certainly do not advocate deliberately ignoring clearly defined standards based on personnel beliefs, however, it would be wrong to ignore an advancement, relevant to cave diving, on the basis of an outdated or illdefined standard. What is more important, is that CDAA members should not be inconvenienced by individual interpretation of that standard. Let us have some clear definition of what the CDAA will and will not accept.

Finally, with the assistance of more knowledge and computer literate members of the CDAA I am attempting to establish the CDAA's very own web page on the Internet. Ultimately I would like to see the Guidelines on the Internet. My email address is vk3vic@audio.apana.org.au and I welcome feedback, comments, letters and suggestions. Safe diving...

VICTOR KOSTIUK

CONTENTS

Editorial	3
Early Bird Special	5
Letters to the Editor	6
National Directors Report	
Lisa Bernasconi	8
Business Directors Report	
Warrick McDonald	11
Standards & Training Ian Lewis	14
Shaft Information	16
Incident Reports Lisa Bernasconi	17
CDA A Site Access	18
Twin Independent Crossover Manifolds	
Des Walters	21
Twin Independent Crossover Manifolds	
Comments Greg Bulling	27
Penetration Course February '96	
Sabine Schnittger	29
Diving in Piccaninnie Ponds	31
CDA A Instructors	32
In England's Green and Pleasant Land	
Anthony Keane	34
Trading Post	38
Diving with a D.U.D. Greg Bulling	39
CDA A Products	41

Front cover: Diver, Lamar Hires in Devil's Eye System, Florida. Courtesy of Dive Rite Manufacturing.

CAVE DIVERS ASSOCIATION OF AUSTRALIA

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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, Victor Kostiuik, 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.

CDA A DIRECTORY

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

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APOLOGY

RE: SHECK EXLEY MEMOIRS

The Australian Distributor of the memoirs of Sheck Exley would like to apologise for the lengthy delay in sending out orders to CDA A members. There was firstly a breakdown in communication between the CDA A & the distributor, then orders were so good we ran out of books!!

After having trouble reaching the publisher, we now finally have more books on the way, and the remaining unfilled orders will be sent as soon as the books arrive.

Those who are yet to receive their order should have been contacted personally by now.

Again we apologise for the rather slack service, and hope this hasn't caused members any difficulty.

LETTERS TO THE EDITOR

6.6.96

Dear Victor,

In response to John DZ's open letter in the last issue - I welcome such letters and the opportunity to clarify issues presented.

Initially what "election hype" (to date) concerns the author of the letter?

Nominations had only just been called for - perhaps John DZ was confused with Federal/State elections. When a CDAA campaign is underway, of course there will be debate originating from factional bases, not always desirable, but this is a product of our democratic system.

Speaking for myself, "clear policies" have been outlined at past AGM's, measurable and accountable policies including:-

- that I would organise site access making it easier for interstate divers to access sites on their limited trips to MtGambier.

- distributing site access work to new divers instead of relying on the constant hard work of the diving research group.

- completion of insurance cover (achieved and announced at the 1995 AGM).

- opening of new sites

- introduction of nitrox (although a limited beginning).

- re-negotiation of The Shaft access.

Unlike the writer of the open letter these appear to me to be measurable achievements that would have clear impact on my re-election in 1995 rather than the suggestion that "personality" was my dominant voting appeal.

In 1995 Karen, Ian and I organised and attended State meetings throughout the country. This year that hasn't happened due to a lack of funding. How would JDZ suggest we pay for regular State meetings? The question of workshop dive weekends is a valid one and will be addressed. Constructive criticism is not a problem.

The Directorate was accused of being "too busy" on other matters to deal with the concerns of the author. My response to this is that the responsibility of the Directorate involves prioritising matters and the priorities of the Directorate, representing all members, may not be aligned with those of the author - c'est la vie! It is insulting, as well as incorrect (as noted earlier), to say that unless the author's suggestions of a forum are followed, nothing is achieved.

Another inaccurate criticism by the author involves lack of delegation. In the last issue of Guidelines (56) volunteers were called for to head a constitutional review group, one offer of help was forthcoming and I had to ring around to find 3 more. Such is the usual response that one response was considered outstanding, or is it that the author is selective in serving the CDAA and is operating from a self-interested base? Site access perhaps?

The last point I will mention is the 3-5 year plan. It's outline and achievements were noted in past issues of guidelines. If these were too difficult to read or comprehend, the author is welcome to write and ask for clarification on any point. Yes, it is necessary for complaints, requests, etc, to be put in writing. This is a national, professional organisation, are we expected to remember all phone calls, anecdotal information, conversations, etc.? Not to mention any possible legal ramifications. It is absurd to suggest that we should accept anything less.

Lisa DZ (Bernasconi)

19th April 1996

Dear Victor

Congratulations on getting Guidelines back into its favourite format again - nice to see it again (finally)!

I had more than a bit of a chuckle at John

DZ's letter attacking the Directorate in Issue 57 - this, from the husband of the national Director! Whatever different opinions I have to John in other political aspects, I now respect him a hell of a lot more and only wish the other members of the Directorate were as open and honest (good on you, JDZ!).

Speaking of honesty, I thought you might like to have some interesting feedback on the letter you published from the Business Director, Warrick McDonald, that issue. Referring to what some of us believe was his rather unethical use of the CDAA mailing list for his own commercial purposes earlier this year, he stated that *"... I have used the mailing list, as I am entitled to, but to now deny it to others, after the horse has bolted, so to speak, would not be fair"*. Perhaps after such a public display of fairness and apparent integrity, Warrick McDonald might like to explain why he vehemently DENIED access to the list to me when I was considering contacting a number of members in March? Talk about two-faced. What's good for the goose is good for the gander, don't you think?

Or am I perhaps expecting a bit too much, hoping that general CDAA members will be treated with the same respect and in exactly the same manner as the Directorate's mates?

Safe and happy cave diving,

Peter Horne

28.5.96

Dear Victor,

Thank you for publishing my last letter, to which I have received numerous phone calls from members who have supported most of my statements. the current Directorate have declined to responded to me save a few passing comments from Lisa (unavoidable!).

I was a strong supporter of the current Directorate as most would know and I am not pushing any particular group, but I am

concerned that the CDAA currently lacks direction and plan. I acknowledge that individual members of the Directorate have achieved specific results which are very important to the Association, but these singular achievements are not the role of the directors as I see it.

I reiterate, the Directorate is charged with providing leadership and management of the Association, albeit, year by year. However, there is still no clear picture of where this Directorate is taking the CDAA (certainly not known to the general membership).

Lack of information, such as:

- * Feedback on the state meetings held over a year ago - what are the other states interested in?

- * What are the working parties? Constitutional, Nitrox, what else?

- * International cave diving scene? When is the next international cave diving symposium and where?

- * Is the CDAA seeking environmental or ecotourism grants?

- * Where is the updated standards manual?

- * Relationships with other diving organisations?

These are questions with possible answers, but who has these answers ... the Directorate? I was astounded by your recent request for the opportunity to pick Ian's brain etc. (last issue). Surely those questions you asked should be forthcoming, not have to be extracted by a Q&A process. Statements and articles provide discussion.

If there are follow-up responses from the Directorate, I would be pleased. At least the purpose of my letters would have been met. I believe the current Directorate needs to allow the Association to open up and get more work / issues into the membership. Once again, thank you and keep up the good work.

John Dalla-Zuanna

NATIONAL DIRECTOR'S REPORT

Lisa Bernasconi, National Director

My report at the AGM last year was brief, due to time constraints. I outlined the state meetings that had taken up much of the time during the year, and that I was pursuing a different insurance policy. This year state meetings had to take a back seat, but Directors' meetings have been at a premium. This directorate has operated with the greatest degree of communication of any directorate I have worked on. I might add that the discussion has not always been agreeable, you have three directors who quite often have to compromise. The new insurance policy I mentioned led nowhere, as the company decided they weren't interested in us. So we are continuing with Heath Fielding. I offered a letter of explanation by our solicitor on the insurance matter - three members responded; the letter is still available. I also noted that although I planned to continue to pursue Warbla access to date this has been to no avail. my numerous letters have been answered, but only in the negative. My question to members is whether we should continue to list Warbla as one of our sites? Barrie Heard reported on mixed gas on my behalf, and in the last issue you were advised of our most recent progress. I realise many members are not happy with the limited nitrox use suggested, but I ask them to remember that this is the first of many steps we can take with regard to the use of nitrox, within the CDAA. I was also asked to call for volunteers for a constitution review group, this has been instigated. Throughout this year I've worked on what I believed to be the key issue concerning the membership, notably, site access. I've been severely criticised for not delegating the work that site access involves, but have felt capable of getting the job done myself. I feel reassured by the fact that gains have been made, I respect and work well with the landowners and assure the membership that there remains many tasks suited for delegation in the months ahead.

: Bakers and Hanns cave are now both open and accessible.

: The Shaft has reopened, and Mr. Ashby is allowing two new guides to be appointed each year.

: Because of last year's State meetings, WA and NSW divers are getting easier access to limited access sites, such as Kilsby's, on their few short trips to the Mount.

: Kilsby's has remained open and operating smoothly since the change of system.

: Swim Through has been fenced and only needs a new indemnity drawn up. Funds will be available in the new financial year.

: A review of our constitution and regulations is happening and will be reported on at the AGM. In saying that, these points are some of my achievements, I want it noted that I haven't achieved them without help, and once established I won't hesitate in delegating members to continue the site access work so that I can concentrate on other issues.

It concerns me that members continue to ask me what I do in this job, (apart from attending meetings) and have no idea of the work involved in being a member of the directorate. In order to help inform people and with a great deal of thanks to Ken O'Donnell, I have initiated an Incident Report section at the back of Guidelines. I've never previously included this time-consuming outline in my report, but I feel it is important that you understand some of the work undertaken on your behalf. Now each director can briefly outline the annoyances that take place in any given month. This may prove very interesting reading for anyone interested in the job.

Moving on from the above, I'd like to say that I have re-nominated for the position of national Director, and will outline my proposals for the next 12 months.

: With reference to Nitrox, I would like the Association to accept and present to the

landowners the Dive Australia Code of Practice and the Australian Standard concerning enriched air. I believe these standards would satisfy all agencies and move the CDAA a lot closer to a workable answer and outcome on the issue.

Site access.

After the AGM, I will call for volunteers for a limited directorate for site access. Apart from establishing new sites, maintaining and improving existing sites is an issue that needs to be addressed, and will need people power to achieve this.

I would also like to instigate work on reviewing the possibility of the CDAA leasing sites, Gouldens for example. Part of the reason so much work was put into insurance was to make this a possibility, and it would certainly remove legal risk from the landowner.

Business and Standards.

Part of my job as outlined....." be responsible for all activities not undertaken by the Business and Standards director as outlined in the constitution" (17 viii), has not been possible to achieve within the span of the year - all other tasks considered. I realise my neglect of this area and if re-elected will address it to the best of my ability.

Tim Payne, in the last issue, outlined an idea for a 5 person directorate. I don't believe this is the way the CDAA should go. Years ago the system changed from a President with a large committee, to a three person directorate because the committee wasn't working. I believe the three person directorate does work, members need to look at it and put politics aside. Five people will only take us back to an extended decision making process, and be far more costly for the Association. There have been issues that have needed to be dealt with in all areas that have been overlooked because the directorate prioritises differently to some of the members. To overcome this, the directorate simply needs to use a limited directorate system, within our already existing budgets. In saying this I propose, (after the AGM) to initiate

limited directorate for both Standards and Business. This way the directors will be able to achieve more in 12 months, as well as receive input from members working within a set framework for both the director and the members. For Business, the manuals desperately need reviewing. This is only one area where a limited directorate could take away a little of the huge workload that Warrick has. Standards I believe, (for want of a better title) needs a training committee. Student packages, exams and instructors material are only three areas that need reviewing and once again a limited directorate in this area would give Ian time for other things.

Diving workshops

These have been suggested and I do believe they are necessary. The new Penetration course is setting a standard for our divers working through the system. Being an "old" cross-over diver I believe there are a lot of new techniques that many members need to be made aware of. Workshops in the Mount, or at local pools could prove positive in achieving this and I believe are a necessity. I will set about organising them over the next 12 months.

: The review of the constitution and regulations will continue, as it is not a job that will happen overnight.

Finally if the year results in a vote being taken I'd urge you to consider carefully. I won't deny that in the past I have been caught up in a lot of political campaigning, but through all that, together with a lot of hard work, I settled well into this position. If there is one thing that this Association needs it is stability. I make the point repeatedly about how important the landowner is to us; more so than to any other diving agency. I believe that I have and could continue to work with the landowners most effectively and recognising those areas already mentioned that need more time and attention on my part, I believe a good balance could be struck that will benefit everyone.

LISA BERNASCONI

NOTICE BUSINESS AND NOMINATIONS

As per the C.D.A.A. Constitution

Polling date:

15th July 1996

Final date for Nominations to be received:

Thursday 20th June 1996

Final date for Business to be received:

Friday 7th June 1996

A separate mailing will be conducted by the current Business Director advising all financial members of the Nominations and Business. Financial members will be able to vote by mail in a dual envelope system, to ensure privacy.

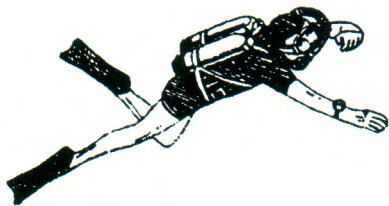
The Returning Officer is Mr Peter Prentice, and votes should be returned directly to him at 10 Police Rd, Rowville Vic. 3178.

Nominees may appoint a scrutineer for the counting of votes which will be done on the 16th July 1996. Business that has been voted on will be finalised at this time.

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BUSINESS DIRECTOR'S REPORT

Warrick McDonald, Business Director

The role of Business director is not an easy one. Previous holders of the position have expressed their concerns to me and feel as I do, that a division of responsibility is needed. The position should be reviewed with thought given to splitting up some of the responsibility the Constitution requires. I urge all members to give serious thought to the proposals that Tim Payne has submitted. At present I have Linda Claridge and Wayne Wilson doing an outstanding job for me managing the membership and Treasurer's job, so I can't see the position becoming any easier by making them accountable to the members instead of me. Perhaps other areas such as "Guidelines" should be another Directors responsibility.

Accountability has been mentioned by J.D.Z., in his letter to the Editor (Guidelines Issue 57). In my attempt, in this my first year in office, I have tried to negotiate a number of outstanding "political" concerns, most have been solved but others are still on going. Regrettably I have not pleased at least one particular person, but that comes with the job I suppose. Communication is a priority with me therefore my telephone has been running hot. Some may think that I stand on the same platform as the other Directors but this is not the case, as we disagree frequently on a number of points. I believe it is my job to present the arguments and concerns of the members even if I don't agree with their opinion/s. In the course of doing

this job it has never ceased to amaze me how the seemingly simple problems become magnified out of all proportion by people pushing their own barrow. The Association sure has some strange politics and if anybody cares to read past issues of "Guidelines" they are full of political point scoring and "between the lines" pussy footing about. Let's STOP IT, let the Directors do the job that the members elected them to do, make them accountable, but don't forget that they are VOLUNTEERS, doing a job for little or NO thanks, and YOU probably wouldn't do it! Getting back to J.D.Z.'s comments, I believe that I have responded to John's request regarding the members' mail list correctly, given that I (a) presented it at the next Directors meeting as an agenda item. The fact is that I felt so strongly about it that I (b) wrote to "Guidelines", please read page 8 "Guidelines" issue 57, written by me on 18.1.96, many months before John's letter to the Editor. It would appear that even though I have attempted to do the right thing I am attacked by John and now Peter Horne, see letters to the Editor in this issue. I will not use "Guidelines" for political point scoring and personal bickering so I have no further comment on this matter.

The financial situation is at last starting to show signs of recovery. The hard line I have taken, as mentioned in my last report is starting to work. New income raising procedures have been presented to the Directors and will be instigated on the first of July. One of the ways income

will be increased is by charging for NEW certification cards. A fee will now be levied on all instructors when they submit a certification to the records officer. This will also mean a fee will be levied for replacement cards. If anyone can tell me an agency that does not charge for this service I would be interested to know. Thank you to the callers who responded to my requests in the last issue of "Guidelines". It does make me feel good when people appreciate the work involved in trying to return us to a credit balance.

Once again Wayne Wilson has given me the current figures and these are listed below. As you can see income is down but I would expect members to pay their fees in June resulting in about \$40,000 being banked. (That would be nice, but, I am a realist.) The gaps in Income appear to be our CDAA products, such as books and clothing. The Packages, Courses and Instructors (PK, CRS, IN) is down because of the different system with Penetration Courses (note: Expenses re Courses). "Guidelines" advertising looks bad but please take into account that issue 57's costs and advertising have not been shown in the figures. Take a look at the Expenses table and you will see some radical changes, Telephone, Stationary and Printing, Meeting Expenses, Guidelines, Miscellaneous Entries and Courses are all down. The only increase is Site Costings and this is the result of our investment to open Bakers Cave, well worth it I'd say. Obviously the Miscellaneous section needs a better break down and this will come about before the Audit.

Bank Balances as of 30 April 1996.

Cheque Account \$8,290.83

This figure will be reduced by "Guidelines" costs, but will increase due to membership fees.

Investment Account \$2,228.27

The Investment account and Term account balances are to pay the Insurance bill due in July. This is money put aside when advance payments are made by members, not spent as in previous years.

Term Account \$8,182.26

In a perfect world, as the saying goes this year will see us just edge into the "Black".

The election is looming and in this issue you will find a notice calling for "Business for the A.G.M. and Nominations for Office." I must apologise for the notification mistake in the last issue of "Guidelines"; I advised that the 19th of May was the cut off point. Shrewd observers naturally pointed out my blunder and I have advised all that cared to call, that I would follow the constitution to the letter.

Polling date for the Annual Elections is the 15th July (see notice) therefore the cut off date for all nominations is Thursday 20th of June (see clause 19). The Returning Officer is Mr. Peter Prentice. Business must be notified in writing at least 50 days before the A.G.M. Therefore Friday 7th June is your cut off date (see clause 25c). All Business and nominations will be mailed out to financial members only, during the first week of July. Voting for Business and Directors positions should be addressed to:-

The Returning Officer, Mr. Peter Prentice

10 Police Rd. Rowville Vic. 3178

Peter Girdler has contacted me (see "Guidelines" issue 57) and it would seem I owe him an apology. Peter assures me that he returned the book that contains the CDAA's records to my business address two weeks after I requested it. I have not received the book and it would appear that now all record of the CDAA's early days has been lost.

If you did not receive "Guidelines" then it's most probably yours or Australia Post's fault. Have you changed address and not notified us?

Included in this issue is your Membership Application Form, please return it with your cheque as soon as possible. We welcome advance payments, it sure makes things easier.

Paid up membership (and insurance levy) is a requirement for voting, nomination, attendance at the A.G.M. and if you want to bring business before the meeting.

The question of diving with Enriched Air should be finalised on June 3rd, when Ian Lewis is in charge of presenting the final argument to the Landowners Committee. I will be attending and supporting the Australian Standard, which I feel should be adopted.

My nomination for the position of Business Director has been forwarded again as I believe it's going to take two years to "turn around" the CDAA's finances. The figures at the time of writing this report are very promising but we have some looming bills that are going to create major problems in the future.

WARRICK McDONALD

INCOME	BANKED	95-96	MSH	96-97	MSH	97-98	MSH	LATE FEE	INST FEE	BOOKS	CLOTHING	PK	CRS	IN	G/LINES	AD	MISC.	POSTAGE	INS	LEVY								
APRIL 96	46	684	40	234	55	00	6765	00	2035	00	1595	00	1305	00	3120	55	1579	60	4550	00	600	00	537	20	537	05	575	00
JUNE 95	62	260	11	15000	00	14959	00	2700	00	1255	00	0	00	5137	65	4204	55	8889	40	3385	00	2031	20	518	00	0	00	

EXPENSES	TOTAL	PHONE	POSTAGE	STAT/PRT	MEET	EXP	G/LINES	MISC	ENTR	SITE	COST	INSURANCE	COURSES
APRIL 96	41,920.28	3991.98	2871.27	2166.54	2508.00	3553.44	15,560.90	1956.98	9311.12	0.00			
JUNE 95	69,422.86	6537.09	2965.79	4545.22	10107.64	12578.2	42,767.62	72.00	9311.12	2720.14			

STANDARDS & TRAINING REPORT

by Ian Lewis

Yes, it's that time of year when the seas get cold and rough, so we all head inland for the calm waters of caves and sinkholes. Election time is coming up. I am nominating again as I undertook to do last year to provide continuity. Happily so are the other two, so we may team up again if the membership so chooses.

INSTRUCTOR MEETINGS

I have held two meetings recently (Melbourne and Adelaide) as well as seeing most of the NSW/WA Instructors on recent travels to Mt. Gambier. All have given feedback to me on concerns and ideas for improvements. We are looking at theory papers, stress tests, duplication in training, continuing expansion of training sites and possible accreditation of confined space diving (eg back of Pines, Murra, Tommy Grahams etc.).

J.D.Z. missed the meeting due to commitments and wasn't aware of all of this. More meetings will occur in mid year. The expansion of twin tank training is being considered for future courses.

NITROX

I put the case for Nitrox use to the Landowners Committee with the major contribution coming from Barrie Heard (submission and equipment for demonstration). Approval in principal has been given, with three important provisos:

1. No 100% O₂ use at all.
2. Only EAN 32 and 36... No intermediate ratios.
3. No final approval until our amended

written submission is received and voted on.

This is being finalised in early May. Barrie's work was the cornerstone of our success. Eventually, members' CDAA cards will require Nitrox endorsement rating, if holding suitable qualifications.

DEPTH VIOLATIONS

Some selfish divers have been pushing the depth limits over the last 12 months. The Directors have been preparing several cases for suspension. The CDAA has to protect the Landowners' interests as well as our own and 25 years of good faith is threatened by a few ignorant rich kids who should stay in the ocean where no legal action threatens sites. This particularly applies to some of Sydney's mixed gas set and their hangers on in Adelaide. Lying to farmers and breaking government management laws threatens our entire sport. To these guys.... Take your toys to the Solomons and get the hell out of our sport until you can demonstrate responsibility. I also put the mixed gas organisations TDI, ANDI and IANTD on notice that they have an obligation (in protecting the technical end of the sport) to teach responsibility for Landlocked sites... and I will raise this matter of accountability with them at the next national SCUBA Commission meeting in Sydney in June. If CDAA members behaviour affected these other organisations to the same extent, then you would understand the fury and anger we feel towards these violators.

This also applies to so called "private arrangements" with the owner of the "Shaft". In the meantime this sub-

culture has claimed a career... Ian Gothard (Qld. based PADI and CDAA Instructor) has been suspended from all diving (including instructing) in CDAA sites for 5 years for going to 80 plus metres in Piccaninnie Ponds on air. On safety grounds alone this was unbelievably foolish for an appointed CDAA official. As head of the Instructor Body I am appalled and ashamed. Deliberate breaches of this kind on mixed gas (which the Landowners unanimously reject) will receive similar punishment or worse. There are 800 or so members whose sport/leisure are severely threatened by such infantile behaviour, and as long as I am Standards Director I will defend our sport to the hilt.

ENGELBRECHTS EAST CAVE

A 50 hour habitat project was held here in January. Many CDAA members supported the exercise co-ordinated by Allan Skinner. However, I was furious to find cables, equipment and bags of decomposing rubbish STILL IN THE AIR CHAMBER A MONTH LATER. My cave course students from NSW assisted in the cleanout. The air chamber still stinks. This is disgraceful vandalism. Caves are low circulation environments and we have a responsibility to look after them. Allan Skinner's abandonment of the cleanup, and his subsequent treatment of the Lady Nelson staff is also unacceptable. Again, CDAA members are ultimately answerable to the Landowners. The Directors are looking into the matter.

LASTLY

Not all of my report is problems and grumpiness! I look back on the two years in office and see an organisation that has maintained stability and plenty

of members doing plenty of diving and training. I am delighted to see the tensions of a few years ago have disappeared, and disagree strongly with J.D.Z.'s letter of the last issue that we're fractured and faction ridden. You're living in the past John, have a look around!). People may not always like or agree with us as Directors, but we listen and do our jobs for you. Tim Payne's letter suggests 5 Directors. I believe this would lead very quickly to factionisation again, and was a suggestion given prolonged thought by members, instructors and officials when we re-constituted the CDAA into its national format. Five Directors was never a popular opinion due to top heaviness (imagine Addict with 5 Presidents!). So much for some of the thoughts of the Standards Director. What I really appreciate is that diverse opinions can be expressed for discussion and ask that more members' comments come to "Guidelines". Safe diving....

IAN LEWIS

Editor's Request
In order to streamline production of Guidelines, members are requested when forwarding material for inclusion, to forward disk with material saved as "text only" including a hard copy.

PICCANINNIE PONDS

ANNUAL PERMIT

Divers are reminded that all annual permits for Piccaninnie Ponds expire on 30th June.

If you are purchasing a permit please make sure you are a financial member of the CDAA for 1996-1997 before you contact DENR.

Department of Environment and Natural Resources

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Mt Gambier SA 5290

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Fax 087 35 1110



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SHAFT INFORMATION

Quite a few groups of divers have contacted me regarding Shaft dives but limited numbers have been able to access the site. All available weekends up until July have been filled. At the AGM, Shaft dates will be announced for the next 12 months, and the guides that will be available on those weekends.

All the existing guides have agreed to stay on with the exception of Peter Stace. I'd like to thank Peter for the years of work he has put into the Association.

Once the dates are announced members will be able to apply for access on the set weekends available. As I stated in my report, Mr. Ashby will allow me to introduce new guides into the system, but until that can occur the weekends for access will remain limited to the number of guides available. I'd like to thank members for their patience with this, as a lot of work is going into producing a workable system for everyone involved.

Lisa Bernasconi

INCIDENT REPORTS by Lisa Bernasconi

With regard to:

1. Divers take a dog onto Kilsby's. The dog attacked Mr. Kilsby's dog. A complaint was received from divers witnessing the event, also from Ron Jeffrey on behalf of Ross Kilsby.

OUTCOME: I wrote to both the divers concerned and the owners of the dogs, and contacted Mr. Kilsby. An apology was received from the diver who owned the dog together with a promise not to take the dog back to the property. With regard to this please refer to the access page as animals are no longer welcome on the property.

2. A diver was contacted with regard to a deep dive (in excess of 80mtrs) in Piccaninnie Ponds.

OUTCOME: As of April 1996, the diver has had his membership suspended for 5 years.

3. Reports received that divers at Engelbrechts are not signing in each time they undertake a dive.

OUTCOME: Spot checks will be done at Engelbrechts verifying that the individual diver has signed in. Divers found not to have signed in will have access denied for a set period.

4. Reports that rubbish had been left in Engelbrechts after a 50hr record attempt.

OUTCOME: Volunteer members removed the rubbish and the CDAA made a personal apology to the Mount Gambier City Council.

5. Letter was received from one of the ladies at the Lady Nelson Tourist Bureau. She had been "pressured" by a diver claiming to be a CDAA Instructor (he is not) to accept his buddy's expired temporary card. He had also been diving Engelbrechts without signing in.

OUTCOME: Still being investigated.

6. Lady Nelson Tourist Bureau

contacted me regarding divers asking them to check and verify dives they have done in Engelbrechts, Nettlebed, Iddlebidy etc. Ladies at the information centre were annoyed with the lengthy task and didn't believe it was part of their responsibility.

OUTCOME: The ladies at the centre will no longer do this. Divers are capable of keeping their own log books. If the divers persist in asking, a fee will be placed on the task.

7. I was contacted by a member regarding Piccaninnie Ponds access. She believed two groups of two divers should be able to book the same time slot.

OUTCOME: The system has been changed. Please refer to the information printed with regard to Piccaninnie Ponds in this issue.

8. On a landowner visit I made in March, I found the landowner had been upset by a member. The member had been questioning the access arrangements set up by myself and the landowner's son. The landowner felt that she was being "tested".

OUTCOME: I spoke to her about what had happened and apologised. I also suggested that she could tell the member, any access is better than none. I haven't spoken to the diver concerned, as I didn't want him going back to the landowner. Do I have the right to tell a member he can't talk to a landowner about access? Maybe members should think about the questions they put to landowners. Remember, you walk a fine line between an open or closed site based entirely on the discretion of the landowner.

Please Note: With regard to all incidents listed, in order to reach a conclusion, several phone calls had to be made and numerous letters written.

CDAA SITE ACCESS

Mixed gas Diving BANNED from all sites (Nitrox approval to be finalised but not yet completed May 1996).

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 (087) 35 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 643, Mt Gambier 5290	By phone or mail, 1 week prior. Ph: (087) 38 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 2 Sisters Fossil	CN CN C	DENR P.O. Box 1046 Mt Gambier 5290 Ph: (087) 35 1177	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: Cavern and Sinkhole. 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. Cave and Penetration: The Instructor is to notify DENR of the date the sites are needed and is required forward signed indemnities from each student and their membership number.
Ela Elap One Tree	S S	Mr. Peter Norman Private Bag 67, Mt Gambier 5290	By phone or drop in before diving. Accommodation also available. Ph: (087) 38 5287
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: (087) 35 1177 Faxed copies of cards no longer accepted when booking.
Hells Hole Pines Mud Hole	S C C	Primary Industries S.A. (Forestry) PO Box 162 Mt Gambier 5290	Contact Primary Industries S.A. (Forestry) by mail or phone to arrange permit. Collect permit from Regional Office, Jubilee Hwy., Mount Gambier. No diving on total fire ban days. Permits will ONLY be issued Mon-Fri between 8.30am-4.30pm. Ph: (087) 24 2887
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: P.O. Box 77, Mount Gambier, 5290, six weeks prior. 1996 weekends-8 & 9 June, 27 & 28 July, 5 & 6 October, 7 & 8 December, 1997 - 25 & 26 January, 29 & 30 March, 26 & 27 April, 7 & 8 June. No animals permitted
Shaft	S	Will be opening two weekends a month	Details being finalised - dives have commenced May 1996
Ten Eighty Bullock Hole Black Hole	S S	Mr. Colin Traeger PO Box 12, Mt Gambier 5290 (087) 26 6215	Contact CDAA Records Officer for diving deed THEN mail Booking Form to Colin Traeger 2-6 weeks prior, stating names/qual. of all divers, and time slot-Please include stamped self addressed envelope.
Max's Hole	C	Mr T. Edwards PO Box 1319 Mt Gambier 5290	Phone or mail 1 week prior to dive. Ph: (087) 26 8277

CDAA SITE ACCESS

SITE	LEVEL	OWNER	ACCESS DETAILS
MOUNT GAMBIER - SOUTH AUSTRALIA (continued)			
Hann's cave	P	P & A Lasslett	Groups of four divers only apply in writing to Lisa Bemasconi. 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 included 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 (Records' Officer). 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	Primary Industries S.A. (Forestry)	5L250 open 1st & 3rd weekend of month. 5L290 open any weekend. Max. 4 divers per dive per day, 1 dive per day for each site. Only Penetration divers completed practical in-water cross-over. Bookings via Forests Clerk - key from Lady Nelson. Must show permit & card. (087) 24 2759 No diving on Total Fire Ban days.
Nettle-Bed (5L290)	P	PO Box 162 Mt Gambier 5290	
McKay's Shaft	S		Contact Phil Argy at Mt. Gambier as access can be arranged.
Tank Cave	P	Mr. & Mrs. DYCKER	Apply in writing at least 3 weeks in advance to; CDAA Tank Cave Access, 19 broadmeadow Drive, Flagstaff Hill 5159. Open every weekend of the year including the Friday & Monday of long weekends. (This access may be cancelled at anytime, at the discretion of the landowner) NB: New divers must first apply for an application form to; Paul ARBON, PO Box 290 North Adelaide. (See Tank Cave Access Information - Issue No. 57).
Baker's Cave	C	Mrs. J. BAKER	Site will be open the last weekend of every month, October through to April inclusive. After indemnities have been obtained and completed via our records officer, divers may apply for access. Write one month in advance to Linda CLARIDGE, PO Box 290, North Adelaide 5006. There will be two groups of six being given access each day. SAT 9.30am - 12.30pm, 1.00pm - 4.00pm. The same times will apply for Sunday. Successful groups will be contacted in writing with further access details. NO COMPRESSORS ARE TO BE RUN ON SITE. NO SMOKING! THERE MUST BE ONE DIVER ON LAND AT ALL TIMES. FULL CLIMBING EQUIPMENT IS REQUIRED. NOTE: Two divers must pick up the key.
NULLARBOR - WESTERN AUSTRALIA			
Cocklebiddy	C	Regional Manager	Must apply for permission to dive at least 4 weeks in advance of trip. Ph: (098) 41 7133.
Murra El Elevyn	P	C.A.L.M.	
Tommy Grahams	C	44 Serpentine Rd,	
Weebubbie	C	Albany 6330	Small dive site next to main chamber: Sinkhole
NULLARBOR - SOUTH AUSTRALIA			
Warbla	P	NPWS Ceduna	Currently CLOSED to all diving subject to draft management policy.
WELLINGTON CAVES - N.S.W.			
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. Access arrangements allow one weekend per month. Divers will be joining already commissioned research groups.
Water (Anticline)	C		Affected by high CO ₂ levels during Summer/Autumn. Apply for bookings to dive at least 4 weeks prior, as specified dive dates have been prearranged. Ph/Fax Neil Vincent (043) 97 1798

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Twin Independent Crossover Manifolds

by Des Walters

The issue of manifolds is really one of redundancy. The Macquarie Dictionary defines redundancy as:-

“.....being in excess. Exceeding what is natural or usual”.

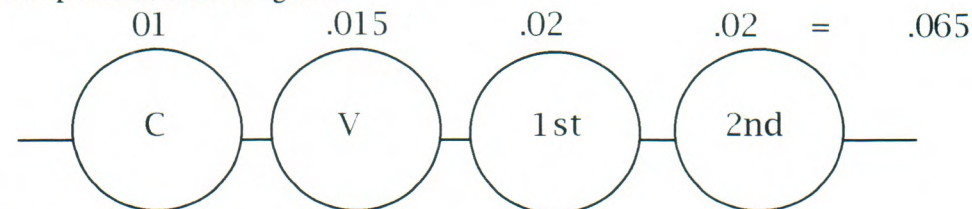
What is natural or usual for SCUBA divers is an in line system of components, consisting of:-

A single cylinder

A cylinder valve

A first stage

A low pressure hose and second stage.



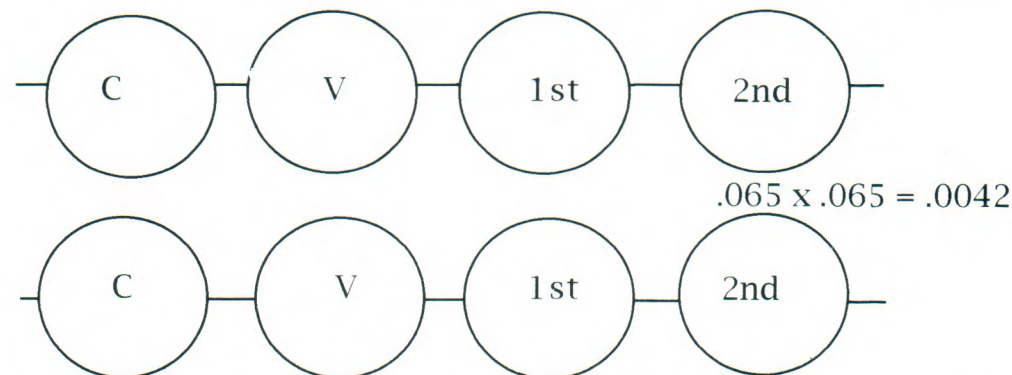
LINEAL SYSTEM

We call this type of system a linear system, where the components are in a continuous line. The implications here are that if any component within the line ceases to function, the whole system fails, and the diver is in imminent danger.

A malfunction of any component (e.g. “o” ring leak, second stage leak) while not always directly life

threatening, will limit the dive duration, and should lead to termination. For these reasons, a linear system is not recommended for other than cavern diving, where the surface is readily accessible.

If we configure two linear systems together, we have increased the redundancy. Cavers call this system twin independent.



TWIN INDEPENDENT

(continued page 24)

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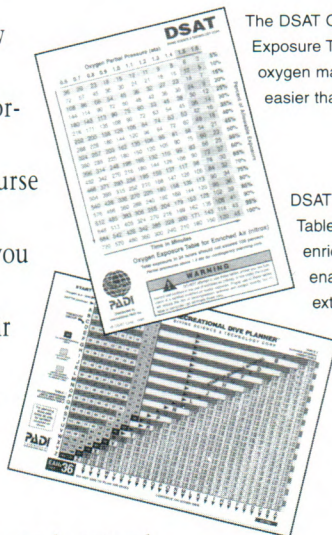
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The problems with this type of configuration are:-

- * The diver is required to regularly change second stages underwater; a potentially risky procedure, especially at depth.

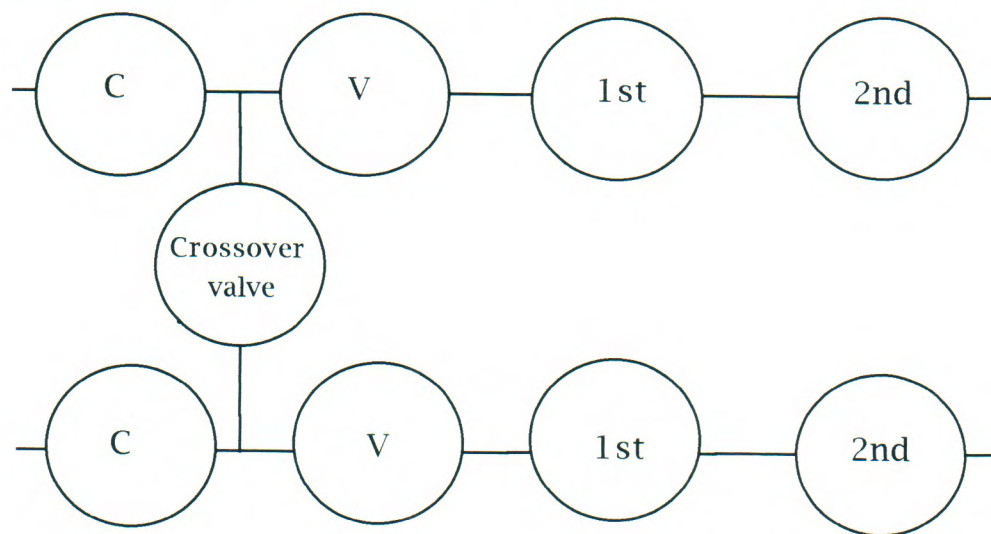
- * Any component failure means that the diver has lost half of his remaining air supply. If this failure occurs at the point of maximum penetration when the diver has used 1/3 of his total air supply, the diver is left with only 1/3 instead of the expected 2/3. This is theoretically enough for a calm diver to exit the

cave, but any further problem will have disastrous outcomes.

A better system would be one that allows the diver to access the total air supply from either cylinder from either regulator. This system should allow any defective or malfunctioning components to be isolated without the total system becoming inoperative.

Enter the crossover manifold; a bridging pipe that joins two cylinders, and is equipped with two separate cylinder valves that can be used like a twin independent system.

TWIN INDEPENDENT CROSSOVER



The big advantage of such a manifold is that it has a third tap in the middle of the manifold that allows the contents of one cylinder to cross over into another. In the event of a failure of any regulator component, the appropriate cylinder valve can be

isolated, yet the air in that cylinder can be accessed through the remaining second stage by opening the crossover valve, thereby retaining planned gas redundancy despite a failure of one component.

So just how safe is the crossover

manifold when compared to other systems? Dr Bill Stone, in a discussion on redundant breathing systems, assigned a failure probability percentage to each component, based on its degree of complexity and integration.

In a simple linear system, the probability of failure was said to be equal to the sum of the individual component probabilities.

In a parallel configuration, such as twin independent, the individual probabilities of each line are added, then multiplied to get a total system probability of failure.

For example, a screwed metal joint is unlikely to fail, so is rated a failure probability of zero. A cylinder "o" ring is .01, a cylinder valve is rated at .015, a flexible hose is .01, and first and second stages are each rated .02.

So a typical linear system, consisting of a cylinder valve, cylinder "o" ring, first stage, flexible hose, second stage, is rated .065, or a 6.5% failure probability.

Note: The high pressure hose has not been added in as it is not directly in the breathing line, and failure of this component will not constitute system failure. It will however limit dive duration.

Now if we add a second linear system, we have a twin independent configuration. In this case, according to Stone, we don't just halve the probability of failure, but we reduce it sixteen times. (.065 multiplied by .065=.0042)

Stone rates the manifold system at the same failure rate as twin independent, which is to be expected, as it is basically the same system.

However there are several key differences with a manifold system when compared to a twin independent system.

Most significant is the ability of a manifold system to access either air supply from either regulator. Stone calculates that this system is ten times less likely to produce mission failure than twin independent.

Mission failure: the failure of a component results in the system still being serviceable, and can still provide life support, but has limited range, so the diver must abort the mission and return to base.

The real trick now comes with our method of gas management. If we accept that under stress changing from one regulator to the other could be the final straw, then it would be safer to use one regulator throughout the dive. With a crossover manifold this is possible in either of two ways:

- By leaving the crossover tap slightly open to allow both cylinders to balance constantly.
- By periodically opening the crossover tap, then closing it again after the cylinders have balanced.

The second is the preferred option as, in the event of a sudden gas loss, half of the gas supply is automatically preserved.



The ability of a diver to survive a rapid air loss situation will depend on his/her ability to isolate the faulty component immediately, and then access the remaining air. This means inverted cylinders..

I also feel that if we are really serious about minimising the risks, we would all use DIN valves. The really weak parts of the system at present are the open faced yoke valves and the high pressure hoses. If we accepted the balancing technique described above, we could eliminate one HP hose and gauge from a twin independent system, as one gauge could be used to read both cylinders.

Summary:

- System probability failure can be reduced by providing multiple parallel linear systems. (Twin Independent).
- Mission failure can be reduced by providing twin independent crossover

systems that allow the total gas supply in either cylinder to be accessed by either regulator.

- A twin independent crossover system is sixteen times less likely to fail than a single linear system.
- A twin independent crossover system is ten times less likely to produce mission failure than a twin independent system. Twin independent crossover cylinders should be inverted for protection, and for ease of access. The crossover valve should be left closed.
- All valves should be DIN valves.
- Cylinder contents should be balanced regularly to avoid the need to swap second stages.

Reference:

Stone W.C. **Life Support Research.** In **The Wakulla Springs Project.** Edited by William C. Stone. United States Deep Caving Team. Derwood, Maryland. 1989. p.95.

Note: Crossover manifolds are available from Sterling Leisure Industries in Perth.

Comments on Twin Independent Crossover Manifolds by Greg Bulling

In his article "Twin Independent Crossover Manifolds", Des Walters raises a number of excellent points in relation to gas management and cave diving. There is no doubt in my mind that twin independent cylinders, as required by the CDAA for cave and penetration diving, do have some drawbacks, but what is the best system?

I think no-one would question the definite advantage a crossover (also called isolating) manifold provides for deep diving. The reduced task loading and added safety of not requiring regulator second stage exchanges and multiple gauge monitoring, cannot be over emphasised. So for sinkhole diving, I think this configuration is excellent.

At cave and penetration level there are pros and cons to the crossover manifold. As previously discussed, the reduced task loading is a significant factor. The ability to access gas from both cylinders after a component failure (eg second stage free flow) is also an excellent feature.

There are however, some problems with the isolating manifold. Firstly, it relies implicitly on the diver's ability to reach and control all three valves. It has been my experience in using such a manifold overseas, that this is not such a simple task, especially in a drysuit. Des suggested that the cylinders should be inverted to protect

them and allow easy access to the valves. This is a reasonable idea in theory but much more difficult to achieve, in the reality of cave diving. Some type of system would need to be developed to enable the cylinders to be protected from damage during gear assembly, and while donning.

The second problem relates to the damage of the manifold. There are certain situations where all air from both cylinders could be lost if the manifold are damaged. This has occurred on several occasions with the older style "ideal" manifolds, after divers have collided with the ceiling using DPV's. At some penetration sites with tight restrictions this could be cause for concern. Even if the cylinders are inverted, there is still the potential for damage to the manifold during entry into a number of sites (eg Engelbrechts West and Tank Cave have restricted and awkward lake entries followed by tight underwater restrictions).

Other considerations include:

- Correct assembly of the manifold with appropriate cylinder bands and spacers is critical.
- The potential for inappropriate handling of the cylinders by using the manifold as an attachment to raise/lower the twin set.
- Damage to the manifold in an internal air space within a cave (eg

cylinders falling over and manifolds being damaged in some Nullarbor caves).

- Problems with equipment configuration when one diver in a pair uses a manifold and the other, twin independents. (ie standard manifold configuration generally requires the use of one long second stage hose to enable gas sharing in the event of a total failure. Twin independents have no such requirement)

- The availability of proper training in their use

- The fact that manifolds are currently not accepted as part of the CDAA equipment standard for cave and penetration level.

My overall feeling is that this type of manifold is inherently very safe. All the statistics overseas indicate that they very rarely fail, but unfortunately, there is a very slim chance of a total air loss. This means a very committed approach to the "buddy system" at all times, is necessary. At our penetration level there has been more emphasis on individual self reliance, due to the very nature of some of our systems where continuous buddy contact is not always possible, and hence the use of twin independents.

I think their use should be encouraged at sinkhole level and perhaps allowed at some cave and penetration sites.

ADVERTISING RATES

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

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Penetration Course February '96

Submitted by: Sabine Schnittger CDAA 2656



Back Row - Phil Argy, Ian Gandel, Steve Taylor, Greg Bulling, Glen Harrison
Bottom Row - Sabine Schnittger, Rodney Blair, Victor Kostiuik, Peter Grills

In February of this year seven intrepid Victorian divers and even one more daring NSW diver travelled to Mt. Gambier to participate in a penetration course. There to receive us were Mssrs. Greg Bulling and Glen Harrison, equipped with many slates for critical viewing and commentary, and an inexhaustible flow of sarcasm to keep their inferior troupe of students in high spirits.

Those who have reached these elevated levels of cave diving will know that a PC is a fairly time intensive exercise. Phil Argy's Blink Bonny Lodge was declared HQ of the operation and provided a welcome opportunity for

harassed students to swap tales of despair and misery from Gouldens until much too late into the night. The course was structured around four components; 'dry' land drills, exercises in Gouldens, theory sessions and workshops. The team practised valiantly on land and under water. On a typical day, divers with their eyes shut could be observed trotting across Phil Argy's carpark, negotiating jumps from the barbecue across to the barn and from there onwards and home to the down pipe. Others found themselves hopelessly tangled and tied to a car and attempted to extricate themselves using mere jump reels and very large knives, or crawling

around in the flower beds looking for that elusive lost line. The real thing in Gouldens was then not too much different, if perhaps a little colder and certainly murkier. Suffice it to say that, true to form, the sunny skies that had greeted us in Mt. Gambier on Sunday disappeared in time for the beginning of the course and we were left to enjoy the usual overcast skies and cool breezes. One unfortunate diver came to a sad end, when, in a state of disastrous entanglement (secured with the famous 'Harrison' knot), she cut through her jump reel lifeline and was lost in Gouldens' mud for ever. The exercises proceeded over the days - lost line searches using Greg&Glenn's artfully adapted underclothing as black-outs and following intricate patterns of jump and restrictions. Continuing interest and intellectual stimulation was provided by the never-ending controversy surrounding GB's drysuit P-value (the D.U.D, Ed's note) which contrasted favourably with GH's more complex, but less successful construction for the same purpose (confidential details supplied on request in writing to the Editor). Afternoons and evenings were spent with theory sessions and workshops on dive planning and discussing accident scenarios. There was no escape and no excuses - all had received a largish manual some time in advance of the course (equipment, guidelines procedures, communications, restrictions, dive planning, DPV's, map reading, accident analysis and access), along with a cheerful letter pointing out that a PC is not the time to experiment with new buoyancy techniques or gear configurations. Tests and exams seemed to have

multiplied from earlier cave diving days. Team members' concentration was artificially heightened by casual mention of the fact that any diver to come within scraping distance of silt or ceiling anywhere would surely be spotted and packed off on the first bus back to Victoria. Those less able were compelled to view GB's slide collection until exhaustion set in.

The list of hurdles was a long one:

- Day 2: stress test (the old 'pretend you can't see me and I will come and rip your mask off/reg out');
 - Day 3: 'the circuit' (jump from line to line innocently, and then do what your mother always told you not to - take the hand of an evil diver, have a suspicious garment forced over your helmet and find yourself left in the gloom to retrieve the line and your shaky orientation);
 - Day 4: pretend that the worst has happened in Englebrecht East - Phil 'Blinky' Argy and Rodney 'Quiet Achiever' Blair in tow, total blackness descends as you negotiate a restriction; on the way back strangely only one torch works;
 - Day 4: Written two-hour theory exam (requiring newly acquired map reading skills) and a communications test during which even the boldest student, Victor 'Solid' Kostiuk lost his nerve and failed to put on a much rehearsed and eagerly anticipated exotic performance involving a hovercraft and a large quantity of eels.
- You will ask about the rewards to all this effort - a lot of fun and much better appreciation of cave diving. Best of all, two great new dives in Englebrecht West and Iddlebidy and exciting new dives to look forward to!

DIVING IN PICCANINNIE PONDS

Permits to dive in Piccaninnie Ponds will only be issued to:

- Financial members of the CDAA who hold Sinkhole endorsement
- Divers who have a current temporary card with Sinkhole endorsement.
- Students who are diving with an Instructor on a supervised dive and have a current temporary card with Sinkhole endorsement.
- Visiting divers who have a letter signed by the Standards Director of the CDAA, giving them Sinkhole status or a current temporary card with Sinkhole endorsement.
- Divers must be over the age of eighteen before a permit will be issued.
- The Department reserves the right to allow access to divers who are not CDAA members.

Conditions under which permits are issued.

1. All divers must comply with CDAA diving procedures, rules and regulations.
2. No person shall dive unless wearing a full length wetsuit and fins.
3. Minimum of two and maximum of four divers for group to dive in the ponds, except for supervised first dives when a maximum of four students and one instructor may dive.
4. No person shall dive deeper than 36.5 metres.
5. No person shall dive unless a depth gauge is worn.
6. A CDAA approved guideline must be used when entering side caverns.

7. No skills testing or training in the ponds except by special arrangement.
8. Divers are to enter the water at the allocated time and must be out of the water before the time expires.
9. Decompression dives to be avoided.
10. No entry into restricted areas as shown on the permit map.

The above conditions are all printed on the permit, except for number one. The conditions will probably be altered next time the permits are printed to include condition 1 and change condition 6 to read Divers must not enter any side caverns.

THE BOOKING PROCEDURE

General Diving

* Divers contact DENR office to organise dive time by phone, fax, letter or in person.

* 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 a permit will be issued.

* A dive slot will be allocated. A total of four divers will be allowed in each one hour time slot. There is a total of seven slots per day. These are 5am to 6am, 8am to 9am, 11am to 12pm, 2pm to 3pm, 5pm to 6pm, 8pm to

9pm and 11pm to 12am.

* If there are vacancies in any slots buddy pairs from different groups can be booked in together. DENR will not be notifying the original booking divers of this.

* Divers are allowed a maximum of two dives per day.

* Payment for the permits can be made over the phone or in person by credit card, cheque or cash.

* Annual permits will not be issued to students.

* Permits will be posted to the diver or left for collection at the Mt gambier Police Station.

* Divers must have the permit with them at Piccaninnie Ponds when diving.

Training

* If an Instructor wishes to use Piccaninnie Ponds as part of the

Sinkhole course, DENR must sight the students temporary card which must be completed and signed by the Instructor. Until the temporary card system is changed DENR will not accept faxed copies.

* Supervised dives can be undertaken in Piccaninnie Ponds as part of a course, however no skills testing or training is to be conducted. On these supervised dives a maximum of four students and one instructor are allowed in the time slot. Trainee instructors are allowed, provided there are no more than a total of four people in the time slot.

* Once students have completed their Sinkhole course and are in possession of their temporary card an annual permit to dive Piccaninnie Ponds can be issued.

CDAА INSTRUCTORS

INSTRUCTOR	CN	S	C	STATE	PHONE (H)	INSTRUCTOR	CN	S	C	STATE	PHONE (H)
NSW & ACT						VICTORIA					
Nick Jones	.	.	.	ACT	015 851 313	Stephen Arnel	.	.	.	VIC	(055) 26 5230
Ron Allum	.	.	.	NSW	(02) 552 6348	Bill Bernhardt	.	.	.	VIC	(03) 9725 9716
Terry Cummins	.	.	.	NSW	(02) 417 2800	Jane Bowman	.	.	.	VIC	*(03) 9579 2600
Peter Grills	.	.	.	NSW	(049) 48 7848	Stan Bugg	.	.	.	VIC	(03) 9379 8791
Gary Norgard	.	.	.	NSW	(049) 68 4588	Brian Cornell	.	.	.	VIC	(059) 85 2514
David Ogilvie	.	.	.	NSW	*(02) 977 4355	John Dalla-Zuanna	.	.	.	VIC	(055) 61 2805
Andrew Robertson	.	.	.	NSW	018 412 563	Chris Edwards	.	.	.	VIC	(03) 9579 4352
Des Walters	.	.	.	NSW	(060) 25 3506	Barry Heard	.	.	.	VIC	(056) 27 6474
Andrew Wight	.	.	.	NSW	(02) 428 2176	Ian Lewis	.	.	.	VIC	(03) 9395 1008
Liz Wight	.	.	.	NSW	(02) 428 2176	John Mc Cormick Specialist Non Teaching	.	.	.	VIC	*(03) 9555 5777
SOUTH AUSTRALIA						Warrick Mc Donald	.	.	.	VIC	*(03) 9579 2600
Greg Bulling	.	.	.	SA	(08) 265 4978	Tony Richardson	.	.	.	VIC	(03) 9754 6163
Glen Harrison	.	.	.	SA	(08) 386 3237	Bob Wealthy	.	.	.	VIC	(03) 9789 6389
Max Marriot	.	.	.	SA	(08) 47 3360	Frank Ziegler	.	.	.	VIC	(055) 26 5288
Richard Megaw	.	.	.	SA	(08) 344 1730	WEST AUSTRALIA					
Richard McDonald	.	.	.	Renewing 96	(08) 295 4140	Marilyn Boyell	.	.	.	WA	(09) 349 5646
QUEENSLAND						Gary Bush	.	.	.	WA	018 318 837
Ian Gothard 5 year suspension for depth violation	.	.	.	QLD	(070) 53 7334	Simon Jones	.	.	.	WA	(09) 344 4343
Frank West	.	.	.	QLD	(070) 53 7334	Hugh Morrison	.	.	.	WA	(09) 409 99807
						Andrew Poole	.	.	.	WA	018 928 028
						Steve Sturgeon	.	.	.	WA	(09) 527 9211
						John Vanderleest	.	.	.	WA	*(09) 426 86 23
						Alan Jolliffe	.	.	.	S.E. Asia Rep.	

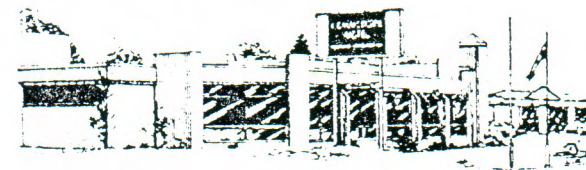
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In England's Green and Pleasant Land

by Anthony Keane

1. Dark Satanic Mills

I face certain doom. My life flashes before my eyes, and I review especially the last few days which have led me into this predicament, which is very convenient for the reader...

On a holiday in England I vowed that I would go cave-diving. Lacking a single contact in the field, I called a number from the phone book, the major British caving organisation, who immediately put me in touch with a dive shop which dealt a lot with cave divers.

Atlantis Watersports is in Sheffield, in England's Midlands, I spoke with Alan, the owner and told him what I was after: "Oh aye, no problem at all, come oop and we'll sort you out".

So "oop" I came by means of rented Ford Lazer. I wound my way through Sheffield's industrial hinterland, the stilled heart of England's industrial revolution. I drove past scores of abandoned and obsolete factories, or possibly a couple of factories scores of times because I was quite lost.

Atlantis was an unglamorous dive shop, distinguishable from a plumbing fittings shop only by the posters on the wall. Alan introduced himself - a stocky, unkempt northerner with a taste for beer which swelled his powerful frame. He was just the sort of bloke you would expect to find in potholes, covered in mud with a piratical grin on his face. He outlined a British cave-diving introduction to me: "We'll take you

potholing to-morrow, to a site which they are pushing at the moment, that will give you a good idea of the sort of sites we dive. I'll introduce you to the lad that's doing the push and he'll take you on a dive the next day".

The next day probably dawned, it's a bit difficult to be sure because the sky was a uniform sheet of Sheffield steel grey. We met at the shop where Alan introduced me to George, a great suet pudding of a lad who would have had a very small soap bill. George was bleary and reeking of the fourteen pints he had had the night before. There was some romantic interest too. Alan and George had invited a couple of Sheffield's young maidens to accompany us to our adventure. They were the sort of girls you run into at country shows - as exhibits.

2. Pleasant Pastures

Our journey took us pirouetting through the Sheffield one-way system and out into ravishing countryside. We sped through the gently folded hills of the Peak District, where stone walls the colour of the lowering sky blurred past. We stopped at a field like any other on the roof of the moor, and changed into our wetsuits. We weren't diving, we were just caving, but we needed wetsuits. Dry caving is a term never used in England for the simple reason that there are no dry caves; potholing is conducted along active stream paths, in, and under, active streams. We strode across the paddock to a point at which a

small stream disappeared into a sewer sized hole; from the hollow blackness below, arose tendrils of mist and the echoing clatter of water falling a very long way.

3. To the Styx

For about an hour we grovelled through mud on our bellies, the weight of a million tonnes of dirty brown limestone oppressing the spirit. Part of our journey involved a swim across a black lake, floundering in the buoyant dry suits. The water temperature was about 5 degrees C.

We arrived at a point near the end of the explored cave where a potholer was shovelling a mound of yellow mud from one place to another. He did it with the air of someone cleaning up a flat before moving in, as if his next step would be to hang the bullfight posters and lay out the Afghani rug. Pommy cavers think nothing of rearranging a cave to make it more comfortable and will happily dig extensively or, if the situation allows, make their own cave using dynamite.

The terminal chamber of the cave comprised a small room with a puddle in it. This was the sump that marked the limit of the explored system and it is where my guide was planning to dive that day. Robin, my volunteer guide was sitting on a rock surrounded by diving gear, eating a sausage sandwich. He was staring with a paranoid gaze at the opaque freezing puddle he was about to dive. "I've had a bit of a feel and think I can make progress, but there is no viz at all. I might wait for it to settle".

The water was profoundly opaque, like skimmed milk poured into a dirty cup. I

stood in the puddle and with my feet felt the smooth limestone boulders that dropped away beneath us. It was not inviting.

We were unable to wait to witness Robin's progress, we had to get going; so, making arrangements to meet Robin the next day, we began our tortuous exit. The rest of the day was spent wandering around the local beauty spots while George conducted a bizarre mating ritual which involved strutting around with no shirt on, lifting heavy objects and being very heroic, all for the benefit of the local maidens.

4. Stone, steeped in history

I met Robin the next day in Chapel en le Frith, a beautiful stone village in the Peak District. We met at the potholing clubhouse, a large stone building that may have served some industrial purpose. It was now the local headquarters and accom-modation for many occasional potholers, for we were in the heart of limestone country, riddled with potholes. "Aye oop, want a brew?" I was greeted, (a brew being a cup of tea). Accepting the stained, chipped mug we settled at an abused trestle table and talked. I was informed that we would be diving Peak Cavern Resurgence, the point at which the stream, which had carved the mighty Peak Caverns, emerged from the base of a cliff. Robin was very talkative and I was very scared, so it was far more pleasant to drink tea and talk, than actually to go diving. I formed the impression that the walls which surrounded us had witnessed endless scenes of drinking and lying, which,

after all, form the basis of all cave diving.

Robin informed me that he had only recently taken up cave diving again after a "bit of a scare" he had had a year or so ago. His story remains one of the most sobering I have ever heard and I will relate it as faithfully as possible:

5. The Horror Story

Robin and a buddy were diving in some grotty sump and were pushing in stages. His buddy had been in and left a reel at a point where it was possible for him to turn around. The passage was a flattener which angled down at 45 degrees and it was impossible to turn around for most of it's length.

When Robin came to the reel he found that it had uncoiled. Loops of the thick line floated about the small room menacingly. Feeling that he could not safely recover the line and continue, Robin felt that it would be best to collect it and start again. He began to gather up the line.

The visibility immediately deteriorated and he could not gather all of the line. As the darkness closed about him he felt the caress of coils of line about his feet and neck. With pounding heart he resolved to exit. "Now which end of this line goes out?"

With growing despair he fumbled with trembling fingers, testing first this line, now that one; they all led to loose coils which gathered about him. As "up" was approximately "out", he felt for the ascent of his expired air bubbles. If only he could see...

Emerging from the silt he entered an area that was very narrow but clear. The

clarity of the water, whilst welcome to him at the time, was not good sign. If the water was clear he had not passed this way on the way in, so this was not the way out!

Behind him lay the nightmare of the coils of line in the blackness of a total silt-out, ahead and above lay a reflective surface - air!

With a great push he drove his head into a tiny chamber, in the process he knocked his mask off and lost his regulator. With his head tipped back to keep his mouth above the water he took in his situation and was not encouraged. He was jammed in a small air pocket formed by expired air. His arms were pinned beside him and his regulator gone. He was hyperventilating and could not leave this little space to try to recover his reg, he was panicking too hard to hold his breath. He could not, at any rate, get a good breath, the air was used and it was a struggle to keep his mouth above the water.

In the black despair that then overtook him, Robin cried and called for his mother. He admitted this quite frankly.

After a lifetime in this desperate situation the air became fouler and fouler and he teetered on the edge of consciousness. Suddenly he felt a grasp on his foot pulling him under. The cold water closed over his face.

Blinded by the water he groped for and found his regulator. Panicking wildly he fumbled with his mask. Through the turmoil of his senses he became aware of a pressure on his arm, trying to tell him something, insisting on

recognition. It dawned on him that it was a pressure signal, two squeezes, "are you OK".

Although Robin was far from OK it was easier to go along with insistence of the grip which held him. In this manner, blinded and completely hysterical, Robin was guided to the surface.

Fortified and encouraged by this tale I found myself about to embark on my first pommy cave-dive.

6. Abandon hope all ye....

I find myself standing ankle-deep in a stream beneath a 200 foot cliff. Directly in front of me, at the base of the cliff, a narrow fissure releases a stream the colour and temperature of Cooper's ale straight from the fridge. It is, of course, quite impossible for anybody to fit through that tiny little slot.

"Give me about a minute and follow on" Robin instructs me, "I'll meet you on the other side", he adds, turning to go. I hope he did not mean that in any spiritual sense.

With this Robin lies on his belly, wriggles forward and slides beneath the cliff like a lizard. Like an automaton I kneel in the frigid water on the smooth shingle, then lie flat. I wriggle forward and my helmet collides with the cliff. Taking the braided line in my hand I convulse my way through, the full weight of the cliff forcing the air from my lungs. Against the gentle current I glide in complete horror until I collide with a neoprene boot.

Robin is sitting nonchalantly on a rock on a shingle bank. We are in the cave and here the stream flows just as it does

in the daylight, it's path marked not by bushes and grass, but by flowstone and dripstone. We stumble about the cavern for a while and Robin shows me the next upstream sump, "there is a good



Anthony Keane exciting (at right).

lot of good diving here" he tells me. I decide to take him at his word.

For all of this organising Robin accepts no reward, not even allowing me to pay for the excellent fish and chips with which we round off the day. Alan of Atlantis Watersports will accept no payment for the equipment he loaned me, some of it his personal gear. He will not even let me pay for my air fills.

The atmosphere amongst cavers and cave - divers in England is unique and they pursue their sport amidst great beauty and history. The diving itself though, well, next time I'll just settle for drinking and lying.

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DIVING WITH A "D.U.D."

by Greg Bulling

After years of diving with a drysuit and suffering the inconvenience (not incontinence) of "Bursting Bladder Syndrome", I was heartened to read Anthony Keane's story in Guidelines "51", re a possible solution. For those who missed it, it referred to the use of a urinary system adopted by the incontinent, which comprises a disposable adhesive catheter, called a uridome (like a condom), coupled to a re-useable latex rubber legbag.

Having been inspired by the possibility of pain free diving, I quickly hit the trail of the medical supply companies to source all of the "goodies". As my shopping experience for items such as re-usable latex and adhesive catheters was rather slim, my first few contacts proved rather awkward. In each case I was politely assisted in the foyer by an attractive young receptionist, who looked rather shocked when she discovered I needed some help with male incontinence products. The normal procedure involved her quickly calling another sales assistant who generally resembled Mrs Slocombe from "Are you being Served". On several occasions I was hastily ushered into a side room to review their product lines in private. One time, a very helpful (but obviously embarased) lady, brought me in four different boxes of uridomes, all the same except for the sizes, which

ranged from geriatric (or youth) through to "I wish". She explained very politely about the differences in size and then issued me with a template for measurement. Needless to say, I wasn't able to make an on the spot decision as I told her "all this stuff was for my brother".

Finally, after much running around I was able to come up with the correct size (not telling) uridome, and the reusable latex leg bag. This worked flawlessly on all but the very first dive (while teaching on a penetration course!), when I did not connect the two together correctly.

At about the same time I began investigation of the leg bag option, I received some information from the Internet regarding the use of an "overboard dump" valve for urinating in drysuits. After making contact with some friends, I soon had a model sent from the US, ready to install in my drysuit.

The Drysuit Urinary Device (D.U.D.) is comprised of a two piece PVC valve housing, and an O-ring sealed, stainless steel valve, with PVC screw head. The overall size of the DUD is about that of a 50c piece. A hole is punched into the suit and the two parts of the valve housing are screwed together, much like the way a dump valve is connected to a BCD. The removable S/S valve then screws into the housing.

To operate the system, the correct size uridome is delicately placed in position and connected to a length of 1/4 inch surgical rubber tube. The other end of this tube is then connected to a nipple on the inside of the D.U.D. When the need arises, the external valve is simply unscrewed half a turn andaahhhh, relief is at hand (so to speak).

The general experience of those who have used this system is that it works very well once two important points are taken care of. Firstly, the uridome must be the right size (no bragging), and correctly installed (not an easy skill for the uninitiated). By far the most successful brand has been the "Freedom Cath", manufactured by Mentor in the USA. They come in four sizes, with "Medium" being the size of most popular choice, and cost around \$2.50 each. They seem to have by far, the most aggressive adhesive, and will last several dives on the same day.

The second important point is to avoid kinking or twisting of the hose, or uridome end. If this happens, a nasty backup can occur which can compromise the seal. Some people have found the adhesive so good, that the uridome has ballooned after kinking in the hose, a most unenviable situation! To avoid this situation, careful routing of the hose is important, with taping to the inside leg (of the hose!) an option preferred by some.

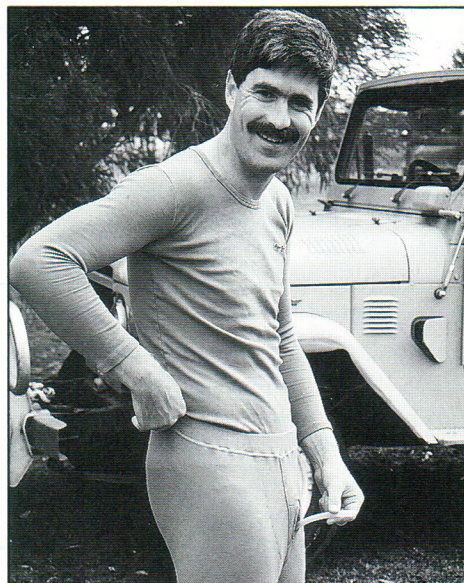
The advantage of the D.U.D. over the leg bag, is its ease of setting up, the

unlimited volume (I ran the leg bag to its full measure on one dive!) and the less likelihood of leakage.

As well as the extra comfort afforded by the use of the D.U.D., the ability to remain sufficiently hydrated before, and even during the dive, contributes to reducing the likelihood of DCI.

So, all in all, diving with a D.U.D. is an option no male drysuit diver should ignore any longer. For the ladies, as far as I'm aware, an adult incontinence diaper is probably the only easy option. They cost about the same as a uridome and are, by all accounts, quite successful.

The D.U.D. I currently use is manufactured by local cave diver, Paul Arbon, and is very well made. For more details contact Paul on 08 396 3062 or me on 08 265 4978.



Author showing off his surgical rubber tube.

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	Cave Diving — A Blueprint for Survival. A book by the world-renowned cave diver, the late <i>Sheek 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.	\$15.00	
	CDAA Occasional Paper No. 2, From National Conference 1981. Includes topics such as Fossil Cave, Belay Techniques and Cocklebidy 1979.	\$ 8.00	
	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	
	DES Emergency Handbook. Revised 1990 edition by <i>Lippmann and Bugg</i> . Printed on waterproof paper this essential first aid manual should be part of every cave divers' kit.	\$15.00	
	NSS Cave Diving Manual. The standard reference manual in cave diving covering just about every conceivable topic. New Edition.	\$40.00	
	Research Handbook for Cave Divers. By <i>Peter Horne</i> . This book is a compendium of years of experience from various sources. A valuable addition for those interested in the other side of cave diving. As reviewed in <i>Guidelines</i> Issue 36.	\$20.00	
	Wukulla Springs Project. The U.S. Deep Caving Team, edited by <i>William C. Stone</i> .	\$59.00	
	The Darkness Beckons. By <i>Martyn Farr</i> . The history and development of cave diving.	\$50.00	
CLOTHING	Deep Diving. By <i>Bret Gilliam, Robert Von Maier</i> . An advanced guide to physiology procedures and systems.	\$30.00	
	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.	\$40.00	
	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.	\$18.00	
	The Lower South East Cave Reference Book. This 600-odd page publication is an invaluable reference detailing every known cave in the Mount Gambier region. Highly informative. Allow two weeks on top of normal delivery. by <i>Peter Horne</i>	\$95.00	
	Caverns Measureless to Man. <i>Sheek Exley</i> .	\$40.00	
	Cave Practice & Equipment - Edited by <i>David Judson</i> 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	
	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 <i>Guidelines</i> 54.	\$25.00	
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	New Style Long Sleeve T-Shirts. Colour: Steel Blue. Sizes: Medium only.	\$30.00	
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	CDAA Stickers. Yellow. (Include stamped, self-addressed envelope for delivery.)	\$0.80	
	CDAA Stubbie Holders. Red with black logo. Foam/plastic shell.	\$2.00	
	Tank Cave Poster. Full Colour 14½" x 25" poster of Tank Cave by <i>Peter Rogers</i> . Price includes p&h.	\$8.00	

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prestige

Fin

APOLLO has applied its own concept to convert all the force exerted on the blade into forward motion. This concept, arrived at after a long and detailed study, makes it easier to move through the water but provides maximum power when required.

Like the fins on fast moving pelagic fish the PRESTIGE Fin utilizes its entire expanse for a power-producing blade. To accomplish this APOLLO has made the foot pocket into blade area eliminating water resistance. This eliminates the dead space found on many fins available on the market today.

The blade is produced of urethane in two different hardnesses allowing more flex in the center of the fin. This flex allows the elimination of the high ribs found on other fins.

The new quick release strap provide instant on/off ability and simple one hand adjustment. With the straps at-

tached further towards the front of the foot pocket the divers feels his or her entire foot is covered securely. The new "PRESTIGE" fin is of a highly advanced design pursuing power and beauty.

PRESTIGE FIN
Small size Medium size Large size
•Blades: Polyurethane material in 6 colors •Foot pocket:
Soft black polyurethane •Buckle: Quick release one touch
adjustment

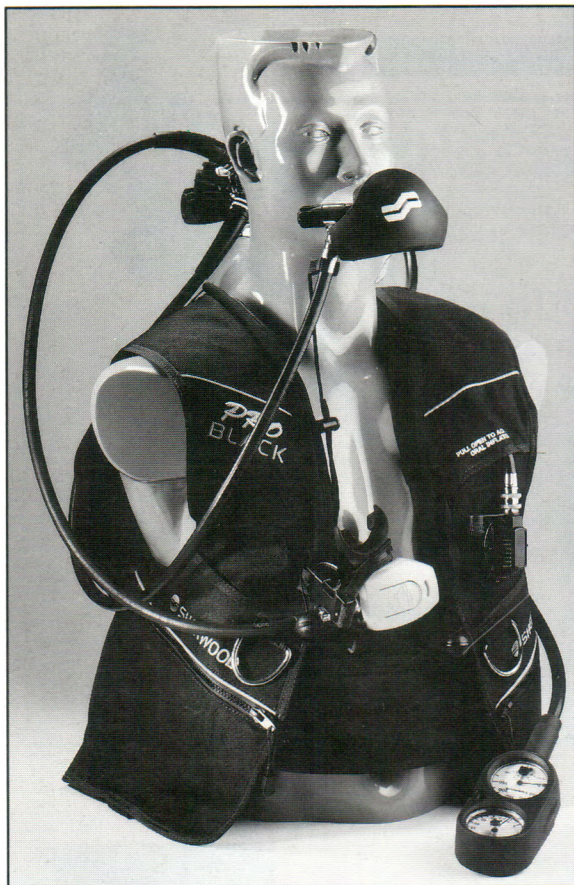


AT LAST!

A REVOLUTION IN JACKET BCDs

WITH ALL THE ACCESSORIES YOU NEED!

The flow-through jacket style BCD has remained popular with many serious and professional divers despite many style changes to BCD design.



The Pro Black represents the first revolutionary change to the jacket-style BCD since its inception. The most radical change is the "Direct Injection" Inflation system. It eliminates the dangling corrugated hose completely, thus making the BCD more streamlined and putting the inflator where you need it in an instant.

Three separate pull dumps make dumping air a breeze.

1000 denier Cordura all round makes this the toughest BCD possible.

Strategically placed stainless steel D rings gives you a spot for everything!

The Pro Black is available now from your local authorised Sherwood dealer. For more information contact your authorised Sherwood dealer or Scuba Industries of Australia on

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