

C.D.A.A. Newsletter

GUIDELINES

No: 40 – JULY 1991



Back Row: (left-right) Tony Davis, Greg Bulling, Noel Dillon, Bill Barnhardt, Neil Vincent, Ian Lewis.
Second Row: Peter Horne, Nick Jones, John Vanderleest
Third Row: John Dalla-Zuanna, Peter Girdler, Steve Arnell, Tony Richardson, Andrew Cox, Phil Prust.
Front Row: Lance Mitchell, Glen Harrison, Alan Jolliffe, Barry Heard, Chris Brown, Liz Wight, Terry Cummins.
Absent: Andy Kirk, Phil Mann.

CAVE DIVERS ASSOCIATION OF AUSTRALIA
(Incorporated in South Australia)

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Cave Divers Association of Australia
P.O. Box 290, North Adelaide, 5006

Front Cover: Instructors & Officials at the CDAA meeting held on 4th & 5th May, 1991

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DIRECTORY

The following is a list of people that can be contacted for C.D.A.A. matters. Please contact the most relevant person or, if unsure, write to our P.O. Box in Adelaide and your enquiry will be passed on.

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Promotions	Geoff Riddle	(03) 740 1828 (h)	

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EDITORIAL

Hi fellow cave dwellers! It's with great pleasure I write this editorial as the response to the first reader survey was greater than anticipated. All in all, the response to the new format was very positive with only a few people choosing to say bad things about us!

Over the next couple of issues, I will hopefully be implementing a few changes in response to the survey - some of which are evident in this issue. Such things as overseas news and more details of our own cave sites will be more prominent, and also, in response to survey results, less emphasis will be placed on political/training areas. Please realise that in the last two years of re-structure of the Association, the Directorate and office bearers had a distinct obligation to keep the membership informed of what was happening. If the new system is in fact voted in at the A.G.M., then I'm sure that the political content will gradually decrease. However, it will never disappear completely, as it is the members who own the Association, and must be kept informed of what is happening in regards to your sport. If you don't feel you need to know the political goings on, then skip that part, but please realise that it must still be included in Guidelines.

We now have a number of new books available for sale. They will prove a valuable addition to your bookshelf (and, hey, you might learn some new techniques as well), so give them a try. We make a small amount on each book to enable the expansion of products for sale.

On the same note, I have managed to organise a very special pre-publication offer on the classic cave diving book "The Darkness Beckons". This is easily the best book on our sport available and I have gone out on a limb here and indicated to the publisher that the response from our members should be very good, in order to get a very attractive price - over 25% saved on the eventual retail price (that is, if you are able to find it anywhere). So don't let me down guys and girls - and you'll get the most comprehensive book on our sport yet written. See insert for order details.

On that note, I'll sign off for now and see you all at the A.G.M.

Safe Cave Diving,
TONY DAVIS, *Editor*

NATIONAL DIRECTOR'S REPORT

The AGM is nearly upon us yet again, and that means it's time to vote for the National Restructure Policy. You will soon be receiving a copy of the constitution, regulations and new training standards and you will need to vote on these items as either accepted or rejected. We will not be voting on each individual point, but as a whole system.

Assuming the new constitution and standards are accepted, we still need to continue to develop many items. The Standards Directorate has produced a lot of training materials over the past 12 months but as with all training, it is never stagnant and needs continual development.

As well as our constitution, regulation and standards, we will need to consider our directors for 1991/92. I will not be accepting nominations for National Director this year, so you will be seeing a new face in the future. If you want that face to be yours then it's time to start rallying support.

Moving onto the more interesting aspects of the politics, we have a new site we are about to open. The legal work has been done and it's simply a matter of signing the deeds. The site will hold a Sinkhole Classification but, unfortunately for many, will have a very restricted access in terms of the number of

continued overleaf


Continued from previous page

divers. We have not yet negotiated the fine details for access with the land holder, so we cannot start taking bookings. Bookings will probably start with the next Guidelines issue, and, as with Iddlebidy Cave, we will run a lottery system.

Iddlebidy Cave has been open now for 6 months. The general opinion is that a fixed line is required for the conservation of the cave. Paul Arbon has been working on a fixed line policy and, using this policy, we will place a line into the cave. The level of access for the next six months has not yet been established. People wishing to dive this site can apply to the S.E. Site Access Committee using the same criteria as before i.e. 4 per party (preference for people who have not dived the site).

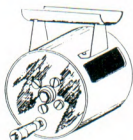
Now onto a disturbing matter: I have heard of people complaining about the guides for the shaft. You must remember that this is a condition of access by the land holder, thus, whatever you may think of the concept, it doesn't matter. The guides are not employed by the Association, nor do they receive any reimbursement from the Association. They offer their time as their part for the Association. What are you offering??? Complaints!!! Next time you want to dive the site, remember, look after the guides and they will be willing to continue to offer their time. Abuse the service and you may find that they may not be willing to offer their time to YOU again.

Yours in cave diving,


JOHN VANDERLEEST

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CDAA NEWS

IT'S A GIRL!!!

Congratulations to our S.E. Rep. Andy Kirk who was presented with a bouncing baby girl from wife Deb, born on 25/6/91 at 10.40am. All are doing fine. (Apparently Andy is recovering - not from the birth, but the drinking!).

PICS. CLOSED TO SNORKELLERS

Due to vegetation in the first pond and top of the chasm dying, Piccaninnie Ponds is closed to snorkellers until 1st August 1991. See letter reprinted on page 15.

THANK-YOU

Our sincerest thanks must go to WordPerfect Pacific for their support to our organisation. The CDAA was sponsored through the donation of a copy of WordPerfect word processor and DataPerfect database. Both of these items were needed by the business directorate and would have cost us nearly \$1000 to purchase. The improved quality of the services given to you relies heavily on sponsorship and advertising. So next time you make a purchase, remember, support those that support us.

SINKHOLE REVIEW GROUP MEETING

On the 22nd June, the final draft for the constitution, regulations and course standards were presented to the Sinkhole Review Group. The meeting (5½ hours) generally dealt with the course standards. After some minor modifications being made to these standards, the panel agreed that significant improvements have been made over the old system of training. As with any new system we will need to closely monitor the results of the changes for a few years.

NOTICE OF

ANNUAL GENERAL MEETING

Saturday 21st September 1991

commencing time: 8.00 p.m.

venue: COMMODORE HOTEL

Jubilee Hwy., Mount Gambier

**Nominations for the following positions
will close on 16th August 1991**

- **NATIONAL DIRECTOR**
- **BUSINESS DIRECTOR**
- **STANDARDS DIRECTOR**

**All nominations must be duly nominated and seconded
by a current CDAA member, and forwarded to:**

**NOMINATIONS,
BUSINESS DIRECTOR, CDAA
G.P.O. Box 216TT
MELBOURNE, VIC. 3001**

by the due date (16 August, 1991).

ANDREW POOLE - WA Representative

Born in England 1962, my family quickly moved to Australia (because England's no place to dive!) I learned to dive at 14 with the Underwater Explorers Club and then joined the F.A.U.I. system, working my way to become an instructor eight years ago. Since then, my diving has taken me as an instructor to the Maldives for several seasons, only to return and start my own business in a line of work far removed from diving.

My interest in cave diving began when I worked for Hugh Morrison and Simon Jones at Perth Diving Academy assembling various items for their now famous Nullabor exploits.

My active interest developed strongly last year on a trip to the Nullabor organised by Hugh, where I was examined by Ian Lewis (thanks Ian!).

Since then my dive buddy, Richard Jackson, and I have been very active, practicing and preparing equipment and spending every available minute searching for the elusive grail - a good, diveable cave in Western Australia.

I look forward to representing the CDAA in W.A. and hope we can open the lines of communication and information for those people that share a common interest in this unique sport.

G

CDAA STANDARDS DIRECTOR'S REPORT

Alan Jolliffe, Standards Director

Over the last few months, there has been much activity in the Standards Directorate. One of the major activities was a meeting of CDAA instructors and officials which was held in May to finalize Draft 3 of the course outlines. Now let's get down to some facts:

4th & 5th May Meeting

The purpose of this meeting was to finalize CDAA courses. Nineteen instructors and six CDAA officials attended this meeting along with two members of the CDAA membership. All aspects of the courses were reviewed including: site definitions, prerequisites, equipment, theory topics and practical skills. CDAA instructor requirements were also reviewed.

The opinions expressed at this meeting will be used by me to produce Draft 3 of the course outlines and instructors guidelines. The courses then have to have the approval of the two other CDAA Directors. Draft 3 will then be presented to the Sinkhole Review Committee for their approval. The final course outlines will then be prepared by me to be presented to the membership for approval at the AGM in September. The membership will receive details of Draft 3 before the AGM.

Phil Mann did most of the work in planning this meeting. On behalf of instructors and the membership, I would like to thank him for all his hard work.

New Instructors

I am pleased to welcome the following instructors as CDAA instructors:

Greg Bulling	Cave Instructor	SA
Liz Wight	Cavern Instructor	NSW
Andrew Poole	Cavern Instructor	WA
Nick Jones	Sinkhole Instructor	VIC
John Vanderleest	Cavern Instructor	VIC
Frank West	Cavern Instructor	QLD
Ian Gothard	Cavern Instructor	VIC
Max Marriott	Cavern Instructor	SA
Brian Cornell	Cavern Instructor	VIC

A special welcome to Liz Wight, the first female CDAA instructor.

The New CDAA Structure

The membership will have the opportunity to vote on the new CDAA structure at the next AGM. Over the last two years the operation of the CDAA has improved in efficiency due to the new system. The standard of diver training has increased due to new courses. The new structure has enabled us to improve our services to the members. I urge you to support the restructure of the CDAA.

G

OVERSEAS NEWS

Exley breaks own record!

He's done it again. Legendary cave diver Sheck Exley has broken his distance record yet again.

Diving the "Catherdal" cave system, west of Live Oak in Florida, he has gradually added line upstream, solo diving, staging with the help of Aquazepp underwater scooters. He finally broke his record, and now stands at penetration of 10,800 feet or 3.3 kilometres. And we thought our systems were big!!!

Diepolder II

One of Florida's deepest and longest cave systems known has released a further secret.

Pushed initially in 1976 to a depth of

almost 360 feet, no one dared go beyond because of a nasty restriction - until March 9th 1991.

A five week project called "Team Diepolder 91", using over \$80,000 worth of equipment including 5 Aquazepps, 23 sets of twin 104 c.f. tanks, over 60 stage bottles using two grades of nitrox and trimix gases, oxygen piped down by high pressure bottles, and very long hoses to a manifold/regulator setup, and an on-site computer that calculated gas consumption Vs. depth and distance. They were finally rewarded. After pushing the restriction 40 feet - POW! It opened into a huge trunk passage, adding a further 400 feet of passage with depths up to 400 feet! The visibility was 300 feet with white walls, and they think they've entered a tremendous aquifer lake, like a black hole in outer space. Wow!

BENEATH MOUNT GAMBIER'S "BLUE LAKE"

by Peter Horne

Big, blue and beautiful ... that's the way most visitors to Mount Gambier see the awesome Blue Lake.

The source of the city's drinking water, the volcanic crater now housing the azure-blue waters was ablaze and exploding only a few thousand years ago. With the subsidence of volcanic activity in the Mount Gambier complex, the vast sheet of underground water in the local "unconfined aquifer" (and probably some of the "confined aquifer" water from much deeper down) filled the void, producing a natural reservoir which today holds about 36,000 megalitres. Only the South Para and Mount Bold reservoirs rival the Blue Lake in size in South Australia.

With 100-metre high cliffs and a hidden, flat bottom some 80 metres beneath the water surface, the Blue Lake is often a major source of curiosity among the many cave divers who frequent the region. In early 1985, after years of such curiosity born from

an associated interest in the water-filled caves and sinkholes around Mount Gambier, I decided to DO something about the situation, and with the assistance of various Engineering and Water Supply Department, Adelaide University and S.A. Museum personnel, with whom I had privately worked during the previous decade, I approached the relevant people to seek permission to undertake a series of research dives in the lake.

After many months of negotiations and personal indemnification, etc., permission was finally obtained and a week-long project commenced, involving such aspects as

temperature, visibility and biological studies at different depths ... aspects which had never been recorded before. Four other research opportunities were later organised - in winter 1985, summer 1987, summer 1989 and January this year (1991) involving different teams of experienced cave-diving associates - and slowly but surely, the Blue Lake began to reveal some of its secrets.

In answer to the two most commonly-asked questions heard around the traps lately ... YES - the Blue Lake DOES have a bottom!

In fact, if the water could be removed completely, the almost featureless, flat muddy floor would look most unimpressive compared with the view from the lookout into nearby Brownes and Valley Lakes (unless, that is, there really are 200 metre-deep holes in the bottom as rumour suggests!); and NO - we DON'T exactly know how or why the Blue Lake changes colour so obviously year after year, although it is likely to involve the

heating of the upper layers, the calcium carbonate in the water and the presence of zooplankton, among other things.

Compared with the popular caves and sinkholes in the area, the Blue Lake is a barren, grey and rather boring world. Its steep (often sheer) walls are generally covered in a soft, spongy material which is thickly draped with mats of hanging *Chara*, and the bluish colour effectively limits useful visibility to around 15 metres or thereabouts near the surface in the summer months.

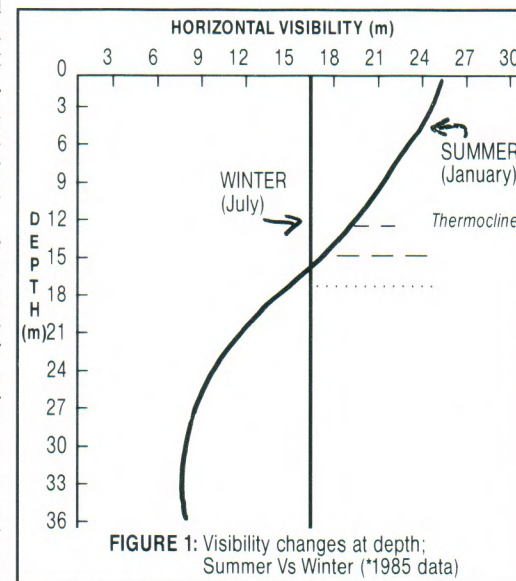


FIGURE 1: Visibility changes at depth; Summer Vs Winter (*1985 data)

Continued next issue

BUSINESS DIRECTOR'S REPORT

by Andrew Cox

The last 12 months have again seen many changes to the internal systems of the Association with the introduction of the new Training Courses and the increase in publications for sale to members.

As a result of this, I have found it necessary to rely heavily on the expertise of my staff to help institute these changes and make appropriate comments on their implementation.

GUIDELINES – The official magazine of the Association has once again published 4 issues which have all been on time, and of first class quality, full of interesting and informative articles. Many thanks must go to the Editor, Tony Davis, for his dedicated work and his efforts in following up members to contribute articles. I also thank the people and businesses who have supported us by advertising in our magazine.

PUBLICATIONS – With the introduction of the new courses there has been a lot of time and effort put into the production of Training material. Our stocks of books, magazines and clothing have again been a great success with many purchases by members during the year.

FINANCES – I will not attempt to highlight the debits and credits of the last 12 months, however, I feel it worthy to advise you

of the following alterations to our Financial Recording.

Since the formation of the Association, there have been two bank accounts running both in Victoria and South Australia with many internal transactions taking place. In order to stop this it was decided to have only one account – this account being held by the State Bank of South Australia. Since the Association has now become truly national with representatives in South Australia, Victoria, New South Wales, Western Australia and Queensland, problems arose with transferring of funds to these regional representatives.

As a result of this the Association has gone to all of the major National Banks with a view to changing to the one that offers the best benefit to the Association. The Bank that was chosen is the ANZ Banking Group.

RECORDS – Once again the Records of the Association have run smoothly with the introduction of the new cards. All members hopefully will have their new cards by now.

I would like to take the opportunity to personally thank Tony Davis, Peter Girdler, Noel Dillon and Ruth Mann for their help and assistance to me during the last 12 months and look forward to them continuing in their present positions.

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TRADING POST

For sale Regulator – Poseidon Cyklon 300. Just services. DIN and Yoke first stage. Completed with gauge thread adaptor and manuals. \$175 ono. Adrian Richards, CDAA 1769, (08) 45 3027 (a.h.).

Guess who's just got a mortgage – Dive gear for sale. **Twin Tank Bands** – Stainless steel. Near new. Fits most size tanks. \$95. **Dry suit** – Sea Suits 7mm neoprene style in good condition. Shoulder entry with attached boots & hood. Suit 6' tall. \$230. **Oceanic Omega II** 1st stage only in excellent condition. \$200. Wayne Wilson, CDAA 1828, (03) 338 2975 (a.h.).

COMING NEXT ISSUE ...

- ★ All the news from the A.G.M.
- ★ Beneath Mt. Gambier's Blue Lake cont.
- ★ Wellington Cave
- ★ Scanlon's Freehold – a flooded mine



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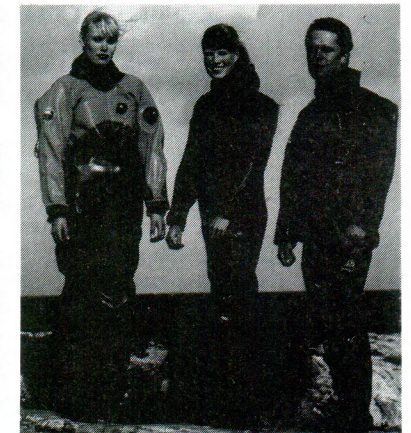
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CIVILIZED CAVE-DIVING

by Anthony Keane

It's 9p.m. and a cold July moon scuds through the clouds, shedding a pale intermittent light on the shivering foliage surrounding Piccaninnie Ponds.

You've had a good dive. Pics was clear and beautiful, the moonlight soft and haunting; but now comes the reckoning, now comes the moment of truth, now you must get changed!

When your teeth stop chattering, and the car-heater starts to work, it's magic, and you wonder if there might not be a gentler alternative. Of course, some cave divers are happy to endure diving in dreary, freezing Mount Gambier, but if you are due for a holiday, there exists a spectacular and unexploited cave-diving location within easy access of southern Australia that promises great rewards to a properly organised expedition.

On a recent trip to Thailand, I visited the area around Krabi and Phuket. The whole area is limestone, eroded into fantastic shapes and completely riddled with caves like a giant sponge. Small islands ascend vertically from the clear water to a height of several hundred feet, dripping with stalactites, great caverns gaping all over them.

The dry caving in the area is very famous, and National Geographic have published an article on the natives who climb perilously in these gigantic caverns to retrieve seagull eggs, a local delicacy. The same subject is dealt with in the book "The Shadow Hunters", well illustrated with photographs of the immense, richly-decorated cave systems.

It was only logical to assume that, with such a wealth of caving above the water, there must be at least some under it. Initially, I approached the new dive shop in Ao-Nang to ask them what they knew of Marine Caves.

"There are hundreds of them!" I was told by the pretty store manageress, "but we haven't really explored them. We haven't had the time and they aren't suitable for taking tourists to anyway. There is a really big one nearby which we have been meaning to survey – it may go all the way through an island."

With a little bit of effort, I managed to persuade the dive master to take my wife and

I to the cave the next day.

The cave penetrated one of the islands I have earlier described, a limestone monolith rising sheer from the ocean floor to a height of several hundred feet, in about sixty feet of water. The island has roughly the circumference of a footy oval and was typical of the thousands of islands in the area, a very beautiful sheer limestone tower with a fringing coral reef.

The ocean diving in this part of Thailand is only mediocre, rather shallow with generally indifferent viz. The sea life is nevertheless prolific and the coral very colourful, making the entrance to the cavern quite picturesque.

We descended against the wall of the island in water that was flat calm and very warm, perfectly comfortable and inviting without a wet-suit. We reached a sandy bottom at about 45 feet and the cave entrance loomed before us – so huge, its extremities were lost in the blue haze. As we penetrated, and the light from the ocean fell behind us, the scale of the cave became apparent. Roughly the size of a railway tunnel with smooth walls decorated with soft corals and anemones. A large, slender shark slept under a ledge.

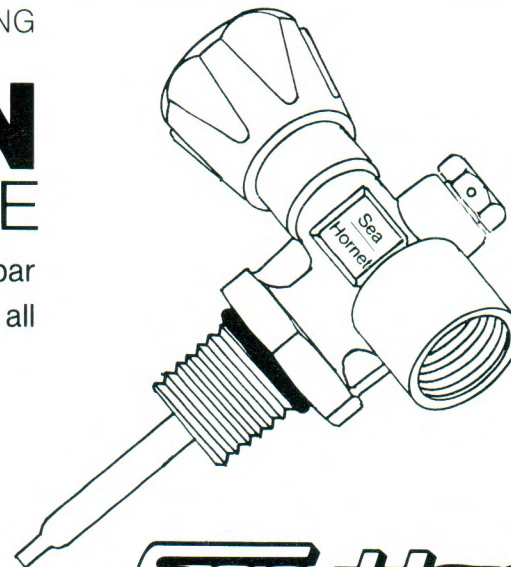
The divemaster had brought with his a guideline – simply, a hand-fishing reel (!) with braided nylon cord which he fixed to a rock. Allowing the reel to revolve slowly in his hand, the blue disc of light receded and grew dimmer, our eyes gradually adapting to the lesser illumination of the small hand torches we carried.

Floating high above my buddies, I sought to find the roof of the tunnel. Looking up, I was surprised to see a reflective surface, and beyond that, what seemed to be stalactites. I surfaced in a long tunnel, richly decorated with stalactites and flow-stone. It bore an uncanny resemblance to a throat, complete with stone tonsils. I immediately dived to retrieve my buddies so that we might explore this tunnel more fully.

When we were all assembled in the tunnel we allowed ourselves to be carried by a gentle current, down the "throat", past the "tonsils" and beneath an overhang which necessitated submerging momentarily. If the tunnel had

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Sea Hornet

been the throat, we were now in the belly, a vast cavern perhaps one hundred feet high and, once again, richly decorated.

The "belly" was a wondrous place. It glowed with a glorious light, illuminated entirely from beneath the sea. The light from the ocean shone through the cave entrance, many feet below and caused the water in the cavern to have an incredible luminosity. It was like swimming in liquid light, an electric blue medium that flashed and sparkled with every movement. There was no need for the torches – the luminous ocean filled the chamber with a soft glow, although no direct light penetrated from the outside.

We dived and found several other smaller chambers, similarly lit and decorated, before resuming our penetration of the main tunnel.

This cave did indeed penetrate clean through the island and we fought a mild current to exit from the cave on the opposite side.

After a tough swim, we eventually relocated our boatman, who was waiting patiently outside the cave entrance where we had disappeared over an hour previously!

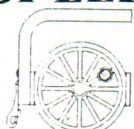
This was an amazing dive. So beautiful that even the taciturn divemaster was yelling for joy. There are hundreds, possibly thousands, more. They have not been dived – nobody does cave-diving there. It's virgin territory.

I think that for a group of suitably experienced cave divers, the area would afford the opportunity of a lifetime, with plenty of novel exploration, and some very comfortable adventuring.

So next time you find yourself staggering through blinding sleet in a sodden wet-suit, remember that just over the horizon is a land beloved of the sun and throbbing with sensuality, where throngs of smiling natives are waiting to escort you to a most civilized adventure.

G

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LAWRENCE RIVULET RISING, TASMANIA

by Stefan Eberhard

Lawrence Rivulet Rising is a major spring located in the Junee-Florentine karst area of south-central Tasmania. This karst area boasts many deep and sporting cave systems, such as Ice Tube-Growling Swallet, which, at 375m, is the deepest cave system in Australia. Also in this area is the Junee Cave, another major spring which has been penetrated a distance of some 800m, about half of which is submerged passage.

Lawrence Rivulet Rising has been explored by members of the Tasmanian Caverneering Club Cave Diving Group, Nick Hume, Roland and Stefan Eberhard. At least 100m of passage is presently known to a depth of 23m (see map). There is a strong current, and diving is only possible under low flow conditions during the summer months. The water temperature is cold (5-8°C). There is a siltation hazard. The cave is narrow and constricted in parts, including squeezes at the entrance and at about 20m depth. Side mounted tanks are a definite advantage in this cave.

The sinking point for the stream is situated nearly 3.5km distant, over a vertical range of approximately 60m. Thus, there seems little potential for breaking into major air-filled extensions. As a technical diving exercise, however, Lawrence Rivulet Rising provides plenty of challenge. Exploration will continue.

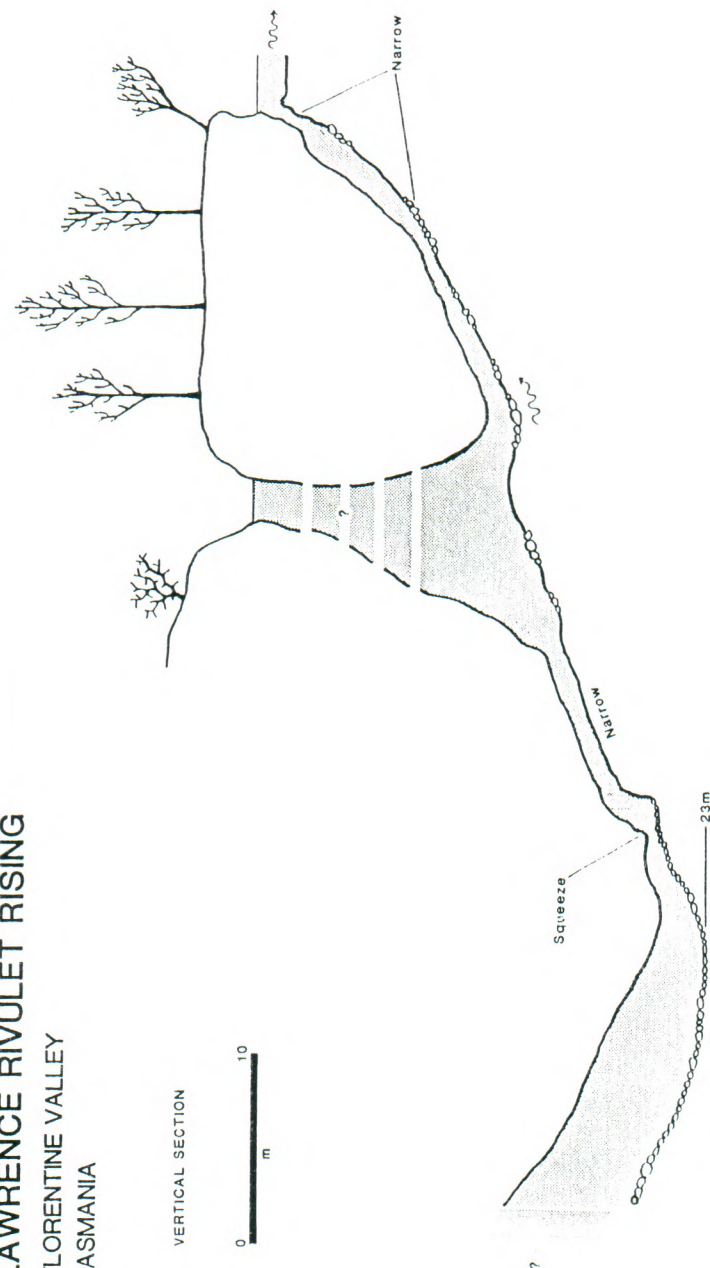
CAVE LEVEL COURSES

*conducted by Adelaide instructors
Chris Brown and Glen Harrison*

OUTLINE: 3 theory sessions
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2 days/4 dives in situ training (Mt. Gambier)

For further information ring:
Chris Brown (08) 379 1445 a.h.
Glen Harrison (08) 386 3237 a.h.

LAWRENCE RIVULET RISING FLORENTINE VALLEY TASMANIA



MEMORY SKETCH S. EBERHARD 1989

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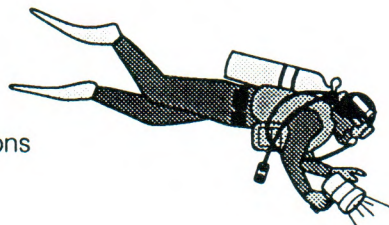
CDAAS Update Package

An update package is now available to CDAAS membership.

The package includes all the current training materials produced by the Standards Directorate.

Included are:

- Hand Signals
- Air Consumption Recommendations
- Anti-Silting Techniques
- Course Outlines
- CDAAS Logbooks



You will also receive the new CDAAS wall certificates.

The cost of the package is \$15 including postage and handling.

Post your cheque and the form below to:

Tony Davis, 44 Queen Street, Frankston 3199.

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Postcode

CDAAS Number: CDAAS Classification:

THE SUUNTO "SOLUTION" DIVE COMPUTER – Part 2

by John Lippmann

Altitude Adjustment

Whereas the SME-ML could only be used up to an altitude of 454m (1500 ft), the "Solution" can be used up to 2400m (8200 ft). However, the unit must be pre-set to the required altitude setting. Adjusting the unit is very easy to do.

There are 11 altitude settings, ranging from 400m to 2400m, in 200m increments. These settings enable a diver to "tune" the pressure transducer to the particular ambient pressure. For decompression purposes, the settings are divided into three major altitude ranges: 0-600m (sea level setting), 800-1400m (A1 setting) and 1600-2400m (A2 setting). The NDLs corresponding to each altitude range are shown in Table 4.

TABLE 4			
NDLs for various altitude ranges			
Depth (m)	Sea-level	A1	A2
9	222	153	104
12	127	90	67
15	72	58	43
18	52	40	30
21	37	29	23
24	29	24	19
27	23	19	15
30	18	14	12
33	13	11	9
36	11	9	8
39	9	8	6
42	7	6	5
45	6	5	5

The ability to set the altitude range introduces what I believe is one of the most important safety features of the "Solution", as it enables a diver to program the unit with more conservative NDLs for a sea-level dive.

For example, I have my unit programmed on A1 for all sea-level diving. This means that the unit is programmed with far more conservative NDLs than all other current computers. Although it may first appear that this will make the dives restrictively short, because the computer multi-levels effectively,

dive times can still be extended very satisfactorily. In fact it encourages you to work shallower during the dive, which appears to be safe diving practice anyway. Tables 2-4 include no-decompression stop dive times and decompression stops given with the A1 setting.

Dive Profile Memory

The "Solution" can recall a dive profile, showing the maximum depth reached in 3-minute intervals during the dive. The profile memory also displays the maximum depth and duration of the dive, as well as the surface interval between that dive and the preceding dive. The dive profile memory on the "Solution" is very easy to access, far easier than that on the SME-ML.

The dive profile memory will hold 8 hours of dive profiles. The earlier dives will be overwritten as the next 8 hours of dive time is recorded. The profile memory will also provide a record to show if the dive was a

Continued on next page

After diving Mt. Gambier

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decompression stop dive, whether the ascent rate was exceeded and whether the diver ascended above the "ceiling" during the dive.

Log Book Memory

The log book memory, which is again very easy to access, provides the maximum depth, dive time, surface interval, dive number as well as the same kind of additional information as the profile memory.

Dive History Memory

This function displays the maximum depth ever reached by the unit, the total dive time and the number of dives done.

PC Interface

The really keen computer buffs will eventually be able to buy a floppy disk, containing the entire program of the "Solution", and a data link to connect their "Solution" to a personal computer. It will then be possible to transfer dive information

from the "Solution" to a PC, enabling the owner to print graphs of their dive profiles, so providing a permanent log record of the dives. It will also be possible to simulate dives on the PC. When available, the program and interface should retail for \$350-\$400.

Battery Life

Suunto states that the battery life is typically 2000 hours, however, as with all dive computers, this may vary considerably. Suunto suggests that the unit be serviced every 2 years at which time the battery would be replaced. The cost of a service and battery change is estimated at around \$40.

Conclusion

Suunto have taken some giant steps to improve their original SME-ML and create the "Solution" which, in my opinion, is in many respects far superior to most other available dive computers.

© John Lippmann 1991

PENETRATION DIVERS EDUCATION PROGRAM

HELD 2nd MARCH 1991 AT GOULDEN'S, MT. GAMBIER

by Stan Bugg

This program, a prerequisite for any diver intending to dive in caves with fixed lines, was run in two stages. The morning was put aside for instructors to compare their skills and ideas, and to actually attempt the tests, and in the afternoon, divers eligible for penetration diver attended.

The prac was presented by Chris Brown. His profound knowledge was invaluable, and his enthusiasm for the task was infectious.

Candidate's gear was checked for suitability for twin independent in narrow passages, and suggestions were made for modification and streamlining. Then each diver worked through the line course as a solo diver. The exercise comprised practice in following a fixed line, use of a jump reel and direction arrows, and a blackout search for a lost line. Candidates were encouraged to watch other candidates as they performed the prac.

When the in-water phase was over, Chris gathered us together to confirm our knowledge of the extended hand signals. (I swear he can talk as well with his hands as most of us can with our mouths!)

I found the whole program to be extremely

valuable. It was presented logically and practically, and in a non-threatening and relaxed manner.

I congratulate National Standards Director Alan Jolliffe, former Training Manager Tony Richardson, and especially Chris Brown for their part in the program's success. It was a day that CDAA can be proud of.

OBSERVATIONS MADE AT THE PENETRATION DIVER PROGRAM

As an instructor I noted the following common areas that future penetration divers should consider:

Dangling Gear: an invitation for entanglement.

Extra clips on gear: once again, a potential entanglement situation. Remove all those catch bag clips for these sessions.

Short hose regulators: making air changes difficult, and allowing little opportunity to rearrange hoses to streamline gear. At least one 1m hose recommended.

Poor choice of tether clip: some were clearly of a non-recommended type. Choose a clip which can be operated with one hand, and which cannot be twisted off the line. **G**



Department of Environment and Planning

South East Region
11 Helen Street
SGIC Building
MT GAMBIER SA 5290
Telephone: (087) 35 1177
Fax: (087) 35 1170

Postal address
PO Box 1046
MT GAMBIER SA 5290

Reference
12.1.12
Contact Officer
T. Collins

National Parks and Wildlife Service

6th June, 1991.

Tony Davis
Guidelines Magazine,
PO Box 290,
NORTH ADELAIDE,
SOUTH AUSTRALIA, 5006.

Dear Tony,

I am writing to inform your readers who may wish to snorkel in Piccaninnie Ponds in the near future that due to the submerged vegetation dying the Ponds will be closed to snorkellers from 20.5.91 until 31.7.91. The problem will then be reassessed and the closure extended if necessary.

This problem has occurred to various degrees in the past and led to the extended closure of the Ponds to all diving and snorkelling activity from November 1985 until August, 1989. It is hoped that action taken now will make total closure unnecessary.

At present the vegetation has almost completely disappeared from the first pond, the top of the chasm and Turtle Pond. To facilitate speedy regeneration and minimise damage to the substrate the N.P.W.S. have temporarily suspended snorkelling.

This decision is not meant to insinuate that snorkellers are the cause of the vegetation die back, but recognises that the potential for inflicting damage to the Ponds in their present condition is greater with snorkellers as duck diving and poor finning techniques can easily disturb the fine sediment thus retarding regeneration.

Scuba diving by qualified sinkhole divers will be allowed but they are requested to be extremely careful entering the water and whilst making their way across the first pond to descend into the chasm.

Research into the cause of the phenomena is continuing and it is hoped that the users of the area will co-operate to ensure the fragile ecology of the Ponds is protected to enable continued access to this unique area.

Yours sincerely

Tim Collins
RANGER MOUNT GAMBIER
NATIONAL PARK &
WILDLIFE SERVICE.



just the beginning!

South Australian National Parks Centenary 1991 - 1994

CDA Sinkhole Diver Course Outline

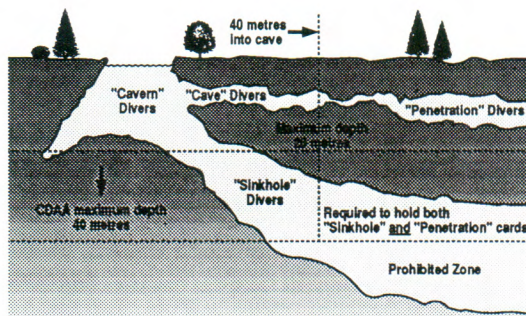
1. Sinkhole Dive Site Definition

A sinkhole dive site is a body of water which has large passages (no restriction too small for two divers to swim side by side), an absolute depth of 40 metres and an maximum penetration of 40 metres.

2. Course Aim

The aim of this course is to fully train you in various aspects of sinkhole diving. This includes the dive planning, environmental care and the dangers of deep diving.

Diagrammatic Representing of all CDA Diver Classifications



3. Course Duration

Approximately two days

4. Prerequisites

- Hold a current CDA cavern diver award
- Current diving medical (within 12 months)
- Minimum age of 16 years

5. Student Equipment

- Standard cavern scuba equipment
 - Mask
 - Fins (straps taped, if necessary)
 - Tank (50 cf minimum, J valve plugged or taped down)
 - Single hose regulator with SPG, octopus (1m hose, minimum), BC inflator.
 - Wetsuit or drysuit with hood.
 - BC (CO2 plugged)
 - Submersible dive tables.
 - Slate and pencil (recommended)
 - Compass (recommended)
 - Weights if required
 - Two good quality battery powered lights, one primary and one backup, burn time of each sufficient to last for the duration of dive.
 - Knife (recommended arm/chest mounted).
 - Tether clip (to be included by instructor as part of course cost).
 - Watch or timing device.
 - Depth gauge (MDI recommended).
- Tether clip and reel to be supplied by the student
- Twin independent air systems desirable but not mandatory
- Group decompression line and spare tank and regulator

6. Theory

Approximately six hours covering these topics: (Note, if a deep diver qualification is held by the student the number of hours may be reduced)

- Nitrogen narcosis
- Decompression sickness, especially factors increasing risk, decompression tables and fudge factors
- Computers - use limitations, back-ups, rules for use.
- Equipment for deep diving
- Equipment for sinkhole diving
- Problems of depth
- Problems associated with sinkhole diving
- Caving fatalities
- Protocol and entry requirements
- Ladders, belaying
- Air systems
- Twin independent systems
- Planning-allocating tasks:
 - terminating a dive
 - exiting procedure
- Underwater communications:
 - torch signals
 - line signals
 - extended hand signals
 - pressure signals
- Sinkhole conservation
- Sinkhole location, geology

7. Practical Sessions

7.1 Land Drills

- Guideline use-reel in and out, knots, tying off
- Guideline following - use of tether, negotiate tie off, maintain direction.
- Emergency procedures - blackout line following use of octopus, blackout line following while buddy breathing and lost diver search
- Ladder and belay techniques if needed in the region

7.2 Water Training Sessions

Revision of cavern diver skills to the satisfactory level. To be conducted in a cavern.

7.3 Sinkhole Dives

These dives are in addition to section 7.2. The skills must now be applied in actual sinkhole. Minimum of 4 dives in sinkhole or 3 if you hold a deep diver qualification

8. Assessment

- Continuous assessment during the course
- Theory test

9. Texts

- Student text - NSS Cavern Diving Manual
- Additional References - Cave Diving in Australia (Lewis and Stace), NSS Cave Diving Manual, Diving Emergency Handbook (Bugg and Lippman)
- The Essentials of Deep Diving, J. Lippman

SINKHOLE DIVER COURSE

The Sinkhole Diver Course is similar to the old Category Two course but it is not equivalent. The aim of this course is to train the diver in various aspects of deep freshwater diving, directly applicable to sinkholes. The course includes the dive

planning, environmental care and the dangers of deep diving. Also included in the course is belaying and lowering techniques. These skills are needed in some of the sinkholes in Mt. Gambier.

Sites such as Little Blue have been up-graded while the Shaft and Bullocks have been down-graded to sinkhole level, since these sites are true sinkholes rather than caves or caverns.

CDAA SITE ACCESS

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

SITE	LEVEL	OWNER	ACCESS DETAILS
MOUNT GAMBIER – SOUTH AUSTRALIA			
Ewens Ponds	Nil	Dept. of Lands PMB 124, Mt. Gambier (087) 35 1111	Groups of 6 or more, phone/mail to Dept. of Lands. Smaller groups, no need. Ponds are closed 1 September – 30 November each year.
Horse & Cart Tea Tree	CN	Mr. Don Telford PO Box 2629, Mt Gambier (087) 38 4003	By phone or mail, 1 week prior.
Little Blue (Baby 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 C	Dept. of Lands PMB 124 Mt Gambier (087) 35 1111	Contact Dept. of Lands by phone/mail prior to diving. Stay out of Gouldens when pump is operating.
Ela Elap One Tree	S S	Mr. Peter Norman Private Bag 67, Mt Gambier (087) 38 5287	By phone or drop in before diving. Accommodation also available.
Swim Through	C	Valerie Earl C/- PO Allendale 5291	Currently CLOSED pending new access arrangements.
Piccaninnie Ponds	S	NPWS 11 Helen Street, Mt Gambier (087) 35 1171	Permit holders by phone. Be aware of delicate vegetation.
Hells Hole Pines Mud Hole	S C C	Woods & Forests PO Box 162 Mt Gambier (087) 24 2711	Contact Woods & Forests (Forests Clerk – Barry Phelan) by mail or phone and arrange permit. No diving on total fire ban days.

SITE	LEVEL	OWNER	ACCESS DETAILS
Black Hole Ten Eighty Bullock Hole	S S S	Mr. Colin Traeger, Manager, Barnoolut Estate PO Box 12, Mt Gambier 5290 (087) 26 6215	Contact CDAA Records Officer for diving deed THEN mail Booking Form to Colin Traeger 2 weeks prior, stating names/qual. of all divers, and time slot – 1pm Saturday, 9am or 1pm Sunday, or 8am (weekdays).
Max's Hole	C	Mr. Trevor Edwards PO Box 1319 Mt Gambier (087) 26 8277	Phone or mail 1 week prior to dive.
Shaft	S	Mr & Mrs Ashby	ONLY by contacting designated "guides" who will arrange access. Refer "Guidelines" Issues 36 – July 1990.
Engelbrechts – East – West	C P	Mt Gambier Council	Obtain key from Mt Gambier Tourist Information Centre.
Three Sisters	P	Millicent Council	Currently closed until new access arrangements completed.
Iddlebidy (5L250)	P	Woods & Forests P.O. Box 162, Mt. Gambier, 5290 (087) 24 2711	Access ONLY via CDAA Site Access Committee – refer National Director's Report issue 38.

NULLABOR – WESTERN AUSTRALIA

Cocklebidy Murra El Elevyn Tommy Grahams Weebubbie	C P C C	Regional Manager C.A.L.M. 44 Serpentine Rd, Albany 6330 Ph: (098) 41 7133	Must apply for permission to dive at least 4 weeks in advance of trip.
			Small dive site next to main chamber – Sinkhole

NULLABOR – SOUTH AUSTRALIA

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



CDAA PRODUCTS

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

BOOKS

Cave Diving Communications. A new manual from the NSS-CDS dealing exclusively with all types of u/w communications used in cave diving. Including touch, torch and line signals, and use of line arrows and jump reels. A must for every cave diver's bookshelf.

Cave Diving. A Blueprint for Survival. By world-renowned cave diver Sheck Exley, this is a case study of a number of accidents that have occurred in the USA and how to avoid them.

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

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

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

Cave Diving in Australia - by Lewis & Stace. The classic in Australian Cave Diving circles with descriptions of most of the sites available in Mount Gambier, and useful technical information as well.

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

South Australian Diving Fatalities 1950 - 1985 - by Peter Horne. A good manual of case studies indicating what NOT to do in both sea and cave diving.

S.R.T. Single Rope Techniques - published by the Sydney Speleological Society. This is the definitive work on all aspects of vertical travel in caves. Should answer most questions on rope work for cavers and cave divers alike.

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

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

Guidelines - Back issues Nos. 8-14, 16-20, 22-28, 35-38

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- **AScent Time** total time required to surface from your present depth calculating ascent and stop times combined.
- **Decompression range** when appropriate, describes both the decompression ceiling and the decompression floor.
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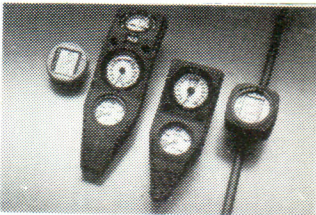
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This is quite definitely the most important and complete book ever published on our sport of Cave Diving, chronically the technical advances and the adventures of the world's cave divers in such places as England, France, USA, South Africa and Australia.

The book, when available, will retail for \$54.95. However, the CDAA has organised a special LIMITED pre-publication offer direct with the publisher – allowing a considerable saving on this price.

If you order now, we can offer the book for a price of \$40 including postage – a saving of over 25%. It's easy – just fill in the order form and post it, with payment, as soon as possible. The book will be sent direct from the publisher to you when printed. Publishing date is September 1st 1991.

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31 AUGUST '91

CAVE DIVERS ASSOCIATION OF AUSTRALIA

(INCORPORATED IN SOUTH AUSTRALIA)

LANDOWNER ACCESS LETTER

Landowner/Contact Name & Address

Group Contact: _____

Address: _____

Phone: (h) () _____

(w) () _____

Dear _____

I write to ask permission to enter _____ property/cave for the following persons on the date and times indicated below. Please find enclosed a stamped, self-addressed envelope for your reply.

Members of the Group:

NAME

CDAA No.

CDAA Certification
Level Held

DATE

TIME

LOCATION (in order of preference)

Signed: _____ Date: _____