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# GUIDELINES

No: 68 - MARCH 1999

CAVE DIVERS ASSOCIATION OF AUSTRALIA
(Incorporated in South Australia)

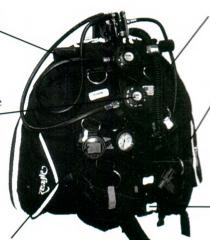
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### Editorial

Hello to everyone,

I trust everyone has a safe and enjoyable Christmas and got to do lots of diving! There have been a lot of changes in the last few months as far as C.D.A.A. positions go. I would urge all members to become involved in any positions that become vacant.

I trust you enjoy this issue, and please send me some great cover photos.

Glenn O'Connell
Editor

### ARTICLES FOR GUIDELINES

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

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

### **ADVERTISING RATES**

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#### Front cover:

Ken Smith at the double tip of "Xix ha Tunich" the giant 44ft underwater stalactite in Chac Mol Cave, Yucatan Peninsula. Mexico. The stalactite is a 600m swim from the entrance cenote.

Photo by Nick Koligiannis

### CAVE DIVERS ASSOCIATION **OF AUSTRALIA**

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

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

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

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### **RUM JUNGLE LAKE**

By David Cowan

Editor's note: Rum Jungle Lake is one of several sites accepted by the CDAA as a CDAA sanctioned training site. It has also been sanctioned by the CDAA as a sinkhole site (with a limit of 5 dives counting as pre-requisites towards CDAA Cave Diver).

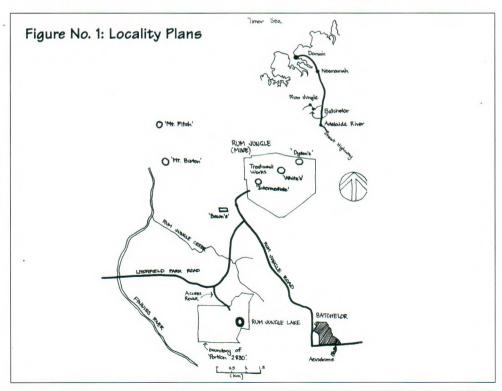
#### Introduction

Rum Jungle Lake is a popular diving site which is located about 65km south of Darwin and about 3.5km west-northwest of the township of Batchelor. The distance by road from Darwin is approximately 140km. The site is a freshwater flooded open-cut uranium mine which was known as Rum Jungle Creek South. Its popularity as a dive site is due to its availability as an alternative site for recreational diving during spring tides in Darwin harbour and its suitability as a site for deep diving using air, nitrox and trimix.

### Site History

This site was one of seven mines developed principally for the extraction of uranium ores by Territory Enterprises Pty Ltd (TEP) in the Rum Jungle area for the Commonwealth Government's Australian Atomic Energy Commission (AAEC). These sites are depicted on Figure No. 1 below.

The Rum Jungle Creek South ore body which is located about 7km south of the treatment plant, was discovered by TEP either in 1959 or 1960. The Rum Jungle Creek South mine



developed into an open-cut mine with a maximum depth of 68 metres. Between March 1961 and August 1963, the mine yielded approximately 670,000 tonnes of ore of an average grade 0.37% Uranium (ie. approximately 2600 tonnes of U308).

The open-cut flooded after the completion of mining and subsequently became a popular picnic and camping area. It is not known when the site became popular as a diving destination. The NT Archives Services holds an oral account by the now-deceased Carl Atkinson who is well-known as the pioneer of wreck diving in Darwin harbour, regarding early diving experiences at this site.

The site was rehabilitated as the second stage of a three stage Commonwealth-funded program to rehabilitate abandoned uranium mines in the Northern Territory. This program followed the completion of the rehabilitation of other mines at Rum Jungle (known as the Rum Jungle Rehabilitation Project).

The Rum Jungle Creek South Rehabilitation Project was managed by the Mines Environment Directorate of the Department of Mines and Energy on behalf of the Northern Territory Government.

The principle objective of the project was to reduce the annual maximum radiation levels to the members of the public to below one millisievert per annum. The normal background dose is reportedly two millisieverts per annum.

The project also included the improvement of recreational facilities. These works included the creation of a small beach, construction of two sealed parking areas (one for buses and one for cars), sealing of part of the access road and the development of two sports ovals. The works commenced in October 1990 for the sum of 1.8 million dollars. Toilet facilities were subsequently provided during the early 1990s.

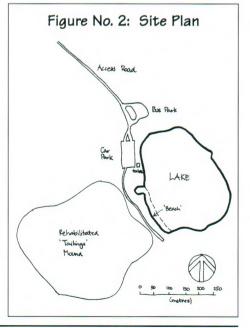
### The Diving Environment

#### **UNDERWATER PROFILE**

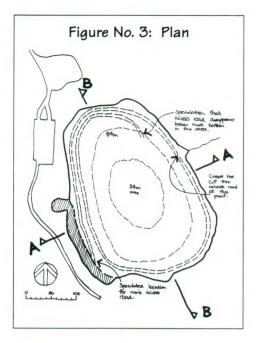
The site consists of an excavation pit and a 'beach'. The pit is approximately 375 metres x 250 metres (at the surface) with steep sides (70 to 80 degrees from the horizontal) falling to a maximum depth in the range of 58 to 61 metres (depending on the water level). The 'beach' which was constructed during the rehabilitation works, slopes gently from the surface to a maximum depth of 9 metres where it meets the western wall of the pit. The 'beach' is the preferred entry point for diving activities.

Please refer to Figure No. 2 to 5 inclusive below for the following information:

- 1. Site plan depicting major features above water level.
- 2. Plan depicting major features below water level and.
- 3. Sections AA and BB which depict the vertical profile of the site.

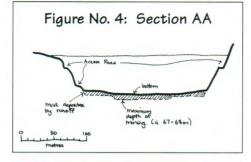


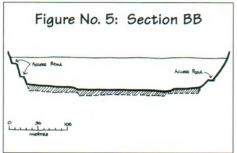
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The above-mentioned figures are based principally on information obtained from discussions with divers with considerable experience at the site, the drawings of the rehabilitation works, and photographs of the operating mine.

Figures No. 3 to 5 inclusive are only an approximate picture of what exists below the water's surface. After reviewing information regarding mining practices used in the 1960s, it now appears that the mine access road has been drawn too long and hence its location within the pit is not correctly depicted. This means the bottom of the site has a more pronounced concave profile than depicted due to the access road curving inwards towards the deepest part of the pit. It is possible that those divers providing information regarding the profile may have mistaken terraces cut during the mining works as being the mine access road. The verification of this matter along with the determination of the actual maximum depth will be the subject of future dives.





#### WATER CLARITY

Water clarity is influenced by several factors:

- 1. the existence of a thermocline (between 8 and 10 metres below the surface) which reduces light penetration into the lake,
- surface run-off during the Wet Season (November to April) which adds suspended matter and,
- 3. the very dark colour of the walls and the bottom which absorbs light and prevents reflection of light.

Water clarity is summarised as follows. At or near the surface, visibility in the range of 0.5 to 1.5 metres is available with a murky green hue. Immediately above the thermocline, the visibility is practically zero. Below the thermocline, while the soft green glow of daylight can be seen above, the range of visibility depends mainly on the power of your primary light. Accordingly, visibility in the range from 3 to 20 metres has been observed in the blackness. Observations indicate that the

water clears quickly after diving activities with the observed time range being from 20 to 60 minutes.

#### TEMPERATURE GRADIENT

The temperature gradient is summarised as follows. Above the thermocline, the water temperature is usually 30°C or 31°C. However, it has been reported as being as high as 36°C during the Wet Season. Below the thermocline temperatures are usually in the range from 18°C to 25°C. A constant temperature of 24°C has been observed on one occasion during the Dry Season (April to November) when there was a total absence of a thermocline.

### Some Diving Hazards

#### DARKNESS

Probably the most memorable feature of this site is the pitch-blackness of the water below the thermocline. In addition to being a significant stressor, this characteristic of the site is the major contribution to diver disorientation. In circumstances where care is not taken, collisions with the wall of the lake are possible! The use of artificial lighting is considered to be an absolute requirement while the use of reels and compass is highly recommended.

#### SILT

The presence of black silt on the walls and especially the bottom of the lake will assist with diver disorientation if disturbed.

#### DEPTH

The presence of maximum depths in the range of 58 to 61 metres will expose air and nitrox divers to risks such as Nitrogen Narcosis and CNS Oxygen Toxicity.

#### WATER TEMPERATURE

The change of temperature at the thermocline is a significant stressor particularly for locally

bred divers, especially in conjunction with the onset of blackness (refer above). The use of suitable thermal protection is recommended – the use of 3mm wetsuits is popular for dives at this site.

#### HYDROGEN SULPHIDE (H2S) GAS

The presence of H2S (ie. "rotten egg gas") can be smelt below the thermocline. The H2S gas is believed to be produced by the decay of vegetation lying on the bottom of the lake. Some divers do not like this experience.

#### ALTITUDE

The water level of the site's surface is reportedly in the range between 180 and 190 metres above sea level. The appropriate adjustments may need to be made to one's decompression calculations depending on the decompression schedule being used.

#### SUBMERGED TREES

Trees submerged in shallow water at the edge of the lake have been known to be a hazard to divers swimming underwater directly to and from the shore.

#### REMOTE LOCATION

The remoteness of the site requires to be considered in all aspects of dive planning ranging from the availability of basic needs to specialised medical services. Local expertise should be sought by those who have not dived here before.

#### ACCESS ARRANGEMENTS

The site is located on property currently owned by the Coomalie Community Government Council.

Access to the site for diving appears to be unrestricted. Local divers do not know of any restrictions on recreational users of the site placed by the Council apart from the requirements on an old and battered sign located on the access road to the site. This sign which was probably installed by a previous

owner or tenant (identified as the "Trustee"), advises of the total prohibition of water skiing and shooting.

### **Local Contacts**

The following organisations regularly dive at Rum Jungle Lake and will be pleased to assist divers with their first dive at this site.

- a) Coral Divers
  NAUI/IANTD Facility
  (Nitrox available)
  Shop 3, 42 Stuart Highway
  STUART PARK NT 0820
  Tel: (08) 8981 2686, Fax: (08) 8981 2171
  Email: cdiver@topend.com.au
  Homepage:
  http://www.topend.com.au/~cdiver
- b) Cullen Bay Diving & Fishing Services
  PADI/IANTD/TDI Facility
  (Nitrox/Trimix available)
  66 Marina Boulevard
  LARRAKEYAH NT 0820
  Tel: (08) 8981 3049, Fax: (08) 8981 4913
  Email: rick@divedarwin.com
  Homepage: http://divedarwin.com

c) The Darwin Sub-Aqua Club Inc.
Sports House, Warratah Crescent
FANNIE BAY NT 0820
(GPO Box 1850, Darwin NT 0801)
Tel: (08) 8941 1850
(answering machine operates at all times except on Thursdays between 5.30pm and 6.30pm when the clubrooms are open)

### Acknowledgments

The following individuals and organisations assisted with the provision of information used to prepare this article:

- a) Sasha Muller and Suzie Lack, Proprietors, Coral Divers.
- b) David (Digby) Hart, Department of Mines & Energy, NT Government.
- c) David Van Halen, Manager, Cullen Bay Diving & Fishing Services.
- d) Andrew Pitt, Northern Territory Archives Services, NT Government.
- e) Jim Davidson
- f) John Hubbard, Scuba Officer, Darwin Sub-Aqua Club Inc, and
- g) Uranium Information Centre Ltd.

CDAA WEB PAGE

http://artemis.eng.monash.edu.au/CDAA/

15 metres. A group of dry cavers were able to pass the restriction in the siphon and make considerable progress through the remaining sumps which had also dried out. Unfortunately, extended dry periods in the Alps are rare, and tend to occur in the middle of winter, when access to the cave is impossible due to iced up paths and avalanche risks. Data loggers will now be installed in the syphons, and it is planned to monitor these readings from the valley below.

In September 1998, the water level of the Styx Siphon again sank considerably, and the collapse now presents no further problems to divers. Nevertheless, further exploration has been put on hold for the time being. Given the logistical difficulties of transporting equipment to the site, the focus is now on a number of promising new leads discovered above the Fricken Cave. Small groups of cavers are in the process of exploring these (less weather prone) leads.



### KESAB Tidy Towns 1998 Awards

Dorothy Kotz, Minister for Environment and Heritage, presented the main awards for KESAB's 21st Annual Tidy Towns Program. The Tidy Towns program was first introduced in 1978 and now is a broad environmental action and education program which encourages communities throughout the state to tackle issues leading towards environmental sustainability.

The award component of the Tidy Towns Program is an important means of publicly recognising the efforts and commitments of South Australian towns, schools, groups, businesses and individuals. This year 2700 different organisations had in some way been involved in the program.

At its annual awards held on 7 December 1998 the CDAA was awarded the **Best Single Effort Community Action Plaque** for its "GOFER BROKE '98" program. The "GOFER BROKE '98" program, organised by John Dalla Zuanna included such activities as repairing the rail at Gouldens, cutting paths and cleaning fencelines and cleaning out debris from Pines.

Your work and commitment has not gone unnoticed. This is the type of recognition which helps to improve the image of the association in the local community and also within government. The Committee wishes to express its sincere thanks to John and to all members who participated in this activity.

Carlo Virgili Finance Director

# An Extract From the GRAMPIAN SPELEOLOGICAL GROUP NEWSLETTER

No. 85 August, 1995

### Mega-discoveries in Assynt-Claonaite 7 is here!

GSG divers Simon Brooks and Mike O'Driscoll made the discovery of the decade on Saturday 27th May. They passed sump 6B in Uamh an Claonaite finding the largest passages in the system so far, and what must be the largest chamber in Scotland, During a ten hour trip they explored and surveyed almost 300m of stream passage - Memories of Tangalle – and found a vast chamber – The Great Northern Time Machine. This is over 50m long and 30m wide with a maximum estimated height of 20m. A higher level fossil passage to the right of the streamway was partially explored as was a complex area of breakdown and low passages stretching back towards or even above Claonaite 4 to 6. A high avenue just downstream of sump 6B was christened Belh Aven. They also descended the Twin Falls of Jabaroo plus a 6m climb to reach sump 7, and surveyed over 300m along the streamway to sump six. Time ran out and many open leads had been left unexplored when they finally returned to the hut at about midnight.

An attempt in June was aborted due to equipment problems at sump six but Goon and Graham Marshall did some very useful and necessary work moving boulders and improving a couple of the more unpleasant squeezes in the Treen Scene.

On Saturday 1st July, several Scottish records were broken with five divers all passing the sumps to Claonaite 7. The original explorers were joined by Goon, Peter Dowswell and Ivan. This time most of the obvious passages were entered, though with so much to examine

the number of open leads has increased rather than decreased. Mike had a dive in sump 7, but visibility was very poor. Goon, exploring overhead for a sump bypass, had unintentionally dropped a boulder floor directly down into the sump pool. Luckily Mike and company had enough warning before the sump turned to foam.

Ivan found the fossil passage to the right of the streamway, and paralleled it all the way to the GNTM. En route some bones were lying on top of the sand floor. There are the major bones of two hind legs plus a piece of pelvis and a vertebrae. They were large enough to belong to a short adult human but appeared too robust. Simon took photographs of them and left them undisturbed. Just beyond the bones Ivan found a 90m side passage. The Legless Highway varies from comfortable hands and knees crawling over sand to walking height. It ends in very steep banks of sediment where the water must have ascended to higher passages — the Bone Caves perhaps?

Earlier Goon had explored and got lost in the complex of breakdown chambers heading back from sump 7. The sound of running water can be distinctly heard and there are several dark and inviting orifices still to be pushed. One fine pile of breakdown was christened "The Palatial Abode of Edward Concrete Head." Further downstream, climbing over breakdown in another sidepassage, Goon entered a complex area with both upstream and downstream passages visible. Adding all the estimated and surveyed lengths together gives

us a conservative 800m of new passage (half a mile) in Claonaite 7. Claonaite retakes the lead as Scotland's longest cave.

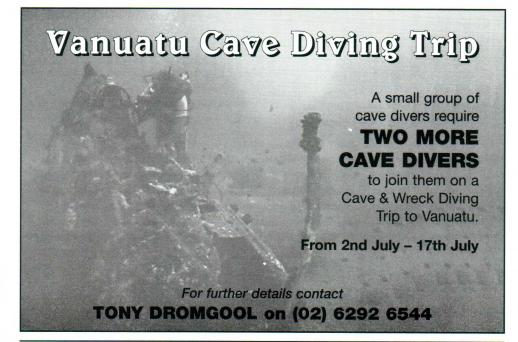
After Mike's sump 7 dive, Peter and Goon exited and the rest completed the survey to sump 7. A few slightly soggy Vegemite and cheese toasties later, Simon photographed his way back to sump 6 paying particular attention to the GNTM and the bones. One picture has already appeared in the Edinburgh Evening News under the headline "Cavers find Usher Hall underground."

It was now approaching 8pm and time to leave if we expected to get to the Alt before closing time. The entrance was reached at 10pm after 11 hours underground, and the Alt with just enough time to down a couple of pints!

The next diving trip is planned for 12th August. The main objectives then will be an attempt to radiolocate the end of the GNTM and Legless Highway, and a thorough

investigation of the sump 6B area to see if we can find a dry bypass to sumps 5 and 6. We are all convinced that it is only a matter of time before we have a dry entrance into Claonaite 7. The preliminary survey data shows the GNTM tantalisingly close to the Bone Caves.

If you want to visit Claonaite 7, contact us first for the latest details. You must dive sumps 3, 5 and 6B. All are lined. Sump 6B is 13m long. starts low and enlarges as it descends to about 3m depth. After a right turn it ascends vertically into a fine 4m diameter sump pool. Please do not touch the bones, follow any footsteps already there to avoid disturbing the ripple markings on the sediment banks, and take great care. There are plenty of unstable boulders awaiting the carefree. A rescue through the sumps and squeezes would be a very long and difficult process. A good time for a party to go from the entrance to sump 7 and back again with no stops or diversions is five hours.



### Letter to the Editor

I refer to the article by Sean Leonard (Dependent vs Independent Systems) in Guidelines No 67, Dec. 1998. I consider this article to be very significant, and having many implications for divers at all levels in the CDAA system.

Sean can easily be criticised for getting himself into his predicament (questionable standard of elbow joint, inability to perform personal gas shutdown) but he and his buddy must also be applauded for remaining cool enough to achieve an outcome that only resulted in bruised egos, and some healthy soul searching. The incident described had the potential to end in a fatality.

Several key issues arise from the description of events:

### THE ISSUE OF BUDDY ASSISTANCE VS ABILITY TO SOLVE PROBLEMS INDEPENDENTLY:

At this level of diving, we should have a strategy to solve all predictable emergencies, including an air emergency. After all, that is why we use twin independent or manifold systems. Your buddy is a back-up, rather than a primary solution to a problem.

Manifold systems require ability to shutdown... either the isolation tap or the valve tap. Closing the isolation tap converts the manifold to twin independent. This can be done in seconds if the tap is only opened by about 3/4 turn. If you close one valve tap, ALL remaining air can be accessed via the remaining regulator.

Any diver who chooses to use a manifold system should be able to perform his/her own shutdown. In technical diving courses we expect students to shutdown on every dive, regardless of depth or environment. In this

regard I agree with Sean's self-criticism that he should have been able to shutdown himself. After all, who but the user knows best which tap to shut off? I was pleased to read that Sean is now motivated to practise shutdowns. By now he will know how easy it actually is.

The buddy's inappropriate attempts to assist serve to highlight how important it is to know your buddy's gear, especially if it differs from your own. To state the obvious, the skill must be practised. if a buddy must do a shutdown, unless they are absolutely sure which tap to turn, I suggest they close the isolator. Once this happens, the worst case scenario is losing half the remaining air.

### THE ISSUE OF TWIN INDEPENDENT VS MANIFOLDS:

The anti manifold fraternity will no doubt use Sean's story as "proof" that T.I. is a better system. I dive with both systems depending on the type of diving, and I would say that each system has its strengths and weaknesses, that the user must take into account.

The problem created when the buddy turned off the wrong tap could just as easily occur with a T.I. system. Manifold divers are not the only ones who cross hoses!

So it is not an issue highlighting superiority of one system over another. It is an issue of management of a system, returning once again to the need to be able to do your own shutdown.

#### THE ISSUE OF DIVER SKILL:

That the incident described had a happy outcome is a credit to the divers concerned. Coping with an air emergency in a dark,

overhead environment would be challenging enough. The further complications provided by multiple regulator shutdowns, followed by the buddy's wet breathing regulator, reflect positively on the pair's coolness in a real crisis.

Several factors contributed to the satisfactory final outcome:

- The buddy's standard stowage of her second regulator where Sean could easily find it.
- The calm reaction to the wet breathing regulator was no doubt a carry over from his cave diver training. The buddy breathing stress test, that much criticised foundation of CDAA's standards, has prepared him for being without air for a considerable period, and for breathing off a water filled regulator. Yes! I know we all carry octopus regs, and that buddy breathing is politically incorrect among all agencies nowadays, but it appears to have done the trick in preparing Sean for this crisis. Events such

- as those described serve to reinforce just how risky our diving can be, and how important it is for us to resist any weakening of standards.
- To restate my primary point ad nauseam, any diver who presents for any CDAA level using manifold cylinders, should be required to demonstrate shutdowns.

I will close by congratulating Sean for being so honest. His article has stimulated much healthy discussion among my diving friends. To go public after such a sobering experience, while it invites hysterical criticism, will surely result in better practices among members.

I refer all readers to Barrie Heard's excellent article on diving with manifolds, which appeared in Guidelines No. 63, Dec. 1997.

Regards,

Stan Bugg
CDAA and IANTD Instructor.

# Expressions of Interest: INVESTIGATIONS OFFICER

Victor Kostiuk has resigned as Investigations Officer, and this position has now become vacant. It is proposed to fill the vacancy through an expression of interest from the general membership.

The Investigations Officer plays a key role in the CDAA, in terms of limiting small conflicts and misdemeanours from escalating and taking on a life of their own. The role of the Investigations Officer is to initially pursue members' complaints on an informal or formal basis, to determine the substance of any claims and to advise the Standards Director on the opportunities on how to proceed. While the Investigations Officer reports to the Standards Director, the directors consider it important that this position should be filled by a member with some experience and integrity, to ensure that complaints are addressed promptly and impartially, to limit the amount of conflict within the CDAA.

Members interested in expressing an interest for the position should contact the Standards Director.

Glen Harrison, Standards Director

### **CDAA PAID POSITION**

A (very limited) number of members have taken the opportunity to comment on the Directorate's proposal to establish a paid position to undertake certain administrative duties which are currently neglected.

#### **ISSUES RAISED**

None of the submissions opposed the notion of a paid position in principle, but all raised valid points in how this should be put into practice. The following concerns were raised in the correspondence received by the Directorate.

That a paid position would be very expensive, in particular costs, such as computers, printers and other items. The suggestions were to:

- · pay for work on a commission basis;
- waive membership for a number of years, in return for services provided;
- appoint State volunteers to handle membership renewals to reduce the workload of the records officer, and generally, involve the membership more.

### Governance issues, relating to:

- parties (eg. shop owners or instructors) who may have a commercial interest in CDAA matters undertaking this role;
- that CDAA directors should be excluded from holding this position; and
- that this role should not include policy decisions, and that therefore the duties and constraints on any paid positions should be well defined.

### Other points raised:

- that there would have to be some longer term arrangement to give consistency to CDAA operations, and a fully employed person is more likely to remain in the job; and
- that the paid position should initially be implemented on a trial basis.

#### RESPONSE

#### Cost

A paid position would no doubt increase the costs of the CDAA somewhat. However, the CDAA relies – and has done for some time – on expensive computing equipment to maintain its records and its accounts. In the past we have spent some sums of money in purchasing computing and other equipment for various members in various parts of Australia. Most of this equipment is now lost and irrecoverable (due to non-existing record keeping). Centralising administrative tasks will reduce these costs and make it easier to keep tabs on equipment.

While a full-time employee may have some advantages, the Directorate believes that the duties that need to be undertaken do not justify such a position, that it would be far too expensive, and that this would impose a whole new set of (employer) responsibilities on the CDAA. A part-time appointment is likely to be a far better starting point, which can also be reviewed and (if necessary) reversed.

Paying a part-timer on a commission basis may be appropriate for some duties – such as the membership renewals mentioned – but is impracticable. For instance, the records officer currently processes new members, renewals, instructor renewals and insurance checks, late payments, various types of receipts, temporary and full membership cards, changes of address, compiles mail-out lists and helps in the guidelines mail-out. An equally wide range of duties is undertaken by the Treasurer. These tasks are too diverse to lend themselves to commission work.

Please enclose TWO Passport Quality photographs 30mm x 30mm maximum.

### CAVE DIVERS ASSOCIATION OF AUSTRALIA

C.D.A.A. NUMBER

(INCORPORATED IN SOUTH AUSTRALIA)
P.O. BOX 290, NORTH ADELAIDE, S.A. 5006

### **Membership Application Form**

Applicant's Personal D	etails			
Surname:				
Given Names:				
Address:				
			Post	code:
Phone: (h) ()		Date	of Birth:	Sex:
(w) ()				
In consideration of me be I agree to indemnify the Association, or any othe expedition, training, testing and against all claims, or property loss, whenever in relation to any funct obligation, associated with	e Association and an er person organizing, ng, or administrative to osts, demands and la occurring, against thation, event, dive, ex	y other officer, controlling, or ask or obligation awsuits that I had e Association of epedition, training	employee, instruct assisting with a fund, associated with the ave or may, have for any of those peoping, testing, or adm	or, or guide of the nction, event, dive, the Association, from or personal injury or the, arising out of or
I have read and understa I hereby apply for memb		ectives of the C	CDAA and am in su	pport thereof.
I enclose \$50 being CE membership year.	DAA membership for	1998/99 and	an additional \$50 f	for each additional
I enclose my chequ	ue / money order			
☐ Please charge to my	y credit card			
	BANKCARD	VISA	MASTERCARD	)
Credit Card No.				
Expiry date:	Signature:			

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### KILSBY'S SINKHOLE

### **RELEASE AND INDEMNITY**

**IN CONSIDERATION** of the South Australian Police Department (hereinafter called "the department") permitting me for diving purposes to enter upon that area of land leased by the Department and known as Kilsby Cave at Mount Gambier including the access road commencing from Sisters Road for a period of five (5) years from this date,

Ι	(full name)
of	(address)
(ocu	cupation) HEREBY RELEASE AND DISCHARGE the
Department, the Commissioner of Police or the agents from all actions, proceedings, suits, comight have had against the Department, the Commissioner of their employees or agents for any loss, of whatsoever nature and howsoever arising in area whether caused by negligence, default of Police or the State of South Australia or any of I HEREBY INDEMNIFY AND AGREE TO K of Police or the State of South Australia or any proceedings, suits, costs, claims and demands	ne State of South Australia or any of their employees or osts, claims and demands both at and in equity which I commissioner of Police or the State of South Australia or damage or injury to me or my property (including deaths) a connection with or arising out of my entry into the said or misconduct of the Department, the Commissioner of their employees or agents or otherwise howsoever AND EEP INDEMNIFIED the Department, the Commissioner of their employees or agents from and against all actions, and the costs reasonably incurred in defending, resisting nade by any third person or persons in respect of any such
Dated this day of	(year)
SIGNED, SEALED AND DELIVERED by the abovenamed in the presence of:	Signatory:
	Witness:

### MEMBERSHIP RENEWAL

- (1) Please fill out the Membership Application Form on the other side
- 2) Include 2 x Photographs passport quality.
- (3) CDAA number.
- (4) Enclose your cheque for \$50 per year PAID.
- (5) Enclose a stamped self-addressed envelope.

### AFTER AUGUST 31ST ANY UNPAID RENEWALS WILL INCUR A \$50 LATE FEE

### NITROX ENDORSEMENT

Anyone wishing to add a Nitrox Endorsement will need to include a photocopy of their certification and pay a once only processing fee of \$10.

The option of appointing greater numbers of (State-based) volunteers is beset with problems:

- Firstly, the reason why the Directorate has proposed the paid position, is because the CDAA is very short of volunteers. While there are plenty of volunteers to go exploring and map caves, there are very few who would put their hands up to process hundreds of membership renewals, maintain the accounts reliably and for a reasonable period of time and other such work which takes place behind the scenes.
- Secondly, this is likely to lead to even greater co-ordination problems and delays than is currently the case. It is difficult to find members who reliably undertake administrative duties, and these difficulties would be multiplied, if such members had to be found in every State. Contrary to popular opinion, many of these tasks are not trivial and need to be carried out promptly, and the hand-overs that have to occur when a CDAA officer resigns from his/her position take a significant amount of time to organise and put in place. Finally, instead of having a clear point of contact, the number of officers would multiply, and it would be much harder to trace down any problems.

The suggestion that membership fees should be waived, in return for volunteer work raises many difficulties. What would be the currency? How many years' membership should the Publications Officer receive for processing orders, banking checks, packaging materials, commissioning new products, etc? How about the guides and all the other volunteers? Where there are tasks which members perform voluntarily, we should stick to those practice, but it is the seriously time-consuming dull tasks which require a consistent involvement and dedication which are a problem.

#### Governance

The Directorate agrees with the points that have been raised:

- parties with a commercial interest in the appointment of a paid position or with a commercial interest in CDAA matters (instructors, shop owners) should not be permitted to hold a paid CDAA position;
- serving CDAA Directors should not be permitted to hold a paid CDAA position; and
- that the role of the paid position should be strictly limited to non-policy matters and should be clearly defined.

The Directorate also believes that it would be desirable to appoint a CDAA member.

#### Other issues

The Directorate agrees that a longer-term appointment is desirable to ensure some consistency in the administration of the CDAA, but that (as argued above) the CDAA should not appoint a full-time employee.

#### CONCLUSION

On the basis of the arguments listed above, the CDAA Directorate decided to first proceed with a call for additional volunteers. Please see the separate notice for members interested in assisting the directors.

Sabine Schnittger

Products and Publications Director

### ON THE COVER?

WE'RE CONSTANTLY SEARCHING FOR PICTURES TO USE FOR THE COVER OF GUIDELINES.

SEND THEM TO:
THE EDITOR, P.O. BOX 290, NORTH ADELAIDE, S.A. 5006

### BLUE HOLE DIVING ON ANDROS ISLAND

By Ken Smith

The cave diving in the Yucatan peninsula of Mexico had been quite spectacular. I had been there for two weeks with a group of noted South Australian cave divers, and I now had a week to myself. For some months I had been investigating the possibility of cave diving from the Bahamas. After much searching I found that most signs, and the Bahamas Tourist Bureau, were pointing to Small Hope Bay Lodge on Andros Island. So I took a punt and booked for five days of diving.

The lodge was established in the early sixties by diving pioneer Dick Birch who, in 1962, with buddy Richard Hutchins, established a depth record of 462ft (141m) on air. The lodge has remained a family business ever since and is now run by Jeff Birch, Dick Birch's son.

The lodge has a history of looking after visiting divers which predates most, if not all, of the diver certification organisations. The philosophy is still, "show us you can dive and we will take you diving" rather than "show us your card". Every diver has to demonstrate inwater skills of mask and regulator clearing before they are allowed to dive. What is surprising is how many qualified divers can't do it. I watched one diver remove, and lose, both his mask and regulator (and his buoyancy) in the shallows by the diving dock. He frantically swirled in the water, looking like clothes in a washing machine, until dive guide Jim Sollars dived in and pulled him out. He had shown that it was definitely not possible to get a breath from a contents gauge. Jim had money in his shirt pocket and we spent the next few days picking up Bahamian dollars from the sea floor.

The same rules apply to cave diving. If you can show that you are a competent diver, they

will take you diving in the blue holes. However, cave diving is closely supervised, and the more difficult caves are done, one on one, with an experienced guide.

I spent my first day doing some spectacular sea dives on the reef out from the lodge. Then, with only four days diving left, I planned my dives from the "speciality dives" on offer. A log book in the lounge describes all of these dives (they can also be seen on the Small Hope Bay Lodge web site). The dives were quite deep, so I decided to do only one dive per day. I planned to spend the afternoons doing an "above water decompression stop" in a hammock by the beach.

#### Ocean Blue Hole - 2nd Level

After a boat trip of a few kilometres, dive guide Mike Hornby and I anchored in about 12 metres of water and prepared to dive. Mike thoughtfully hung a nitrox deco bottle over the side of the boat before we jumped in. We descended the anchor line and then swam across the bottom towards the edge of the Ocean Blue Hole. It reminded me of approaching the edge of Black's Sinkhole at Mt. Gambier, except that the paddock was underwater, and grass and sheep were replaced by coral and sharks.

We launched ourselves over the edge and descended to a narrow opening between the rock pile and the wall at 36 metres. A short descent and another restriction led into the main chamber of the blue hole. Immediately, I was struck by the strong smell of hydrogen sulphide and the streaks of white, mucus like, bacteria hanging in the water. The shape of the cave was similar to a Mt. Gambier sinkhole,



Pushing through the bushes at the entrance to "Little Frenchman"

except that here the boulder pile very nearly choked off the entrance. We followed the wall around at 50 metres. Looking down into the blackness I could faintly make out a white fixed line disappearing into the depths below. This reminded me that a significant amount a deep exploration has taken place in many of the blue holes.

Eventually a dull green glow was visible above and we ascended through the rock pile into daylight. Looking up I could see sharks patrolling the rim of the cave. We ascended further into a channel, which once was a stream feeding a waterfall into the cave. At this point a black tip reef shark started to take an interest in me.

He wasn't small either, about 1.5m we estimated. He came straight towards me, came to a sudden stop about a metre away, and then swiftly darted away. When he did this a third time stopping even closer, I was wondering what action to take. However he spun around and disappeared not to return. Later, I realised

that he was probably attracted to my twin helmet mounted lights, which were still turned on. They probably looked like a pair of eyes. I guess I could have fed him my helmet if the situation had become more serious.

I had plenty of time to think about this as during our "relaxing" deco stop, hanging in mid-water under the boat. We headed back to the lodge for a generous lunch, and I spent the rest of the day doing hammock decompression.

### The Little Frenchman, Inland Blue Hole

Dive Guide Jim Sollars and I loaded our gear into the car for the 30 minute drive to Little Frenchman. We parked at the end of a rocky track and geared up for the walk to the cave. Jim wore a wetsuit, which was rare for him, most of his sea diving was done in a pair of shorts.

From the surface Little Frenchman looks like a small round pond, with a water level just

below the level of the surro inding limestone. It is surrounded by dense bushes which grow right to the water's edge. Jim jumped in first, and I followed him into the smelliest tannic water I have ever encountered. We descended into the gloom, and I took the lead, carefully remembering Jim's instructions on which fixed line to follow. After passing a restriction we descended through the halocline into crystal clear saline water. The passage continued to descend through a series of corkscrew turns and restrictions until we emerged into the main cave.

We were at the top of a huge chasm which widened as it dropped out of sight below us. A fixed line went straight down into the abyss. My depth gauge read 55 metres, so we stuck to our dive plan to follow a horizontal fixed line across the cave. Two conch shells embedded in the cave wall came into view. These looked identical to the shells I had seen under the diving dock at the lodge, but were millions of years older of course. We began our ascent on the far side of the chasm and made a brief descent down another side passage before ascending to begin our decompression in the tannic water.

At 3 metres depth the bottom is covered with rotting leaves and it is still quite dark. The midday sun was visible through the water as a dull red disk. Tannin from the decomposing leaves had made the water clark brown. The decay of organic matter also produces hydrogen sulphide, which acidifies the water and produces the characteristic rotten egg smell. The water that entered my mask stung my eyes and nose, so I was pleased to climb out into the bright sunlight. I was interested to see that the sulphurous water had changed the colour of my tether clips, from vellow brass, to matt black. I wondered whether similar changes were taking place inside my regulators and I made a mental note to wash them thoroughly in clean water as soon as I could.

### Stargate Blue Hole

Stargate is on South Andros and is not accessible by road because Andros Island is divided into sections by seawater "bights" which run east and west across the Island. Jeff Birch and I flew down in his Cessna with the dive gear stacked up behind us. Jeff is a keen pilot, and regular guests get used to his daily buzzing of the lodge at treetop level.

The flight took about 30 minutes and Jeff pointed out a succession of blue holes which are scattered along the fault line which run the length of Andros. The fault is sometimes on land and sometimes in the sea, resulting in "inland" and "ocean" blue holes. Many of these holes have never been dived.

We landed at Congo Town and just managed to squeeze ourselves and our gear into a tiny taxi. After a short drive we were dropped off in what appeared to be someone's backyard. Grabbing our gear we pushed through the bushes and, after a short walk, found the entrance to Stargate Blue Hole.

It is a 5 metre jump entry into the water and the water below is 97 metres deep. Rob Palmer and his team used Carmellan mixed gas rebreathers to explore this cave during the 1987 Andros Project. There was no mixed gas for us though, so Jeff and I descended to about 30 metres and passed through a relatively small window into the "Enormous North Passage" of



Parking place for diving Stargate Blue Hole. Jeff Birch is on the right.

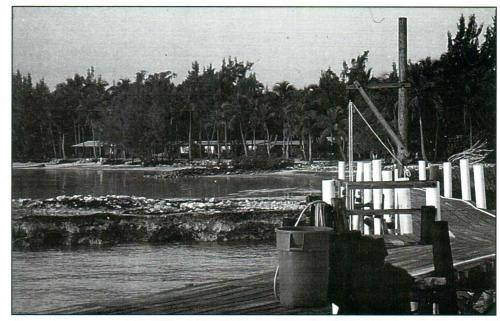


Loading the dive gear into the Cessna for a post dive flight at 100 feet.

Stargate. The passage is actually a huge vertical chasm which pinches off above at a depth of about 20 metres and bottoms at 75 metres in a mass of tumbled boulders. We followed a fixed line at 40 metres into the darkness. As my eyes got used to the darkness I realised that the whole vertical extent of the passage could be seen. After 10 minutes a huge sloping rock pile came into view. The line finishes at the rock pile at a horizontal distance of 150 metres from the entrance. As we

returned I admired the cascades of white flowstone decorating the walls. This proved that the cave had been dry for a long period of time, since flowstone cannot form underwater.

About half way back we turned off our lights and swam towards the faint glow of daylight. Jeff occasionally flicked on his light to make sure that I hadn't lost buoyancy and sunk into the depths. The light from the entrance became stronger and soon we could see the outline of the great chasm below the entrance. During decompression stops I had time to study the wall of the cave and to look into several chambers containing stalactites and stalagmites. Fossils of many types of coral could be clearly seen in the walls and they appeared to be identical to the live corals I had seen a few days earlier during my sea dives. This supported what I had read about the process of coral growth and limestone formation that had been continuing uninterrupted in the Bahamas for millions of years.



Beachside accommodation and dock for dive boats.

I had been wondering how Jeff would handle the flight back to the lodge. My computer was telling me I couldn't fly, and yet, less than an hour after a significant decompression dive, we were loading our gear into the plane at Congo Town. Jeff's solution was to follow the coast and to stay below 100 feet for the entire trip. This was exciting flying and gave us some good views of the shallow sea and some more blue holes. Occasionally Jeff would recognise a friend in a boat below and pull a tight turn, which seemed to bring the wing tip quite close to the water, as he waved hello! We buzzed the lodge prior to landing and drove back in time for a late lunch.

#### Church Windows

This was to be my last dive of the trip.

Between the Andros Island, and Nassau on New Providence Island, there is a deep ocean trench called the "Tongue of the Ocean". It is said to be 6000 feet (1800 metres) deep. The

edge of the drop off follows the coast of Andros, about 5 kilometres offshore. The "Church Windows" dive involves going over the edge of this drop off to visit a pair of connected windows in the wall. It is quite a deep dive.

The dive site is marked by a permanent buoy anchored just below the surface. After anchoring the boat Mike Hornby and I followed the line down to the bottom at 13 metres. From this point a fixed line lead across the bottom and disappeared invitingly over the edge of the drop off. Once over the edge we rapidly descended until we reached the lower of the two windows. At this point the wall is close to vertical and it was a an eerie feeling to watch it disappear below me into the dark blue depths. We entered the window, taking time to admire the attractive soft corals. They appeared dark brown but became bright pink when I shone my torch on them. We carefully moved upwards through a restriction to emerge through the upper window. After a short swim



The flight back from Stargate provided a close look at the Andros coastline.

### CDAA SITE ACCESS

SITE L	EVEL	OWNER	ACCESS DETAILS
		TH AUSTRALIA (contin	
Max's Hole	С	Mr T. Edwards P.O. Box 1319 Mt Gambier 5290	Phone or mail 1 week prior to dive. Ph: (08) 8726 8277
Hann's cave	P	P & A Lasslett	Groups of four divers only apply in writing to Site Director. Limited groups will be allowed access over the summer months. The site is very delicate and therefore only limited access is available. Divers applying will be notified as to further access details. Please include a stamped self addressed envelope.
Engelbrechts - East - West	C P	Mt Gambier Council	Obtain key from Mt Gambier Tourist Information Centre. Access agreement must be signed prior to diving. Key must be returned by 5pm Sunday, 2 divers must sign out keys, all divers must sign in advising which groups they are diving with.
Three Sisters	Р	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 (SL250) Nettle-Bed (SL290)	P P	Primary Industries S.A. (Forestry) PO Box 162 Mt Gambier 5290	5L250 open 1st & 3rd weekend of every month. 5L290 open every weekend. Max. 4 divers per dive per day, 1 dive per day for each site. Only Penetration divers completed practical in-water cross-over. Bookings from Forestry Office - key from Lady Nelson. Contact Primary Industries SA (Forestry) by mail, phone or fax to arrange permit. Collect permit from Regional Office, Jubilee Hwy., Mt. Gambier. No diving on total fire ban days. Forest Work Bans may be applied by PISA Forestry if forest fire danger is expected to reach extreme. Such bans also exclude the public from entering th forest. If in doubt, please check with Trevor Wynniat or Forestry Office, although signs are generally erected at diving sites on such days to indicate such bans. Permits will ONLY be issued Mon-Fri between 8.30am-4.30pm. Ph: (08) 8724 2887. Please use this number for all bookings and enquiries etc. Fax: (08) 8724 2885 Email: wynniat.trevor@pi.sa.gov.au. Written confirmation required.
McKay's Shaft	S		Contact Phil Argy at Mt. Gambier as access can be arranged.
Tank Cave	P	Mr. DYCER	Tank Cave Access Manager: Phil Prust.
CURRE	NTLY	CLOSED	Apply in writing at least 3 weeks in advance to; the Tank Cave Access Manager, 19 Broadmeadow Drive, Flagstaff Hill 5159. (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	С		Please write or email the Site Access Director to dive in Baker's Cave. Climbing equipment required.
NULLARBOR - WI	ESTERN	AUSTRALIA	
Cocklebiddy Murra El Elevyn Tommy Grahams	C P/C C	Regional Manager C.A.L.M. 120 Albury Highway Albany 6330	Apply in writing for permission to dive at least 4 weeks in advance of trip to: John Watson, Regional Manager C.A.L.M., 120 Albany Hwy, Albany, W.A. 6330. Phone: (08) 9841 7133
Weebubbie	С		Apply in writing with at least 4 weeks notice to: Graham Higgins, Dept. of Land Administration, PO Box 2222, Midland, W.A. 6056. Include in the application: • The dates of the intended visit(s) • Photocopies of CDAA certification cards for all of the party • A signed Indemnity Form for Weebubbie Cave (photocopy from original in Issue 61 of Guidelines). Please note that this arrangement is for Weebubbie only and access to other caves on the Nullarbor must follow existing access protocol. Also note that divers must supply their own ladders as the old ladder has been removed.
WELLINGTON CA	VES - N	.S.W.	
Limekiln (McCavity)	P/C	Both Penetration and Ca has a restriction at the en	ave Level are being accepted for this cave depending on it's water level at the time. The cave ntrance which is underwater making it a Penetration Dive. During drought, the water level ke below the restriction allowing experienced Cave Divers access to this delicate cave.
Water (Anticline)	С	Access arrangements are	vels during Summer/Autumn. e co-ordinated with an already commissioned research group. Contact Greg Ryan 9743 4157 h, gregr@cs.su.oz.au.
Rum Jungle Lake Berry Springs	S		No specific access arrangements.

### **TRADING POST**

### FOR SALE

Cave/tech diving light, all marine anodised aluminium, 12v 15amp hour battery, 100w, 50w or 30 watt bulb, compact head, switch on battery pack, charger, as new \$850.

Neil Vincent (02) 971 798 email neilv@ozemail.com.au

### FOR SALE

Dive Rite Neutralite 12 volt system in excellent condition, Comes with MR-16 head & 110/240 volt charger. RRP 1200 SELL FOR \$550

DUI-CF-200 Crushed Neoprene Drysuit in good condition. Size Medium Suit 5'8" to 6' comes with genuine DUI Thinsulate undergarment RRP over \$3000 SELL FOR \$1200 for suit & undies.

TONY DAVIS 0418 370 941

### FOR SALE

AS NEW with instruction manuals & all in original boxes - used mainly in fresh water:

- Nikonos 4A
- 35mm Lens
- SB101 Flash
- 28mm Lens
- Pelican Case
- Difuser
- 15mm Lens (incl. view finder)
- Close Up Lens (outfit)

Further details

(08) 8336 1616

### FOR SALE

Two 63 cubic ft aluminium tanks, with stainless steel bands.
\$320 the lot.

Phone Clive Wheeler CDAA 2409 8298 5952

### FOR SALE

1 x Diverite Neutralite with MR 16 head, brand new batteries \$550

3 wings, backplate and harness sets good condition \$350

2 x Cochran nemesis II Nitrox air integrated 2 mix computers \$800 each

2 x Cochran nemesis IIa Nitrox air integrated 3 mix computers \$900 each

Stephen G Sturgeon 9527 7667

**MAR 1999** 

### CDAA NOTICES

### GUIDELINES DEADLINES

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

Deadline for publication

21st May

June

21st August

September

21st November

December

### NOTICE FOR INSTRUCTORS

Procedure for ordering student packs:

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

### · INSTRUCTOR RENEWALS ·

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

Instructor Renewals, PO Box 15, KOROIT 3282

Deb Williams

Instructor Materials Officer

### **ACTIVE CDAA INSTRUCTORS**

Any Instructor wishing material contact - (02) 4950 6262 (8am - 12 midday)

STANDARDS DIRECTOR:
Glen Harrison
Telephone: 0414 946 602
(email) harrison.olen@saugov.sa.gov.au

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					Gary Barclay				VIC	(03) 5565 8793 h
•	•		NSW	(049) 68 4588 h	Cary Darciay				VIO	(05) 5505 6755 11
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			WA	(08) 9349 5646 h						
				1 /	Bob Wealthy	•	•	•	VIC	(056) 858 338 h
				0418 940 143 m	Frank Zeigler	•	•	•	VIC	(055) 236 392
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### CDAA NOTICES

### Rubbish at dive sites

We are making ourselves unwelcome at some dive sites. Mr Kilsby recently had to remove two plastic bags from his paddocks after a diving weekend.

THIS IS A REMINDER TO ALL THAT ACCESS IS A PRIVILEGE, NOT A RIGHT, AND THAT WE NEED TO MAINTAIN COMMON STANDARDS OF COURTESY TO KEEP THESE PRIVILEGES!



#### Instructor materials

Many thanks to Peter Grills for all the hard work and dedication he brought to the position of the CDAA Instructor Materials Officer. Peter is now pursuing other things and I wish him well in his new ventures. Deb Williams is now the CDAA Instructor Materials Officer and her details can be found in the front cover of guidelines.

### Investigations officer

Victor Kostiuk has decided to step down as CDAA Investigations Officer and I would like to thank him for all the good work he has done in this position. Victor's tactful and common sense approach to this job has led to timely and efficient investigations and freed up directors for other matters.

**Glen Harrison** Standards Director

### **TRADING POST**

### FOR SALE

### **CUSTOM-BUILT DIVE TRAILER**

6 x 4 Trailer – Lift Up Hood style with:

Deadlocks on both sides for security; Built-in partitioned storage for 6 tanks each end, leaving space for heavy weight belts, etc in the middle of trailer over axle; Brand new floor; New professional paint job; and Electrical brakes on trailer.

This trailer will comfortably take 4 people's dive gear to Nullabor or would suit professional dive instructor.

\$1500

Call Glenn on 0411 704 758 or (H) 03 9432 3489

PREPARE FOR THE TECHNICAL & CAVE DIVING EVENT FOR 1999!

### OZTeK 99

### Australian Diving Technologies Conference & Rebreather Forum

24-25th April 1999, Australian National Maritime Museum Darling Harbour, Sydney, Australia

"Exploring the Depths of Scuba Technology"

### **International Speakers:**

Nuno Gomez, World's Deepest Cave Dive, South Africa

Jim Bowden & Anne Kristovitch, The Deep Project, Zacaton, Mexico
Richard Pyle, Deep Reef Explorations, Bishop University, Hawaii
Bret Gilliam, President TDI & CEO UWATEC USA
Chrls Parrett, creator of Abyss Dive Planning Software
Team Australia, Wakulla2 Project, USA

### Supported by

Poseidon, TDI, Abyss, SportDiving, Dive Log, NS Research & others For Details Contact Richard Taylor on Tel/Fax: +61 (02) 9958 3469

### SPECIAL 5% DISCOUNT ON TICKET PRICES TO CDAA MEMBERS

### NOTICE

An exciting new opportunity has been realised for members and potential members in the Northern Territory. After reviewing a detailed submission from David Cowan the CDAA directorate has agreed that:

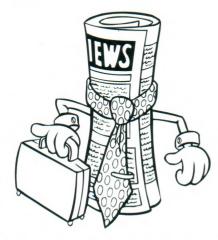
- 1. both Berry Springs Nature Park and Rum Jungle Lake be accepted as CDAA sanctioned training sites,
- 2. Rum Jungle Lake be accepted as a CDAA sanctioned sinkhole site, and
- at Rum Jungle Lake, a limit of 5 dives be placed on the prerequisite dives for the CDAA Cave Diver qualification due to tropical nature and lack of overhangs.

The directorate looks forward to reviewing further proposals from the Northern Territory to expand both training and sanctioned sites.

Glen Harrison Standards Director

**MAR 1999** 

# WANTED



# ARTICLES FOR GUIDELINES

IF SIGHTED PLEASE SEND IMMEDIATELY, TOGETHER WITH ANY PICTURES TO:

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

### **REWARD**

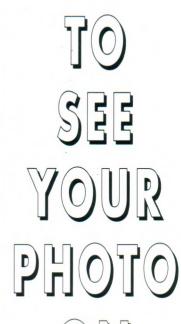
An even better Guidelines for everyone.







MAR 1999











WE'RE CONSTANTLY SEARCHING FOR PICTURES TO USE FOR THE COVER OF GUIDELINES - SEND THEM TO: THE EDITOR, P.O. BOX 290, NORTH ADELAIDE, S.A. 5006

## CDAA PRODUCTS Please make payable to: CDAA, P.O. BOX 290 NORTH ADELAIDE, SA 5006

QTY/ COL/SIZE	ITEM	UNIT PRICE	TOTAL
	Cave Diving Communications. A manual from NSS - CDS dealing exclusively with all underwater communications used in cave diving. Including touch, torch and line signals, and use of line arrows and jump reels. A must for all cave divers bookshelves.	\$15.00	
	Cave Diving - A Blueprint for Survival. A book by the world-renowned cave diver, the late Sheck Exley, 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 Cocklebiddy 1979.	\$2.00	
	S.R.T. Single Rope Techniques. Published by the Sydney Speleological Society. 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	
	<b>DAN Emergency Handbook.</b> Revised 1995 edition by Lippmann and Bugg. Printed on waterproof paper this essential first aid manual should be part of every cave divers' kit.	\$17.00	
	NSS Cave Diving Manual. The standard reference manual in cave diving covering just about every conceivable topic. New Edition.	\$40.00	
	Wukulla Springs Project. The U.S. Deep Caving Team, edited by William C. Stone.	\$59.00	
	The Darkness Beckons. By Martyn Farr. The history and development of cave diving.	\$50.00	
	Deep Diving. By Bret Gilliam, Robert Von Maier. An advanced guide to physiology procedures and systems.	\$30.00	
	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.	\$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	
	Caverns Measureless to Man. Sheck Exley.	\$40.00	
	Cave Practice & Equipment. Edited by David Judson British Cave Research Association. Updated 295 Page book fully illustrated with over 200 line drawings & 33 pages of dramatic photographs. Full chapter on cave diving by Martyn Farr.	\$40.00	
	New Edition of Peter Horne's Lower South East Cave Reference. An illustrated catalogue of the Lower South East Region of South Australia.	\$130.00	
	Solo Diving. By Robert Von Maier. The art of self-sufficiency, addressing the sometimes controversial issue of diving alone.	\$35.00	
	Dry Suit Diving. Everything including buoyancy, maintenance, choice, etc.	\$35.00	
	Australian Caving Diving - A Contrast. By Tony Carlisle. Four short documentary type videos on Warbla Cave, Three Sisters Cave, The Road to Toad Hall and Tank Cave. Reviewed in Guidelines 54.	\$25.00	
	Australia "Nullarbor Dreaming". A world record exploration into a desert cave. During, November 1988, a team of Australian cave divers set out on a manzing adventure to explore the mysterious subterranean waters of the Pannikin Plains cave. This epic underwater exploration nearly ended in tragedy when a freak cyclone storm hit the area and the cave collapsed trapping the expedition below. The program is a graphic account of the expedition and their escape from the cave. Executive Producer - Andrew Wight.	\$29.95	,
	Florida "Window to a Hidden World". The ultimate cave diving adventure. Andrew and Liz with fellow cave diver-explorer Wes Skiles, take us on a journey to discover the beauty and danger of the Florida aquifer. Beneath the surface of Florida lies one of the planet's largest freshwater reserves. The intricate system of water filled caves is now under increasing environmental threat from the population above. Producers: Andrew & Liz Wight.	\$29.95	
	Mexico "Water of the Gods". An exploration of ancient Maya ruins and underwater caves. Under the dense jungle of Mexico's Yucatan Peninsula lies a vast freshwater source relied upon by the ancient Mayas - a mysterious and complex people who built and occupied complex limestone cities in this region for over two thousand years. The Wights explore their hidden caves, uncovering their beauty and mystery, and providing a link to the past. Producers: Andrew & Liz Wight. Director: Liz Wight.	\$29.95	
	Cuba "Beneath the Surface". The underworld of Cuba. This documentary explores the role water has played throughout time in the history of Cuba. It reveals some of the many beautiful aspects of this magical Caribbean island, explores the bizarre subterranean caverns and provides unexpected contrasts with Cuba's turbulent history. This is an expose of a Cuba we believe we know. Producers: Andrew & Liz Wight. Director: Liz Wight.	\$29.95	
	New Style T-Shirts. Colour: White, Blue. Sizes: Medium, Large, Extra Large.	\$25.00	
	New Style Windcheaters. Colours: Blue, Black. Sizes: Small, Medium, Large, Extra Large.	\$35.00	
	Polo Shirts. Colours: White, Blue, Black.	\$30.00	
	CDAA Key Rings. Blue with gold motif. CDAA P.O. Box on back.	\$5.00	
	CDAA Stickers. Yellow. (Include stamped, self-addressed envelope for delivery.)	\$.80	
	Tank Cave Poster. Full Colour 141/2" x 25" poster of Tank Cave by Peter Rogers. Price includes p&h.	\$8.00	
	CDAA 25th Year Anniversary Stickers. Special deal – 3 for \$5	\$5.00	

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### INTERNATIONAL MOTEL FLAG **Mount Gambier**



"The Cave Divers home away from home"

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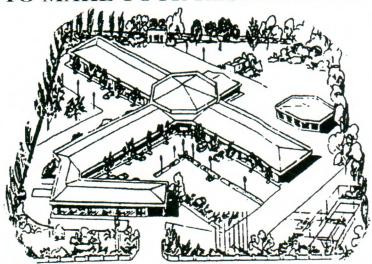
- \* 60 Ground Floor Units Modern & Spacious
- \* Licensed Restaurant Extensive Dinner Menu
- \* Huge indoor heated pool, spa & sauna
- \* Austar multi channel pay TV free to all rooms
- \* Secure floodlit off street parking
- \* Quality Flag Accommodation
- \* Late Check In available

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(Excluding Easter Weekend)

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