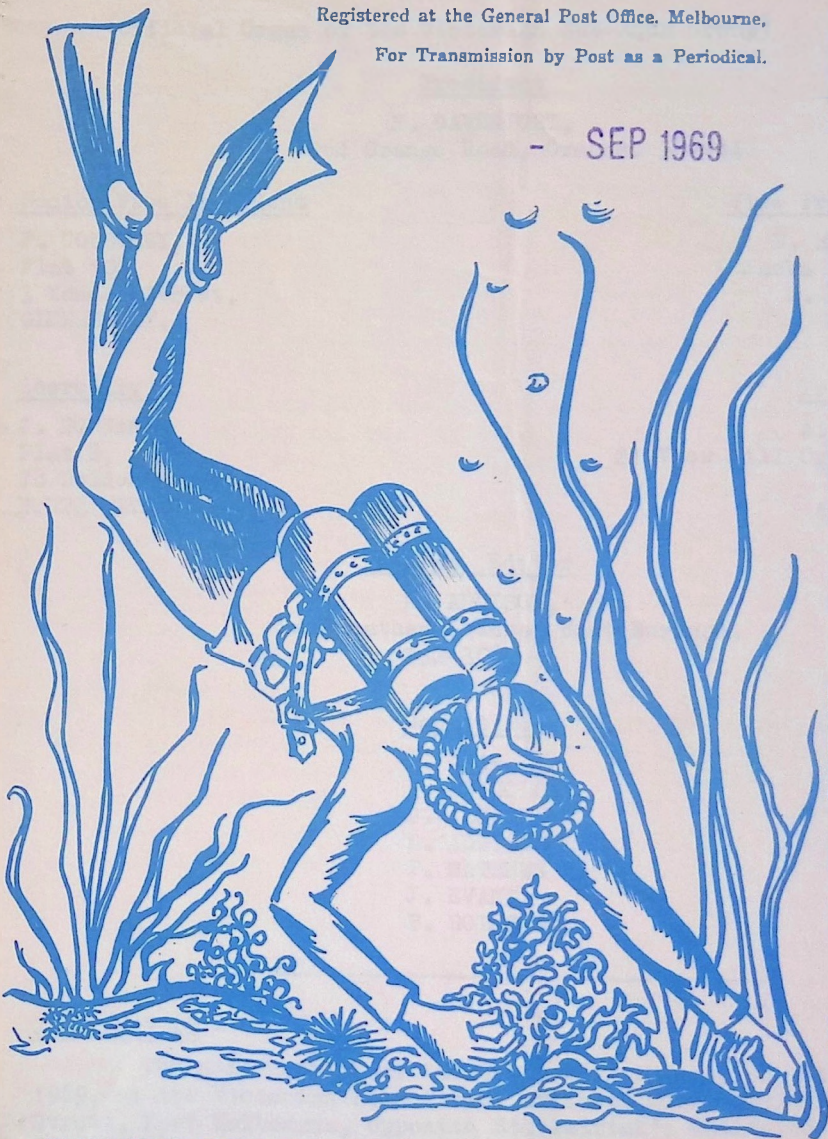


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FATHOMS



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(Official Organ of the Victorian Sub-Aqua Group)

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CLUB MEETING -

The next Meeting of the Group will be held on 19th SEPTEMBER, 1969, at the Victorian Association of Youth Clubs Hall, Gisborne Street, East Melbourne, opposite St. Patrick's Cathedral at 8.00 P.M. sharp.

THE HAZARDS OF HYPERVENTILATION

Jacques Mayol practiced for his record free dive by resting on the bottom of a 17' pool for two minutes, then swimming on the bottom for another two minutes before surfacing.

Last year, a teenage girl in America was injured in a fall when she passed out. The reason? In her excitement of running she "forgot" to breathe.

In May, a fully equipped scuba diver also "forgot" to breathe when he became tangled in some surface seaweed. His resulting unconsciousness was tragic, he lost his mouthpiece with fatal results.

What do these stories have in common? In all cases, the people involved held their breath by a process known as hyperventilation. Although the word sounds like something out of a science dictionary, it means nothing more than "too much breathing". It can either be deliberate, as in the case of underwater competitors, or completely voluntary as in the two accidents reported above. As you can see under very special circumstances, hyperventilation can be useful. More frequently, however, it can be dangerous or even deadly.

Without going into the physiology of the technique, it should be pointed out that hyperventilation removes most of the carbon dioxide (CO_2) from the body. This CO_2 is a "trigger", the thing that makes a person breathe normally. Without it in the blood, you can extend your breath-holding long enough to pass out from lack of oxygen. Since any loss of control underwater is a hazard, snorkelers and scuba divers should never attempt hyperventilation.

Now that enough has been said to whet the appetite of most people, set out below is a full description of how hyperventilation is carried out.

The person practicing hyperventilation starts off by taking deep breaths, as deep as he can, and then exhaling as much as possible from his lungs as he can. If this is carried on for up to a minute, most of the CO_2 built up in the lungs (the trigger) is exhaled, and the lungs are filled with a greater percentage of oxygen than ever before. It is then possible to hold one's breath for much longer periods than before. This is where the danger to divers comes in. By expelling the CO_2 build up in the lungs, the person can forget to breathe until he is rendered unconscious.

Then the automatic breathing reflexes take over. If underwater, drowning would be inevitable. So remember, don't indulge in dangerous practices under water; as a rule a diver doesn't get a second chance.

PAST OUTINGS 10/3/69 - FORTSEA

The day was a bit cloudy and overcast and a bit of a wind was blowing, but that did not dampen the enthusiasm of the seven divers who turned up at 10.30 a.m. Two more divers arrived at 2 p.m. and went into the water, but missed out on most of the fun with the group. The water was clear with visibility 20' depth up to 25'. There were some abalone collected and some very good samples of Hamilton and God bottles. Some old stout bottles also were found, similar to the ones that come off the Victoria Towers and a couple of old stone bottles.

A small octopus in an old milk bottle was brought to the top and decanted into a much cleaner jam jar for observation. It certainly generated a considerable amount of interest until it was re-consigned back to the depths. After spending three hours in the water most of the divers packed it in and went home.

SNOW TRIP 16th/17th.8.69 - MT. BULLER

The snow trip was a sell out and all places in the lodge were taken. Eleven members and friends from Sub-Aqua joined members of the Lantern Lodge Ski Club and our thanks to Frank Coustley for arranging the weekend. The Saturday and Sunday were windless with bright warm sunshine and there was adequate snow for all tastes. Our beginners enjoyed frolics on the popular slopes under the watchful tutoring eye of Frank, whilst some of the more experienced went snow touring for some 10 miles each day. A thoroughly pleasant weekend was had by all.

HURRICANE WRECK 7th/9/69

The Group organized a boat for \$24.00 for this trip. The day was not the most attractive with a cool breeze and showers. However, Tom Armstrong, our country member, and six diving members from Melbourne set out for the "Hurricane". All from Melbourne went to the bottom but visibility was not the best and the parts of the wreck located were not the most picturesque although there were plenty of small fish. Three divers collected about 17 dozen scallops for their families. Approx. 3.30 when we headed for home the wind had gone, the sea was calm and the sun shone. One member left a mask and snorkel on the bottom.

FUTURE OUTINGS TO END OF YEAR

21st September - To be decided. 16th November - Anglesea
5th October - Channel Port Island.
19th October - Phillip Island. 30th November - Walhalla (Gold Dive)
2nd November - Apollo Bay 6th December (Club Dinner)

DOWN UNDER NEWS

An American Zoologist is testing a thermal cream for warming divers' hands. If this is a success it will be a boon for all divers.

A diver in New Zealand suffered an attack of bends after spending 15 minutes at 110 ft. According to his calculations he should not have had to decompress and a meter he was wearing verified these calculations. As it was he suffered a small pain in his chest shortly after getting out of the water which he ignored. It wasn't until next day that he went to hospital, and after spending 36 hours in the pot he made the recommendation that any pain after diving should be investigated fully.

According to the diving charts that are in the group's handbook, this dive would not have necessitated any stops on ascent. A doctor in New Zealand made the comment that even the safest diving table had some risk and a table that was 100% safe would be unworkable on practical grounds. If bends do occur after a dive in which proper decompression schedules have been used, or as in this case, when they have been unnecessary according to the depth and duration, a bend must be accepted as a statistical chance.

Another lesson it conveys is that if there is a risk of bends, it is foolish for a sports diver to venture beyond safe limits.

TREASURER'S REPORT

We are well into the new financial year and as yet only 6 members have renewed their subs. This effort would make the V.S.A.G. the biggest smallest Club in Victoria. It is well worth remembering at this point that only financial members can vote at the Club's Annual Election of office bearers, so come on members pay up! It is only with your subs that the Group can function, as we have no other money-raising ventures in hand.

This money you pay as your dues goes into buying articles

and goods that can be used by members for their enjoyment. For example, the Club owns one 72 cubic foot aqua-lung, Okay to take along as a spare when one goes off on a long trip to good diving spots. Also in the club's locker of good things is a regulator, 100' of nooker hose and demand valve, very useful for using large size bottles when diving on wrecks. These articles can be borrowed by financial members of the club by the simple method of contacting the quartermaster, Pat Reynolds, on 232-5358, and making their wishes known.

Also the club is holding quite a lot of badges :

Lapel Badges at \$1.00 each
 Pocket Badges at \$1.50 each
 Car Badges at \$3.00 each,

and pennants to fly from car aerials at 50 cents each. All you have to do to purchase any of these items is to approach me at any meeting with your money in your hand and I will be too glad to exchange it for the item of your choice from the Club's store-house of capital stock.

The Group also possesses for members' use a Depth Sounder.

A. CUTTS - Treasurer

LIBRARIAN'S REPORT

The Club library has many very good books on diving available to members at no lending fee. It is very disheartening for me to bring the library to club meetings week after week and have to take it home intact. There are books devoted to salvage, nearly every issue of U.S. Skin Diver & Spear Fishing techniques. Come to the next meeting and do me a favour - borrow a book for a month.

Some titles -
 Victorian Ship Wrecks.
 Lord of the Sharks.
 United States Diving Manual.
 Under-water Work.
 Capt. Cousteau's Underwater Treasury.
 Skindiving in Australia.

W. GRAY - Librarian.

PAST MEETINGS

The last meeting of the Group was held at Victorian Association of Youth Club's Hall, Gisborne Street, East Melbourne on the 15th/8/69 and was a bit of a wash-out owing to most of the Group being away on an official club outing. This was brought about by the alteration of the outing listed in the Group outing's list to avoid clashing with the school holidays. As this was unavoidable, it was decided to go ahead with both venues, rather than upset the meeting timetable, with the resultant inconvenience to the owners of the hall and those members who did not attend the snow trip.

Even so, there was quite a good turn up and members had a good natter in a friendly manner about past and future outings and the coming club dinner.

SOCIAL SECRETARY'S REPORT

All members must by now be aware of the Club's Annual Dinner to be held at "The Barrel" on 6th December, 1969. All fifty tickets are spoken for and deposits due by 30th September, 1969 have been paid for by twenty-two of those holders. Twenty-eight deposits are still outstanding and it will be Club policy this year to sell all tickets that have no deposits paid for by the prescribed date.

In the past Club dinners have been well attended and this year we were fortunate in booking into a new eatery that has had good reports written about it in the press.

L.J. ADDISON - Soc. Sec.

DIVING TRAINING

Training of interested people is proceeding with the last course of five people completing their course with a sea dive on 23.8.69. The next course will start as soon as possible so get your mates interested in exploring the underwater world. The club supplies all equipment, i.e. Lungs, snorkels, flippers and masks and a heated pool is available for the comfort of the trainees. For any information on training ring Pat Reynolds, 232-5358, or Bill Gray, 232-7220.

P. REYNOLDS.

SELF CONTAINED DIVERS FEDERATION

The above Federation was set up between members of the Underwater Explorers Club, the Bass Strait Divers and the Victorian Sub-Squa Group, in an endeavour to look after the interests of Aqualung Divers as distinct from Spear Fishermen whose interests were catered for by the Underwater Spearfishermens Association of Australia, at what we believed was at the expense of the Lung Divers. That was back in 1961. In the years U.S.F.A. has mellowed and, in fact, has changed for the better considerably in its attitude to the interests of Lung Divers and has also changed its name to Underwater Sports Federation of Australia. In this State the affiliated clubs are under the banner of the U.S.A.V. which has two distinct divisions - (1) The Technical Division, and (2) the Sporting Division. These divisions completely separate spearfishing and competitions and Lung Diving interests. However, this is not yet satisfactory to the independent clubs of S.D.F. as the finances for both are controlled by the central body with, therefore, no guarantee of protection of Divers' interests if there is a change of attitude in the future.

However, this was a step in the right direction towards a unified voice for all interested in Underwater Sports and to foster this step the S.D.F. called a meeting at the Hardware Club on the 7th August, 1969 of all basically Aqualung Clubs in the Melbourne area, to get their views on whether the new U.S.A.V. set up would be acceptable to Lung Clubs and if not at present what changes were necessary to make it acceptable. The sincerity of all aqualung clubs to join a union of all people interested in underwater activities may be gauged by the fact that there were 19 representatives in attendance. Delegates were present from -

The Underwater Explorers' Club, Underwater Research Group, Aqualung Club of Victoria, Bass Strait Divers, Black Rock Club & Victorian Sub Aqua Group.

After much amicable discussion it was considered that even as present constituted the new U.S.A.V. set up was not acceptable as complete autonomy for Divers could not be guaranteed if they could not control their own finances. It was felt that it may be necessary to have a Spearfishermens Federation and a Divers Federation each completely autonomous but with liaison at the top of each on all matters

affecting underwater enthusiasts with possibly delegates from each acceptable to the National Body.

It was agreed that a Working Committee of Five be appointed from those present to investigate the "new look" U.S.F.A. to determine if it offers adequate protection for the interests and opinions of Divers and if not what changes could be suggested to permit this and further, would such changes, if any, be acceptable to Australia Underwater Federation and the V.A.U.F. The Committee selected was:-

U.R.G.	-	Dr. W. Brett
V.S.A.G.	-	P. Matthews
U.W.E.C.	-	P. Webster
A.L.C. of Vic.	-	D. Barnfather
B. Rock	-	L. Auld

The Committee has already set a date and time for its first meeting.

SPECIAL NOTE -

The member clubs of S.D.F. agreed that rather than have combined money making events, that each club run its own function and receive the support of the other clubs. The organizing club to retain all proceeds.

BASS STRAIT DIVERS CLUB is the first off the mark and has arranged a DINNER DANCE for Friday, 31st October, 1969, at Carinya Receptions, 550 High Street, Preston. The price is all inclusive, food, drinks, everything - \$14.00 per double.

If Sub Aqua expects support in its functions, its members must support the other member clubs, so see if we can get a group to go to this function.

Tickets available from the Secretary at the next meeting, or ring 36-8587 - Trevor Johnson.

SOCIAL EVENT

The Underwater Explorers Club advise that they have arranged the hire for the night of "POPPAS PIZZA" of 172 Teorak Road, South Yarra, on Monday, 13th October next. The cost to attend and have loads of fun is \$2.00 per head. This charge covers the provision of a band and dancing, all the coffee you can drink and a Pizza Pie. Other refreshments of a harder nature will be on a "bring your own basis".

This occasion has all the earmarks of being a terrific social evening and it is strongly recommended that all members of V.S.A.G. invest \$2 and go along and have a ball. This is to support a member Club of S.D.F. and we should support it.

" CERBERUS "

As members know, the S.D.F. member clubs carried out a survey of the "Cerberus" for the National Trust and for the information of members, we set out the contents of the report submitted to the Trust following such a survey.

REPORT ON SURVEY OF "CERBERUS"12th JULY, 1969

The original intention of the survey of the Cerberus was to use three teams of divers to detail the actual damage to the monitor and to note potentially dangerous areas. During the recording of the information it rapidly became evident that the deterioration was so extensive that it was impractical to attempt to record individual items in this manner, rather it appeared more important to present a general picture related to the eventual possibility of future preservation.

Hull -

The outer hull is protected by heavy armour plate for several feet below the present waterline and is therefore solid to this depth, however below this level the combined action of

salt water corrosion and erosion by wave action has virtually reduced the thickness of the metal to nothing. Gaping holes approximately 3 ft. x 3 ft. exist between most of the ribs and are nearly continuous around the hull. In the sections remaining, it is possible to remove samples by knocking holes and removing pieces with a small tomahawk, these pieces prove to be from zero to about ten thousandths of an inch thick.

The inner hull is similarly holed in many places directly opposite the openings in the outer hull with holes which agree in size, so that the load of anything above this level is now being carried almost entirely by the ribs, with possibly some assistance from some vertical struts. The ribs themselves appear to be fairly solid, but some bulkheads have rusted through.

Silt -

The silt inside the hull is much less than expected and consists of sand which contains a lot of stray pieces of steel and other rubbish such as rusted remains of ladders and sections of struts which have rusted through. The depth of this silt varies but appears not to be much more than eighteen inches at any point.

Main Deck -

The main deck outside the armour plated section of the superstructure is covered in heavy teak which seems to have withstood the weather very well and the dangerous holes which need covering are man made rather than caused by deterioration. On the seaward side waves occasionally breaking over the deck have made the surface very slippery. Inside the superstructure the teak covering does not exist and although it is generally sound there are a few places where holes of a foot or more have rusted through.

Turret Load -

The load of the turrets is taken on the main deck, which is in turn supported along the centre line by a series of round vertical struts. Many of these struts in the boiler room area and under the forward turret are no longer continuous to the bottom and a number are severely buckled although an odd strut appears to be continuous and straight. Since the deck in this area seems normal and there is no sign of collapsing of the hulls sides,

it would appear that the bottom of the hull is collapsing upwards and the odd straight strut is probably piercing the bottom instead of bending.

Under the rear turret the support struts are all straight yet the deck in front of the turret shows a distinct drop of about an inch, indicating that the turret itself has started to drop, again probably some of the struts may well be sinking through the bottom.

A careful observation from the shore on the point, lining the top surfaces of the turrets against a straight edge, does appear to confirm that there is a definite forward tilt of the rear turret.

Middle Deck -

The middle deck in its original form was heavy teak timber supported on steel beams and this is completely submerged at all times so that the teak has rotted away completely except for a couple of feet over each girder. Here again the steel beams appear to still be relatively sound.

Guns & Turrets --

The turrets which are of about ten inch thick steel with a cover over the top do not show much deterioration and have served to protect their contents from the worst of the elements. For this reason the guns are extremely well preserved except for one forward gun which has a collapsed barrel. In inspection of the turret immediately in front of the barrel shows damage which would be consistent with the gun having been placed against the side of the turret and fired.

Since all of the guns have been brought forward to jam their barrels against the side of the turret, a shift of the gun support relative to the turret could also place a side load on the barrel and possibly cause similar damage to both gun and turret. Although there is no obvious sign of such a movement the changes in the supports under this turret and nearby main deck are such as to warrant consideration of this alternative theory, since no one at this stage has recalled this gun having been fired.

Missing Upper Deck, Funnel & Superstructure -

The upper deck which once existed above the gun turrets along with its various deck houses has been removed along with

many other items such as masts.

The funnel has been completely cut away, probably to allow for the removal of the boilers as have the entrances to the fore and aft stairways and air vents. The only structure remaining is the observation tower which is of solid armour plate (approx. 6 inch) backed by teak.

The top and sides of the armoured superstructure on which these items mount and through which the turrets protrude is still quite sound and in places is still covered by what appears to be the original paint.

Conclusions -

The Cerberus is already extremely unsafe and some immediate action should be taken to replace the support under the two turrets. It should be appreciated that at the present moment the two guns totalling 36 tons plus the weight of the 10 inch thick steel turret and the accessories, are very nearly unsupported and are already moving. Many people still visit this vessel and some immediate action should be taken for safety sake especially, in at least posting notices to make unsuspecting people aware that a danger does exist.

If steps are actually to be taken to preserve the Cerberus at this late stage, again prompt action is vital because deterioration has now reached the point where damage is occurring at a rapidly increasing rate. The hull would already need concreting to above the waterline because it is no longer practical to patch the iron sheets to re-construct them. Support for the turrets could be incorporated in this concrete.

Below the main deck would virtually become inaccessible and flooring and some replacement supports would need placing inside the armoured superstructure so that the public could walk around inside this area.

Externally the upper deck, funnel, air vents, masts and deck houses need replacing or re-constructing and rusted iron-work such as the shields over the gaps between turrets and decks need to be replaced.

T.G. RYAN,
A.R.M.T.C., A.M.I.E. (AUST.),
A.M.I.R.E.E. (AUST.)