

# Fathoms

Official Magazine of the Victorian Sub-Aqua Group (est. 1954) OCTOBER 2021



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*Maritime Emergency Contact Information*

*Big show from little critters at Blairgowrie*

*Miles - history of a private dive boat*

*What's your  $ppO_2$ ? Technical diving.*



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# Introducing the New Look Fathoms

Welcome to the October 2021 edition of FATHOMS. You may notice some changes.

Firstly the layout. We have started using new desktop publishing software that allows us to present the magazine in a new, and we think, stunning way. We are also introducing new categories of articles and encourage members to share their experiences, adventures and memories with the Club by writing an article for one of these categories.

- **NEW MEMBER PROFILE:** These used to be in FATHOMS years ago, but have slipped away. We have reintroduced them. It's a chance for all of us to recognise and know our newer members. We are also planning occasional "Where Are They Now?" from some of our longest standing members.
- **PHOTOGRAPHIC PORTFOLIO:** Brian Heatherich kicks off this section which features one of the Club's photographers providing a gallery-quality display of their top shots in each edition.
- **MY FAVOURITE DIVE SITE:** John Lawler gets this one bubbling with his favourite dive site. We will be asking members to tell us what their favourite dive site is and what makes it special.
- **MY DIVE BOAT:** John Lawler launches this section with a heartfelt account of his dive boat MILES. This is an opportunity boat owners to tell the Club about their dive boat and share their tips and trick for how they have set it up for diving.
- **EQUIPMENT, DIVING SKILLS AND TECHNIQUES:** We start this section with an article from Josh Richards on the importance of monitoring your partial pressure of oxygen when using a CCR.
- **SAFETY:** Stuart Cousins introduces this section with a comprehensive article on maritime emergency contact information and the various modes of communication you need to be aware of.
- **BEHIND THE DIVE:** Embarrassing accounts of what really goes on behind the dive. Peter Mosse kicks this one off with an incident a very long way from home. Tell us your stories. This can be related to the dive itself, or events before or after the dive.
- **FORGETTABLE DIVES:** I am sure we have all done a dive and that we thought was as bad as it gets. We have one of these in this edition but I am sure there are some great stories out there.
- **LOST & FOUND.** In this edition we have the second in our series of Lost and Found stories with an amazing tale by David Politakis and Angus Stuart-Adams which features an expensive SMB, two VSAGers, and an incredible co-incidence that defies the laws of probability.
- And of course the old favourites, **DIVE REPORTS** and **BOOK REVIEWS** and the results of the monthly **PHOTO COMPETITIONS**.

And remember, FATHOMS is your Club magazine. It needs you to contribute for it to survive.

As the incoming Editors for Fathoms, we want to thank Christine Reynolds for her incredible contribution to VSAG as sole Editor for many years and hope we can do her effort justice as the baton is passed to us for the time being.

In the recent FATHOMS survey, there was very strong support for the magazine. But remember, for FATHOMS to continue...

## WE NEED YOUR CONTRIBUTIONS.

VSAG Members can send their contributions to [editor@vsag.org.au](mailto:editor@vsag.org.au). Please include jpeg files for any images that accompany your contribution.

**- Peter Walters & Peter Mosse**

**EDITORS**

## NEW MEMBERS

# Bobbi O'Riley

I completed my OW at the end of 2017 with a trip planned to Mozambique, Madagascar and Mauritius. I intended to only ever dive on holidays - how wrong I was! I had no idea how amazing Melbourne diving was. My fate was sealed on my "real" dive after the course, when I met Marc. Not long after, I completed my AOW.

Of course, my trip to Africa was fabulous. But it is diving here in Melbourne afterwards that has really made me fall in love with the sport. I seldom go for more than a few days without a dive (lockdowns excluded). Night diving under Rye Pier is an absolute favourite. I usually carry my GoPro so I can share the underwater world with landlubbers. I also will have a catch bag in my other hand to pick up rubbish. Next up for me is the Rescue Course. I'm enjoying learning from all the experience the members of VSAG offer!



Outside of diving and my day job running my family's craft supply business, I am a qualified gemologist and teach for the Gemological Association of Australia, teaching students about gemstones. I am also heavily involved in volunteering for the association's Board of Studies, where we oversee exams for students across Australia.

# Marc Alexander

During the day I sit behind a desk, working with computers. But as soon as I get the chance, I head outside into the great outdoors.

I obviously love my diving, started many years ago right here on the Mornington Peninsula. However, I didn't really do anything with it until an overseas holiday to Maldives re-sparked my interest. Since then (with the exception of lockdowns) I don't think there have been too many times when I haven't been out under one of our local piers or off the boats searching the great underwater world that we have.

The outdoor adventures do not end there though; I am also a keen runner, hiker, camper and cyclist just to name a few! You'll find me around the endurance styled events, running 100km+ races through trails and untouched landscapes. I think



it's the sense of exploring and pushing the body to it's limits that really drives me to go out and complete these challenges. This rolls well and truly over into my diving. The thrill of finding new sea creatures and wrecks or new locations to dive keeps me motivated, and with a new-found passion in underwater photography and a keen dive buddy in Bobbi, expect to see me underwater even more!

# Top Shots - Brian Heatherich

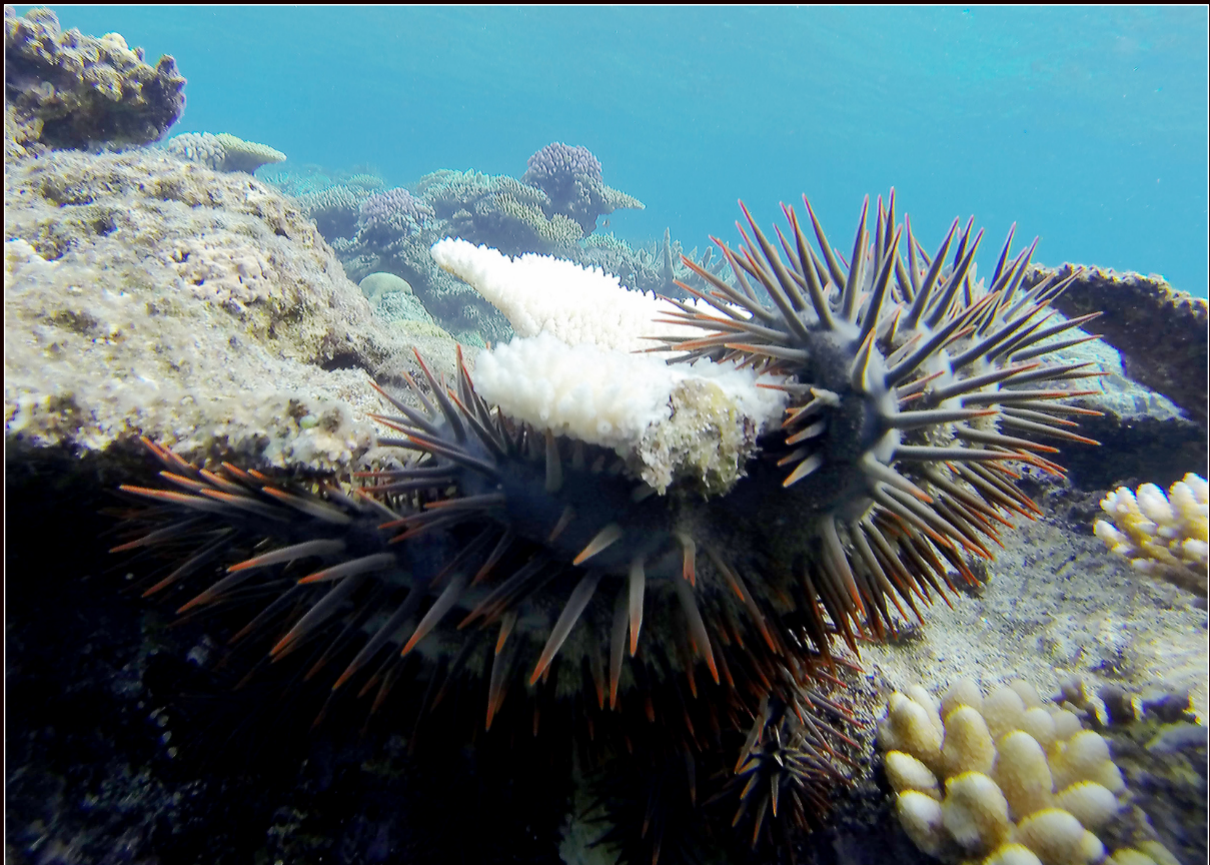


*Henkel's jellyfish - Portsea, 2019*

# Top Shots - Brian Heatherich



*Weedy Seadragon - Flinder's Pier, 2021*



*Crown of Thorns Starfish - Vanuatu - 2014*

# Top Shots - Brian Heatherich



*Blue Devil - Castle Rock- 2019*



*Ascidians - Narooma NSW - 2018*

## LOCAL DIVE REPORTS

### JL's Favourite Dive Site - Rob's Reef

One of my all-time favourites dive sites in the Bay is **ROB'S REEF**. Rob's Reef is located South East of Shortland Bluff near Queenscliff, and on the edge of the main shipping channel. It can be found at GPS WGS 84 38 16 957 S, 144 40 085 E.

It is situated in the current prone area of Port Phillip Bay Heads. Diving on a flood tide turning to ebb has the potential to carry divers into the shipping channel so care is needed. A safer option is to dive at the end of ebb, however the visibility may not be as good.

With a maximum depth of around 20 metres, this reef falls into the category of reef heaven, swim throughs, long gullies, overhangs, soft corals and sponges, occasional rock lobsters, and an occasional bottle from days gone by.

Recently I passed this waypoint onto a long standing diver who, after the dive called that evening to say thanks and comment. "This is one of the best dives I have had in the Bay!"

**- John Lawler**



### San Remo Jetty - Forgettable Dive!

**30th JULY 2021**

After a month of poor diving weather, two weeks holiday on the edge of Sturts' inland sea and two weeks home isolation, courtesy of my holiday in outback NSW, I had to get wet. An opportunity to dive presented itself before going for a surf.

As I approached Phillip Island, Westernport Bay had that grey, green, muddy brown appearance with white caps. A look over the edge of the jetty confirmed it. It was mud.

However, for months I have wanted to try the Aperture Priority on my camera instead of Auto. But it was dirty. Very dirty. The only way to see anything was to hold video lights no more than 10–20 cm from an object.

But, dives never cease to deliver. I found something I had never seen before. Not really sure what it is. Possibly a hydroid. But the red colour was magnificent. It's pretty hard taking photos when you can not really see what it is you are photographing on the screen!

The water temperature was a chilly 10°C.

**- Peter Mosse**



# BENT IN EUCLA

**by Peter Mosse**

Nullarbor diving requires planning. Lots of it. And if things go wrong, even more planning!

Pete's dive log records it thus!

*Homeward, farewells and the trailer saga at Eucla. A silly trailer jack knife, a bent axle and a dented bumper and rear panel and it's all over. We leave the trailer at Eucla, load as much as we can onto a pallet and head off without the trailer. The gear will hopefully follow us home in a week or so, a few \$ poorer. Not worth worrying about, good dives, good company, good food, no injuries and it's a minor blemish.*

Graeme's dive log records it this way. Actually, he prefers not to record it.

We had decided that since we could use a company car for the trip we would. However, we

were also aware from some of the reading on diving the Nullarbor that a 4WD would be useful. We decided to drive the company car and trailer to Ceduna, hire a 4WD and continue on. We transferred gear from the car to the 4WD ute, switched the trailer over and continued on.

We dived Weebubbie and Murra El Elevyn, met up by chance with Peter and Andrew, both seasoned Nullarbor campaigners and had a thoroughly wonderful series of dives. On the way home, we intended to check out the Eucla Telegraph station. Heading east after our diving was complete, we drove past the turn-off a short way. Graeme, who was driving at the time, decided to back up, kind of forgetting we had the trailer on.

Hours and hours of a long, straight strip of bitumen, mesmerising white dots, dry heat and being engrossed in a talking book; all combine to rid the mind of key pieces of information – like “you've got a trailer on the back”.

## BEHIND THE DIVE

So, a jack knife resulted. A quick look and all seemed OK, so we drove to the Telegraph Station, walked on the beach and admired the view. Eventually we decided to head off. Stopped at the Roadhouse had a drink and drove on. Things seemed OK.

A short distance out of Eucla is the fruit inspection point. We stopped and I decided to check the trailer. The bearings on one side were smoking, due to a bent stub axle, and it was clear the trailer was not going far.

This then raised the awkward question of how to get the equipment home. Nothing for it but to limp back to Eucla. We quickly realised that any repair process was going to be long and tedious so we made the decision to abandon the trailer at Eucla. After many phone calls to transport companies and much discussion with the people at the roadhouse, we finally arranged for a single packed pallet of equipment to be picked up and delivered to Melbourne on a regular run across the Nullarbor.

We organised a pallet from the Eucla roadhouse and then spent hours figuring how to get the maximum amount of equipment on the pallet and get the rest into the 4WD Ute. We certainly tried many configurations but we just could not fit it all in. Particularly the extension ladder, so that had to go! We left that in part payment for assistance by the road house owners who certainly helped us out.

A week or so later, our pallet arrived back in Morwell, none the worse for wear.



Weebubble Lake



Murra. naturally crafted curves



Trailer on arrival at Ceduna

01/01/2003



Abandoned trailer at Eucla roadhouse



Palette - everything safe and sound - almost!

## BOOK REVIEW

# Fifty Places To Dive

written by Chris Santella

When I first saw *Fifty Places To Dive Before You Die*, I immediately knew that I had to own this book. The first thing that entered my mind was, here is a book with a list of dive locations, with a description and information on how to get there. All the research was done for me. All in one book. How convenient.

The book was first published in 2008, and is the fifth in a series of “*Fifty Places...*” books by Chris Santella. It is a compilation of short stories contributed by dive experts, marine biologists, scientists, dive tour operators and world-renowned underwater photographers. The author has done an excellent job of sourcing the appropriate information and compiling it into a very interesting book. Once I started reading, I found it hard to put this book down. I finished reading it in a single day and, by the end, I had compiled my own list of diving destinations using this book as a guide.

The book brought back some fond memories as I read about some of the dive locations that I have already dived. Places such as Truk Lagoon, the Great Barrier Reef and Eaglehawk Neck in Tasmania. The contributor for this location was Karen Gowlett-Holmes, part owner of the Eaglehawk Dive Centre whom I met where I stayed at their dive lodge. I had many conversations with her about her passion for underwater photography, nudibranchs, climate change and the famous kelp forests that, sadly, no longer exist due to the climate change. Another dive location mentioned in the book is Poor Knights Islands in New Zealand which, hopefully, I will be diving this location in November if all goes well.

The book is structured to provide a clear, precise and informative description of every dive site. There is a brief biography of every expert interviewed and also a ‘*If you go...*’ section at the end of each dive location chapter that provides information on how to plan, where to stay, and the dive operators available.

The book only has one photo for each location. In my opinion there should have been at least 3 photos for each dive location. Apart from that, I could not fault this book. The diversity of dive locations from all over the world would interest all

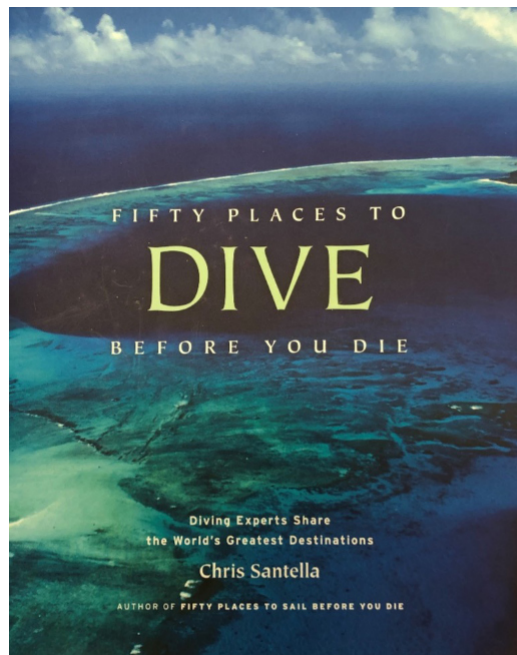
types of divers. Dive locations such as Antarctic Ice diving, Lord Howe Island, Galapagos, Maldives, Bikini Atoll (Marshall Islands), Aliwal Shoal (South Africa), Sha’ab Rumi (Sudan), Cave diving in Akumal (Mexico), Palau and the Fathom Five National Park in Canada just to mention a few will virtually drive you insane with diving envy.

Each contributor gives their full personal reason why they love their chosen dive location, whether it be about the sea life encounters, larger sea creatures such as whales and sharks or micro specimens such as small

critters and nudibranchs. Some describe the beauty and elegance of the natural environment, surrounding the dive locations. Others take you on an underwater journey full of amazing colours, bommies, steep walls, large openings and an abundance of sea life that you could only wish for.

I absolutely love this book and highly recommend it to anyone, regardless if they are a diver or not. Most of the destinations would be an ideal holiday location for non-divers as well.

My book review rating for this book is **9/10**



- Arthur Kokkinos

## LOCAL DIVE REPORTS

# Not The Hurricane!

*...but the scallops were great*

MAY 2021

The call went out for anybody up for a quick early winter splash to grab a feed of scallops and maybe even have a squiz at the wreck of the Hurricane. As I owed my local Malaysian Chef a few favours I thought I would throw my hat in the ring.

We launched SS Politakis at 9.00am and after a cruise through Martha Cove we headed for the site. Shot line down and the current seemed pretty much on slack we geared up and Jeremy and myself took the plunge. The visability was its usual murky self, and the scallops initially seemed abundant. Looking across at Jeremy it seemed he had 4 arms, such was his workmanlike manner in procuring his 100 quota.



Drifting pretty much aimlessly due to the slack tide we wandered around across some pretty barren territory and I only saw one piece of man-made junk. Good patches of scallops came and went as we actually had to swim due to the lack of current. It should be noted that the wreck itself remained ever elusive.

On surfacing it seems that we had simply swum in circles around the perimeter of the wreck and pretty much popped up where we started. Still, a good feed was obtained and it seems that the 2 younger divers are somewhat of a dab hand at preparing Michelin 4 Star quality scallop dishes going by the pictures they sent me that night.

Might be time to reintroduce the annual 'VSAG Scallop Off competition' with all these new chefs in the club. I'm in!

**- Greg Richards**

# Maritime Emergency Contact Information And Communications Equipment

*by Stuart Cousins*

The VSAG Emergency Contact information has been updated to reflect current best practice. This article will provide some background information explaining the reasons behind the changes, outline the various technologies available for emergency communications and the associated response mechanisms.

It is important to remember that an emergency is a serious, unexpected and often dangerous situation that requires immediate action. This includes danger to life, health and/or property.

Do not hesitate to raise the alarm, the faster emergency services are activated, the better the chance of a good outcome.

Please note that although much of what is contained in this document is relevant globally, it focusses on boating activity in Victorian waters. As such, should you be planning to travel elsewhere, particularly overseas, you should be aware of local emergency procedures and consider services such as DAN which provides insurance and diver evacuation globally.

## Be Prepared

- Consider the destination when planning emergency communications. For example, a mobile phone is of no use if you'll be operating outside signal range. Even Port Phillip has dead spots. Do not rely on the “**SOS only**” feature of your mobile phone as this usually means you are outside the coverage of your service provider, but another carrier signal has been detected. Once outside coverage of all carriers, the phone cannot be used.
- Have more than one means of communication, for example phone and radio.
- Ensure the equipment is in good working order by testing it before setting out. If taking a mobile phone ensure it is fully charged. Where applicable, information regarding testing has been included in this document.
- Keep the equipment stowed securely, not only to prevent loss or physical shock, but also so it is readily accessible in the event of emergency. This is equally applicable to vessel based and personal communications devices.
- Keep the equipment stowed safely to prevent damage by the elements.
- Know how to use the emergency communications equipment. If you don't know how to operate it, it is not communications equipment.
- At any time a vessel is on water, at least two people in the boat need to be familiar with the operation of the vessel's emergency communication equipment. If the only people with such knowledge are the ones yet to come up from a dive, the time lost raising the alarm could be the difference between life and death.

## Emergency Communication Equipment

### Telephones

Where signal coverage is available, a phone is by far the best means of communication during an emergency. The only number you need to remember is :

**000**

# SAFETY IN DIVING

Calls to **000** are monitored by Emergency Services Telecommunications Authority (ESTA) whose staff are trained to transfer “on water” calls to the Water Police (WatPol). WatPol has access to all emergency resources, air, water and ground based, including all appropriate medical support such as hyperbaric chambers. As WatPol is aware of all relevant support services, both static and mobile, it is able to coordinate the efficient and appropriate response.

***Stay on a 000 call until advised to hang up, so that you can provide all the required information to authorities.***

A key advantage of using triple zero is the addition of the Advanced Mobile Location (AML) technology. In the event of an emergency call, an AML-enabled smartphone (all Android and iOS devices worldwide) automatically sends accurate location information of the caller to the emergency services. This information is derived from the location data of the phone (GNSS, Wifi). AML is not an App; it does not require any action from the caller.

It typically takes 25 seconds or less for the caller’s location to be pinpointed to within 5 metres and sent to **000**.

***Do not call other services directly as they will need to relay your details to 000, introducing a delay and the potential for miscommunication.***

Everything you need to know about **000** can be found at <https://www.triplezero.gov.au/>

Because most people carry mobile phones, generally the efficient method of raising the alarm is by calling **000**. Remember that phones are completely dependent on having battery power, and in the case of a mobile phone, being able to get a signal. As noted earlier, there are even dead spots in Port Phillip.

A more reliable alternative is a satellite phone (Figure 1). In practice these function as a communication device like a mobile phone, but by using satellites. Coverage is available from anywhere on the planet that there is a view of the sky. As such they are widely used by those wishing to travel off the beaten track on land.



Figure 1: Mobile phone (left), satellite phone (right)

In all cases, you need to get up on deck rather than be below decks on a boat. Find an open area away from walls and rigging, and/or find an elevated area to obtain greater signal strength. This can mean the difference between being heard and not heard, therefore between life or death.

The advantage of using a phone is that it gives you the ability to communicate with anyone, from 000 in the case of an emergency, to family or friends in the event to let them know you are running late, or even to a professional repairer in the event of breakdown or if specialist, diving or other information is required.

## Very High Frequency (VHF) Radio

The primary emergency channels on VHF radio are 16, which should be used first, and then 67. These channels are monitored by Marine Radio Victoria to 20 nautical miles off the coast.

A VHF radio should only be operated by someone with an appropriate radio licence, or in the presence of a licensed operator. However, any person may call on any radio on any frequency in a real-life threatening emergency. Therefore, it is prudent to ensure everyone on board knows how to initiate an emergency call in the event of incapacitation of the licensed operator.

# SAFETY IN DIVING

VHF radios are available as units designed to be installed in the vessel, or as smaller, portable “hand-held” units for carrying on your person.

VHF radios may have more than one user selectable power levels. Low power mode, usually one watt, can be used when in close proximity to the vessel or land station you are communicating with, such as another vessel in your diving party. Not only does this reduce the general noise received by other vessels, but also conserves the battery.

High power may be 25 watts in the case of a vessel mounted radio or, in the case of a hand-held VHF radio, 5 watts for battery conservation purposes. Battery permitting, it is advisable that you have your radio set to high power so that, in the event of emergency, you will get the strongest signal without needing to change any settings.

As operation of power settings differ between units, the owner’s manual should be consulted for usage of each device.

VHF signal range is limited to line of sight. In other words, if there is anything between your antenna and that of another station, you will be unable to reach it using VHF. It is important to note that the curvature of the earth must be taken into account when calculating line of sight (Figure 2). For example, when on water or flat terrain, for a person viewing from two metres above the ground or water level, the horizon is approximately 5 nautical miles away.

Approximate formulae for calculating line of sight distance to the horizon and to another antenna are shown below. Please note that throughout this document, unless stated otherwise, the term “station” refers to both vessels and land based sites possessing communications equipment.

**1. Line of sight distance to the horizon**

$$d = 3.57 \times \sqrt{h}$$

where

d is the distance to the horizon in kilometres, and

h is the height of the antenna above sea level in metres

For example for someone standing two metres above sea level, the distance to the horizon is:

$$d = 3.57 \times \sqrt{2}$$

$$d = 5.05 \text{ nm}$$

**2. Line of sight distance between antennae on two stations**

$$d = 3.57 \times \sqrt{h_1} + 3.57 \times \sqrt{h_2}$$

where

d is the line of sight distance between the antennae,

h1 & h2 are the heights of the antenna on station 1 and station 2 respectively

For example the transmission range between two boats, one with an antenna mounted 2 metres above sea level and the other 3 metres above sea level is:

$$d = 3.57 \times \sqrt{2} + 3.57 \times \sqrt{3}$$

$$d = 5.05 \text{ nm} + 6.18 \text{ nm}$$

$$d = 11.23 \text{ nm}$$

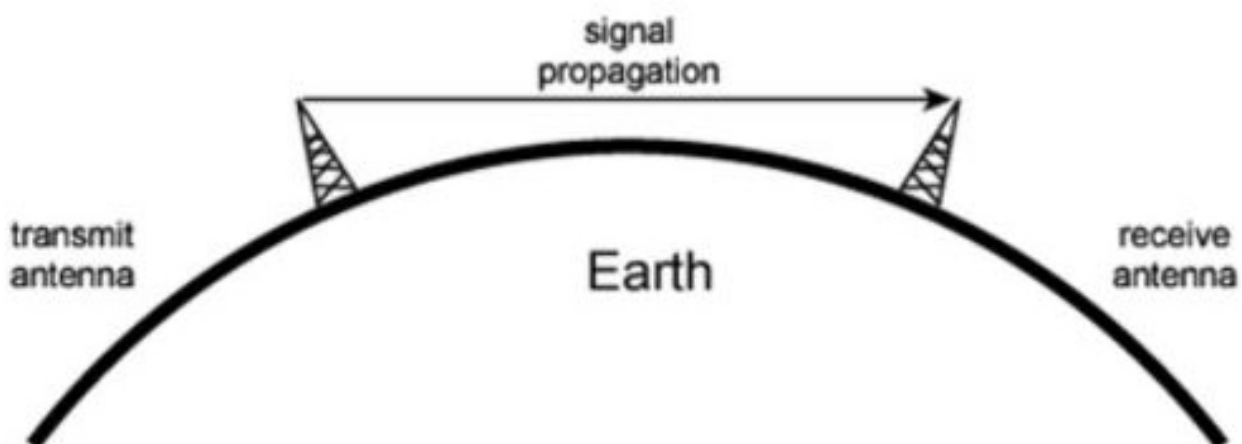


Figure 2 : Effect of curvature of Earth on line of sight

# SAFETY IN DIVING

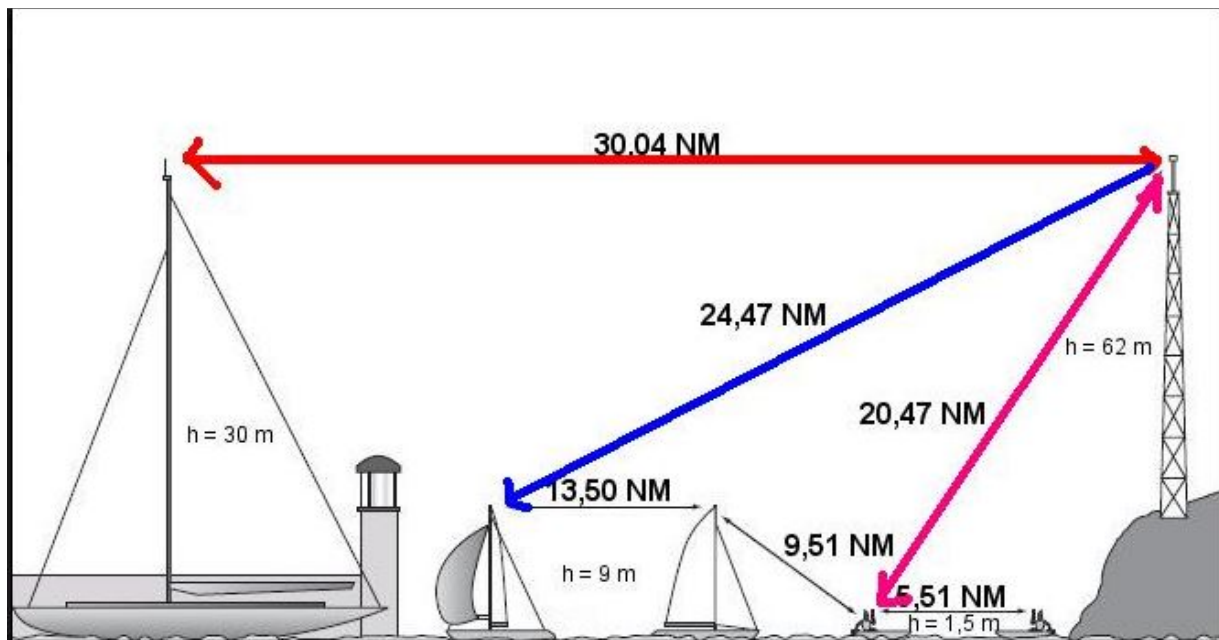


Figure 3: Line of sight for various antenna heights

Figure 3 shows examples of the effect of different antenna heights on the line of sight distance. For example, a 25-watt marine radio will roughly have a maximum range of 60 nautical miles (111 km) between antennas mounted on tall ships, but that same radio will only have a range of 5 nautical miles (9 km) between antennas mounted on small boats at sea level.

For maximum range, ensure your antenna is mounted as high as possible on your vessel, and if your marine radio has a selectable power setting, set it to maximum. Note that power does not increase the range, rather it helps the signal to “punch” through static and other radio signals. Hand-held units are designed to be portable, so their antennas are small, thus impacting transmission distance.

To maximise signal from a hand-held radio, hold the antenna as high as practicable. A microphone accessory may allow you to talk while holding the unit above your head.

Remember that regardless of your proximity to other boats, VHF channels 16 and 67 are monitored by Marine Radio Victoria to 20 nautical miles off the coast.

It is important to remember that VHF will not travel through solid objects. An island between you and the VHF station(s) you are trying to contact will block the signal.

Some VHF radios are equipped with Digital Selective Calling (DSC). This uses VHF channel 70 to transmit a digital message to either, all land and water-based stations, or address a message to a specific station such as the vessel you are diving from. At a minimum, a message will include the Mobile Marine Service Identifier (MMSI) registered to the DSC (your id) and location if the unit has, or is connected to, a GPS. Radios incorporating DSC functionality are designed to allow a DSC message to be sent at the push of a distress button. A DSC signal will be picked up by VHF radios within signal range on channel 70, sound an audible alarm and display your MMSI and location. After sending a DSC message, the sender should monitor channel 16 for a response.

As DSC calling functions vary from unit to unit, for example specific messages can be configured, consult your owner’s manual for operation details. It usually involves something like a 5 second push to initiate a signal. A short press will not work and is designed to reduce the risk of inadvertent signal creation, that is, a false call for assistance.



# SAFETY IN DIVING



Figure 4: A VHF Marine Radio transmitting at 25W

It is important to test your VHF radio before heading out. Best practice for this is as follows:

- Turn your unit on.
- Switch your unit to channel 16.
- Turn the volume up to medium.
- Turn the squelch down until static is clearly heard.
- Turn the squelch up until the static is just cancelled.
- Re-adjust the volume to an appropriate audible level.
- Press the transmit button and look for indication on the unit that it is ready to transmit. This may be an indicator or appearance of text on the unit such as “TX” (Figure 4).
- Request a radio check, either from another boat in your party, or by transmitting the following message on channel 16:

***“Marine Radio Victoria, Marine Radio Victoria, Marine Radio Victoria”***

***“This is (Your vessel name or registration number)” x 3***

***“Requesting radio check”***

On receiving your message, MRV will respond and possibly request you move to a working channel to complete the check.

Figure 4 shows the transmit button is being depressed resulting in “TX” being displayed in the upper left corner of the LCD display. The current power level (25W) is displayed just to the right of the TX, and the H/L button on the microphone can be used to switch between high (25W) and low (1W).

## High Frequency (HF) Radio

High Frequency radios use a frequency that is reflected by the Earth’s ionosphere and hence are not limited to line of sight. Such signals can be intercontinental, and hence used for ocean travel. However, they are more expensive and complex than VHF, and because performance can be impacted by several environmental factors, they are less suited to local boating applications.

As such, discussion of these devices is beyond the scope of this document.

## 27MHz Radio (Marine CB)

***This frequency is no longer monitored by emergency services.***

In an emergency, 27MHz should only be used as a last resort. Messages broadcast on this channel will likely only be picked up by recreational boaters in the area, who can subsequently relay your message using a more reliable means such as via VHF radio or mobile phone.

## Emergency Position Indicating Radio Beacon (EPIRB)

An EPIRB (Figure 5) must be registered with Australian Maritime Safety Authority (AMSA). It is designed to be activated in time of emergency and will emit a signal at 406 MHz that will be detected by a global satellite network from anywhere on the planet. The alert will be passed immediately to the appropriate rescue coordination centre.

# SAFETY IN DIVING



Figure 5: An EPIRB mounted inside a vessel

EPIRBs must be tested in accordance with the manufacturer's instructions.

EPIRBs are designed to float free in the water, attached to you, a life raft or your vessel with a lanyard, ensuring they have a clear view of the sky. It is important to note that older EPIRBs used the frequency 121.5 MHz only.

Currently EPIRBs use a frequency of 406 MHz for long range detection. The Australian Maritime Safety Authority (AMSA) recommends EPIRBs that include a GPS feature, which will pinpoint your position to within 120 metres. Without GPS, accuracy is limited to 5kms, an enormous difference when time is of the essence.

All recreational vessels heading out more than two nautical miles from the coast are required by law to carry an approved 406 MHz EPIRB.

Further information about beacons, including models approved for Australian usage, can be found at <https://beacons.amsa.gov.au/>.

## Automatic Identification Systems (AIS)

The AIS is a maritime communications device that uses VHF (87B & 88B), or satellite in the case of a Satellite-AIS, to transmit and receive identifying data to and from other AIS stations, effectively operating as an automatic tracking system. Information transmitted by an AIS includes:

- **Static data** - information that does not change frequently, such as ship length or name.
- **Dynamic data** such as vessel course, speed.
- **Voyage related data** such as navigational status, destination, cargo onboard.

This information is regularly broadcast automatically and can be displayed on the receiving station's equipment such as electronic charts and radars. Ships are required to be fitted with AIS, but it is optional on smaller recreational vessels. When a distress signal is broadcast via AIS, it will be received by AIS enabled stations. An audible alarm will sound and AIS information will be displayed.

If you have an AIS unit, consult your owner's manual for details on sending distress signals.

## Personal Locator Beacon (PLB)

A PLB is named as such because it is an emergency signalling device designed to be carried by an individual. As such it is possible to purchase a unit small enough to be carried by a diver (Figure 6). Unlike units covered previously, a PLB does not employ a specific communication technology. As such, a PLB could use one or more of the following technologies:

- 406 MHz distress beacon, which operates in the same way as an EPIRB and will be detected anywhere that has a view of the sky.
- VHF radio.
- AIS/DSC

The Nautilus LifeLine PLB shown in Figure 6, is designed for divers, and waterproof to over 100 metres. The unit includes a GPS, and AIS and DSC transmission capabilities. Operation of this device requires no registration or licence.



Figure 6: Nautilus LifeLine PLB with AIS/DSC

## SAFETY IN DIVING

The rescueMe PLB1 (Figure 7) is waterproof to 15 metres, so will need a watertight canister such as that shown for deeper dives. The one in the picture was obtained from "All About Scuba", but I'm hoping to find a smaller, more practical version. It is GPS enabled and it transmits on 406 MHz, being picked up by satellites in exactly the same way as an EPIRB. This unit must be registered with AMSA.



Figure 7: rescueME PLB1 EPIRB

There are PLB's that are specifically designed for use by SCUBA divers and others that are not. Care needs to be exercised if purchasing a PLB for a particular application.

If you are carrying a PLB, make yourself familiar with the channel(s) of operation so you are aware of any limitations. Ensure it is securely attached to you, for example by lanyard to your BCD. Maintain a testing regime according to the manufacturer's instructions. Ensure the batteries are changed as recommended.

Most importantly, have a thorough understanding of its deployment. You do not want to be trying to read the instructions in choppy seas under failing light.

### Summary

Emergency communications technologies save lives. Most importantly you need to be aware of legislative requirements of carrying and operating such devices. You also need to consider where you are travelling, the risks and operational limitations of each device.

On a personal note, I always carry my mobile phone on a boat and on hikes, and for the latter, a recharging battery pack in the case of multi day trips.

When boat diving, I would expect that the vessel has a VHF radio, at a minimum. However, to give me confidence that I will be found if lost, separated from a boat, outside mobile and radio coverage and in the event of battery failure, I carry and dive with my rescueME 406MHz enabled PLB.

**Make no mistake, if you are on the water and your vessel is incapacitated, it is an emergency**

**The longer it takes to request assistance, the greater the danger.**

**Never hesitate to call**

**000**

**Hesitation only makes things worse.**

Only in the event that you are unable to get through to **000**, you should call the Water Police on

**1800 135 729**

**- Stuart Cousins**

# VSAG CLUB EVENT

## Xmas in July 2021

*Saturday 10 July 2021*

Somehow we managed to sneak in a Xmas Party between lockdowns. It certainly has turned out to be the highlight of my social calendar for the last 6 months.

Around 20 VSAGers and their partners turned up for a great night at PJ O'Brien's Irish pub organised by Sherryn Amor and Peter Campisano. It was all on with pints of Guinness flowing along with the mulled wine and a delicious mid-winter roast dinner followed by a lovely desert.

So much fun to catch up with everyone and share the banter that is normally reserved for boats in the ocean where no one can hear. Still, we are not far from our Xmas at Xmas bash at Beaumaris Motor Yacht Squadron in early December with Arthur Kokkinos promising a Greek feast.

**- Matthijs Smith**



# What's Your ppO<sub>2</sub>?

**by Josh Richards**

There's one thing watched by rebreather divers with greater concern above anything else - your partial pressure of oxygen, aka "ppO<sub>2</sub>." No matter how extraordinary it feels breathing warm air with no bubbles, clearing deco far quicker than your open circuit buddies and drifting around gently to the sound of your own breath; it all comes at the cost of knowing the gas in your loop can quickly and easily become toxic if you're not vigilantly watching your ppO<sub>2</sub>. If a solenoid sticks open or a manual add valve jams on, the flood of oxygen into the loop can drive your ppO<sub>2</sub> over 1.60 and quickly lead to a hyperoxic convulsion that will ruin your whole day. On the flip side we need a ppO<sub>2</sub> of about 0.18atm - equivalent to 18% oxygen on the surface - just to maintain regular brain function and about 0.15 to maintain consciousness. And as I was brutally reminded earlier this year, ppO<sub>2</sub> also happens to drop rather rapidly *just* as you approach the surface when you think the dive is over.

Every step of my first rebreather course was punctuated by my instructor reminding me to be constantly aware of how much oxygen was in the loop I was breathing from. During our first training dive it felt like he was being over-the-top with his near-constant signals that demanded to know "What's your ppO<sub>2</sub>?" - couldn't he clearly see what it was from my handset AND the HUD flashing bright green directly in my face? And besides, it's not like it was often anything except 1.3 because my JJ was doing all the work for me - automatically squirting in a bit of O<sub>2</sub> if the levels dropped a bit. If anything, the solenoid was a bit of a pain because it would throw out my buoyancy by dumping O<sub>2</sub> into the loop whenever I wanted to ascend!

I got a fairly rude wake-up call on my second training dive though. We dropped below the surface, ran a bubble check and cell test at 6m, signalled that everything was okay, then started to

swim towards a small wreck at 12m. I kept trying to sort out my buoyancy as we swam (studiously checking my ppO<sub>2</sub> on my handset every minute or so) when suddenly my HUD lit up like an angry Christmas tree. I glanced at my handset which was all red too, saying something about "BUS FAILURE" for a few seconds before going completely blank - something was definitely wrong.

Besides "What's your ppO<sub>2</sub>?" the other thing my JJ instructor had drilled into me was "If you can't trust your loop, you need to get off it". With no information coming from my oxygen cells to my handset or HUD there was absolutely no way to monitor what I was breathing, so I immediately bailed out. I swam up and tugged my instructor's fin to show him the now completely blank handset - he instinctively signalled for me to bailout... then looked relieved when he realised I already had. We turned the dive and surfaced (giving me the opportunity to practice my first bailout ascent) then chatted about what had happened. As a brand new rebreather diver, I didn't know if this was a common issue and started to worry that I might not want to continue down this whole CCR pathway but my instructor assured me that a complete electronics failure on a JJ was practically unheard of. Back in the workshop a quick look at the unit's head showed there might have been an issue in the factory with the waterproof "potting" that protects the electronics, so the folks in Denmark quickly dispatched an entirely new head and we shipped the faulty one back. A few weeks later we were back in the water and I finished the course without any further incidents.

The JJ-CCR is an extraordinary rebreather and it was the perfect introduction for someone like me shifting from backmount twins to a rebreather. If I'd never taken the plunge into cave diving I'd almost certainly still be diving a JJ and absolutely loving it. The moment I finished my Basic Cave course in open-circuit sidemount though, it became crystal clear after over 20 years of ocean diving I'd finally found the niche I'd always been looking for. Unfortunately, that wasn't a niche that left much

## TECHNICAL DIVING

room for my JJ. The JJ-CCR is tough as nails, unbelievably reliable and has been dived to more than 290 meters in the ocean... but fully loaded with cylinders and sorb it's also half as heavy as I am! The moment I finished my CDAA Cave course I knew I'd lost any desire to go back in the ocean, and as soon as I tried using my JJ in places like Pines I realised the steel "cheese grater" that protects the unit's head also has a nasty habit of gouging out chunks of limestone from the cave - the hunt was now on for a new, cave-friendly rebreather.

It didn't take long to find one. I'd read a lot about the KISS Sidewinder, heard podcasts about it and one of my buddies from my Basic Cave course was now diving one and loving it. I liked what it seemed to offer and I knew a top-class instructor who trained on them too. So, in early 2020 I sold my dearly loved JJ-CCR and ordered my Sidewinder. The week before COVID-19 was declared a pandemic, I had booked my unit crossover course with one CDAA instructor and locked in dates for my Advanced Cave course with another. It also happened to be the week my partner at the time rolled her car into a tree at 110km/hr. After 6 weeks in hospital, she was discharged to rehabilitate at home with me as her live-in carer for the rest of the year. 2020 was brutal for many of us, but the one thing that kept me together through it all was knowing I'd be moving permanently back to Mount Gambier as soon as she was independent again - the moment I was back in the Mount I'd finally be able to do the unit crossover & complete the AC course, and in no time I'd be exploring Tank cave on my shiny new Sidewinder!

Rubens took me through the unit crossover, and besides a few rigging issues on the first day the whole thing went incredibly smoothly. The Sidewinder is supremely easy to breathe, so I didn't notice a radical difference from diving sidemount or the JJ, except I felt like I was now getting the best of both! Sure, I no longer had any electronics providing overwatch on my ppO<sub>2</sub>, so I had to add my own O<sub>2</sub> when it dipped. But to counteract that, my basic flashing HUD had been replaced with a NERD2 - providing ppO<sub>2</sub> and everything else a technical dive computer does and shoving it directly under my right eye as I dived. No way I'd forget to add O<sub>2</sub> when it's literally centimetres from my face, right?



18 months after I'd been ready to do it, my Advanced Cave course finally rolled around. I was already a TDI Full Cave diver with about 100 hours of cave experience, so I felt fairly prepared for the AC course, and given I'd had a couple of months on the Sidewinder I figured I'd be up for the challenge of doing it on my rebreather too - combining AC with TDI Full Cave CCR. What I didn't stop to think about was that I'd be doing AC on a rebreather and tacking on a hefty TDI course too, all while adjusting to owning my first home, running the active business that came with that home, and sorting out all the things that come from a breakup and an interstate move. I was stretched pretty thin, but I was used to pressure - I felt like I'd been trapped in a pressure cooker for all of 2020 and well before that everything I'd ever done with the military or for space-related projects had involved extraordinary levels of pressure too. So I started the course tired, but confident I'd manage everything that week above and below the waterline. And for the first 3 days of the AC course everything seemed fine. I was managing that outside pressure, felt comfortable and confident with the skills involved with the course, had readily taken feedback and immediately integrated it into my diving. I still felt bloody tired, but good about how everything was all going - I just needed to get to the end of Day 5 and get the course done.

We started Day 4 early at Pines, ready to finally enter the Advanced Cave areas and demonstrate skills we'd been polishing in Goulden's the days before. I geared up, waddled down the stairs, and then gently flopped backwards into the water trying to avoid disturbing the bottom near the last step. The moment I did, I heard an ominous "gulg" sound

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come from behind me, and immediately realised I'd left the rebreather loop behind my shoulders with the DSV open - the unit was flooding! I pulled the loop over my shoulder, closed it, checked the ppO<sub>2</sub> was still safe, then reopened it to take a couple of test breaths to see if I'd stopped the flood in time. The counterlung made a bubbling sound, the ppO<sub>2</sub> went haywire, and I immediately closed the loop again - it was clear the unit was completely flooded.

The Advanced Cave course isn't the time to have an easily preventable equipment failure and if I wanted that TDI certification I needed to fix the unit and get back in the water ASAP. Jon and Laurence were on the same course, so they went for their first dive with Rubens while I worked with another diver on-site to furiously dry out the canisters, counterlung and those all-important oxygen sensors. The truly bizarre ppO<sub>2</sub> readings on my NERD made it clear water had gotten into wiring between the O<sub>2</sub> cells, so we focused our attention on drying the connections while changing the sorb and testing that nothing else had been damaged. An hour later the unit was back together and the O<sub>2</sub> sensor readings had stabilised - just in time for Jon and Laurence to surface with Rubens. So I recalibrated the sensors, ran through my checklist again and began my pre-breathe to kick off my first dive of the day two hours later than planned.

That first dive was naturally intense but relatively uneventful in retrospect. I followed Rubens down to the Dark Room while repeating skills we'd done countless times already; before turning around and doing a bailout ascent while managing the reel and collecting a stage and a jump on our way out of the cave. During the dive I'd seen the ppO<sub>2</sub> readings start to bounce around a little unpredictably, and

suspected that the cold was causing condensation to form in the cell wiring again. At one point the variation between the cells was enough to briefly cause a voting error before the cells seemed to stabilise again - not a dive ending event, but certainly something to watch carefully during an already intense "almost end of the course" kind of dive. Just after that voting error I remember thinking: "You're doing fine here... but I'd probably have called this dive and gone home for the day if this wasn't my AC course." In retrospect I know I *should* have called it right then... but it *was* my AC course, and after so much waiting and effort I was determined to see it through to the end. We finished that dive safely and surfaced without any other issues.

The second dive started an hour later in almost exactly the same way. I saw another voting error on descent, and really started to lose faith in the readings I was getting from the O<sub>2</sub> sensors... but this was my last dive for the day, so that voice of caution was quickly silenced by my own overwhelming desire to "just get this done." I'd been waiting so long to do this course and it would open up so much if I could just keep it all together to the end of this dive. Besides, I'd have all afternoon to fully dry the unit and test the O<sub>2</sub> cells before the relatively easy dives in Tank the next day!

We headed down to the Wedge Room where Rubens made me turn off all my lights and then navigated back out of the cave in the dark. Working our way back passed the stop sign and up through the chimneys, we paused briefly at 4-6m to get everything in order before popping out into the main chamber where I'd collect my stage and the final jump spool. That little pause was the perfect opportunity to not just sort out my reel, but also to ensure my breathing loop was safe. But I didn't, and it wasn't.

Focused on the course skills and now slightly distrustful of my cells, I hadn't been adding as much O<sub>2</sub> to my loop during the dive: what if they were now wet and reading low, so adding too much led to a hyperoxic convulsion? The reality is I shouldn't have breathing from a loop I didn't fully trust, but if I'd stopped to think about it there was no physical way I could exceed a ppO<sub>2</sub> of 1.6 anyway because I was back above 6m! But you're not thinking about that when you're *already* on the verge of hypoxia -

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you're just on autopilot and getting fuzzier by the second.

My last completely clear memory is unclipping my stage cylinder from the line at 4m. I have a hazy memory of clipping the stage on and struggling a little with the bottom clip, then following the line down to my jump spool, collecting it and the cookies at either end, before following the line back to about 2m where a reel had been tied from the surface. There's a very faint memory of untying the surface reel and having Rubens appear on my right-hand side to shake my hand for a dive well done, and then having him signalling "What's your ppO<sub>2</sub>?" The next thing I remember is sitting upright on the bench outside the cave, with the top half of my drysuit removed, and having someone I didn't recognise asking for my full name, address, what day it was, if I knew where I was, and if I knew what had happened. What was clear was that something very bad had just happened, but I didn't know what it was.

About halfway through giving this unknown person my address, I realised they were probably trying to measure my GCS - the Glasgow Coma Scale that gets used to determine the consciousness level of someone who's in a coma or has suffered a brain injury. As I answered I looked down from their face and realised I couldn't see anything except their t-shirt because my vision had narrowed to a tiny spot. My muddled hearing told me there was a LOT of people nearby even if I couldn't see them though, and over the next few minutes my awareness gradually opened enough for me to see an ambulance nearby as two paramedics brought a stretcher up to the bench. They asked me if I was okay to climb across and I was and as they rolled me to the ambulance, I saw someone I recognised and knew I had to apologise too. Was it Will, who supposed to be finishing his CDAA crossover course with Rubens immediately after my dive? Or was it Rubens, who I was sure I was just diving with? Whatever had happened and whoever I was apologising to, I knew I'd put a serious dent in their day.

My vision and hearing started to come back quickly in the ambulance, so much so that I gave a half-hearted attempt at flirting with the cute paramedic in the back - she repaid my efforts by smiling then stabbing me with a fluid line. By the time I was

admitted to Mount Gambier Hospital I was lively enough to crack jokes with the staff about falling asleep underwater, and all indications were that I'd be completely fine. My initial blood samples indicated I had elevated levels of an enzyme often associated with heart damage, but which also shows up after hypoxic events. No one thought I'd had a heart attack, but out of an abundance of caution the doctors decided to keep me for an extra few hours to make sure the enzyme levels dropped again to be certain it was "only" an underwater hypoxic blackout. It was 10 pm by the time the all-clear came back, so we all decided it'd be easier for me to stay in overnight.

I've got absolutely no memory of what happened that day in the 20 minutes between undoing the reel at 2 meters and then suddenly finding myself sitting on a bench answering questions with tunnel vision. But I do know a lot of really good people acted quickly to keep me breathing when I wasn't conscious enough to do it myself, and who made sure I didn't hurt myself or anyone else as I started to come around. I'll forever be grateful to Rubens for being the first to see something was wrong and immediately recognising it for what it was - his quick response and the actions of Pat and Helen (who surfaced right behind me) are almost certainly the reason I never completely stopped breathing, and why I never got water in my lungs.

The call for help from the waterline was heard by eight CDAA divers in the Pines carpark, and all of them responded with everything they had. I'll always be grateful to Danny, Shane, April, Andrew, Laurence, Jon and Burak for acting as quickly as they did to get an O<sub>2</sub> reg in my mouth and using it to get me breathing properly again, for trying to help me as I lashed out in confusion when I started to come around, and for holding me steady as I walked up the stairs to the bench - I don't remember any of it, but I'm thankful you were all there and I'm sorry you had to see me like that. I've been in your shoes trying to keep friends alive, and it's almost always scarier and more damaging for the folks trying to help than it is for the person or people who need the help - thank you all for what you did.

One of the worst things I've ever had to do was to make a casualty evacuation call for a dying friend, so I'm especially aware of the impossible situation I placed Will in that day as he made the call to triple-



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O. Will had just parked when the call for help went out, but with no phone signal near where I was being given O2 he had to try and pass information to an emergency dispatcher without being able to get close enough to answer their questions about my situation. It also didn't help that he had to somehow provide an address for a cave in the middle of a pine forest. As regular cave buddies we trust each other with our lives, but I'm sorry I tested it that day and especially sorry I delayed his final crossover dive!

Another of the worst things I've ever had to do was walk into an Emergency Department to see a partner after a near-fatal accident, so I'm grateful for the concerned but calm care that Chloe responded. As soon as Rubens contacted her she immediately jumped in the car and drove the 2.5 hours over from Horsham to see I was okay in person, stayed long after visiting hours ended, and used her own medical expertise to translate the discussion about those elevated enzymes for me. Before Chloe arrived, Rubens, Danny, and Will all managed to visit ED too and check I was okay - each helping me to understand what had happened in those critical 20 minutes I don't remember. Laurence & Jon tried to visit too, but the ED nurses decided I'd already been turned into enough of a rockstar patient and wouldn't let them exceed the visitor cap.

It meant the world to walk out of Mount Gambier Hospital the next morning to be greeted by Chloe and Will carrying my soft toy wombat "Big Russ." It has also meant the world to have so many folks throughout the CDAA check-in to make sure I was okay both physically and mentally in the weeks after it happened. The support from the directors in particular has been exceptional and the entire experience made it clear to me just how tight knit the small cave diving community in Australia is. Like any family, we grumble about each other at different times, and that can occasionally spill out into outright hostilities and feuds. But when someone is in real trouble, Aussie cave divers will drop everything to help any way they can. I'm immensely grateful to be part of a community of folks who not only pulled together to literally save my life that day but have also encouraged me back in the water to finish my AC course... while also good-naturedly reminding me where the O2 button is on my rebreather!

If there is anything else to take away from this entire experience, it's to slow down. Even with a couple of decades working, teaching and playing underwater, my circumstances above the waterline meant I was trying to do too much too soon, and I only narrowly avoided a permanent brain injury or death as a result. Cave diving and rebreathers are both amazing, but they're also pretty unforgiving if you don't do things properly - try to remember we're all involved in an incredibly rewarding but slow-paced *sport*. There's plenty to see at every stage of training, so take your time and enjoy it: call the dive if things don't feel right, and no matter what you're doing, keep asking "What's my ppO2?"

**- Josh Richards**

***This article was originally published in the June 2021 edition of Guidelines, the official newsletter of the CDAA (Cave Divers Association of Australia) and as been reproduced with the permission of the CDAA and the Author***



For those of you that listened to Gareth Lock's presentation to the Club, you may recognise the strong parallels with this story and the video "If only..." about the tragic death of Brian Bugge during his CCR in Hawaii training in 2018.

**link: <https://www.thehumandiver.com/ifonly>**

Two very motivated divers keen to extend their experience and qualifications but at the same time busy with their home and work lives. In both cases, the dives went very wrong. In one case the diver died. In this case he fortunately survived, but it was very close. The message is clear: do not overload yourself with tasks and never rush.

## LOCAL DIVE REPORTS

### Big Show, Little Critters

For me there has been an upside to Lockdown: it has forced me into diving Blairgowrie a lot more than if things had been a bit more normal. When I dive there, I always focus on the small things and share what I find on iNaturalist, the Nudibranch Victoria Facebook page and with the Marine Research Group of the Field Naturalists Club of Victoria. I love the hunt and finding the unexpected.

I have been surveying Nudibranch species at the site for many years and what I can say with conviction is that Lockdown has been good for Blairgowrie. The lack of dive traffic has allowed the small stuff some relief from careless fins and it is thriving as a result and numbers of many species are increasing.

I have hundreds of dives at Blairgowrie and the thing that keeps me going back is finding animals I haven't seen before. Over the last few weeks I have found several species of Nudibranch that have the Nudi Nerds very excited and seen some new behaviour in some old favourites. Here are some of the highlights.

**- Ian Scholey**



*Cerberilla sp. - new species laying eggs*



*Skeleton shrimp on seagrass*



*Jorunna sp. - nudibranch laying eggs*



*Flatworm rearing up with its mouth open*



*Marionia sp. - a new species for the survey*



*Short-headed seahorse on a pylon*

# MILES



## The history of a private dive boat

**by John Lawler**

The history behind this dive boat's life in VSAG begins around 1964 on an Easter trip to Tidal River. I had never really noticed boats, so when I saw a group of them gathered around tents I was totally fascinated. The next year I was at Tidal River and again saw the same group of boats, curiosity led me to ask what they were, and I was informed they were boats owned by members of a dive club called VSAG.

Max Synon (older members will remember Max) was the guy who told me a bit about the club and that the monthly club meetings were held at the Collingwood Football Club and visitors were welcome. I had completed my dive course that year, so I attended my first VSAG meeting. I was advised that a check out dive was necessary for a member to be accepted and was given the information about location, times and all personal dive gear required.

As most of my diving so far had been from the shores around Kilcunda and San Remo, the invitation to dive from a boat was very exciting. Mick Jeacle was the DC at Flinders on this day, and he led me over to the owner of a Haines

Hunter 17L powered by an Evinrude Sports 150HP outboard. The boat owner was Geoff Birtles who, when we actually met, said "Ah..another old bastard..you'll fit in well here mate"..and I was only 42!

The Flinders beach boat launching procedure, the flying high speed run down to Cape Schank, the backward roll entry, watching two massive crays being extracted and shellfish removed by my first buddy was more exhilarating than I can express! My basic dive gear and checkout dive passed an initial inspection, which even surprised me as I had never done a backward roll into the sea!

To this very day I remember every bit of it and over the next week I spent a lot of money upgrading my gear based on what I saw. I made the point to myself that this was what I wanted to do, and these were the people I wanted to be with, the people I want to dive with. I had passed my check out dive, became a member and, in the main, a "hunter gatherer"!

So over the next 12 years or so I learned much about boats from driving them and diving with the many experienced divers in the club.

# MY DIVE BOAT

## My first boat: Hunter Two

It was of course a Haines Hunter 17L. At the time the club had about 5 such boats, and they were legendary and much admired. They were just the right boat overall for a 4 diver crew. Initially my boat was under-powered with a 90HP engine so I eventually upgraded to a new 130HP Yamaha. What a difference!!

This boat ventured to places “far and wide”, Tidal River, Port Lincoln, Streaky Bay, Inverloch and countless trips to Sorrento.

After a couple of years in the club, I was asked to join the Committee and I noted that the club had no safety policy or guidelines, so I wrote a set which was presented to and accepted, firstly by the boat owners, and then the members.

Time rolls on and it was time to say farewell to my great Haines Hunter 17L

In 2000, John Stav of JV Marine mentioned to me that his business was moving to a new site on Springvale Road and they were keen to sell boats from the current Clayton site and was offering good discounts. We looked over many boats and decided on a Haines Signature 6.10 metre. It was such a great looking boat, and powered by a Yamaha salt water series 175HP outboard.

We named the boat “Miles Ahead” after the legendary jazz trumpeter Miles Davis, of whom I am a great fan. Regardless of its official name, it was more commonly recognised as “Signature One”, its call sign.

The boat was progressively upgraded with all the modern systems used for safe diving and boating, depth sounder, GPS, EPIRB, AM/VHF Radios, Ipad Chart Plotter and specially designed removable stainless steel tank racks and protective side mats to protect the sides of the boat from diver backward roll entries.

Six years ago the original trailer was badly rusted out, and a rebuild was carried out by members of VSAG, with David Flew project managing the rebuild in his home garage. We reckoned we could get around 3 years out of the build and sure enough, after that time, the trailer was again unsafe and a new trailer needed to be purchased.

Many, many divers have enjoyed their time above and below the waters from MILES. New divers, experienced divers, deep wreck divers, the numbers would be too difficult to calculate but probably some hundreds. MILES AHEAD is also featured on the front cover of the “VSAG 60<sup>TH</sup> ANNIVERSARY BOOK”

Apart from diving there were the social boating days on MILES: trips up the Yarra and the Maribyrnong with VSAG, grand-kids fishing, and fish and chips ordered from the shops in Half Moon Bay and Williamstown. Quality boating!

We also had great times over many years fishing from MILES out from our boating and fishing club, the Beaumaris Motor Yacht Squadron where we have been members for 25 years. Up and on the water around 4 am, excited when the reel screams with a great snapper hooked up. And the bonus, watching the sun come up was just magic. The best catch was a 12.5 kg snapper, now preserved and hanging in our garage.

MILES was launched from many ramps: Metung, Bemm River, McLoughlins Beach (two 50 km runs out the Glenelg wreck), Newhaven, Flinders, Queenscliff, Tidal River, Cape Jaffa, Newport, Stoney Point, St Kilda, Safety Beach, Mornington, Rye, Half Moon Bay, Brighton, Altona...and hundreds of launchings at Sorrento.

MILES was also involved in searches for the Coramba, the Long Shot Project, burnt jet boat parts out from Brighton, and the Pacific Wanderer.

For most of the life of MILES, my “never fail” Mitsubishi Pajero 3.2Ltr Turbo Diesel was the towing vehicle. It clocked up a faultless 300 km before we sold it.

So now, with life style changes, new horizons, and diving days slowing down, it was time to say farewell to MILES AHEAD. On Friday 16<sup>th</sup> February 2018, after 18 years, my beloved boat was sold and now lives near Bairnsdale.

To all who came aboard, we truly appreciated your fine company, support, advice and so many, many fun times and great adventures. Thank you!!



# LOST AND FOUND

## Reely Bad Luck...

If you have dived long enough, chances are at some stage you've lost some components of gear either through incorrect use, gear failure and/or sheer stupidity. Losing gear just seems to go hand in hand with diving and sometimes I've even seen gear tossed overboard without tether or thought? (JL's copped his fair share of incidents). Is it the excitement we face for the dive ahead where all normal rationale goes out the window? While leaving your gear behind on someone's boat, at the carpark or on the pier happens often and can be annoying, it's the incidents on/in the water that seem to bring about the most anguish & unresolved heartache, yet at the same time can be wildly amusing.

In the early 90's I recall when new to diving, I shelled out almost \$200 for a big kickass orange Pelican torch. It was all but a couple of dives old before I watched it float to the surface, never to be seen again. I had no idea it even floated? Back then \$200 was a lot of money as a youngster. I can not recall why or how it came off my wrist lanyard but I can vividly still recall watching it spiral up and drift away in the fast currents of Port Phillip heads. Drift diving and leaving the rope was not an option, and so the memory has stuck.

I have lost several torches, even a fin off the Campisano boat (that was a sheer stupidity moment on my behalf), a wrist computer coercing a cray, flooded camera, to name a few.

Fast forward to March 2017, and it's still going on. Cray diving off the boat around the back of Woolamai with the VSAG group, coming to the end of the dive I reach around to right hand side clip to grab my SMB reel set up and guess what: it's not there? First thought, did I pack it? Did I jump in with out it? Did I lose it despite an oversize clip? Yep naturally of course it's the latter! Somewhere, somehow, its disengaged itself. I was now in the depths of despair.

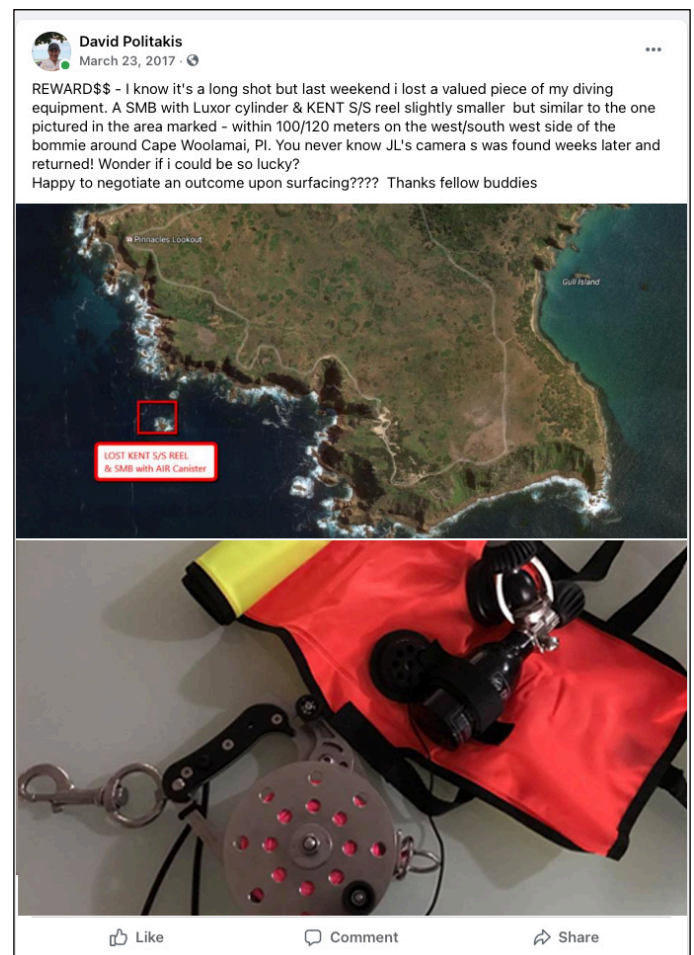
For those of you who know me, I take safety in diving pretty seriously. One of my most valued bits

of gear is my Kent Stainless ratchet reel and at the time self-inflating safety marker. Not a cheap set up, but one I appreciated in safety terms. Gone.

We also all know how costly diving and associated gear is also, especially when you buy specific quality gear from overseas tooling manufacturers. That is why when I lost my favoured Kent Stainless steel ratchet reel combined with a self-inflating mini Luxor cylinder SMB set up, I was ANNOYED. The chances of ever seeing it again or the effort/cost required in replacing it quickly sunk in.

After a week of annoyance I thought bugger it, I will swallow my pride & I will try my luck with a Facebook post amongst the club. John Lawler a month prior had a camera found some time later by an associated club member and returned, so I constructed the below post, not expecting much more than a barrage of smart cracks.... but as they say "if you don't ask, you don't get!"

**- David Politakis**



# LOST AND FOUND

## ...Buoyed Up!

It was one of those dive days, up early with anticipation of coming home with 2 large tasty red Victorian crays. Even now after nearly 8 months of almost no diving because of COVID lockdowns I can feel the adrenalin building as I type this. What made it even better was, I did not have to get my boat, this time on someone else's boat "Stroker", a fierce hunting vessel for cray bashing (I am told by the owner!) with one of the VSAG's best cray finders.



For those that have enjoyed Stroker's benefits, of hookah diving, it truly is one of the best ways to dive for crays. If I remember correctly, it was the second dive of the day. Spirits were up for bagging out, Peter Galvin was in fine form. I was still hunting for crays, looking under rock ledges, finding empty holes, scanning the sea floor looking for anything unusual. Working my way around some rock bommies there it was, was it a soft sponge? Nonetheless it looked strange. The red colours were filtered because of the depth, I couldn't see the reel as it was buried. If you have one of these self-inflating SMB's or seen one they are big, especially when adding the inflation bottle. But there it was just sitting in the sand waving to me from the influence of the swell.

Pulling it out of the sand I realised what it was, and I thought at the time, why would a cray want a self-inflating SMB, what idiot would leave one down here, then it occurred to me this is Dave's lost SMB & reel! But I needed to check the Facebook post. I remembered his post as I too have lost a few items to Cape Woolamai including a large yellow cray

bag, abalone knife, weight belt and a torch or two. If any of you see some of these items down there in the water please contact me.

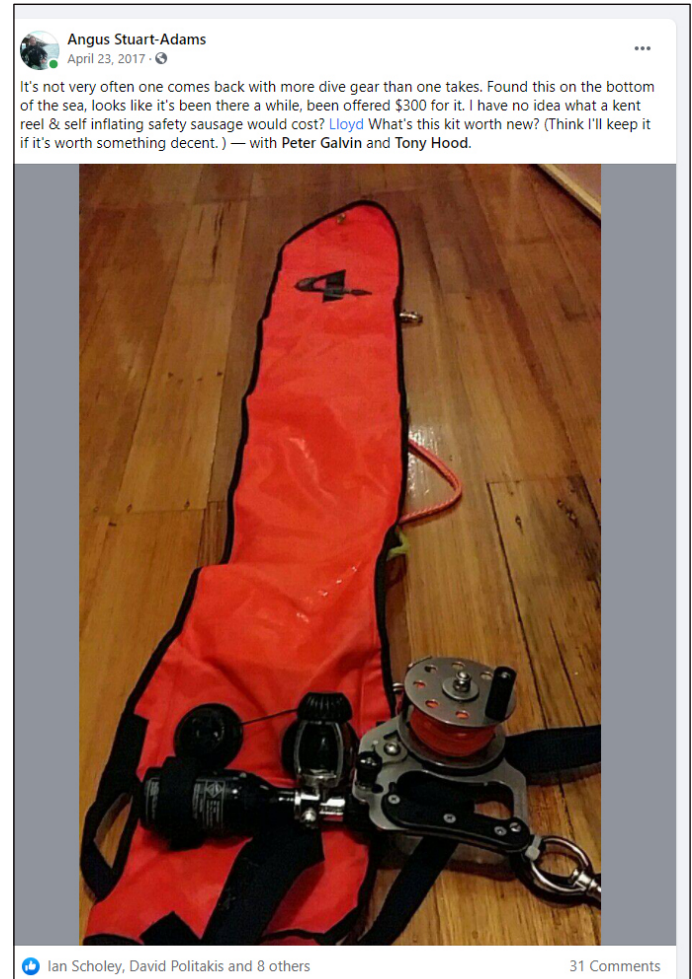
After checking and contacting David, confirming it was his we thought let's have some fun with this. It was a good outcome. So, what does one do, I post on Facebook to see if anyone remembers these "Lost" posts? Sure enough, several people remembered David's post and after a little bit of banter with the divers commenting on my post we let everyone know it was David's.

I must add, David was more than generous with his appreciation. It was a great outcome for all including a bit of fun at his expense.

Sooo it never hurts to post a lost and a found, as I have great belief divers are very honest.

Oh, and I can advise that the gas cylinder still inflated the SMB when I tested it.

**- Angus Stuart Adams**



## LOCAL DIVE REPORTS

### Cowes Jetty - Philip Is.

4<sup>th</sup> October 2021

I had planned to dive San Remo jetty. Being just after the change to daylight saving, I checked the BOM tables to make sure the tide times were in Eastern Daylight Saving Time.

I arrived 60-75 minutes before the tide, but the tide already looked quiet. It was difficult to tell with the strong NW wind blowing onshore. I decided to wait for a while and then get geared up, but by the time I had entered the water, the tide was well on the way out and at least 30-40 minutes before expected.

Oh well! A quick return to the car. Tanks and weight belt off. And a drive across the island to Cowes. The strong wind was playing havoc near the jetty, with large white caps and waves breaking on the beaches. I had dived in conditions like these many times so decided to dive. The tide had turned at Cowes also but there is a much longer window to dive compared with San Remo.

Lots of sea urchins with an amazing array of colours, lots of pygmy leather jackets and box fish but the highlight of the dive was an interaction with a medium sized octopus.

I flattened myself on the bottom and crept on my elbows toward the animal, all the time looking through my camera screen. After a short while I felt my camera move and flipping it over saw the octopus exploring the housing with a long extended tentacle. It quickly retracted the tentacle. Shortly after I felt something on my hand. Even though I am not scared of octopus tentacles, the slight movement of my hand caused the octopus to withdraw the tentacle and then disappear into its little cave in the sand.

It was not until I downloaded my photos that I noted I had inadvertently captured "the event" with one photo showing a tentacle beginning to roll out toward me and then another photograph with it fully extended exploring my hand.

- **Peter Mosse**



### Bad News For Crays

After a winter service for the boat and compressor I finally got out for a dive in the Bunurong Marine Park. I rarely dive the marine park because I don't have any GPS marks (Does anybody have any?). Surface conditions were good but the water temp was 13°C and the visibility about 8m. Only 6ish weeks till cray season. I've also switched to the DJI Osmo Action camera after previously using GoPro Heros 2 & 4. \$325 on Amazon + \$25 for the dive housing

- **Rowan Salger**



## MEMBERS STORIES

### A Warming Story

As a diver I suffer badly in cold water, even in a dry suit and thermal underwear. I found a medical supply company in West Footscray which had a range of different heat pads. I called and spoke to a consultant explaining why I was seeking a heat pad. The next day I received my new heat pads at a cost of \$25 each. I activated the pad and placed it between my shirt and jumper. Very comfortably hot with a gradual cooling over around an hour. Perfect. To reuse, it is placed in a tray of boiling water and after about 30 minutes it is ready for use

Thinking about the use under a dry suit I designed a rough vest prototype. We have a great Chinese seamstress in our area who attends to locals clothing repairs and adjustments. We had a conversation about the design. I was advised to go to Spotlight and select suitable material for the vest and webbing, and it would be made in few days.

The end result was very good but several adjustments were needed and promptly completed.



I had an opportunity to “test dive” and the result was excellent. In 11 degree water I was still warm. But the vest was on my chest and my back was cold! So a second pouch was made for the upper back. Another dive and the result was even better. However while the vest seemed like a good idea at the time there were just too many straps to contend with so now I find it easier to manually place each pad, but I do need a buddy to help place the back pad.

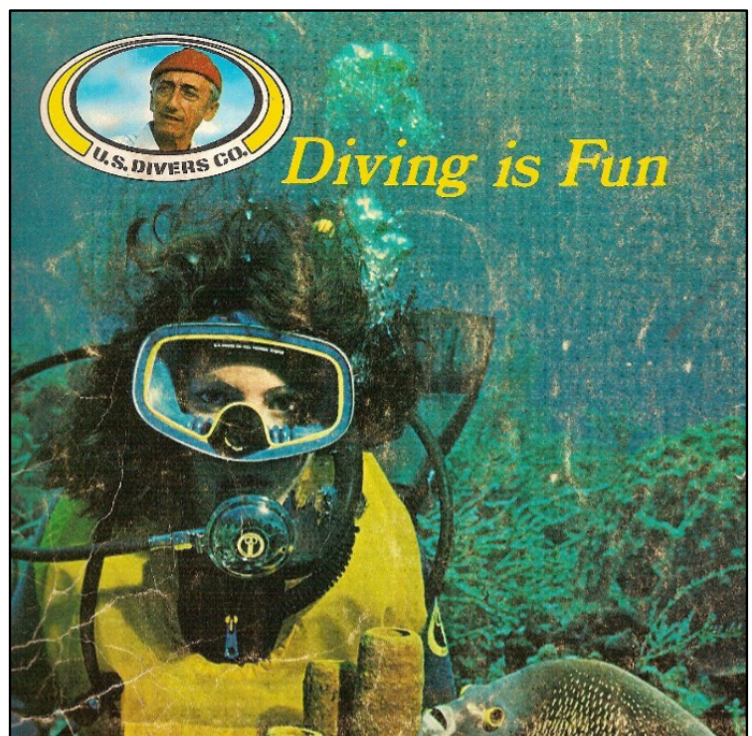
**- John Lawler**

### First Generation Buoyancy Control

I was looking at the covers of some folders I have used for my business accounting for many years and I thought club members might enjoy seeing these photographs from 1978.

For those members old enough, they will remember these and smile. For those younger; they can imagine what it might have been like to use these “horse collar” vests and groan!

**- Peter Mosse**





# VSAG Committee 2021-2022

**President** - Matthijs Smith

president@vsag.org.au

**Vice-President** - Walter Medenbach

vicepresident@vsag.org

**Treasurer** - Angus Stuart-Adams

treasurer@vsag.org.au

**Secretary** - Stuart Cousins

secretary@vsag.org.au

**New Members Coordinator** - Ian Scholey

ischoley@me.com

**Safety Coordinators** - Stuart Cousins & Matthijs Smith

matthijs.smith.1984@gmail.com

**Travel Coordinator** - Ian Scholey

ischoley@me.com

**Merchandise Coordinator** - Jeremy van der Beek

jeremy.vanderbeek@eview.com.au

**RS Coordinators** - Brian Heatherich & Walter Medenbach

brian.heatherich@outlook.com

**IT Coordinators** - Angus Stuart Adams & Walter Medenbach

waltbach@gmail.com

**Equipment Coordinator** - Brian Heatherich

brian.heatherich@outlook.com

**SDSV Representative** - Peter Galvin

galvo350@gmail.com

**Club Awards & Points** - Arthur Kokkinos

arthurkokkino1718@gmail.com

**Photo Competition** - Ian Scholey

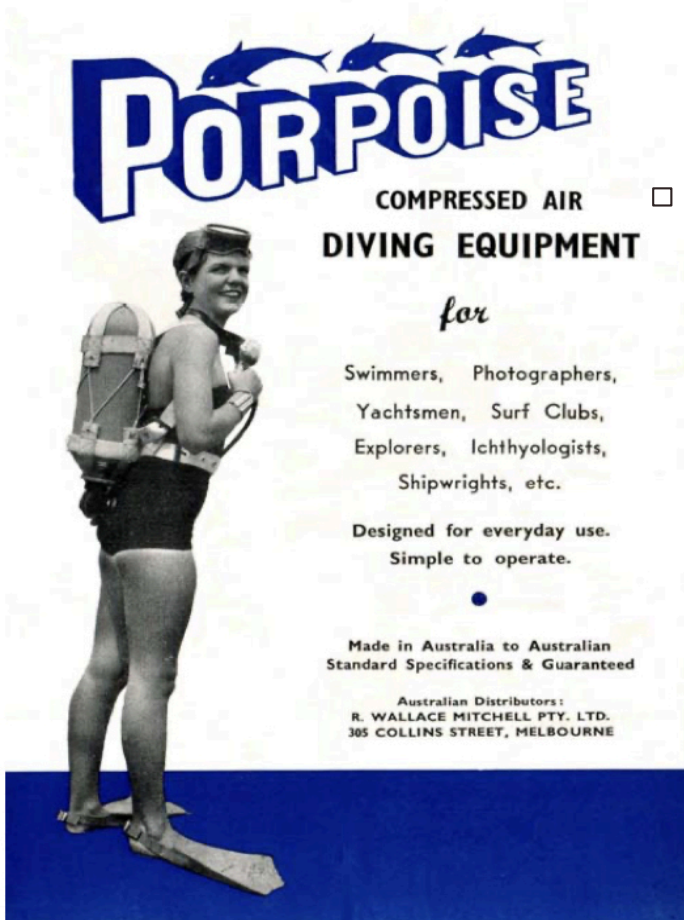
photos@vsag.org.au

**Chief Archivist** - Ian Scholey

Ischoley@me.com

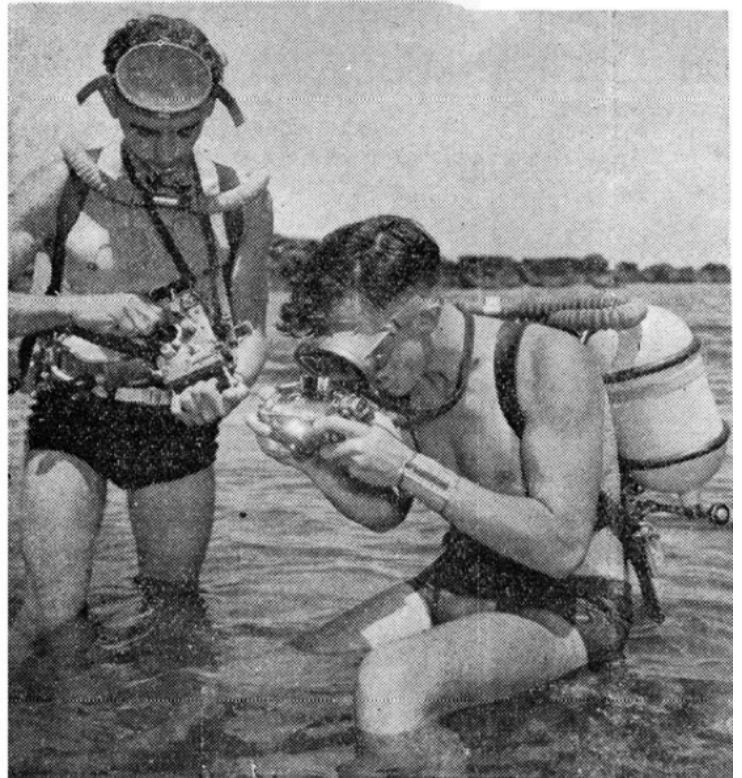
**Fathoms Editors** - Peter Walters & Peter Mosse

editor@vsag.org.au



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**They hunt beneath the  
sea—with a camera**



**READY FOR ANOTHER** plunge into the world under water, Bill Young (left) and Don Wicks adjust their cameras, watertight in their home made cases. The aqua-lungs are home made, too.

# Emergency Contact Information

Anywhere on Victorian Waters, your first response should always be to call

# 000

or call the Water Police on 1800 135 729

In the event you cannot place a call, use

## VHF Channel 16

and follow the Radio Emergency Message Protocols shown below.

If all of the above fail, activate your

## EPIRB

## Radio Emergency Message Protocols

Ensure all vessel passengers are familiar with the operation of a VHF radio and the following process for placing a Mayday or Pan Pan call

**Speak slowly and clearly**

### **Mayday call**

*Vessel or an occupant is in grave and imminent danger and requires immediate assistance*

### **Distress call**

Mayday, Mayday, Mayday

this is

*"Name of your vessel", "your call sign" x 3*

### **Distress message after call has been acknowledged**

Mayday

*"Name of your vessel", "your call sign"*

Vessel position (GPS, bearing, what3words)

Nature of distress and assistance required

Other useful information such as number of persons on board, vessel description, life-rafts, EPIRB, etc.

### **Pan Pan call**

*An urgent situation exists but there is no imminent danger*

### **Urgency call**

Pan Pan, Pan Pan, Pan Pan

All Stations x 3 (or *"specific station"* x 3)

*"Name of your vessel", "your call sign" x 3*

### **Urgency message after call has been acknowledged**

Pan Pan

*"Name of your vessel", "your call sign"*

Vessel position (GPS, bearing, what3words)

Nature of distress and assistance required

Other useful information such as number of persons on board, vessel description, life-rafts, EPIRB, etc.