

# PERISCOPE

The Malayan Sub-Aqua Club Newsletter

## Captain's Log

# MSAC Diver Training ... Maintaining Momentum



As a Club affiliated to The World Underwater Federation (CMAS) and a member of the Technical Committee, MSAC provides diver training in line with the best standards in the industry, following the minimum parameters set down by CMAS.

With continuing research, diver training has evolved with advanced speciality training for the technical diving fraternity and a more relaxed user-friendly training regime for the recreational diver.

All responsible diving associations provide comprehensive training programmes for even the newest diving recruit and these are delivered through appropriately trained instructors.

Ultimately the standard of training that a diver receives depends on the quality of the instructors involved. While the vast majority of dive instructors are committed, there are a few who choose to pass divers even if they do not

measure up to the minimum standards set by their association. This puts divers at risk.

In MSAC we have a 60-year history of diver support and training and continue to expect Open Water or other divers trained with us under CMAS programmes to meet high standards of both theoretical knowledge and practical skills. Our philosophy is that a knowledgeable and skilful diver is a safer diver and better able to enjoy the wonders that recreational scuba diving offer.

MSAC's latest innovation is the adoption of online examinations, which allow our instructors to set and customise diver exams to suit the level of student and knowledge required and to analyse their results so that areas of weakness can be identified and remedial training offered.

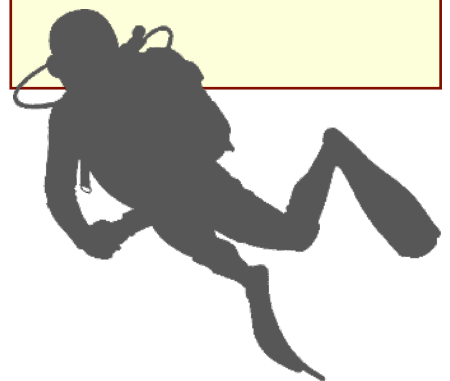
Maintaining momentum in quality diver training is an MSAC mantra and one we will continue to adopt for the betterment of our students.

## Upcoming Events & Dive Trips

**November 9th to 16th**  
MSAC 60th Anniversary  
Mabul/Sipadan OWD

**December 4th**  
MSAC AGM & 60th  
Birthday Bash at the  
Carlsberg Brewery.

... check out our website  
[www.msac.org.my](http://www.msac.org.my) for more  
details.



The **Malayan Sub Aqua Club (MSAC)** is one of the oldest SCUBA diving clubs in Malaysia having been formed in 1959 in Kuala Lumpur.

MSAC is a non-commercial, non-profit, multi-racial club for recreational SCUBA diving enthusiasts who are either already qualified as SCUBA divers or wish to take up the sport.

MSAC is focussed on conservation and diver safety. MSAC is a sports club with its HQ in Kuala Lumpur.

MSAC is the Malaysian representative within the **World Underwater Federation (CMAS)** and is a member of the CMAS Technical Committee. MSAC issues internationally recognised CMAS diving qualifications to suitably qualified divers.



CMAS

# First Time Diver ...

... Wendy Tan takes her first steps to becoming an MSAC Open Water / CMAS One Star Diver

## WENDY'S REDANG REPORT

Open-Water Diving Course - Pulau Redang (6th-9th September 2019)

About the resort. I loved it.

**1st Dive:** Shore Dive. For a beginner, a pleasant 5m dive with the sandy bottom and scattered corals still well-lit by the afternoon sun.

Heavy, to walk with scuba gear donned, I realised. Was very comfortable with the exercises, e.g. mask clearing, inflation hose off-on, regulator retrieval, fin pivot.

**2nd Dive:** First Open Water Dive, Comfortable with back roll entry off the boat, and with exercises at 9 meters.

**3rd Dive:** Did emergency buddy ascent exercise. Was delighted with the sighting of an eagle ray and moray eel, as well as a purple nudibranch.

**4th Dive:** Exercised alternate air-source ascent as rescuer and donor. Comfortable with a deeper dive to 15m.



the dive team heading out to Redang



kitting up and buddy checks

**5th Dive:** On the 5th dive was a bit tired out though looking forward to completing the course. Was having problems recalling time, depth and plan while underwater. Although I was observing the dive computer, it took a little more effort for me to take in the time and I still had difficulty recalling the details at the surface (it will be easier with more experience and self-preparation on the planning of future dives).

**6th Dive:** By this last dive, I was unable to log my dive on my own. Was drained mentally. This dive, was the most exciting though tedious dive of all 6 dives due to choppy waters. I was happy to be commended by Trudy for being "a strong diver", for the exercise of towing of an unconscious diver. Altogether, the trip was a great experience.



it's all OK underwater

# BOOKCASE . . .

*interesting and useful publications for divers and underwater enthusiasts.*

## 'THE PHYSICS OF SCUBA DIVING'

'It's a numbers game ...'

While scuba diving is a physical recreation, unlike many other sports activities it is hedged in on all sides by mathematical formulae and scientific elements.

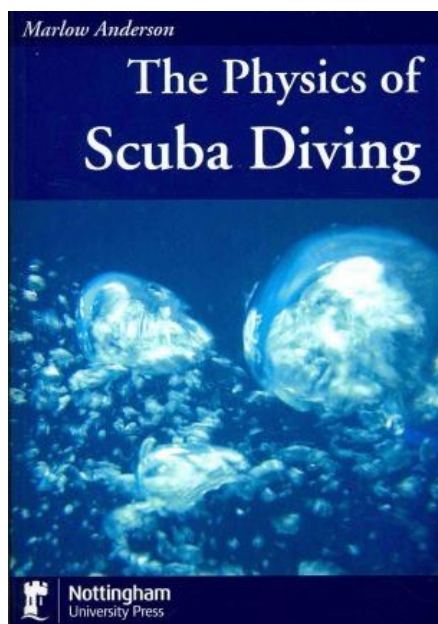
Even the novice scuba diver needs to be familiar with pressure/depth/volume relationships, the impact of pressure on body fluids, calculations involving air consumption at depth and a host of other physical, biological and chemical aspects unique to this fascinating sport.

For many, the technical and mathematical elements of scuba diver courses are distractions (though admittedly necessary) from the real purpose of learning scuba diving, that is ... getting underwater and experiencing a whole new world.

For others, understanding the science behind diving in greater detail is a fascinating added benefit to taking up scuba diving, but at times the maths and physics can be somewhat daunting.

'**The Physics Of Scuba Diving**' therefore provides a fun introduction to the mathematics and physics needed to really understand scuba diving.

Written by **Marlow Anderson**, a mathematics professor at The Colorado College with a passion for science and scuba diving, the book does not assume a mathematical or scientific background, and is written for the lay person in an easy-to-read style.



## TOP TIPS - KEEP YOUR DECO KNOWLEDGE UP TO DATE

Dive tables, such as the US Navy tables illustrated here, are mathematical expressions of decompression theory and experiential real time data. They serve to recommend limits for depth and time for recreational divers performing single and repetitive dives without the necessity for decompression stops before accessing the surface. While the variability of the dive environment and divers themselves means that no table recommendation can provide a 100%

guarantee that decompression sickness (DCS) will not occur, tables (and their electronic counterparts, dive computers), when used with care, provide the best available protection against DCS and the ability to enjoy scuba diving in safety. Numerous publications offer insights into new research that advances the understanding of decompression theory and how it can be applied, and divers should seek out the latest information and keep up-to-date with the most current knowledge available.

The book describes all of the basics regarding pressure, depth and density, covered more completely than in the typical open water diving course. But in addition, it looks at the mathematical background for dive tables and dive computers, tools divers use to avoid getting decompression sickness.

The book explains the basic Haldane theory of nitrogen on-gassing and off-gassing, in some depth and will appeal to divers interested in a bit more background than is available in the popular literature, and to people interested in how basic mathematics and science has a large impact on the sport of scuba diving.

This is not a scholarly work, and is not encumbered with scientific citations. If, however, you enjoy having a full and comprehensive understanding of the technical ins and outs of scuba diving then you will enjoy and value the added insights that this unique book can offer you.

- Stewart Forbes,  
MSAC Diving Officer

Look for '**The Physics of Scuba Diving**' at your local diving bookstore or at online vendors.