



Text by Simon Pridmore

— The Scuba Confidential column in this issue is adapted from a chapter in Simon's book *Scuba Exceptional – Become the Best Diver You Can Be*.

When we learn to scuba dive, we are given a little knowledge and taught some basic skills. We take a theory test and demonstrate that we can perform the skills and that's it, we get a licence.

Subsequently, as we do more diving, we gradually improve our skills and we experience various problems. By achieving mastery of the skills and dealing with the issues we encounter, we acquire the ability to anticipate problems and to avoid or manage dangerous situations.

As you might recognise, this is similar to the process of learning to drive a car. In diving as in driving, however, what guarantee is there that experience will teach

you everything you need to know?

You regularly encounter drivers on the road and fellow divers on the dive boat who, despite being licensed, and even quite experienced, seem to have poor skills and inadequate knowledge,

to the extent that they present a potential danger to themselves and others. You too may secretly be aware that your own skills are not as sharp as they could be.

In the motoring world, to develop safer and more skilled drivers, there are training courses in some-

thing they call defensive driving. You can choose to take a defensive driving course, or you can be required to take one as part of a traffic court sentence.

The concept was first introduced in the United States in the 1960s. The Safe Practices for

Motor Vehicle Operations manual defines defensive driving as "driving to save lives, time, and money, in spite of the conditions around you and the actions of others." Among other things, drivers learn how to anticipate and assess dangerous situations and

make well-informed decisions. As well as being shown how to drive sensibly and safely, they are taught useful things like how to use less fuel and save on vehicle wear and tear. They are also given guidelines on being courteous to other road users.

Defensive Diving *Part I*

ILLUSTRATION: COMPILED WITH PUBLIC DOMAIN IMAGES FROM PIXABAY



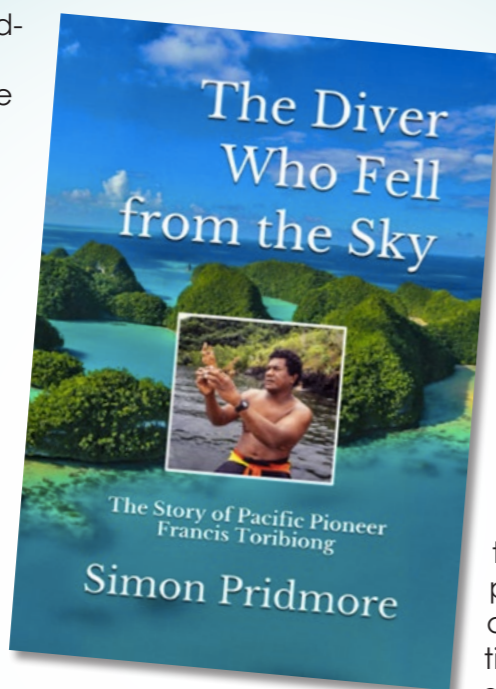
In scuba diving, the closest we come to a defensive driving course is Rescue Diver or the equivalent, but this is usually more about emergency responses than personal skills and awareness development. Some aspects of Divemaster training certainly match the concept of

defensive diving, but this is a professional course. Not many divers actually get that far in their further education.

In this short series of articles, I will describe strategies that I see as intrinsic to the defensive diving concept. I should make it clear that when I use the word

A New Book from Simon Pridmore

When his country needed him most, Palauan Francis Toribiong came along and helped the Pacific island nation find its place in the world and become an independent, forward-looking 20th century state. And he achieved this, improbably, via the sport of scuba diving. This is the inspiring tale of an absolutely unique life, written by Simon Pridmore and illustrated with images of the beautiful islands of Palau, above and below the water.



him this title, people were speaking both literally and figuratively.

Toribiong was so completely different from all of his contemporaries in terms of his demeanor, his ambitions and his vision, that it was as if he had come from outer space. Palau had never seen anybody quite like him and there was no historical precedent for what he did. He had no operations manual to consult and no examples to follow. He wrote his own life.

Toribiong was born poor, had no academic leanings and no talent for diplomacy. Yet he was driven to succeed by a combination of duty, faith, a deep-seated determination to do the right thing and an absolute refusal ever to compromise his values. And, as well as all that, he was Palau's first ever parachutist—known by islanders as “the Palauan who fell from the sky.” In giving

Toribiong was the first Palauan ever to seek and seize the international narrative. No Palauan, in any context or field, had previously thought to go out into the world and say: “This is Palau—what we have is wonderful. Come and see!” This is his astonishing story.

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“defensive” in a diving context, I am copying the example of the motoring world, where “defensive” means safe, careful, conservative and thoughtful. In other contexts, the word “defensive” can mean negative, fearful or resistant to change (not traits to be encouraged in scuba divers at all).

Defensive Strategy 1: View your computer with scepticism

Your dive computer is a useful tool, but it is a battery-operated device with only one or two O-rings protecting its complex electronics from the high-pressure water that is always trying to get in and fry them. At some point, every dive computer fails; the likelihood is that it will fail while it is being used and Murphy's Law of Scuba Diving dictates that this will happen at the worst possible time.

This should give you ample incentive to

keep looking at your computer regularly during every dive. If you do this and one day you experience the sinking feeling of glancing at your computer and seeing that the screen has gone completely dark, you will still be able to remember your depth and time from when you last looked at it a couple of minutes earlier. This will give you confidence and help you manage a safe ascent.

You do not want to suddenly notice that your computer has gone blank when you have not paid any attention to it since the beginning of the dive. Now, you do not know how deep you are, how deep you have been, nor how long you have been down. All you can do is guess at your decompression status as you make your ascent.

Or your dive computer may only partially fail and start giving you incorrect data, which can actually be worse. Here

are two short stories that show how dive computers can go wrong in ways you may not have imagined.

The computer that surfaces on its own

Sandra's computer seemed to be working fine during a long dive on a deep reef wall, until she ascended at the end of the dive. She noticed that the depth it was showing seemed to be shallower than she thought she was. Sure enough, as she went up, the depth counted down to zero and the computer switched to surface mode. As far as it was concerned, the dive was over. However, Sandra was still several metres underwater. Luckily, she had a teammate close by who had done more or less the same dive. She swam over, asked to see his computer and saw that it was reading 6m. Sandra thought fast and



opinion



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concluded that it was likely that the computer had been reading 6m shallower throughout the dive. Therefore, she had no idea if she had gone into deco or not.

Her teammate had not accumulated any required decompression, which gave her some reassurance. Just to be certain, she did an extended safety stop and then went up. She assumed the computer problem might be related to a low battery, so she changed the battery out and dived with it again, this time taking along a backup computer for insurance. The same thing happened again. She checked that the pinhole leading to the depth transducer was not blocked and continued to dive with both computers over the next few days. After about a dozen dives, the malfunctioning computer went back

to normal. Sandra still has no idea what caused the temporary malfunction.

The computer that punishes you

Burt was a divemaster in Guam and had been diving with his group on a shipwreck. As he ascended, he passed a diver from another group, who was hanging onto the shot line. The diver signalled that he needed help and showed Burt his computer, which was telling him he had an hour of decompression to complete. The diver's gauge showed he did not have enough air for anything like another hour. Burt noted the dive time elapsed on the diver's computer and took out his backup decompression tables. He assumed the diver was on a repetitive dive and looked at the required stops for a dive at the maximum depth of

the site for the total time the diver had been in the water so far.

Even within these parameters, the table required much less decompression than what the diver's computer was showing. Burt wrote, "Do This, Don't Worry" on a slate and then listed the decompression stops and times given by the table. He watched the diver until he had safely ascended and was back on the boat.

When the diver later sought him out to thank him, Burt refrained from giving him a hard time about going into decompression when he evidently did not really understand what he was doing. Instead, he diplomatically explained that many dive computers are not designed for dives with decompression stops and often penalise divers unnecessarily heavily if they go into

deco, particularly on a second or third dive of the day.

Know what you are looking at

What can a defensive diver do to guard against computer failure?

1. Have a look at some of the standard decompression tables that divers used to deploy before computers came along (and that most technical divers still use). Notice the typical no-decompression limits that apply at various depths and observe how decompression stop requirements increase in terms of time and depth, the longer you stray beyond no-decompression stop limits.

2. When upgrading to a new computer, keep the old one and continue diving with it as a backup, tucked away in a zippered pocket, in case the nice shiny new computer starts misbehaving and a second opinion is required.

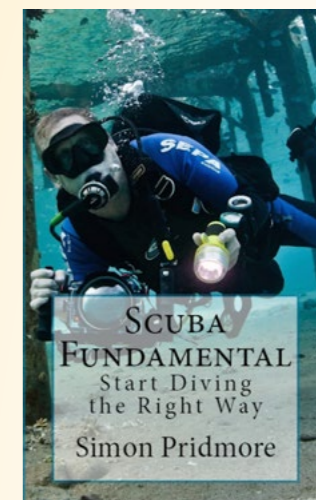
3. And finally, if you are going to do planned decompression diving, buy a computer that is specifically designed for the purpose.

In the next issue, I will outline a few more defensive diving strategies. ■

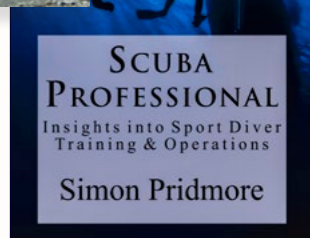
Simon Pridmore is the author of the international bestsellers Scuba Confidential: An Insider's Guide to Becoming a Better Diver, Scuba Professional: Insights into Sport Diver Training & Operations and Scuba Fundamental: Start Diving the Right Way. He is also the co-author of the Diving & Snorkeling Guide to Bali and the Diving & Snorkeling Guide to Raja Ampat & Northeast Indonesia. His recently published books include Scuba Exceptional: Become the Best Diver You Can Be, Scuba Physiological: Think You Know All About Scuba Medicine? Think Again! and the Dining with Divers series of cookbooks. For more information, see his website at: SimonPridmore.com.

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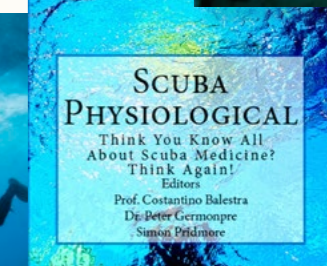
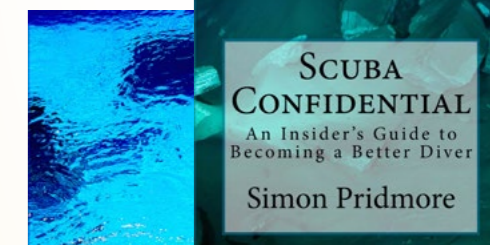
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