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TWENTY TWO UK DIVING DEATHS IN 1998
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Key Words
Accidents, deaths.

Why was there such a huge increase in the number of diving fatalities last year and what can be done to prevent such tragedies happening again?

It is the start of the dive season. You have just arrived at a dive site and you are excited at the prospect of getting back in the water. You know what pre-dive procedures should be carried out, but you choose to ignore them.

The dive is going well until disaster strikes. As you sink deeper into the incident pit, you realise that this time you will not be able to pull yourself out. Your breathing becomes erratic as your mind is thrown into chaos. You feel your heart pounding in your chest as the adrenalin rushes through your veins. You realise you are in your worst nightmare and you hear your inner voice asking why it is all going horribly wrong?

You feel alone and scared. Your thoughts are drawn to the visions of a future you will never see. You imagine your funeral, the crying of grieving friends and relatives and the soul-destroying burden of guilt carried by your dive buddies. Are you sure that it will never happen to you?

Weighing up the risk

There were 22 diving-related fatalities in the UK in 1998, the highest recorded figure for 26 years. However, when you compare the number of dives made every year with the number of fatalities, the risk is estimated to be about one in 200,000.

Surely this statistic is proof that diving is essentially a safe pastime, no different from any other adventure sport?

That may be the case, but do not forget that these people were just like you and me. Now they are dead. Do you believe their friends and relatives care about how safe the sport is when the one they loved is now part of these statistics?

I would suggest not. I would go as far as saying that figures such as these are irrelevant. They seem to be quoted year after year by training organisations. Are we trying to comfort ourselves? Or are we perhaps trying to fool ourselves into believing that there is an acceptable number of fatalities?

So why is the number 22 so important? Brian Cumming, the BSAC’s Safety and Incidents Adviser, explains: “Twenty-two deaths is a lot, but if people had been following the right guidelines there would, by my reckoning, only have been between two and four fatalities.”

This statement is by no means extraordinary. In 1997, the Health and Safety Executive (HSE) published Scuba Diving: a quantitative risk assessment. In this report, the Paras Research Group collated several years of incident records from the BSAC and the Divers Alert Network (DAN).

The results were shocking. To establish the true nature of diving incidents, the team excluded from the figures all fatalities involving divers who would not have passed a diving medical.

Of the 286 fatalities left, the investigation discovered that all but eight of them were avoidable. In other words, 278 deaths could have been prevented. The report concluded that all these deaths were “avoidable by a well-trained, intelligent and alert diver, working in an organised structure”.

Procedural problems

So what happened in 1998, and why aren’t we learning from these incidents? Colin Bryan, National Diving Officer of the Sub-Aqua Association (SAA), suggests that “these fatalities seem to be down to procedural error, for example: diving alone; not being trained for the environment or in equipment use; air management; and decompression diving”.

These views are echoed by Brian Cumming: “When you look at our safe diving practices and then look at these incidents, I guess more than 90% transgress one or more of the recommendations in them.”

When the circumstances of the majority of the fatalities are examined, it becomes very clear that these are major transgressions: diving solo; diving too deep; diving beyond their level of experience; diving in a three or even a five; re-entry recompression; and inexperience with equipment.

Should we need to say anything about diving solo? It appears so, as five of the fatalities involved divers going...
it alone. There are those who believe it is OK to dive solo, either for the whole or for part of the dive.

Serious consideration has even been given to it being a safe practice in certain conditions. But what about splitting up from a group of three to explore a cave at 57 m when your buddies are above you at 40 m?

Or, after a dive to 26 m, jumping back in to recover a dropped mask with only 50 bar in your tank, with no fins and without a direct feed attached? Unfortunately, the divers who did these things cannot explain to us what they were thinking when they bypassed well-established safe-diving practices.

In deep trouble

Three of this year’s fatalities involved diving to depths exceeding 50 m. One has already been mentioned, the other two were using tri-mix at depths of 75 m and 85 m.

The exploits of serious technical divers are widely covered by the diving press. However, the increase in the popularity of deep technical diving has not come without some major concerns being raised. What is worrying is that these concerns are being ignored by those who really need to take notice.

Mike Harwood of the HSE’s diving group has this to say on the issue of technical diving: “Those that carry out dives on the likes of the Britannic do an impeccable job. However, there appears to be an emerging group of divers who believe that they are bulletproof.”

The Coastguard and Maritime Agency sees the results of reckless and over-ambitious technical divers. Reg Hill, the CMA’s diving officer, is very concerned: “I have seen it myself. They believe that they are experts, having been on a two-day course. The technology and gases involved are widely available. Then they try to copy the real experts. They are going way over the top.”

The SAA is the only UK training agency to be affiliated to the International Association of Nitrox and Technical Divers (IANTD) and Technical Diving International (TDI). Colin Bryan of the SAA believes that technical diving can be safe if the guidelines are adhered to. “These pioneers have been carrying out technical diving for years,” he says. “Hours of planning go into their projects, with build-up dives, numerous equipment checks and safety divers on stand-by. However, there are those who think: ‘I can do that’. With the money to purchase the equipment and a course under their belt, they believe they are ready for deep dives. Eventually they are going to kill themselves.”

Brian Cumming effectively summed up the issue of deep diving at the 1998 Underwater World conference in Harrogate. “This year we have seen six incidents at 50 m plus and three of these were fatalities. Amateur divers need to realise that if you have an accident at these depths it is going to be very serious.”

Rebreather reality

The subject of rebreathers has received a vast amount of attention recently. However, in examining their use it is worth mentioning the circumstances of the three rebreather fatalities as reported in the BSAC’s Incidents Report 1998.

The first involved the 75 m dive where the deceased was conducting a tri-mix rebreather dive as part of a group of three. The second involved another group of three where there was a separation on a wreck dive to 34 m. In the third, the deceased deliberately separated from his two buddies towards the end of the dive to recover a piece of dropped equipment.

In all these dives, there have been two common denominators: the use of the rebreather and a decision to ignore safe diving practices. Could the latter be the prime cause of these fatalities? The extent to which this may be true is not clear, because at the time of writing these fatalities are still awaiting the results of inquests. However, this hasn’t stopped those involved in the industry passing comment.

The SAA offers what it believes to be the best training in the world for this equipment. Colin Bryan adds an important rider to this: “You may be a good technical diver, but you will not be ready for the same dives on a rebreather. It is very much like going from a car to a high-powered superbike.”

He goes on to say: “One of our members has had a closed-circuit rebreather for several months. He did his course at the same time as one of the divers who later died using the same type of rebreather on a deep dive. Although he is an accomplished technical diver, he is still practising 20 m dives with his rebreather. I believe that there may be some gung-ho divers out there who are allowing themselves to be pushed into dives they are not ready for.”

Brian Cumming gives the BSAC’s opinion on the closed-circuit rebreather: “It is a very complex piece of equipment, both mechanically and electronically. There is clearly the potential for problems with maintenance, manufacturing, design and usage.”

Could it be the usage that is the problem? Like any piece of equipment, safe diving practices need to be adhered to. This includes becoming fully competent in the use of any new equipment. Is it the case that we are not
learning from the rise in fatalities whenever a new type of equipment or procedure is introduced, as was the case with the increased use of drysuits in the ’70s?

**Clubbing together**

The subject of “orphan” divers was raised again by Brian Cumming at the 1998 Diving Officers’ conference. This is the phrase that he has used over the past few years to describe a growing group of UK divers.

But what exactly does he mean when he refers to an orphan diver? “They are responsible for some of the shallow-water fatalities. They have done a short diving course, so they know a little bit. Then they want to go diving. As they learnt together, they do the easiest thing, which is to go to a quarry, jump in and go diving. They do not have support from more experienced people, so they get themselves into trouble.”

Brian Cumming uses this group of divers and others to support the view that you are far safer diving in a club environment. Indeed, every year the BSAC compares the number of fatalities among BSAC and non-BSAC divers. This year, there were six BSAC fatalities out of the 22. In 1997, the ratio was four BSAC to 12 non-BSAC. Do these non-BSAC statistics include BSAC members diving outside branch activity or ex-BSAC members? “I’m fairly certain that none of them were BSAC or exBSAC members,” claims Brian. “Certainly the bulk of them had nothing to do with the BSAC.”

Brian also compares the statistics from the past two years to previous years. “For non-BSAC fatalities we expect an average per year of about six, what we are seeing now is almost three times that. Do you honestly believe that 70 per cent of the diving in this country takes place outside the BSAC? This indicates that you are safer inside a club environment.”

Mark Caney, the UK managing director of PADI International, the world’s largest diver training organisation, questions the BSAC’s use of these figures: “Trying to say that these fatalities are BSAC or that these are PADI is not very productive, and in any case we would not agree. Our records certainly do not indicate figures anything like this.” Mark later informs me that seven of the fatalities had been PADI trained.

“We would agree that it is safer to dive with an organisation and to follow safe diving practices,” he continues. “In relation to what Brian calls orphan divers, if they are doing this they are not following what we reinforce constantly in our training. We do have some examples of this. As a result, we are trying to reinforce through magazines, our instructors, the PADI Dive Society and with notices at popular dive sites that any change of environment or equipment, such as drysuits, needs local training.”

It is clear that urgent action must be taken to halt the rising number of orphan divers. Reg Hill of the Coastguard and Maritime Agency is becoming increasingly concerned: “These people are drifting around with no direction, the depth of knowledge is not there and they are not capable of planning dives. We even see groups of trainee divers from the same dive school going diving without any experience in their ranks. There is a need to belong to a group where there is experience that you can learn from, such as the BSAC or SAA.”

But what effect is this increase having on the Coastguard and Maritime Agency? “The senior officers in my organisation are beginning to take note of the number of diving incidents and the strain they are creating on our resources,” replies Reg Hill.

Is the raising of these issues at this level the precursor to regulatory legislation being introduced to make the sport safer?

With the increase in the media’s reporting of diving incidents, this must be seen as a distinct possibility.

**Learning lessons**

So what of this year’s increase in fatalities? There is nothing in the BSAC’s Incidents Report to suggest that this was an unlucky year. Could the figures have been a lot higher?

Colin Bryan believes so. “We have been very lucky in previous years. We just continue to get away with it. Every incident is potentially lethal,” he claims.

Brian Cumming is prepared to quantify what he calls the near misses. “There could have been another dozen fatalities, but that is not unusual.”

Despite all of this, there are still those who choose to disregard the lessons that need to be learned from these deaths.

Margaret Baldwin from Stoney Cove dive centre has experienced the aftermath of several fatal incidents. She cannot believe the recklessness of some divers. “We discovered that there was a man, diving solo with a rebreather, in the water. We did not know where he was or what he was doing. After he surfaced, we spoke to him about this practice. We could not believe it, he wanted to go back in and do another solo dive! This is the sort of behaviour that causes the incidents,” she says.
HOW TO REDUCE THE RISKS OF DIVING
Various UK authorities give their views

Brain Cumming, BSAC Safety and Incidents Adviser.

“We are publicising the Incidents Report as much as we can, so that people can avoid making the same mistakes. We have also launched a program inviting any diver to BSAC branches to join in refresher courses so that they can improve their diving and rescue skills. We are throwing the doors open, they do not have to be BSAC members or join the BSAC. Use the branch structure and the experience of other club members and stick to the safe diving practices of your training organisation.”

Mark Caney, UK Managing Director, PADI International.

“We are constantly reviewing our training and looking for any trends that would indicate a need for change. Last year we launched out Safe Diving in the UK program to reinforce the need for additional training to prepare for the UK’s conditions. We are also meeting with the BSAC to see if there is anything we can do in joint co-operation. We are always reinforcing the message to keep within safe diving practices.”

Colin Bryan, National Diving Officer of the Sub-Aqua Association (SAA),

“We are working with CMAS to produce and annual incident report that will look at worldwide trends in incidents. We are also pushing the club environment, where a progressive training atmosphere exists. We will be running build-up dives in the pool for March/April where I would hope to see all divers testing their equipment and practising rescue skills. I would like to remind all divers that this is a risk sport. If you do not respect the water, it will kill you. We have to take the appropriate precautions and risk-assess every dive. I would suggest that at the moment 80% of divers do not even formulate any kind of risk assessment prior to a dive. There is a lot to be learnt from the HSE and their Safe Diving at Work Regulations. I am recommending to our diving officers that we follow many of the commercial divers’ codes of practice. Keep practicing your drills, what you learnt 10 years ago may not save you now. Remember you are in a hostile environment and need to constantly assess your situation.”

Glynne Pusey, Manager of Horsea Island Dive Centre.

“We are running a Sunday dive-experience program for refresher training. Generally, I would say that standard of the divers we see here is very high. However, that should not mean that you should slack off. I would recommend that people keep training in their drills, just like paramedics do. Do not dive beyond your experience.”

Commander Ralph Mavin, RN (retired), HSE Chief Inspector of Diving.

“If the pre-dive plan conditions cannot be met, then do not dive. If things are not as planned, have the sense and courage to admit it. If in doubt, do not dive or abort the dive. It is far better to live to dive another day. Follow the advice of the recreational agency whose qualifications you hold. Remember, holding a particular diving qualification does not mean you are going to remain a competent diver at that qualification level unless you practice the skills on which you were assessed. Putting it bluntly, do not let your ego exceed your talent.”

Reg Hill, Diving Officer, Coastguard and Maritime Agency.

“Most incidents are caused by people exceeding their capabilities, technically or physically, or simply being reckless. They could have been avoided if those people had been capable of carrying out their dive within the codes of practice of their organisation.”

Margaret Baldwin, Manager of Stoney Cove Dive Centre.

“We have introduced the divers registration scheme, which pushes people towards safe diving practices. If people stayed within these, we would not have nearly as many problems. In the future, if anyone insists on carrying out any unsafe practices, we will, with the registration scheme, be able to refuse access to Stoney Cove. Most of these incidents could have been avoided. We see the end result and the relatives coming on the anniversaries of the deaths with flowers. This is what most people do not see and we would like to work towards avoiding in the future.”

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