

TEXT & PHOTOS STEVEN M BARSKY

UNDERWATER P.I.

Sleuthing with a diving accident investigator

When a diver is lost during a training dive in poor visibility, the outcome is often not good.

Over the course of my career in diving, I have worked in many different capacities in the industry. The need for my versatility is a direct result of the fact that the diving industry is so small that if there were only one thing I did, I would probably starve to death.

I've worked as a diving instructor, a dive guide in resorts, a professional underwater cameraman, a commercial oilfield diver, for equipment manufacturers and as a diving accident investigator and expert witness in diving accident litigation.

While all of these specialties have been fascinating, investigating diving accidents and serving as an expert witness has been some of the most interesting work I have done. Unfortunately, it has also been some of the most tragic.

What appeals to me in diving accident investigation is figuring out what went wrong, especially when nobody else has figured out the case. In many instances, the cause of the accident is obvious if you have a good knowledge of the equipment, procedures and environment. However, there are also many cases where the exact cause of death is never known, and this can be especially frustrating, particularly for the family of the deceased. My wife, who is also a highly skilled diver and a professional marine biologist, calls me "Dive P.I."

I take a good many tools with me on a typical diving accident investigation, including cameras, a laptop, oxygen analyser, gloves, fiberglass measuring tapes, Vernier calipers and a handheld GPS. In some cases, I may need to dive to look at an unusual underwater site or inspect the bottom of a vessel that has struck a person. However, if it's a dive site I know or there's nothing unique about it, then entering the water is usually not necessary.

In the US there is a big difference between a diving accident investigator and an expert witness. A diving accident investigator's job is strictly to determine the facts of the case: who was involved, what gear was used, where the dive took place, which procedures were followed and other similar evidence. Conversely, an expert's job is to formulate opinions, based

Right: This weight belt was a major contributing cause in the death of a diver. **Opposite page:** The second stage of this regulator has been beaten with use, but still functioned properly. Faulty diving gear is rarely a factor in most diving accidents. **Below:** Although there are obvious signs this regulator was damaged during maintenance, the regulator had nothing to do with this diving accident. You can see the police evidence tag, still on the regulator, in the background.



upon the evidence and his experience, to explain why the events transpired.

A "TYPICAL" DIVING ACCIDENT INVESTIGATION

I received a phone call one Thursday afternoon from an attorney who wanted to hire me to inspect some equipment on Saturday in a diving accident case that took place out of state. The accident involved a sport diver in training who had become separated from her instructor during a dive in the Puget Sound region of the US in cold water with poor visibility. I flew to Oregon and met with the attorneys on Friday.

From the description of the accident, it became obvious to me that the amount of weight the diver was wearing might have been an issue, as is frequently the case with student divers. It's not uncommon for diving instructors to overweight new students, at least on their initial dives, to help the student stay on the bottom. I left the meeting with the attorneys and quickly went in search of a digital scale, an item that I don't usually carry with me, since most diving weights have stamps on them indicating how heavy they are.

Where can you find a digital scale at 5:30 on a Friday afternoon in a small town? I found one in an upscale cooking supply store. How did I know I would need this? I had no idea, except for instinct.

On Saturday morning, we met at the attorney's office that was representing the defendant. They had the diving equipment waiting in a conference room. Everything was present except the drysuit, which had been cut off the woman and discarded. I quickly inspected

FROM THE DESCRIPTION OF THE ACCIDENT, IT BECAME OBVIOUS TO ME THAT THE AMOUNT OF WEIGHT THE DIVER WAS WEARING MIGHT HAVE BEEN AN ISSUE.

the buoyancy compensator, power inflator, regulator, submersible gauge, depth gauge, mask and snorkel. There were two soft weights in the pockets of the BC, for a total of six kilogrammes. The last item I inspected was the weight belt.

The first thing I noticed was that the weight belt crudely made hand-poured lead weights, rather than the professionally moulded lead weights you find on most dive boats today. The next thing I noticed was that the weights were very large and one was not stamped with any markings. Since the capacity of the scale I had was only five and a half kilogrammes, I had to measure each weight individually. The first large weight I measured was roughly five kilogrammes, and there were three more, each one weighing between four and five kilogrammes. The total weight used was a staggering 24 kilogrammes, and had been

worn by a woman who was 1.75 metres tall and weighed 68 kilogrammes.

It was immediately obvious that her instructor had grossly overweighted the woman, even if she had been wearing a drysuit with hood, boots and gloves. With this much weight, swimming underwater would be very tough, without inflating her jacket style BC to the point where breathing would be difficult, and her drag through the water considerable. You might be tempted to think the case would have ended right there, but you would be wrong. Unfortunately, since each person's individual buoyancy is greatly different due to their bone structure and amount of body fat, it would be impossible to prove that this woman had been wearing too much weight.

The defense attorneys argued that this woman knew the risks of diving, had been properly trained and that her

Opposite page: As a diving accident investigator, you must be familiar with many different types of equipment. Steve Barsky investigates both recreational and commercial diving accidents.

Below: In most diving accident cases, the body has been recovered and the equipment removed days before the investigator ever arrives on scene. Overweighting is often a frequent contributing factor in many diving accidents.

IT WOULD BE IMPOSSIBLE TO PROVE THAT THIS WOMAN HAD BEEN WEARING TOO MUCH WEIGHT.



WHAT WAS PARTICULARLY GALLING WAS THAT THIS INSTRUCTOR HAD BEEN PREVIOUSLY REPORTED.

instructor had acted in a proper and prudent manner. They were unwilling to settle the case. Once they put up a fight, my job went from being an investigator to being an expert witness on the case.

During the course of the case, fact after fact was revealed that showed the instructor had been grossly negligent. It turned out that the instructor had failed to train the student how to drop her weight belt, that he never performed a proper buoyancy check in open water to see if his students were properly weighted, that the instructor violated the proper student-to-instructor ratios, and that he simply lost track of the student in poor visibility.

What was particularly galling was that this instructor had been previously reported by one of his students for other safety violations, and the training agency he taught for failed to investigate these allegations. Ultimately, the case settled out of court for a multi-million dollar settlement.

Most diving instructors do a great job training their students, often going above and beyond the call of duty to ensure that their students are safe and competent divers. Unfortunately, like in any field, there will always be people who are incompetent, or who just don't care enough to do a good job. When that happens, it's usually about the time the phone begins to ring. **AD**

STEVEN M BARSKY is a professional underwater photographer, author, dive accident investigator and expert witness. He has been diving since 1965 and has worked in the commercial diving industry and the sport diving industry. He's also written a book on diving accident investigation with Dr Tom Neuman. Find Steve's books and videos at hammerheadpress.com

