Greetings,

Well, it is official – PADI has entered the PSD training field. They recently announced their program at DEMA. I was out of the country at that time and was unable to attend DEMA but have since heard from a number of folks who did attend.

The concerns about PADI entering the field are many fold. But despite what you might think about it, they only did what every other agency that teaches Public Safety Diving has done. They recognized a need and a market and developed a program to fill the need. There are some who criticize this but they forget that ALL of the agencies make money and ALL of them are for profit entities.

Without a national standard or an agency consensus standard, there is nothing in place to prevent or guide ANY company, training agency or private instructor from teaching a PSD program. PADI has had instructors who have been teaching distinctive Specialties in the field for twenty plus years. They just never had a formal, standardized specialty until now.

Two years ago when the YMCA was getting out of the SCUBA business, they were still offering a PSD Specialty and advertising the program at DEMA. Where was the outrage? It was the Y M C A. The YMCA scuba program was not a threat to anyone and could not possibly make a difference. There was no outrage other than my own.

This topic relates to standards and has turned into the epitome of beating a dead horse. I have been responsible for bringing it back a number of times because I think too many PSDs keep waiting to see what is going to happen instead of being proactive. Proactive means more effort, work and time spent on a thankless task. When the topic is standards, it is easier to let someone else do it and then review their work and offer critique and criticisms. The unfortunate thing is that when we depend on others, we are almost never happy with the results and by the time we see them, it is too late to make or effect changes.

Recreational agencies teaching and promoting PSDiving are not what we want to see and represent many steps backward for those of us who have proclaimed our diving to be beyond recreational. We as individuals and some of the ABCs involved have proclaimed we are professional divers but considering all that has gotten us, we are shouting into the wind.

So for now, I think I am going to join the masses. I am going to sit back and watch for a while and see what happens. I have a pretty good idea of what is coming and expect PADI to have an immediate impact on the field starting no later than Spring 2010. I think we will probably see either some consolidated efforts put forth for a PSD Consensus standard by the existing PSD training agencies OR a total disregard for that and efforts to protect their own market shares that will likely result in an even bigger separation in cooperative effort.

Despite my efforts personally and through our discussion groups or PSDiver Monthly, I feel like I have failed to make a difference in the quest for a national PSD standard. Like the majority of you, I am tired of the topic. Either my logic is flawed and I am wrong or I have been at least partially right but unable to make my voice heard.

Time will tell. Protect yourselves. Maintain your skills. KNOW your instructor either personally or by reputation and if necessary, get references. All of the professional agencies offer excellent training programs and even though I do not think PADI should be involved, they probably will too. BUT the programs will only be as good as the instructor. Keep in mind, the professional PSD training agencies offer professional PSD Instructors only and specifically do NOT teach recreational diving. I recognize the difference and hope you do too.

If you would like to discuss this topic or any other, join our discussion group at: CLICK HERE TO JOIN

Stay Safe,
Mark Phillips
Editor / Publisher
This month, I thought we'd go over some details and maintenance tips on SCUBA pressure cylinders. Mainly, they come in three flavors; aluminum, steel, and now composite. Yes, even composite. Perhaps in a later article we'll cover high pressure vessels. This one is just for those colorful vessels that we throw on our backs for SCUBA or surface supply EGS (Emergency Gas System). Some call them bailout bottles or “come home bottles” as well.

First, I thought that I'd cover some of the basic differences between the models. Aluminum has been a standard in the diving community for years. Since we're on the subject of aluminum, let's talk about one of the questions that I often get regarding exploding tanks. Let me clarify, not all aluminum tanks possess the potential for the sustained load cracking hazard. There was a problem with some tanks that were manufactured by Luxfer, Cliff-Impact Division of Parker Hannifin Corporation, Walter Kidde Company, and any other US manufacturer, except Catalina (according to the US Department of Transportation) back in the 70's and 80's (although the official DOT document states anything prior to 1990). Specifically, the issue concerns the neck of the cylinders and sustained-load cracking due to the use of an aluminum alloy known as 6351. You can check if you own one of the 6351 cylinders by looking at the neck and identifying the 3AL stamp on the neck and checking the year of the first hydro stamp. If the tank is one of the 6351 type, then you will need to get the neck checked with an Eddy Current device at least annually during its normal VIP cycle. The actual manufacturing periods were in the United States from 1972 through mid-1988, England from 1967 through 1995, and finally Australia from 1975 through 1990. Again, the issue was that they used a different alloy labeled 6351 rather than the older alloy that had been (and now again is used), 6061. It's also suggested that you check the 6061 tanks with an Eddy Current device, but only suggested. The 6061 tanks were not plagued with the same stress weaknesses as the 6351 cylinders were. The corrosive resistant properties of any aluminum tank and the fact that for the most part they are lighter than steel is a definite benefit. But that comes at a price. The challenge has been trying to deal with the difference in buoyancy between the time you enter the water and the time you get to the surface. On average, you're looking at around four pounds lighter on the end of the dive than the beginning. As for daily maintenance, basically, make sure that you check for outer damage before use and keep at least 500 PSI of air in the cylinder at all times. Visually inspect any outer o-rings and make sure that the burst disk is in tact.

Steel is making a comeback and increasing in popularity. Companies like PST and Worthington are seeing increased sales with their steel tanks. They are now using hot dipped galvanized steel, which takes care of most of the corrosion issues. The positive buoyancy issues, due to the weight of the cylinder, which can plague aluminum, are non-existent. PST makes tanks as small as 65 cubic feet but none smaller that I could find in my research. Worthington X-Series come as small as 77 cubic feet and they make a smaller XS series. Steel tanks, by their nature, are heavier than their aluminum counterparts for
the most part. One daily field test is to make sure that any outer corrosion is noted and frequently checked for pitting. Any deep pitting or creasing should be noted and the tank taken out of service until inspected by a qualified technician. Make sure that pressure is kept in the tank; preferably at or above 500 PSI. If the tank is completely drained, then appropriate procedure is to have the tank immediately visually inspected. I've seen tanks that have been drained and not inspected. The inside walls of the tank had rust and the risk of pitting was high. Moisture had entered the vessel in this case. I know I can't speak for you, but personally I wouldn't want to breathe air from a rusty cylinder.

As far as composites, the current company to look to is Interspiro. They've introduced a series of tanks to the United States called the Divator Lite Cylinder Pack. They are now approved by the DOT for use in the U.S. According to Interspiro, they are authorized for use with compressed air from 0 to 50 Meters (166 Feet). They are manufactured with a carbon fiber filament with an outer wrap of glass fibers. The other fittings are made of acid proof stainless. It's reported that the working pressure is 300 BAR, or 4350 PSI. They have a test pressure of 450 BAR (6526.71 PSI) and a minimum burst pressure of 900 BAR (13053.42 PSI). If you fill a tank to over 13000 PSI, then you've got to know that something bad is about to happen. They also have a Non-Limited Life approval. They have an interesting solution to the issue of varying buoyancy. They use a counterweight that attaches directly to the tank system. Admittedly, I have not been able to see one of these units for myself or dive one. Bengt Kjellberg of Interspiro was trying to get me a unit to test, but unfortunately that didn't happen before this article had to be completed. Perhaps in a near future issue I can give you, the reader, more details on this newer technology.

No matter which type of tank you chose, there are a few things to take note of. Specifically, please avoid putting any decals on your tanks. According to SOP, any decals are to be removed so that they can be inspected for corrosion. The same can be said about repainting. Any repainting of a cylinder means that either the tank needs to be completely stripped of paint or decommissioned. Again, the inspector can't tell if there is any corrosion under the new paint. Also, be sure to check the o-ring in the valve that mates with the first stage. That seems to be one of the biggest pain points. Another thing to make sure of is that the burst disk is changed at least every 5 years. One humble suggestion I have is to avoid using tank boots. They can trap water and promote corrosion underneath the plastic/rubber devices.

So in conclusion, there are three current choices of tank compositions. According to PSI, there are about 8 (perhaps more) U.S. cylinder manufactures. So no matter what brand name you purchase, for the most part, they will be manufactured by companies such as Luxfer and Catalina. Interspiro may be a good choice to explore as well taking advantage of their light weight. Make sure that you inspect your tanks before every dive and if in doubt, have them reinspected. I know this is an expense but your life and health are worth it.

As always, take care of your equipment and it will take care of you.
DEMA SHOW 2009
Det. John Kuch
Electronic Surveillance Section
Underwater Search and Recovery Unit
Fairfax County Police Department

The 2009 DEMA Show was held in Orlando, Florida at the Orange County Convention Center on November 4th through the 7th. There had been some rumblings that the show may be scaled back a little due to the economy but as a first time attendee, with nothing to compare it to, the show seemed very much alive and well.

Registration on Wednesday morning was extremely quick and easy as I had pre-registered and printed out a "quick registration" voucher that got me through essentially without a wait. Each morning Scuba Radio was at the entrance providing live music and live mermaids while tossing out T-shirts. It has always amazed me what full-grown adults will do for a T-shirt. (Just for the record I now own a Scuba Radio T-shirt)

On November 3rd, the day before the show officially kicked off, there was a Public Safety Diving seminar presented by Walt "Butch" Hendrick and Andrea Zaferes. I was unable to make it down early enough to attend so I cannot provide any feedback on that program. The workshop was intended to combine lectures and hands-on drills with different pieces of professional rescue equipment.

The show floor was laid out in a manner such that like manufacturers were grouped together in one area. For instance all underwater photography and video representatives were in one section. You could still find one or two companies sprinkled throughout the show floor but for the most part it was a very convenient way to locate companies. Also on the floor were the New Product Showcase, the Scuba Demonstration Pool, the DEMA Store, a silent auction, the Member Lounge, and a Decompression Stop for networking.

As for the various break-out sessions and seminars, you could find them divided between meeting rooms located one floor up from the show floor as well as presentation areas set up in the vendor areas on the show floor. Finding presentations that were relevant to any particular interest were not hard to find. I was able to navigate the show floor and locate vendors of interest to PSD, as well as personal interests, with little difficulty. I adhered to the advice that I had received prior to coming to the show to make the first day an overall look at the entire show and to make notes as to which vendors I wanted to visit on subsequent days.

Of the vendors of interest to my particular PSD Team I was very much interested in the fact that there were a couple of lift bag vendors in attendance in addition to Sub Salve. I am not promoting one company or another but all of our lift bags are from Sub Salve including the vehicle lift system VRS2000, which is a rock solid lifting system. Carter Lift Bags had some very interesting products especially for lifting smaller objects. More information on these companies can be obtained from www.subsalve.com and www.carterbag.com.

Some interesting new products being featured at the show that I found worth taking a second look at were the Navimate and the Pocket Buoy. The Navimate was an underwater GPS system that allowed you to mark waypoints and locate fellow divers without pulling a surface antenna. The device is wrist mounted and has a backlit display for reading purposes. I know there are many areas in our jurisdiction that you would not be able to read a display no
matter how bright or how close to your mask you hold it but for those teams that have a modicum of visibility for gauges this appeared to be an awesome addition to your equipment list. As in most GPS’s you could set a return course that would navigate you right back to your original position. And if you have multiple divers in the water and each had a Navimate, their positions would be plotted on your screen and your position would be plotted on theirs. More information can be found at www.navimate.shbinstruments.com.

Another ingenious little product was the Pocket Buoy. This was a very simple dive flag and float that is made from marine grade nylon and inflated with a standard 17” balloon available from the manufacturer or any commercial party store. The whole system fits into a mesh bag that is 10”x 10” and about 2” thick. This eliminates the need for a bulky dive flag attached to a Styrofoam ball and allows you to have a dive flag system available that fits conveniently into your dive bag. More information can be obtained at www.pocketbuoy.com.

During the show I was also able to pilot an ROV by Seabotix in the Demonstration Pool. Never having piloted one of these vehicles I found this particular model to be very user intuitive right down to using the grabber implement to grab an object on the bottom and bring it to the surface. The company also featured a crawler skid assembly for the ROV that allowed the device to attach itself to hard surfaces, such as a hull, with the use of a vortex generator. This enabled the ROV to roll across a surface, less affected by current and turbulence. More information can obtained at www.seabotix.com.

A rather fun part of the show was the re-sinking of the Vandenberg in the Demonstration Pool. A scale model of the Vandenberg, complete with pre-drilled swim-throughs and pyrotechnics was launched on Thursday and detonated and sunk with prizes being given for the individuals coming closest to the length of time it took for the scale model to sink. The actual Vandenberg, sunk just off of the coast of Key West, went down in just about one minute and forty four seconds. The scale model went down in just 18 seconds. The promoters were just excited that it went down with the right attitude.

I found the 2009 DEMA Show an exciting mix of dive professionals, including destination resorts and live-aboards, clothing manufacturers, equipment manufacturers, and hardware vendors. I can say that as a neophyte attendee I ran into numerous individuals from all aspects of diving emphasizing that the DEMA Show is a great venue to re-connect, network, collect catalogs of the newest equipment and get a glimpse of the newest products. So start collecting your quarters because next year DEMA 2010 will be back in Las Vegas. Until then, dive safe.
Decomposed body found in Sydney tidal creek
October 15, 2009

A WOMAN'S badly decomposed body found floating in a Sydney tidal creek may have entered the water several kilometres away, police said.

The body of the woman, as yet unidentified, whose death is being treated as suspicious, was found at about 6.35pm (AEDT) yesterday in fast-flowing Haslam Creek, among mangroves off Hill Rd at Homebush Bay.

Investigators are refusing to say if the body was intact or clothed when found, saying only that it was badly decomposed.

"The body has obviously been there for some period of time in a state of decomposition," Superintendent Brett Henderson said.

"This is a tidal area, we don't even know where the body has come from."

Police divers scoured the creek and officers combed its banks today looking for clues, but wrapped up their efforts about midday (AEDT).

"At this stage we have no idea how this person has met their demise and as a consequence we're looking for anything that could help us in that investigation," Supt Henderson said.

Although the creek was located beside a popular dog exercise area, Supt Henderson said it was unknown how long the body had been in the water at the place it was found.

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"I don't know where the body has come from; I have no knowledge at all at this stage of the tidal flows in and around this area, so we wouldn't know whether the body has been there for some period of time or not," Supt Henderson said.

The creek flows into Homebush Bay, which is connected to the Parramatta River and Sydney Harbour.

A post-mortem examination will be carried out on the body on Thursday afternoon, with hopes it will determine a cause of death and identify the woman.

Supt Henderson said the woman’s race or ethnicity could not be visually determined and spoke only of the processes of the investigation when asked of the possibility the body was that of missing Chinese-born businesswoman, Wei Chen, who has not been seen since July 16.

Investigators are appealing for information from members of the public who may have information about suspicious activity in the Haslam Creek area, or about the body.

**Police find knife after child's body found in travel bag**


October 18, 2007

**POLICE divers searching a Sydney pond where the body of a child was found dumped in bag have found a knife.**

Police have also decided to release pictures of the bag in the hope it will be recognised.

Children playing by a large pond in a suburban park at Rosemeadow, in Sydney’s southwest discovered the bag yesterday afternoon. They fished the bag from the water and when they opened it found what they thought was a pig. But after turning it over with sticks they discovered it was an unclothed human body partly wrapped in plastic.

Police believe the body to be that of a young boy aged between five and 10 years old.
The reserve where the body was discovered is less than 1km from a primary school. The duck pond in the centre of the reserve is bordered by cycle paths and houses and is readily accessible to the public.

The children spent last night with their parents and will be interviewed by police again today. They are expected to receive counselling to come to grips with their horrifying ordeal.

A report is being prepared for the Coroner.

Detective Chief Inspector Gary Clark said: "The body has been removed from the water. It has been removed from the black travel bag. "We are determining the cause of death and the description of that child. We believe other people have seen the bag in the pond over the last few days. "We are encouraging those people to come to the police and advise us of their observations of the bag."

A post mortem examination will be conducted today on the body.

Police today said they were checking on whether the child's body matches any reports of missing persons and are treating the death as a murder investigation.

Police Divers Go Underwater To Find Bodies and Evidence


10/19/09 SHELLEY ROSSETTER
LEDGER CORRESPONDENT

Most scuba divers would stay away from a sinkhole, but for divers at the Polk County Sheriff's Office and the Lakeland Police Department, a sinkhole might contain the evidence needed to solve a crime.

A police diver emerges from an algae-covered retention pond as part of a training exercise. Hans Lehman | Special to The Ledger

Sinkholes, phosphate pits, gator-filled lakes - these are just a few of the places professional search and recovery divers are jumping into across Polk County. And all of them are dangerous. So dangerous, in fact, that search and recovery diving is the next installment in The Ledger's ongoing series, "Out of the Cubicle: Dangerous Jobs in Polk."

"It's a series of challenges, from the diving to the environment, you encounter everything from microscopic germs to enemies as large as alligators," said Brian Hanger, a deputy sheriff in the marine unit for PCSO.
Search and recovery divers often are called to the scene when a crime or accident involves a body of water. They recover evidence to solve crimes, bring a sense of closure to families who have lost loved ones in the water by finding bodies, and rescue fishermen on sinking boats.

Divers with the PCSO have dived about 20 times so far this year, and last year they dived about 80 times. The Lakeland dive team sees a little less action, with only a few dives per year. Each team has about eight divers.

To keep divers safe, each team trains regularly at different locations each time. "We try to do a variety of things because Polk County has such a variety of lakes and we try to get people, when they are training, to keep in the mind-set that every body of water is different," Hanger said.

The training is usually more diverse than normal sport dive training and focuses on safety. Training consists of learning how to communicate while under water, mapping out grids to perform evidence searches and learning recovery techniques.

An important part of safety is being able to communicate, Hanger said. Because of low visibility in the water, divers must learn to use different methods of communication, such as underwater headsets, because the normal hand signals most sport divers use cannot always be seen. "When diving in the Lakeland area, we are lucky to see five or six inches in front of us because the water is so murky," said Hans Lehman, the dive team supervisor for LPD. The divers wear dry suits to protect them from exposure to any harmful bacteria or chemicals that may be in the water, especially in sinkholes and phosphate pits, Hanger said.

The extra-thick dry suits also protect the divers from puncture wounds from objects along the lake floors. The divers move slowly while underwater to avoid injury, Lehman said, but many discarded items serve as possible traps. "Some of these lakes, you never know what you will find in them because people throw all sorts of stuff in there," Lehman said. "We have found everything from cups to plates to TVs to tires, refrigerators, engine parts and vehicles," he said.

Not knowing what is lurking beneath the surface is often the most dangerous part of the job, Hanger said. While diving
in Lake Toho in Osceola County in an attempt to retrieve a firearm used in a crime, Hanger became entangled in fishing lures and lines and was unable to free himself. But he was able to communicate with the other officers on land through the underwater communication system the dive teams use and they were able to pull him out. "It took half an hour to cut me out of the fishing lines," Hanger said.

Divers must also be aware of the wildlife in the water. Lehman said alligators usually leave the divers alone, but the divers try to avoid night dives because alligators are nocturnal. "For everybody’s safety, we will usually go in the daytime," Lehman said.

The focus on safety for both teams has meant few injuries for the divers. In 13 years, Hanger could recall three injuries to divers, most of them minor. "We’ve been very fortunate, but we’ve been practicing very good safety plans because we understand it is very dangerous and we take it very seriously," Hanger said. "As time has gone on we have focused on training, to keep us lucky."

**Firefighter: Cuts may mean disbanding Elyria dive team**


ELYRIA — In the aftermath of a recent tragedy that saw a 13-year-old boy drowned in the Black River, frustrations are mounting over the Elyria Fire Department’s role in the rescue efforts.

The tragedy brought to light the fact that the department’s dive team may be a thing of the past.

Dean Marks, president of the local firefighters union, said he has been a member of the department’s dive team, which is headed by Lt. Rick Thrasher. However, the team has stopped training in recent months, and Thrasher is moving to disband it, Marks said.

Thrasher tried to bring up the rescue effort at the City Council meeting on Monday night, but was shut down by Law Director Terry “Pete” Shilling. Shilling said afterward he was working to protect the city, and the conversation Thrasher may have had with the Council might have opened the city up to liability.

Through Marks, Thrasher declined to comment following the meeting.

"(Thrasher) just wants us to train the way we are supposed to," Marks said. "In 21 years, we have never dived at the falls in a
dangerous situation. Yet, on that day, that is what we were called to do and there was this confusion about whether Elyria divers could get in the water because everyone thought we didn’t have a dive team anymore.”

Mayor Bill Grace said the Lorain County dive team — made up of one or two certified divers from fire departments across the county — was relied upon heavily that day and, in the future, it likely will be called upon again. “We are no longer in an era where individual communities can have their own individual response teams,” he said. “We do have individuals that are trained to do certain things, but we need to expand opportunities to be a part of countywide operations.”

Grace said training for the dive team has been substantially reduced because it is linked to overtime. The same can be said for the now-disbanded Elyria HAZMAT Team. Once the training stopped, the members were absorbed into the county team. “Even with the passage of Issue 10 (the city’s 0.5 percentage point income tax increase on the November ballot), we will have to aggressively go down the path of consolidated services,” he said.

In the meantime, something the Fire Department can do now is increase its educational programming to children and teenage, Fire Chief Rich Benton said. Benton did not return calls Tuesday, but said Monday night following a City Council meeting that firefighters have to start going back into the classrooms to educate children.

With concrete blocks, rebar, and debris, the Black River is dangerous and the only way to stop another tragedy from happening is to prevent it, he said.

Still, Marks said he would like some sort of training to resume for those on the department who are water-rescue certified, as he is.

Before budget shortfalls resulted in 16 members of the Fire Department getting laid off this year, Marks said the dive team trained once a month for about four to five hours at a time. While they were away from the station, off-duty firefighters were called in to man the station and answer calls. But when the department got cut, so did the training, he said.

When the first eight firefighters were laid off in April, Marks said training was restricted to those who were on-duty only. If a fire call came in, divers got out
of the water and responded to the fire.

When eight more firefighters were cut months later, training all but evaporated. “Every time they cut the Fire Department, the first thing that goes is the training,” he said. “That’s how firefighters die. You want to know what you are doing when you hit the water.”

Marks said he believes Thrasher wanted to express those frustrations Monday night to the City Council. He said he cannot speculate on what Thrasher was going to say, but as someone who was on scene the day of the emergency, Marks said, he knows what happened that day. “I know I was there, and I wasn’t happy with the way it went down,” Marks said.

When Logan Spradlin went into the river near the East Falls Riverwalk shortly after 2 p.m. on Oct. 10, Marks was not working but was at Fire Station No. 1 volunteering to show visitors around the station for the department’s first open house, he said.

When the 911 call came in, Marks said all of the on-duty firefighters left the station and hustled to the river bank. However, Marks and Craig Camp, another member of the dive team who was also at the station because of the open house, stayed behind at the station. The dive team was not initially called, Marks said.

Several minutes later, Marks said his emergency pager vibrated. The Lorain County 911 staff was calling for the Elyria dive team. Marks said the dive team’s equipment and truck were at the shuttered Broad Street station. He and Camp went there, only to find the truck wouldn’t start. “That’s what happens when no one is at a station. We aren’t there everyday to start the trucks just to make sure they will start,” he said.

After charging the truck’s battery, Marks said he headed right for the river. However, as soon as he made it to the Riverwalk, Marks said was told by Assistant Chief Ron Brlas that he could not get into the water because Elyria does not have a dive team. “At that point, I didn’t care if we had a team or not,” he said. “I still had my skills. I still had my training.”

Marks said he was told to put the department’s inflatable boat into the water because the Lorain County dive team was entering the water. Marks said there is no way to know if Spradlin could have been saved that day if things were done differently. The boy was recovered the
next day by a Lorain diver in a 30-foot-deep pool under the East Falls of the Black River. It was 30 to 50 feet from the area near an old mill where he fell over the falls.

Still, Marks said he would have wanted the opportunity to try to make a difference. “Who knows what would have happened?” he said. “In situations like that, time is everything. You have to be there quick and get in the water.”

Fire, jumper, explosion keep firefighters busy

October 25, 2009

TROY — The city Fire Department was kept especially busy between 6 a.m. and 8 a.m. on Saturday as they fought a fire near Sycaway, assisted with a water rescue when someone jumped off the 112th Street Bridge in Lansingburgh around 6:30 a.m. “He said he wanted to go for a swim,” said Garrett. Since fire crews were already at the fully-involved fire, the Cohoes Fire Department responded and Troy assisted.

An unidentified man jumped off the 112th Street Bridge in Lansingburgh around 6:30 a.m. “He said he wanted to go for a swim,” said Garrett. Since fire crews were already at the fully-involved fire, the Cohoes Fire Department responded and Troy assisted.

The swimmer, who had made his way to a concrete pier, was rescued by firefighters, using a rescue boat from Cohoes.

And just when it looked as if things were about to calm down, an explosion was reported at 595 Second Ave., the site of a hair salon.

Upon investigation, it was determined the cause of the explosive sound was a furnace malfunction, said Garrett.
Police divers find body of fisherman from circling boat
Oct 26, 2009

The body of a fisherman whose boat was found empty and circling on a Bay of Plenty lake was found late yesterday afternoon. Graham Frederick Hatcher of Whakatane is presumed to have drowned. Mr Hatcher's aluminium dinghy was spotted on Saturday evening on Lake Rotoma between Rotorua and Whakatane going around in circles about 100m offshore.

An unused lifejacket was found in the 64-year-old's 3.6m dinghy which was recovered in calm conditions at 7pm on the lake about 40km east of Rotorua.

A helicopter and search team was called out soon after but there was no immediate sign of Mr Hatcher. The search resumed yesterday with police, volunteers from the Rotorua coast guard and family members all looking for him. Police divers found his body at 5.30pm.

Meanwhile, the three men believed to have drowned in Lake Tekapo on Wednesday may have been thrown into the water by the impact of a collision before seeing their boat motor carry on without them. The body of 72-year-old Alexander Haywood was found near Motuariki Island in the middle of the lake. His son, Antony Haywood, 46, and 54-year-old friend Murray Green, both of Timaru, are missing, presumed dead.

Police believed their boat may have hit a submerged object, possibly a tree, the Timaru Herald reported. The impact probably flung all three men into the water but the boat carried on until it ran aground on a sand bank.

Maritime New Zealand statistics show 18 people have died in recreational boating accidents this year compared with 16 in 2008. MNZ spokeswoman Christl McMillan said the organisation had started a public consultation on a proposed law change that would make wearing lifejackets compulsory on all boats under 6m in length.

She said failing to wear a lifejacket was the leading cause of boating fatalities. This was followed by a lack of reliable communications, failure to check the weather and alcohol.
A BODY, believed to be that of a woman, has been found in a barrel in a lake in Melbourne’s northern suburbs. Its discovery was made by chance when employees from Melbourne Water were cleaning the lake in Jack Roper Reserve in Campbellfield a week ago, and had drained it. Police said the workers who retrieved the barrel noticed a label from a local chemical-disposal company in nearby Merola Way and called the company, which collected it on Saturday. It was only yesterday that workers at the company opened the barrel after noticing a smell.

Police set up a crime scene at the company and at Jack Roper Reserve yesterday. The homicide squad is handling the investigation. An autopsy will determine the cause of death. Police have yet to identify the victim. Police divers and State Emergency Services searched the lake and surrounds yesterday.

Sergeant Peter Trickias has appealed to anyone - particularly from the area near the reserve - who may have noticed suspicious vehicles or who may have seen the barrel, to contact police.

Police will investigate whether the remains belong to murdered Melbourne child-care worker Raechel Betts or missing Bendigo woman Krystal Fraser. Yesterday, police revealed they have identified the type of car used to transport Ms Betts' mutilated body to Phillip Island beaches.

Homicide detectives believe they are nearing a breakthrough in the horrific killing of the 27-year-old, whose body parts were found washed up on Phillip Island beaches.

Ms Betts' grandmother, Doreen Betts, yesterday urged friends to provide police with information to track down the killer. "It's a really evil thing and we have to get them out of our community," she said. Police are appealing for more information from two separate callers to Crime Stoppers. The first phoned on September 2, giving information on the man police now believe Ms Betts had arranged to go away with.

The second caller phoned on Monday and gave information about a small white car, believed to be an early 1990s Nissan sedan or hatch.
Fairbanks woman rescued after falling through Chena River ice

http://newsminer.com/pages/full_story/push?article=Fairbanks+woman+rescued+after+falling+through+Chena+River+ice%20&id=4240681&instance=home_Most_popular

11/03/2009 by Christopher Eshleman

FAIRBANKS - A woman had to be rescued downtown Sunday morning after breaking through the frozen Chena River while trying to save her dog from freezing water.

A policeman and firefighter rescued the 57-year-old woman but only after falling through the ice themselves, according to the Fairbanks Police Department.

The woman, Maggie Barrowclough, broke through the ice at roughly 11 a.m. near the Rabinowitz Courthouse, which is separated from the river by a walking trail, police Lt. Tara Tippett said.

Barrowclough was treated at the hospital for hypothermia and released. The dog also survived, and the policeman and firefighter were unharmed in the rescue, Tippett said.

Barrowclough was treated at the hospital for hypothermia and released. The dog also survived, and the policeman and firefighter were unharmed in the rescue, Tippett said.

Police officers responded to the scene and grouped along the riverbank as one officer slid on the ice, holding a rope, toward Barrowclough, according to Tippett’s summary of the rescue.

Barrowclough had trouble holding the rope and a fireman wearing a diving suit joined the policeman on the ice, which broke and sent all involved into the water. The rescue then concluded “without further incident.” Barrowclough told officers she’d reached her submerged dog — possibly a schnauzer, Tippett said — and thrown it to the riverbank before falling into the water herself. Officers were unable to find the dog at the scene but later learned it returned home.

Tippett said the police officer involved in the rescue may have left a piece of equipment from the scene in the pocket of a jacket lent to him by a witness after he emerged from the water.

Body parts search scaled down

Nov 4, 2009               Map: Coffs Harbour 2450

The search is to be scaled back on a property west of Coffs Harbour where human remains were found last Sunday. A man and his three children found the lower half of a man’s body on the bank of Wayper Creek at Dairyville on the New South Wales mid-north coast. Another suspected body part was found in the area yesterday and will be forensically tested today to see if it is human.

Detective Inspector Cameron Lindsay says a different type of search will be continuing on the 42 hectare property. "We've had a couple of days of extensive searching utilising specialist police, cadaver dogs, divers and we've really concentrated on that creek area," he said. "We'll now be looking away from that, some roadways
etc. "So we will be scaling back the use of cadaver dogs and the police divers and the like."

Detective Inspector Lindsay says bones have also been found but it is likely they belong to animals. Police are currently analysing a preliminary autopsy report that was done on the remains found on Sunday.

**Gruesome Yuba City murder detailed in court**

http://www.theunion.com/article/20091106/BREAKINGNEWS/911069985/NONE&parentprofile=1053

11/06/09 By Rob Young Special to the Union

A Yuba City man was tortured with electricity and slowly bled to death from scores of cuts and stab wounds all over his body, according to testimony Thursday in Sutter County Superior Court.

Gabriel Melendez-Huerta, 54, was found April 27 on the second floor of his home in the 1800 block of Turin Drive.

At a preliminary hearing for Michael Collier, one of two men charged with first-degree murder, torture and robbery, Yuba City police Detective Jason Parker described broken furniture and electric cords connected to wet neck ties that apparently bound Melendez-Huerta to a chair. Blood was smeared on floors, walls — even a ceiling, he said. "That room was destroyed," Parker said. "Everything was covered with blood," he said "It was definitely the most involved scene I've ever been present on."

Melendez-Huerta, an X-ray technician at Enloe Medical Center in Chico, lived in a nice neighborhood on the city's west side. According to authorities, he had connections to the Oroville drug scene.

An investigation began when a California Highway Patrol officer found Melendez-Huerta's 2005 blue Mustang GT parked near a Highway 70 bridge over the Feather River in Oroville, the engine running.

The other defendant in the case, Dewayne Norman "Cowboy" Carter, was walking back to the car, acting "very peculiarly" and "fidgety," the officer testified.

Carter was arrested after jumping into the river.

In the Mustang were found items from Melendez-Huerta's home — paintings, a comic book collection, a wallet, checkbook and a blood-stained ceramic statuette of a
pixie with the wings broken off, police said.

Wings found underneath Melendez-Huerta's body matched the statuette, Parker testified. "A variety of weapons were apparently used," including what appeared to be a broom or mop handle, pathologist Thomas Gill testified. He estimated it took at least 45 minutes for the victim to die.

Melendez-Huerta had 21 puncture wounds just on his upper right arm, Gill said. "It would have been quite painful," he said.

Collier drove Carter to Melendez-Huerta's house and left but knew what was going to happen inside, Assistant District Attorney Jana McClung said in an interview.

After he was arrested and put in Butte County Jail, Carter made more than 20 calls during the next two days, Yuba City police Detective John Ehrk testified.

Despite a recorded warning that outgoing calls are taped, Carter told Collier, "That (expletive) would not kick the bucket for (expletive)," Ehrk said.

Carter allegedly told his girlfriend, Tamara Patrice Simmons, on the phone that he had thrown his boots and clothing into the Feather River.

Bloody footprints were found near Melendez-Huerta's body, Parker testified.

In another phone conversation, Carter referred to having someone start "a campfire" — apparently referring to a plan to burn down Melendez-Huerta's house, police said.

In the water under the bridge where Carter was arrested, Butte County Sheriff's divers found a steak knife with a bent blade, a screwdriver, a large fork used for carving meat and a black hooded sweatshirt, police Sgt. Lincoln Eden testified.

Collier can be heard saying in one conversation, "Sounds like you deviated from the plan," Ehrk testified.

Carter's girlfriend, Simmons, originally was charged with being an accessory to murder but pleaded no contest Oct. 19 to harboring a felon. She was sentenced to the 187 days she had already served in jail and three years probation, according to the District Attorney's Office.

The preliminary hearing continues today.

**Man, 27, dies in bayou crash**

Divers, volunteers search Little Cypress Bayou

http://www.news-
HARLETON — The body of Linden man was found Sunday night in Little Cypress Bayou after a motorcycle wreck left rescuers searching for hours.

Antwain Chism, 27, was riding south on FM 450 when he failed to make a turn and traveled into the water just before the bridge, Texas Department of Public Safety Trooper Jimmy Benton said at the scene. He said the rider was speeding.

Chism's brother, who was riding a second motorcycle, looked back in time to see him enter the bayou about 2:50 p.m. He said Chism surfaced, removed his helmet and went back under water. "His brother jumped in to try and get him to safety, but he felt it was pulling him down, so he had to get out," Benton said.

"Others jumped in, too, but it was the same thing." Volunteers searched the water with a tow hook after finding Chism's helmet and motorcycle headlights floating in the water. Others walked along both banks looking for any sign of the missing man.

An officer reported over the police scanner that Chism's motorcycle had been found about 6:30 p.m. Chism's body was found several hours later.

Marion County Sheriff's Department divers and ALERT divers from Big Sandy searched the water three at a time, though debris and an old truck submerged in the murky brown water made conditions difficult. Members of the Harrison County Sheriff's Office, Harleton Volunteer Fire Department and Champion EMS also assisted at the scene.

Swimmers up creek in rising tide
November 9, 2009 The Cairns Post

TRAINING became reality for a group of defence force engineers who helped save two damsels in distress at Josephine Falls yesterday.

Two Cairns women, aged 23 and 19, had been swimming when they were surprised by a surge of water down Josephine Creek.

They were forced to swim to a large rock and tree in the middle of the river and waited there for help.

The defence force team quickly called emergency services and calmed the two stranded swimmers, who were later rescued by the swift water rescue boat. Both swimmers were cold, but not hurt during their rescue.

The surge of water would have been caused by widespread heavy rain which fell from Cairns to Innisfail.

Search for bridge jumper ends
http://www.thetimesherald.com/article/20091109/NEWS01/911090312/IN-BRIEF
November 9, 2009

Divers were unable to recover the body of a 27-year-old Port Huron man officials said jumped from the Blue Water Bridge Tuesday. Lt. Dennis Maurey with the St. Clair County Sheriff Department's Marine Division said crews exhausted their efforts Sunday. Divers, crews on boats and in helicopters have been looking for John Paquette since officials said he abandoned his car on the eastbound span of the bridge about 11:40 a.m. Tuesday and jumped. Maurey said boats on regular patrol will continue looking for Paquette.

Water Rescue Team Helped Prolong Man's Life
November 12, 200

FAYETTEVILLE, Ark. -- Less than an hour after falling into the frigid waters of the White River Wednesday, a local man was well on his way to the hospital.

He died there Thursday morning, but medical officials said he might have never made it that far if it wasn't for the Fayetteville Fire Department's water rescue team.

The team said the victim was lucky to be revived after the accident. Responders were able to get him to maintain a pulse on his own after pulling him from the water, but that might not have been possible if he had stayed under any longer.

Fire Captain Willie Watts said the department got the accident call about 3:20 Wednesday afternoon and it immediately jumped into action. “We had rescue swimmers in the water by 3:27,” he said.

The rescuers started a grid-style search of the bottom using wetsuits and other gear, with swimmers diving down to try and feel any indication of the missing
man. “We try to go to the point of last known location or the last point that the bystanders saw him,” Watts said.

The crew was helped out by the fact that they actually practice many of their search techniques in the exact area where the man went missing. The still water conditions there helped too. “The water we encountered there was fairly clear so we were able to see into the water and it was 12 to 15 feet deep,” Watts said.

After about 30 minutes, the man was finally located and was brought to the surface by divers going down to the bottom of the river and hauling him up with brute force. “We just used a lot of feel,” Watts said. “We basically swam down, got him, and removed him to the bank.”

The team said they get about 5 to 10 water rescue calls a year, though most are swift water and pose a greater safety hazard to the team.

Many times those calls come after flash flooding. Some of the members of the Fayetteville team are also members of the Washington County dive team. A few of those men were sent to Ozark to rescue stranded campers at Rocktoberfest several weeks ago.

FIREFIGHTERS WELL PREPARED SAYS CHIEF
http://www.arbroathherald.co.uk/news/FIREFIGHTERS-WELL-PREPARED-SAYS-CHIEF.5809646.jp
13 November 2009 By Staff

THE FIRE Brigades Union is becoming more and more concerned at what it sees as "unnecessary risks" being faced by its members in Tayside Fire and Rescue while attending flooding incidents in the area. However, the Chief Fire Officer Stephen Hunter believes that his men are among the best equipped in Scotland to deal with this kind of emergency.

John Duffy, FBU regional secretary, explained: "We have watched over the years our members taking enormous risks to their own personal safety.

"Firefighters like Tom Brown who tied a rope around himself and entered the Tay in Perth and rescued a young lady. He was untrained in water rescue but still tried and made the rescue.

"Last weekend we had flooding again in Angus. Once more our members were mobilised to these incidents and once more our members were taking risks and entering water without the proper training, inoculations and welfare arrangements.
"This is the second time in a matter of weeks that the service has had serious flooding, yet we continue to see our members trying their best with little training, without the proper tools and wearing completely the wrong protective equipment."

"It does beg the question of how serious some managers are about our safety.

Roddy Robertson, executive council member, said: "It is only a matter of time before we pay the ultimate price, as happened in Greater Manchester a number of years ago when we lost a firefighter who was not fully trained and who had entered water to attempt a rescue.

"This is a foreseeable occurrence and not an accident. If the service wishes to use our members for water rescue then train them and stop playing Russian roulette with our member's lives.

But Mr Hunter says that local firefighters are well trained and ready to respond to any situation that arises.

He said: "This statement from the Fire Brigades Union does not reflect the current situation in Tayside Fire and Rescue in relation to the training of firefighters to respond to flooding incidents or to the equipment and personal protective equipment they have been provided with to enable them to perform this important aspect of their emergency response role.

"Tayside firefighters, based at Kingsway East Fire Station in Dundee and Perth Fire Station, are among the most highly trained and best equipped in Scotland in relation to their ability to assist our communities in times of flooding.

"These specially trained firefighters supported their colleagues from fire stations across Angus to assist the communities affected by Sunday’s torrential rain, including those worst affected in Carnoustie, Arbroath and Brechin.

Police: No Evidence Of Homicide In Scott's Death
Superintendent Says Gunshot Residue Found On Scott's Left Hand
http://cbs2chicago.com/local/michael.scott.credit.2.1319490.html
Nov 18, 2009

CHICAGO - Chicago Board of Education President Michael Scott was the victim of a homicide. But they say the investigation is ongoing.

Police Supt. Jody Weis said Wednesday that tests found gunshot residue on Scott's left hand. Scott was left-
handed and was shot in the left temple. His body was found partially submerged in the Chicago River on Monday.

Weis said the .380-caliber gun found underneath Scott's body was Scott's gun. Scott bought it in 1981, but was not registered legally. His Cadillac was also found at the scene.

The superintendent also said divers recovered Scott's money clip from the water, and it appears to be intact with cash and credit cards. But Weis said police still need to know more before closing the case. "We still have a few ends we'd like to tie up. We're waiting for ballistics to determine if that weapon, the rounds in that weapon actually caused the wound to his head. And there's some video footage we want to recover."

A group of city ministers and activists also said Wednesday that they want absolute proof before they'll believe Scott killed himself. They did not mince any words on Wednesday. "It was a hit," said community activist Kublai Toure.

Members of Chicago's African American community, ministers and activists said they refuse to believe the Cook County Medical Examiner's office ruling that Scott killed himself. Harold Davis said, "Michael belonged to us and we belonged to him and we're not gonna rest until we find out what happened to Michael Scott."

So what do they think happened? Who do they think would want to hurt Scott? Toure said, "That's a good question. That's the question that we've been asking ourselves."

Cook County Medical Examiner Nancy Lynne Jones said Tuesday that she believes unequivocally that Scott died at his own hand.

"Actually the gunshot wounds themselves are the type that we see in suicides, not the type that we see in homicide cases," Jones said. "This is a hard contact-range gunshot wound to the head, which means that the gun was held directly against the head and actually pressed against the head; which is something that we see in suicides." Jones said two detectives present during the autopsy agreed with the suicide ruling. She also accused police of violating state law by moving Scott's body without permission from her office.

Mayor Richard M. Daley blasted Jones on Wednesday, accusing her of grandstanding. "Regardless of what the medical examiner says, they have to do a thorough investigation and come to the conclusion. He or she can say anything they want," Daley said.

Detectives were looking for any other clues in Scott's Blackberry cell phone, left on a ledge near the river. He was last seen at about 6:30 p.m. Sunday after visiting his sister at a South Loop nursing home. Police News Affairs Director Roderick Drew said the last outgoing call on Scott's cell phone was at 3:46 p.m. Sunday.

Police were also checking cameras across the river from where he died, but Weis said the cameras with the best view of the scene were not working. "Cameras that we believe would have given us excellent footage were inoperable," Weis said. "So we're forced to use other cameras which will not give us the view of the actual
location as we were hoping for, but it should at hopefully put his car being moved and hopefully we can see him driving the car and see if he is actually alone."

Weis said Scott's cell phone showed nothing unusual in the types of calls he made. He said it would likely take another week for police to complete their review of all the information and evidence in Scott's death. But that did not appear to be good enough for the ministers and activists who spoke out Wednesday. They said they want the Illinois Attorney General's office and federal authorities to conduct an investigation.

At the time of his death, Scott was under scrutiny for how he used his Board of Education credit card, just before his death, according to new reports Wednesday. The Chicago Tribune reported Scott and his wife charged their trip to Copenhagen, Denmark, to lobby for Chicago's unsuccessful 2016 Olympic bid in early October. The total cost was around $3,000.

Chicago Public Schools spokeswoman Monique Bond told the Tribune a preliminary inquiry into the matter is underway. She confirmed that Scott had started to pay back the money and had written a check for part of the bill as recently as last week.

Also Wednesday, because of Scott's death, the regularly scheduled meeting of the Chicago Board of Education has been canceled.

Remarks and tributes to Scott are also expected Wednesday morning during the City Council meeting, which begins at 10 a.m. at City Hall.

In further addition, ministers and community leaders will gather on the city's West Side Wednesday morning to talk about Scott's death. They will gather at 11 a.m. at 3500 W. Cermak Rd.

CBS 2's Dana Kozlov and the Associated Press contributed to this report.

A policeman from Watford saved his colleague's life moments before his own death

http://www.watfordobserver.co.uk/news/4748781.Diver_saved_colleague_s_life_moments_before_his_own_death/
19th November 2009 By Michael Pickard

A respected policeman from Watford who died after a diving accident saved the life of his colleague moments earlier, an inquest has heard.

Detective Sergeant John Gilbert, a respected child abuse investigator with the Metropolitan Police, realised he and Christopher Read were running out of air so released his friend's heavy weight belt to allow him to rapidly ascend to the surface. But following him to the surface from a depth of about 30 metres, the 58-year-old suffered severe decompression sickness that led to his death, West Sussex Deputy Coroner Martin Milward heard on Wednesday.

Detective Sergeant John Gilbert (right) received an award for long service with the Metropolitan Police from Commissioner Sir John Stevens in 2002.
After about 25 minutes, the inquest heard the pair were six metres below the surface when Mr Read, who had swapped from his first tank to his second, found he could no longer breathe in oxygen. He said: “I tried straight away to swap over to the other cylinder. I looked around for the other regulator (mouth piece) because I spat mine out.”

Both men were members of the Metropolitan Police Sub Aqua Club (MPSAC) and were diving on a wreck several miles off the coast of Worthing, West Sussex, on August 8 this year.

Mr Read, who had been a friend of the father-of-two for 15 years, told the inquest the pair had joined two other divers and the skipper of the police club’s Blyth catamaran Proteus at Littlehampton Marina. He said they had planned and prepared the wreck dive, which was his first at 28 metres having previously only descended to a depth of 20 metres.

Mr Read, who wore two air tanks during the dive, said: “We were just swimming about, occasionally checking how much air we had. We were just swimming around a wreck, he was pointing out conger eels and eventually we gradually worked our way up [to the surface].”

As Mr Read became increasingly panicked, DS Gilbert passed him his own spare regulator. But during the underwater emergency, the pair, who were now breathing from the same tank, sank back to the wreck and it was at this point DS Gilbert decided to remove his colleague’s weight belt. This allowed Mr Read to swim to the surface, despite risking decompression sickness, and was a decision that saved his life, an expert witness told the coroner. DS Gilbert, now dangerously low on air himself, followed him up.

Jim Watson, safety and development manager at the British Sub Aqua Club, said: "There is no doubt in my mind that John's actions saved Chris' life. "He certainly provided something to breathe in a water environment which is very important and there can only be one ending if you stay under water without oxygen."

Skipper Kevin Fletcher-Biles, a serving Metropolitan police officer, said Mr Gilbert was a "careful and prudent" diver and a veteran of more than 350 dives. Speaking of the moment DS Gilbert resurfaced, he said he heard him shout at first before going quiet. He said: "He was not making any noise at that stage. I noticed that John's head was back, bobbing under the water and his lips were blue. "There were no bubbles coming from his mouth." Mr Fletcher-Biles made a Mayday call that was responded to by a lifeboat and then a coastguard.
helicopter, which airlifted both injured divers to Worthing General Hospital.

Mr Read made a full recovery but DS Gilbert, from Woodmere Avenue, died the next day from decompression sickness, meaning oxygen bubbles expanded in his lungs and entered his brain.

Recording a narrative verdict, Mr Milward said: "Diving is recognised to be a very enjoyable pursuit and it is also a potentially dangerous one. "Whilst all care was taken on this occasion there is always a risk that a problem can occur despite all the training. I believe the assistance John gave Chris not only at the surface but in making the emergency ascent by discarding his weight belt, those actions by John have undoubtedly saved Chris' life. Tragically John has not been so fortunate."

Mr Milward also praised divers Stephen De Burgh-Thomas and Paul Beekan who administered CPR during the tragedy. Paying tribute to the officer, Detective Superintendent Reg Hooke of the Metropolitan Police’s child abuse investigation team (CAIT) said: "Standing 6ft and 3ins tall, John was known among colleagues as their gentle giant. "He was a hard-working and highly professional member of Edgware CAIT. John will be sadly missed by everyone who had the privilege of working alongside him - both within the MPS and outside it."

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**INFORMATION YOU CAN USE**

**Underwater Crime Scene Photography**


3 April 2007 By Dutelle, Aric

Today’s forensic photographer is well versed in the methodology and logistics associated with above water photography. There has been a great deal of emphasis and training dedicated to ensuring that proper viewing angles, distances and subject matter are captured in an effort to record a true and accurate depiction of the scene as it was when the photographer shot it. However, what if the crime scene in question was located under water? Would the same practices and methodologies apply? Would the same equipment and personnel be appropriate?

Environmental challenges require both personnel and equipment modifications in order to effectively document an underwater crime scene. How does depth affect color? How does the density of water affect subject size and clarity? How do the photographer and the equipment compensate for such difficulties? What are the processing methodologies and both equipment and training issues?

Oftentimes, the SOPs associated with processing crime scenes are forgotten or ignored when encountered with an underwater crime scene. There are many reasons for this
occurring, some of which include equipment, manpower, and/or environmental issues. More often, it is a result of improperly trained or equipped personnel or a case of rushing and thinking, "It won't really matter as long as we get the stuff." However, the underwater scene and its contents are equally important and subject to the same scrutiny and legal considerations as a land-based scene and should therefore be processed in an equally thorough and competent manner.

**Personnel Training**
The first obvious hurdle is that typically an underwater scene will require the photographer to submerge him or herself in order that the scene be documented. This usually requires that the photographer be a certified diver in order to effectively document an in-water event. With an exception being very shallow water photography, accomplished by either wading or taking photographs from a boat or other floating object, the individual tasked with the duty must be a competent swimmer and underwater diver, as well as a skilled photographer.

Whenever a person enters an environment within which his body was not meant to live, there are hazards, risks, and restrictions involved. The person assigned the duty of underwater photography must be both physically and mentally capable of venturing into and working within the underwater environment.

There are several organizations that will certify a person as a diver. Some are dedicated to recreational divers and a more civilian concentrated population (PADI, NAUI, SSI, etc.), and others are specifically related to public safety professionals (Dive Rescue International, Miami-Dade). Each has a purpose and a niche, however, the important matter is that an underwater photographer be certified, comfortable, and competent in order that he can effectively perform his assigned duties.

**The Underwater Environment**
In addition to training regarding how an in-water scene affects the human body, the individual also must be trained with regards to how the underwater environment affects photography. It is not enough to be a skilled topside photographer and think that one will be equally successful employing that knowledge and technique sublevel. There are several issues that must be addressed in order to effectively and accurately capture the underwater crime scene.

The first obstacle is equipment. A photographer is not typically able to employ the same photographic equipment that he uses for land-based crime scenes. Special marine or underwater cameras must be used or underwater housings used to encapsulate the equipment. This requires the photographer to have a working knowledge of the use and maintenance of such equipment. However, having the correct equipment is not enough. The photographer must next overcome the difficult environmental issues involved with underwater photography.

The first major environmental issue encountered by the underwater photographer is distortion. Water refracts light rays differently below the surface of the water. Unlike above the water, underwater light refraction causes objects to be magnified. For this reason, images and distances are distorted. In fact, objects underwater will appear about 33% larger. Thus, it is extremely important to include a scaled object for reference.
Although the scale will also be magnified, it will be magnified in direct relation to the object in question, thereby enabling a viewer to interpret the true size and dimension of the subject matter.

Another major problem is subject coloration. As depth increases, light rays of red, orange, and yellow are filtered out by the water. Eventually, the diver is left with only blue and green rays. Even in the clearest of waters, only blue and green wavelengths typically penetrate at a depth of more than 30 feet. This depth is significantly reduced if the water is polluted or murky. One way in which the photographer can overcome this loss of color is to shoot the photograph facing upward toward the surface, thereby using the most natural light penetration available.

Because natural light is quickly absorbed or scattered by water, artificial light is often essential. The addition of a strobe, thereby adding electronic flash lighting to the scene, is useful for two reasons: to illuminate the subject matter, and to obtain the true color of underwater objects and surroundings.

However, water is significantly more dense than air, and electronic flash will not typically penetrate or light objects further away than 6 to 8 feet, depending on the strength of the strobe employed.

Color correction (or compensation) filters can be attached to the lens in instances where overall photos are being taken. A strobe, however, must not be used for this, as it will not provide the correct coloration. Color correction filters are designed to be used without the strobe. If a color correction filter is used, it must be reflected on a diver’s photo log. Remember, the important thing about crime scene photography is that it is a true and accurate portrayal of the scene as it was when the photograph was taken.

Technically, the scene was viewed by the photographer in unnatural colors of shades of green and blue, not in the “true” colors compensated for by the filter. However, the filter does make the photo more realistic as to what the subject matter would or should look like were it not for the environmental abnormalities associated with being underwater.
In addition to distortion, coloration and lighting issues, many times the environment itself will create difficulty for the underwater photographer. Silt, sediment, algae and pollution can create what are called "black" or "brown" diving conditions. These are conditions where visibility can be less than 1 or 2 feet. It is especially important for the photographer to have good diving skills to ensure proper buoyancy so as not to disturb the environment and affect photo quality.

Adapting to Underwater
To overcome the difficulties encountered when photographing an underwater scene, there are a few basic methods to employ. If possible, stay shallow. This will reduce the color loss from light reaching the subject matter. However, if the crime scene is deep and photographs must be taken at a greater depth, the use of a strobe or color correction filter must be employed.

Whenever possible, use a strobe (electronic flash). This will replace the light that is lost underwater. Again, the only time when it is not suggested that a strobe be employed is when the photographer is making use of a color correction filter for overall photos taken at depth.

Stay close to your subject. Because of underwater distortion, coloration issues, and environmental haze, it is wise to keep the distance between the subject and camera as close as possible.

Maintain proper buoyancy. If a diver-photographer is able to maintain his proper altitude, it will reduce or eliminate distortion and obliteration caused by stirring up environmental elements.

Processing the Underwater Scene
When confronted with an underwater crime scene, the investigation team must take into account that there are multiple scenes and levels that must be accounted for. Just as in an above-water scene, there will need to be multiple methods of documentation that must occur. These remain the same. They are typically: still photography, videography, sketching/mapping, and the written report.

When documenting the scene through these four methods, the investigation team must remember that there are two types of scenes that must be documented. The first is the surface scene. This includes any water access points such as piers, shorelines or waterfronts, as well as the surface of the water. All of the aforementioned must be thoroughly searched, photographed and located items of evidence noted on a sketch.

The other type of scene is the submerged scene. The submerged scene has the added difficulty of depth, as well as the aforementioned environmental issues and visibility issues, which compound the problem. This is why it is imperative that only those people who have received proper training and certification in such matters be utilized to conduct underwater search-and-recovery operations.

The submerged scene includes the objects located at depth, as we’ll as the level at which they were found. It is a three-dimensional scene, often with very little in the way of fixed markers or items to aid in reference. Just as with the surface scene, this area must be thoroughly searched. Items of evidence must be photographed,
marked and their positions and depths noted on a sketch. It is suggested that the diver or dive team assemble a diver's slate made specifically for the purpose of annotating underwater scene information.

Just as with the surface scene, items of evidence must be properly located, documented, collected and preserved. Items of evidence recovered from water will require special handling and packaging. Depending on the item, sometimes it is suggested to package the item underwater, thereby ensuring the collection of any trace material adhering to the item.

It is often suggested that the item be packaged in the water in which it was found to slow environmental deterioration possibly caused by removing the item from water. As was mentioned before, it is extremely important that an individual familiar with the collection and preservation of underwater evidence be used for such matters.

All too often, underwater crime scenes—and the evidence collected—are not properly documented or processed. This failure can result in a loss, contamination or inadmissibility of the evidence. Proper underwater crime scene processing and documentation methods will ensure that the evidence is located, properly documented, preserved, and able to be used in subsequent litigation.

It is important that the underwater investigation team be properly trained and take part in ongoing training specifically relating to matters of crime-scene documentation and processing methods involving the underwater environment. What is not searched for will not be found. What is not found cannot be analyzed to uncover the truth.

Aric Dutelle is a professor of forensic investigation at the University of Wisconsin-Platteville. He is also a sheriffs patrol deputy for the Grant County, WI Sheriff's Office and is a certified dive master and underwater photographer. He can be reached at dutellea@uwplatt.edu.

The Fingerprint Sourcebook
http://www.forensicmag.com/News_Articles.asp?pid=725

Using fingerprints to identify individuals has become commonplace, and that identification role is an invaluable tool worldwide. What some people do not know is that the use of friction ridge skin impressions as a means of identification has been around for thousands of years and has been used in several cultures.

Learn more about fingerprints and their forensic uses in The Fingerprint Sourcebook, the definitive guide to the science of fingerprint identification, created by experts from the International Association for Identification.

The NIJ will be publishing The Fingerprint Sourcebook in PDF form on its site, www.ojp.usdoj.gov/nij/ pubs-sum/225320.htm. Chapters one and four are currently available.

The Sourcebook is available free and will be published in stages. Sign up to receive an e-mail update whenever NIJ releases a new chapter.
Zipper Caught on Skin or soft parts

Usually a diver has outgrown his wet suit or is getting dressed too quickly to get into the water to see some unusual fish, such as a whale shark or Manta ray and accidentally pulled up penile skin into his zipper. The skin and bathing suit becomes entrapped and crushed between the teeth and the slide of the zipper, thereby painfully attaching the article of clothing to the body part involved (most often the penis or less often the area beneath the chin).

What to do:
Paint the area with a small amount of povidone-iodine or other antiseptic and infiltrate the skin with 1% lidocaine (plain). This will allow the comfortable manipulation of the zipper and the article of clothing. Ice might suffice in the absence of lidocaine.

Cover the area with mineral oil or WD40. This lubricates the moving parts and often frees the skin without having to cut the zipper.

If the mineral oil alone does not work, then cut the zipper away from the article of clothing to leave yourself with a less cumbersome problem.

Cut the slide of the zipper in half with a pair of metal snips or an orthopedic pin cutter. If you are unable to break the two
halves of the zipper slide apart using a metal cutter, then take two heavy duty surgical towel clamps or needle nose pliers and place their tongs into the side grooves at both ends of the slide. then grip one clamp firmly in each hand and then twist your wrists in opposite directions. This often will pop the two halves of the zipper slide apart, releasing the entrapped skin.

Pull the exposed zipper teeth apart, cleanse the crushed skin, and apply an ointment such as neosporin. Tetanus prophylaxis should be administered as needed.

What not to do:
Do not excise an area of skin or perform a circumcision; it only creates unnecessary morbidity for the patient.

References:


Disclaimer: Diving Medicine does not endorse any of the medications, products or treatments described, mentioned or discussed in any of the services, databases or pages accessible within or from 'Diving Medicine', and makes no representations concerning the efficacy, appropriateness or suitability of any such products or treatments. You are encouraged to consult other sources and confirm the information contained in any of the services, databases or pages accessible within or from 'Diving Medicine'. If erroneous or otherwise inaccurate information is brought to our attention, a reasonable effort will be made to correct or delete it. Such problems should immediately be reported to erncampbell@gmail.com.

EVENTS

If you have an event or know of an event that might be of interest to PSDiver Monthly subscribers, send the information to: PSDiverMonthly@aol.com

Come out to a DUI DOG Rally & Demo Tour and Actually TEST DIVE DUI Drysuits,
DiveWear Insulation and Accessories
2009 Calendar / Locations
http://www.dui-online.com/dog_main.html

Forensic and Cold Case Investigations
www.ocpe.gmu.edu/forcoldcase.html
January 17-19, 2010
Presented by Dr. Henry Lee and Dr. Leah Bush.
Sponsored by George Mason University.
Hyatt Fair Lakes in Fairfax, VA.

Association for Crime Scene Reconstruction (ACSR)
Annual Training Conference
www.acsr.org/
February 10-12, 2010
San Diego, CA at The Dana on Mission Bay

Basic Evidence Photography
http://www.imprimus.net/workshop_forensic_basic_evidence_photography.html
February 1 - 3, 2010
Seymour Police Department: Seymour, Indiana
Our World-Underwater
http://www.ourworldunderwater.com/
February 19-21, 2010
Donald E. Stephens Convention Center, Rosemont, IL

Underwater Intervention 2010
http://www.underwaterIntervention.com
Feb 9 thru Feb 11, 2010
New Orleans, LA, USA

Side Scan Sonar Training
February 23, 24 and 25
Annapolis, MD

Technical Large-Animal Emergency Rescue Training
March 22-24, 2010
Eastern Kentucky University, KY

Beneath The Sea 2010
http://www.beneaththesea.org
March 26- 28, 2010
Meadowlands Exposition Center, Seacaucus, NJ

Arkansas' Fourth Annual Search and Rescue K9 Working Dog Seminar
March 31-April 3, 2010
Camp Robinson Wildlife Demonstration Area, Conway, Arkansas.

Medicolegal Death Investigator Training
April 26-30, 2010
Sponsored by the Saint Louis University School of Medicine, Division of Forensic Pathology. To be held in St. Louis, MO. CONTACT: Mary Fran Ernst or Julie Howe Saint Louis University School of Medicine 1402 S Grand Blvd R512 St Louis, MO 63104 (314) 977-5970

Search and Rescue 2010
http://www.shephard.co.uk/events/44/search-and-rescue-2010/
April 21, 2010 - April 22, 2010
Aberdeen Exhibition & Conference Centre, Aberdeen, Scotland, UK

9th Annual National Drowning Prevention Symposium
http://www.ndpa.org/events/symposium.htm
April 26-27, 2010. Pre-conference workshops on Sunday, April 25
Sheraton at Station Square, Pittsburgh, PA.

SCUBA Show 2010
http://www.scubashow.com/
May 15th and 16th, 2010
Long Beach, California

Biological & Trace Evidence Workshop
http://www.imprimus.net/workshop_forensic_bio_and_trace.html
May 24 - 26, 2010
Springfield Police Training Academy, Springfield, Illinois
National Search and Rescue Conference
http://www.nasar.org/nasar/conferences.php?id=159
May 13 – May 15, 2010
Tunica, Mississippi

TOPICS IN CRIME SCENE INVESTIGATION:
BODY FLUIDS AND TRACE EVIDENCE
http://www.le-seminars.com/011.htm
June 3-4, 2010
Clay County Sheriff Training Academy, Orange Park, Florida

Firehouse Expo 2009
http://www.publicsafetyevents.com/emsfh/index.po
July 20-25, 2010
Baltimore Convention Center
Baltimore, MD

EMS Expo
http://www.publicsafetyevents.com/ems/index.po;jsessionid=dWZDQXpNtSo-T-pwDoQYP1GS
Sept. 27 - Oct. 1, 2010
Dallas Convention Center, Dallas, TX

2010 IEEE International Conference on Technologies for Homeland Security
http://ieee-hst.org/
8-10 November
Waltham, MA USA

If you have events you would like posted, send them to PSDiverMonthly@aol.com

PSDiver Monthly Issue 67

PSDiver Monthly Continuing Education
PSDM-CE-67

From the ADCI consensus standards
http://www.underwatermagazine.com/
select past issues then select November / December

1) A diving harness shall be certified by the manufacture or supplier to confirm that is meets the ACDI standards.
   a. True
   b. False

2) Each dive shall be equipped with a full body harness that has an overall breaking strength of ______.
   a. 500 lbs
   b. 100 lbs
   c. 1200 lbs
   d. 1500 lbs

3) Each rescue/retrieving point intended for lifting a dive shall withstand a _____ static load test.
   a. 1200 lbs
   b. 2000 lbs
   c. 3600 lbs
   d. 5000 lbs

4) SCUBA diving depth is limited to ______.
   a. 90 fsw
   b. 100 fsw
   c. 132 fsw
   d. 150 fsw
5) SCUBA diving is not to be conducted in currents in excess of _______ knot(s).
   a. 1  
   b. 1.5 
   c. 2  
   d. 5

6) Lift bags must be equipped with a _______.
   a. Markings as to lift capacity
   b. Two dump valves
   c. Surface connected pressure valver
   d. Dump line weight

7) EAD diving limits the oxygen content to _______.
   a. 30 %  
   b. 40 %  
   c. 50 %  
   d. No limit

8) Medical issues now consider the _______ of the diver.
   a. Missing fingers  
   b. Strength in arms 
   c. Body weight/height ratio 
   d. Food intake prior to diving

9) The definitions of “bells’ has _______.
   a. Increased to include new systems
   b. Remains the same
   c. Decreased to reduce confusion between bells 
   d. Removed

10) Live boating restricts the use of surface supplied air ( tools )
    a. True  
    b. False

11) EAN diving uses the _______ manual for standards.
    a. OSHA 
    b. Navy 
    c. NOAA 
    d. ACDI

12) Altitude diving see a _______ to the dive tables 
    a. Major change 
    b. Minor change 
    c. No change 
    d. Determined by the agency at the altitude operation

1. **Team discussion:** Review the new ADCI Consensus for applicability to your team and your service.

2. **Team discussion:** Discuss the new standards on lift bag operation and how it might affect your current equipment.

3. **Team discussion:** Discuss the new harness certification and testing procedures.
These professional PSD training agencies have recognized PSDiver Monthly as a valued addition to their programs and / or Continuing Education requirements.

Public Safety Diving Association (PSDA) recognizes and approves the PSDiver CE program. Each month’s Q&A program credits 1 CEU for renewal up to a maximum of 3 CEUs from this source for each year’s renewal.

ERDI Recognizes and supports the PSDiver Monthly CE Program. Contact your ERDI Instructor for details.

We welcome all training agencies and organizations to participate.

For details, email PSDiverMonthly@aol.com

Scholarship Program

Marine-related scholarships are being offered by Seaspace, Inc. SEASPACE is a 501(3)(c) organization. The SEASPACE Permanent Education Fund earnings and private donations endow scholarships specifically in support of marine-related courses of study. Financial assistance has been provided to more than 332 students enrolled in accredited colleges and universities throughout the United States. Approximately 75% of past awards have been to graduate students, with the rest going to undergraduates. Majors have included marine sciences, marine biology, wildlife and fisheries, environmental toxicology, biological oceanography, genetics, ocean engineering, aquaculture and zoology with marine mammal applications.

The scholarships are open to undergraduate students entering their junior or senior years and graduate students with an overall GPA of at least 3.3/4.0 and demonstrating financial need. Students must be enrolled or accepted full-time in an accredited US college or university beginning with the 2009 fall term. United States citizenship is not a requirement.

The application document must be received no later than 11:59 PM, February 1, 2010 to be eligible for consideration, regardless of mailing date. Electronic/e-mail entries will be accepted (single pdf files preferred). Late arrivals will not be returned to the sender nor will
Watson pondered for a minute. “Astronomically, it tells me that there are millions of galaxies and potentially billions of planets. Astrologically, I observe that Saturn is in Leo. I deduce that the time is approximately a quarter past three. Theologically, I can see that God is all-powerful and that we are small and insignificant. Meteorologically, I suspect that we will have a beautiful day tomorrow. What does it tell you?”

Holmes was silent for a minute, and then spoke. “It tells me that someone has stolen our tent.”

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**Experiment – Is a dog truly a man’s best friend.**

*If you don’t believe it, just try this experiment.*

Put your dog and your wife in the trunk of the car for an hour.

When you open the trunk.....who is really happy to see you?

**The Holmes investigation**

Sherlock Holmes and Dr Watson went on a camping trip. After a good meal and a bottle of wine they laid down for the night, and went to sleep. Some hours later, Holmes awoke and nudged his faithful friend.

"Watson, look up at the sky and tell me what you see."

Watson replied, "I see millions and millions of stars."

"What does that tell you?"

Watson pondered for a minute. "Astronomically, it tells me that there are millions of galaxies and potentially billions of planets. Astrologically, I observe that Saturn is in Leo. I deduce that the time is approximately a quarter past three. Theologically, I can see that God is all-powerful and that we are small and insignificant. Meteorologically, I suspect that we will have a beautiful day tomorrow. What does it tell you?"

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