

Currents



Quarterly Journal: January 2017, Vol. 11, No. 1

In this Issue:

Scuba News

- National Days
- Passing of Dear Friend

DEMA 2016

What Does a "Full Course Education" Really Mean?

World Whale Day

The Importance of Each Phase of Diver Education

Where Do We Go To Learn About Improving Safety?

- The Rescue Course
- The Volume of Air
- Dive Computers
- Entering Enclosed Spaces
- The Dive Medical Officer

Importance of Instructor and Student Emergency Training

Continuing in the Right Direction

A new year is a good time to evaluate the previous year and look forward to the possibilities of the future.

As we look to the coming year, we can reaffirm our educational foundation and philosophy that a full course education fosters a relationship between a diver and their instructor which results in students becoming committed lifelong divers who are more likely to take advanced and specialty courses and invest in scuba gear. When we focus on a well-rounded curriculum with equal emphasis on all phases of training from classroom, through pool or confined water to the open water dives, we build more proficient divers who are capable of being independent divers for a lifetime further perpetuating the lifecycle of the scuba industry.

A new year can remind us that we too as individuals need to continue practicing the skills required as a leadership team member by being current in CPR, first aid and diver rescue procedures. We also can build upon those skills and grow as we continue learning about our sport and industry. We are fortunate for access to scuba and diving related research conducted by other entities such as the US Navy who then share those findings, whether it is about how we can be better prepared scuba instructors, to the preferred gear selection in certain circumstances, to hazards to be aware of to better avoid them.



As we find joy and satisfaction in sharing our love of the underwater sport we practice, may we also seek out opportunities to continue to learn about our environment and its lifeforms, new gear and advancing technologies, along with recent research findings to impact our industry. As we welcome 2017, may we continue expanding our knowledge and understanding by learning together.

Left: Instructors and divers from SEI Italia together for a Christmas holiday dive

SCUBA NEWS

World Whale Day
Right: a humpback whale
Learn how you can help at:
<http://worldwhaleday.org/>



NATIONAL DAYS

January-March Events

- January 11 National Human Trafficking Awareness Day**
- January 20 Penguin Awareness Day**
- January 24 National Compliment Day**
- February 17 National Random Acts of Kindness Day**
- February 18 World Whale Day**
- February 27 International Polar Bear Day**
- March 20 International Day of Happiness**
- March 22 World Water Day**
- March 25 Manatee Appreciation Day**



Left: Polar Bear Day
an annual event
celebrated to raise
awareness about the
conservation status of
the polar bear.
[http://www.polar-bearsinternational.org/
get-involved/international-
polar-bear-day](http://www.polar-bearsinternational.org/get-involved/international-polar-bear-day)

Passing of a Dear Friend

We are saddened to learn from the Chicago area that Lou Nessler has passed away on December 18 from a heart attack. Lou served Yscuba for many years as area coordinator, and taught at Elmhurst YMCA. More recently he was a mainstay volunteer at the Shed Aquarium where he made dives with the critters and much more.

Lou was a certified diver for over 55 years. An unassuming man who was one of the most experienced and accomplished divers in the Chicagoland area, a true pioneer in sport diving and an avid friend and supporter of the Our World Underwater (OWU) show since its inception.

Many of you who have attended OWU over the years were fortunate enough to have gotten to know Lou. Those of you who didn't get a chance to know Lou but enjoyed the show can attribute a large amount of the success of the show to Lou and others like him. Few divers and instructors have dedicated themselves to the diving community as Lou had.

At the 2016 OWU Lou was selected as our "Someone You Should Know" recipient. We all personally lost a great friend and diving lost a lifelong advocate and teacher! Prayers for Lou and his family at this challenging time.





DEMA 2016

<https://www.flickr.com/photos/137523906@N06/30947670960/in/album-7215767551001362/>

By Tom Leaird, SEI & PDIC CEO

Again this year, SEI and PDIC provided a booth at the DEMA convention that attracted lots of attention.

Among the visitors were our representatives from Italy - Alessandro Talamona, Fausto Salsa, David Cecamore and from South Korea - Sung Gil Kim and Kevin Kim

The show was held in the South Hall of the Las Vegas Convention Center November 14 -17. The DEMA-sponsored seminars were especially helpful this year – especially for the retail stores. Myself, Thad Bowden, Executive Director; and Halynka Nannini, Associate; were all on hand to greet booth visitors.

I have been fortunate to serve two elected terms on the DEMA Board of Directors – a total of six years.

Due to term limits, I will not be serving on the board next year. I feel good about my experience and what I have been able to accomplish. For the last two years, I served as Treasurer of DEMA and headed up the finance committee. I also chaired the Strategic Planning Committee, and as part of that process we selected a new mission statement.

The new mission statement for DEMA is “Bringing businesses together to grow the diving industry worldwide”. DEMA’s new sales promotion for 2016 was, “Go Dive Now”, and was initiated earlier in the year. Responses from the retail sector indicate outstanding performance, driving new students and business to retail stores and beyond.

Funds raised through the DEMA show and all events produced by DEMA are used to help the industry, including monitoring legislation, advocating for environmental and economic issues, promoting recreational diving, keeping dive sites open and accessible to divers, providing DEMA member access to benefit programs such as the promotional program “Go Dive Now”, and conducting research on behalf of the industry.

If you are not a member of DEMA, I highly recommend joining. In addition to monthly

newsletters, you receive discounts for show attendance and negotiated rates with a myriad of other businesses. You would also have access to data about your dive center, potential customers, and general information about the diving industry.



Photo Left to Right: Kevin Kim, Thad Bowden, Tom Leaird, Sung Gil Kim at the DEMA Show 2016.

What Does a “Full Course Education” Really Mean?

By Tom Leaird, SEI & PDIC CEO

In the scuba industry, the training of new students has evolved since the 1950s, from nearly 40 hours of classroom and pool time with no open water dives, to courses today that provide two-hours of academic lessons and two or three-hours of pool or confined water time, plus four or more open water dives..

For this article, a longer course is referred to as a “full course” and the shorter course as a “weekend course.” Several scuba training agencies today have course times somewhere between those two extremes. The real inconsistency is that in each case, the ultimate certification awarded is as an “Open Water Diver.” The two are very different and create different experiences for divers..

In a dive store setting; the longer the course, the more contact time the instructor and store staff have with each student. In theory, this added time creates greater allegiance with the possibility of selling equipment and the opportunity for additional advanced and specialty courses. These divers often become “committed” divers who make several dives a year where diving becomes a lifestyle.

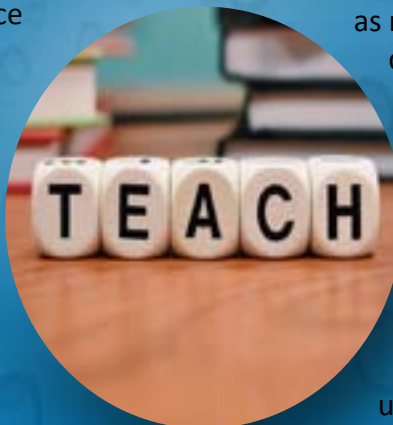
In a resort setting, an introductory course is often used to attract students often with an offer given to extend that program toward certification. Therefore, the inquisitive student who just wanted to “try it out” becomes a fully certified diver in this weekend format. These divers have little allegiance to the resort center and are not aligned with a dive store back home. Because of this, few become divers committed to the activity and purchase equipment and additional courses. For the aquatic-skilled person, the weekend course satisfies the need and these new divers are often traveling divers coming back to either the same location or one of a similar

orientation. The resort operator and Divemasters are aware of the lack of training of the weekend students and provide guidance during subsequent dive outings. In many cases, especially in colder regions, the weekend course divers take the initial academic and pool training at home and are referred to a resort for the open water dives. Again, the resort knows about the limited knowledge/skill levels and provides a safe experience for these new divers.

Some agencies recommend a full course where academic training is given by a real instructor using PowerPoint, text book, workbook, and other materials for a full education. The recommendation (and standards) is for the class/pool portion to take between 24 and 32 hours. This can be accomplished in as many as eight weekly sessions plus open water dives. The range of aquatic skills coming into a program brings each diver up to a level of comfort to become divers that are independently competent to safely dive with a buddy in many conditions. Those instructors using the 24-hour format must do more training in open water, including skill testing on every scuba dive, where the students from a 32-hour course only need minimal training/testing during the open water sequence to make each dive an enjoyable experience.

Academics in the full course are most often completed with an instructor in a classroom setting. In the weekend course, students learn the academic portions through an electronic format, with a DVD or the Internet. The weekend course student rarely has a full text and only sometimes a workbook. With SEI and PDIC, the academic testing standard requires a 50-question exam. Some instructors include as many as 100 questions. The weekend course student may take an exam online and then to confirm, a test of 25 or more questions with an instructor.

Pool or confined water training for the full course includes swimming, mask, snorkel, fins, and scuba components. Even a person with little comfort in the water can be brought up to easily accomplish the five required



skills as provided in our standards. The many exercises that are needed to bring students up to a level of comfort are recorded. In a weekend course students only need to show “proficiency” one time with a few exercises, and with no hour requirements.

A buddy pair graduating the full course will not instantly be comfortable and in some cases, will need to be encouraged to make some post-course dives on their own. However, these divers will have enough comfort and skill to go out diving and each time they dive, the comfort and skill level becomes much greater. With the weekend course, divers without a

high degree of prior aquatic comfort will be terrified to go off diving with a similarly qualified diver and perhaps not dive again.

Discovering the optimal level of education is a challenge. This recreational activity is physically demanding and potentially dangerous. The full course of education provided by SEI and PDIC is the level of training that can provide new divers with sufficient knowledge and skills to pursue the activity safely and with enjoyment for a lifetime.

World Whale Day – Feb 18, 2017

Celebrated to bring awareness and inspire action to protect the humpback whales and their ocean habitat.

Humpback Whales

(*Megaptera novaeangliae*)

- Have a massive and powerful tail fin called a fluke
- Known for often leaping out of the water – popular with whale watchers
- Are a baleen whale with 2 blowholes on top of its head and instead of teeth possess baleen plates with bristles that catch the small prey they eat - krill, plankton and small fish.
- Migrate from the poles to the Equator during winter for warmer waters, sometimes as far as 16,000 mi (26,000 km)
- Have a unique communication style of loud low-pitched moans, whines and howls which can sound like singing
 - Grow to 40-63 feet (12-19 meters) long and weigh up to 44 tons (40 metric tons) and live up to 50 years

<http://animals.nationalgeographic.com/animals/mammals/humpback-whale/>
<http://www.whalefacts.org/humpback-whale-facts/>



**WORLD
WHALE
DAY 2017**
MAUI

The Importance of Each Phase of Diver Education

By Tom Leaird, SEI & PDIC CEO

At SEI and PDIC, we believe in a full education where each of the teaching and training elements in the phases of diver education are treated with equal importance: classroom, pool or confined water, and open water training. Each of these phases of the diver's learning process bring greater understanding, develop skills proficiency and create an excited lifetime diver.

The classroom portion of the entry level course presents all the information necessary for each student to develop a solid foundation of diving knowledge and to understand how to become a diver that is independently competent to dive with their buddy. If done well, students form a bond with the instructor, a bond that will continue well beyond the end of the program. In addition, a basic understanding of physics, physiology, decompression theory, the marine environment, equipment, skills, and much more, are included. Each of these subject areas are needed to certify a diver that can dive safely in the future. Can the academic training be accomplished through electronic media without an instructor? Yes, if done well. However, this method reduces or eliminates the interaction with an instructor and student questions may go unanswered. Surveying our students finds some level of enjoyment in personal engagement while teaching, and per our survey, only 22% of students would like the classroom portion to be reduced.

Training in pool or confined water cannot be over emphasized. SEI & PDIC standards of training in this environment must be followed. Initially, students must be able to swim the required entry distance to start the program. Next, a series of exercises bring student's comfort and ability to a point of successfully completing each of the five pool skill evaluations. Simply assembling the scuba equipment one time prior to a given session does not insure that students will remember in the future. Repetition is important as it helps develops muscle memory and skill proficiency.

Open water training is also extremely important. As the series of dives progresses, students should be given more responsibility for planning, buddy check, equipment, and accomplishing the dive objectives. These dives should be fun and set students up for a lifetime of enjoyment. This objective is difficult under some conditions, diving in six-foot seas, 50-degree water temperature, limited visibility, or another challenging situation. Having fun under these conditions is the mark of a great instructor. Our ultimate objective is to create the desire for a diving lifestyle in each student we teach. The importance of each portion of the open water class places a high level of responsibility on each scuba instructor. When done well, students will recommend your services to others, and come back for refreshers and advanced or specialty classes.

With a solid foundation of diving knowledge gained in the classroom, paired with skill proficiency learned in the pool or confined water and the enjoyment of the open water training dives, new divers are given the greatest opportunity to be independently competent to dive with their buddy for a lifetime of adventure exploring our underwater world.

Where Do We Go To Learn About Improving Safety?

By Kenneth Tuttle Wilhelm, SEI & PDIC Course Director, Malaysia, MSpSc, EMT, CMAS 3 Star Instructor

**The following article represents my opinions and not those specifically of any particular diving agency, nor of the Currents Journal and its editorial board.*

Where does the most cutting edge research occur in diving? Who conducts rigorous experimentation on equipment? What organisation actually conducts data collection on the diving physiology of actual human divers? Where do so many innovations in diving first appear, prior to their commercial entry into the recreational dive shop? What agency produces what could or should be accepted, as the definitive text source for diving?

Continued on Page 8



The answer is the United States Navy (USN), through their Navy Experimental Diving Unit (NEDU).

The thing is this, the NEDU is probably the only organisation that is capable, both legally and resource wise, to conduct research into diving, while safely collecting data on actual human divers and equipment. Everyone else who does research into diving safety, is primarily conducting post-hoc analysis of events and data - basically anecdotal, rather than pre-planned and then executed research.

There is simply no academic project, or non-military researcher that would be able to get a human ethics committee to give permission to conduct the research data collection that the NEDU does. Why? Because of the risk to life and limb, literally. That said, the NEDU is not a 'cowboy' organisation. It's highly structured, and focused on safety of its divers. Reading through all the USN published material, you can identify three priority purposes of the NEDU:

To find out the limitations of body, equipment, and procedures:

1. The risks to human physiology in response to a pressurised environment, where the body

absorbs inert gasses, and metabolically reacts to other gases.

2. To evaluate the performance and limitations of diving equipment at various workloads in the underwater environment, both salt and fresh water.

3. To modify and refine established protocols, procedures, and regulations for the safe conduct of work and missions underwater.

The USN needs to know what are the outer limits allowable, for military divers and their equipment on a mission - because they want every diver to come back, unscathed, from every mission.

As we all know, recreational diving started with military divers sharing the knowledge and teaching the skills for diving to regular folk like us. Thus, not only did we 'inherit' from the military, the knowledge and skills to develop the recreational diving industry that we have today, we continue to see the expansion of diving science through the efforts of the USN NEDU.

It should be noted:

Recently the United States Navy released their newest Navy Dive Manual Revision 7

(published December 1st, 2016). But in addition to this publication, the USN has published various documents that are directly associated with the US Navy Dive Manual. At the end of this article, the web-links to the various USN publications, can be found.

What I wish to do with this article is to offer some of my thoughts and observations from reading through the pages of published documents, from the first four web-links (#1 - #4), found at the end.

Apologies, I'll have to leave until future journal issues, my reviews and observations of the newest Navy Dive Manual itself. I need more time to get through the nearly 1,000 pages of Revision 7.

Part A - The Rescue Course

Where does safety training end and begin? In leisure diving, we have the 'Rescue Diver' course. It may be presented under various other names and acronyms: SLAM, DRAM, Stress and Rescue, and so on. But the reality is that these courses are relatively generic, and are virtually 'one-off' training exercises for the individual diver.

The course is usually taken by either: the recreational diver, who has some varied experience across



diving environments, and has reached a point of recognition that having rescue skills is a good idea; or the diver who has decided to jump on the scuba 'career track', and needs to take the rescue course as a prerequisite to moving up to the initial professional level (typically the Divemaster or Dive Leader certification).

A rescue training programme, as it's typically presented in recreational diving, is meant for the diver and his buddy. It is about getting an injured or distressed diver to a water exit point, as expediently as possible. Yes, there may be rescue breaths at the surface, and there may be Cardio-Pulmonary Resuscitation (CPR), once the patient has been removed to a hard surface. But that's really about it, not much more to the certification.

There are two problems with how rescue training is looked at within our recreational industry. First, is that the course is typically far below the level and breadth of skill that should be required of a dive professional. Second, is that it's a one-off certification programme and recreational divers probably never revisit the skills and knowledge ever again.

In the world of lifeguarding, not only is recertification required every two or three years, but in recent times, near universal municipal regulations require a fixed number of hours (mandated, ongoing training) every month practicing skills and rescue scenarios.

Reading through the USN publications, it becomes clear that the US Navy is putting its own emphasis on frequent safety

training of its dive teams and support personnel systems. There is an undoubted recognition that NOT having a regular safety skill and scenario training regimen, is not just poor risk management, but could be regarded as negligent.

Since becoming involved in training instructors (back in 2003), I've conducted training and diving in nine different countries, and a variety of locations within the USA, including Hawaii. And I can say unequivocally, that the vast majority of dive operators have no specialised rescue training for their dive professionals. They simply rely on the recreational rescue course that may have taken place some years past. Much more alarming, is that most, if not all, operators do NOT have any scheduled scenario practice for their dive team employees. And they require nothing more of their staff than renewed CPR and First (1st) Aid, which is the minimum legal expectation.

These might be thoughts for us to consider, not only for our own operation, but also as we plan the next dive trip for our divers, and we're trying to decide which dive centre to book our itinerary with. Is there anyone out there in the resort locations, that has a comprehensive rescue and safety programme in place?

Part B - The Volume of Air

As most of us assuredly know, the diver with the best rate of air consumption is probably the fulltime resort dive guide. Of course, that makes sense, since he or she is probably averaging somewhere in excess of 600 dives a year.



It has not been an uncommon experience to see a dive guide who is diving a tank smaller than the typical 11 litre (80 cu ft). I've observed on numerous occasions a dive guide on a 9 litre (63 cu ft) tank. Is this really a good risk management choice? In reality, who is it that will often respond to a diver's low-on-air situation? Of course, it's the dive pro. And even if the dive pro was not the first provider of an alternate air source to the stressed diver, quite likely by the end of the dive, the professional will be providing the air.

So, even with a dive pro's exceptional rate of air consumption, really, the dive professional should be carrying more air, being prepared for the time when it's needed, by somebody else.

To this end, the review of Navy documentation shows that for dives past 30m (100ft), it is expected that scuba divers will use a 13 litre (100 cu ft) tank. This decision is trying to account for the higher rate of actual consumption due to the increased pressure at depth. Now it's true that Navy divers are likely working and breathing hard, but then the average recreational diver is not a model of cardiovascular

fitness. Which means they too will have an elevated consumption rate. Especially compared to dive pros on the same dive profile.

So doesn't it make prudent sense that we, in the recreational industry consider providing, if not requiring larger tanks for divers when they are going to do what's generally considered a deep dive (> 30m / > 100ft)? If a diver has been properly taught the weighting/buoyancy dynamic, then it's a relatively simple matter to readjust one's weight belt, to compensate for the heavier tank.

Look at it this way, who wouldn't want an additional 700 litres of compressed air (24 cu ft of compressed air) in their tank when they're going on a deep dive? (calculations done based on specifications for Luxfer tanks)

Part C - Dive Computers

For a long time, the US Navy Dive Manual did not have comment on computers in use during diving operations, scuba or otherwise. There is now a recognition that diving on scuba, as opposed to surface supplied air diving, presents very different parameters in terms of actual nitrogen uptake and subsequent off-gassing. Scuba diving does not follow the expectations of the standard Navy Dive Table (no decompression table).

Traditionally Navy Dive Tables

have been predicated on profiles where the diver is at the deepest depth for the duration of the dive. Of course, this means that the tables are relatively conservative when looking at the typical recreational diving profile or even the military diver on scuba. The Navy is now recognising the value of dive computers in providing for safe diving, while factoring in that a scuba diver is quite likely to spend a lot of their dive at depths shallower than the maximum depth reached.

To this end, the list of approved diving equipment, produced by the USN: the Authorised for Navy Use (ANU) list of equipment, now includes a section for dive computers that have passed the NEDU's evaluation process. And these evaluations are being done over more than a 1,000 dives actually conducted by military divers.

So the USN is acknowledging that dive computers have their place, to provide for more efficient dive planning, and allowing for more realistic dive schedules, while still maintaining a high degree of safety from DCI.

What should we consider for recreational diving, when looking at computers? It's relevant



to note that some agencies now require dive computers for even entry level courses. However, this is not the industry standard, and given the economics for instructors and dive centres, it is unlikely that dive computers will become an absolute requirement for all diving and specifically entry level dive training. Not in the near future anyway.

Considering all the risk factors and cost factors, I believe that it would be prudent that we do look at making dive computers a requirement beyond 30m (100ft), and making them highly advisable for any diving beyond 18m (60ft). Even this may not be enforceable throughout the industry, however as instructors and dive centre operators, we may individually take this step. Shouldn't we be stepping up as the vanguard towards advancing dive safety, through the required use of computers, in our own business activities?

Part D - Entering Enclosed Spaces

Let's get this straight from the beginning, when it comes to recreational diving, when you have an overhead environment, that's essentially the same as an 'enclosed



space'. Simply because the diver does not have direct vertical access to the surface. Thus, unless it's a wreck penetration course, a cavern or cave class, any instructor who might take their divers into an overhead environment or enclosed space, is negligently violating safety protocol.

This also goes for dive guides out in the water, taking divers not specifically trained for enclosed or overhead environments, into wrecks, caverns, or tunnel-like swim throughs. It doesn't matter whether the overhead environment appears to benign, or it's shallow waters, or it's crystal clear water with visibility of 30m (100ft). Unless the diver is trained for overhead /enclosed areas, or this is a class for such activity, an instructor or dive guide shouldn't ever be seen to encourage, promote, or sanction such untrained dive behaviour.

For the USN, diving in enclosed space has some very serious requirements:

First, ANY diving in an enclosed space **REQUIRES** an emergency gas supply (EGS). That means a completely independent air supply, and let's face it, that doesn't mean a little pony bottle. It should mean a tank of air, that would be sufficient to get the diver back to the surface.

Second, there needs to be a Dive Tender (we might say Safety Diver) at the entrance of the enclosed space. And if the enclosed space is going to require turns within, then it might be appropriate to have Dive Tenders placed inside at these junction points. Oh, and in the world of Navy diving, the safety divers are fully equipped and trained to the same level as the divers conducting the

mission, i.e. penetrating a wreck on a search and recovery.

What does that mean for us in the recreational industry? Maybe that whenever we are considering to conduct an entry to an enclosed space or overhead environment, it is incumbent upon us to plan on having a safety diver at the entrance. And if the dive will require turns, or a different exit point, maybe consideration for additional safety divers. And don't forget that EGS for each and every diver.

Some might grumble and mumble about 'overkill'. Please remember that you're training divers to be safe. And if they learn that enclosed and overhead spaces require EGS and safety divers, then hopefully that's the expectation they'll carry forward with them.

Part E - The Dive Medical Officer

The USN requires that on any dives beyond 58m (190ft), that a Dive Medical Officer is onsite. One might say it's obvious that the USN has determined that the dives at most risk of injury are those that are done within, what we would call, technical limits.

And yet, anecdotally, it is clear, that the vast majority of technical diving going on within the recreational industry worldwide, is conducted with no more than having some divers in the water with their Rescue certification and CPR / 1st Aid, and maybe Oxygen Provider.

First of all, whether technical or recreational diving, all crew on the boat, should be trained to a professional level of CPR. (Meaning

for example:

having skills in two-person CPR, trained in Bag Valve Mask (BVM), and suctioning of the airway. Skills which are not taught and certified at the layman's level). Does your friendly dive boat have such trained crew? How about that dive centre in the Caribbean? How about you and your Divemaster who helps with your Open Water classes?



Second, at what point in planning for a technical dive, or running an active technical diving operation, does the instructor or dive centre owner consider the added layer of risk management and accident response, by having a Diving Medical Technician on board the vessel (not in the water as part of the dive team)?

Well there is food for thought. Safe diving, training and guiding to all.

1. Executive Summary of USN Dive Manual Revision 7; 12 pages: <http://www.navsea.navy.mil/Portals/103/Documents/SUPSAV/Diving/EXECUTIVE%20SUMMARY%20%20USN%20DIVE%20MANUAL%20REVISION%207.pdf?ver=2016-12-14-135443-000>

2. Dive Manual Advance Change Notice (ACN) 1 R7; 9 pages: http://www.navsea.navy.mil/Portals/103/Documents/SUPSAV/Diving/Div%20Man%20ACN%201_R7.pdf?ver=2016-02-10-114127-437

3. Dive Manual Advance Change Notice (ACN) 2 R7; 79 pages: <http://www.navsea.navy.mil/Portals/103/Documents/SUPSAV/Diving/Div%20Man%20ACN%202-R7%20112114.pdf?ver=2016-02-10-114249-150>

4. Navy Diving Supervisor's Guide To the Nontechnical Skills Required for Safe and Productive Diving Operations (this guide is dated 2005, but still current with USN Dive Manual Revision 7); 39 pages: <http://www.navsea.navy.mil/Portals/103/Documents/SUPSAV/Diving/Diving%20Supervisor%20Guide%20TR%2005-09.pdf?ver=2016-02-10-112554-200>

5. The U.S. Nave Diving Manual Revision 7 (published December 1st, 2016); 992 pages: http://www.navsea.navy.mil/Portals/103/Documents/SUPSAV/Diving/US%20DIVING%20MANUAL_REV7.pdf?ver=2016-12-14-135043-757

The Importance of Instructor and Student Emergency Training

By Jupesi "José" González, SEI & PDIC Instructor & EMT-B

As a licensed EMT-B, certified Level I & II Firefighter, certified lifeguard, as well as a certified SEI & PDIC Scuba Instructor, it is imperative that I maintain all my base health-care provider certifications. Such certifications include Cardio-Pulmonary Resuscitation (CPR)/ Automated External Defibrillator (AED) for health-care providers, first aid, emergency oxygen administration, DAN O₂ (for scuba divers), and DRAM (Diver Rescue & Accident Management) Rescue Diver. These are all important baseline certifications that all Scuba Instructors, Assistant Instructors and Divemasters should be certified in prior to teaching a course or leading a dive trip. These emergency certifications are also highly recommended for scuba divers partaking in a recreational dive. These courses will prepare everyone to perform the proper skills and procedures should a scuba diving emergency take place.

Advanced preparation for a scuba diving emergency is paramount for a successful rescue evacuation. Having everyone on the scene currently certified and refreshed in these rescue courses will help the diver in distress get the emergent help he/she needs in a timely fashion. Participants taking these rescue courses will learn how to identify the problem and can quickly provide the care needed until advanced medical services arrives and takes over and can potentially save the life of the scuba diver in a medical emergency. They will also learn the appropriate steps to take and how to manage the scene of the emergency. SEI & PDIC both offer the DRAM Rescue Diver course. This class teaches the individuals to be prepared to handle scuba diving emergencies with emphasis on staying calm, communication, team work, maintaining order, and managing the rescue in a quick and organized system.

Leadership personnel are required to remain current in these baseline certifications of CPR, first aid, and O₂ provider, but they can easily be overlooked.

Many CPR/ AED and first aid certifications require recertification every 2 years while the DRAM Rescue Diver course does not.

Leadership need to keep these certifications current and it is advisable to refresh oneself in this emergency training with practice. It would also be beneficial for divers who take the DRAM rescue course to have the opportunity to refresh their skills and practice emergency procedures. Practice has shown to result in more effective and proficient responses and response times. Practice helps to ward off panic from not knowing what to do.

For recommended courses and detailed information contact:

SEI: www.seidiving.org

PDIC: www.pdic-intl.com

Divers Alert Network (DAN): www.diversalertnetwork.org/training/courses/



Publications and Continuing Education

As a reminder, **Currents** is your publication. Submission to **Currents** counts toward continuing education credit, so we encourage participation in this journal. Articles or information may be sent to info@seidiving.org. We prefer Word documents for articles so text can be formatted to fit the layout. Photographs, figures and illustrations should be referred to in the text and attached separately with proper labeling. Photos should be sent as JPG or PDF files at least 300 dpi. If you have any questions, please contact our office at 765.281.0600. Please scan all files and pictures for viruses before sending.

SEI & PDIC are not responsible for the views expressed in the content of the articles published. These articles are written by independent leadership members sharing their personal experiences and insights they have gained over years of teaching and scuba diving. ❖

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