

November 2016 | Dive Team Newsletter

Dive News

Dive Volunteer Hour Milestones

Thank you gang, for all you help us accomplish.

7,000 hours

Jay Hubbell



5,500 hours

Diane Lauritsen



5,000 hours

Sherry Fox



4,750 hours

Sue Elliot



3,500 hours

Robert Juzups



3,250 hours

Mike Henry



2,750 hours

Louis Steinke



2,750 hours

Karl Von Mutius



750 hours

Brent Humphrey



750 hours

Scott Nelson



750 hours

Paul Ogle, Jr.



500 hours

Ed Brault



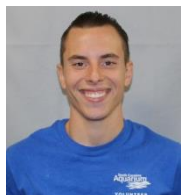
250 hours

Ryan Bacon



250 hours

Christian Shearer



250 hours

Trisha White



250 hours

Matt Yates



Dive Compressor & Construction

With the construction of Sea Turtle Hospital coming under full steam we'd like to put out a few reminders. There should be no exploring of the construction area; it is a full hard hat, eye protection area.

The construction crews have also been starting operations that can produce dust, smells, and fumes. If while around the Freight Elevator or Food Prep, you smell anything that would be questionable breathing at depth, please let any Husbandry Staff member know so we can shut down our Dive Compressor from pulling it through our filters.

Halloween | Fish or Treat & Pumpkin Carving

We had a great turn out this year for both the Underwater Pumpkin Carves and Fish or Treat night event.



GOT News

Lowering GOT Temperature

We are going to try and get a little seasonality temperature variance in the GOT again. Set points are schedule to follow:

Current	79F
Change now	78F
Nov 28	77F
Dec 5	76F

Not sure how much lower we may want to take it, but this gives a steady decrease without going too far around Thanksgiving or going into Christmas.

One of our hopes for this is to slow down the spawning of the jacks and red drum. This is also better for our sandtigers as their natural upper temperature range is 79F. We may also see less hunting from our sharks & fly-bys from *Caretta* as they shift their behavior with the lower temperature.

With that comes wetsuit orders, coming in a separate email to you very soon!



Aquarium News

Thank You | Successful AZA Inspection

Dear Team,

Jack, Rachel and I just met with the AZA inspectors for our exit interview. They were so complimentary of our facility, our programs, our performance, and most of all, *our team*. In short, you rocked it!

We will share additional details at the All-staff meeting next week, but I wanted everyone to know immediately that we received glowing remarks. We do have some opportunities for improvement, which we will also address, but overwhelmingly the review was positive.

In particular, please give Rachel Kalisperis a huge thumbs up. Her leadership was commended by the inspectors, which I'm sure will come as no surprise to anyone. Great job, Rachel!

Thanks to all of you for your hard work, preparation, and dedication to our mission!

Kevin

Kevin Mills

President and CEO

Fun Facts

Full Face Mask Communications

by Dr. Thomas Powell:

Public safety diving is a type of diving where concern may always be present. You must keep your wits about you and focus on the task at hand. Think about it. You may be diving in horrible conditions with zero visibility, groping around in the blackness. Sometimes, your only sense of security is the voice in your ears. The advent of modern subsurface communications has greatly improved the capabilities and functionality of dive teams. Full face mask communications systems come in various types that teams must understand prior to purchase. The type of system may alter how the team must operate in order to use them.



**FULL FACE MASK
COMMUNICATIONS**

Wireless Systems

First, you have wireless systems. These systems often have a headphones/microphone assembly attached to a full face mask that transmits signals from the diver through a mounted transmitter/receiver. The signal is picked up by transducer in the water and relayed to a shore-based system. This shore-based system can then relay communications in reverse to the diver. These systems eliminate the need for a tethered communications line but are limited by the signal strength being transmitted. Factors such as high turbidity or reduced line of sight can weaken signal strength. Essentially, this type of system may alter how a team must stage a scene on shore and the area in which a diver can search or operate without moving the surface system.

Tethered Systems

Tethered systems consist of a communications line attached at one end to a diver and the other to a shore based communications system. This system is used to transmit a communications signal back and forth directly between the diver and shore personnel. This is the most reliable system due to a wire-based signal, but also limits the diver to the length of the communications wire. Some manufacturers have begun inserting the communications line into a rated tether rope to eliminate the need for both a tether and a communications line. Essentially, the tether handles both jobs.

Push to talk systems

Now, aside from how signals are transmitted, there are two major types of microphone systems. The first of these is a push-to-talk system (PTT). PTT systems require the diver to press a button to speak to surface personnel. These systems prevent excess relayed chatter, but also require the diver to stop using one hand in order to relay information to the shore. The diver may be forced to stop searching every time he needs to relay communications.

Voice activated systems

The second type of microphone system is a voice-activated system (VOX). VOX systems allow the diver to speak openly as needed to relay communications. The one worry about VOX systems is that even heavy breathing will activate the microphone. In truth, this type of system may allow a tender to recognize changes in breathing patterns to determine how his or her diver is doing underwater. In many cases, the tender can tell from heavy breathing that a diver needs to hear a friend when the diver is feeling mental stress from an operation.

Surface systems

Surface systems come in various shapes and sizes. Some are for individuals and often used by tenders with headsets. Some are big base stations with speaker systems. Most systems have the ability to attach recording devices if needed, and most systems can be spliced with adaptors if they are not already set up to allow multiple divers to transmit and hear one another. Some have hardwired inputs while others use transducers. When you are shopping for surface systems, you need to look for what your team really needs. Determine what best suits your divers and their common operations. Then build what you need.

Service and function

Once you know what types of communications you have or need, you need to establish a service plan for the equipment. Communications systems are great right up until they fail. Check your batteries and have spares when you can. Make sure that your systems are cleaned and serviced as needed and when suggested by the manufacturer. More than anything, practice using the systems and make sure your divers and surface personnel know how to use them in an efficient and knowledgeable fashion. Remember that when you decontaminate a diver, your communications systems must be cleaned!!! This must be done in a deliberate and careful manner. Read your manuals and when needed, contact the seller or manufacturer if you are unsure about use, cleaning, decontamination, or service. Lastly, know your rope pulls. When all else fails, you still have a tether. There is always training available in regard to communications systems. The Emergency Response Diving International Full Face Mask Operations and Underwater Communications courses both cover full face mask communications systems and how to use, maintain, and care for these systems. If your team has new systems or needs to be brought up to date on how systems work, seek out training. Education is always better than guesswork, and the whole basis for buying electronic communications systems is to improve safety and team capabilities.

– Dr. Thomas Powell, Owner/Instructor Trainer – Air Hogs Scuba, Garner, NC

Source: <https://www.tdisdi.com/full-face-mask-communications/>

Message from the Dive Office

“Holiday Season” is always busy for us; with our yearly convention at DEMA and personal holidays there’s always a time in mid-November to late-December that the Dive Office becomes very sparse. Some years there’s a lot of juggle before that time comes; other times it transitions very smoothly.

We are always happy and thankful each holiday season to have your support. This is usually the time many of you are great giving us advance notice of your trips conflicting with shifts, or swapping/picking up shifts to help balance the team.

We hope everyone has a very fun rest of the year, safe travels, and hopefully stress-free gift shopping. Thank you for a wonderful 2016 and we will look forward to another year!

Cheers,
- Dive Ops

Dive Office

South Carolina Aquarium

Arnold Postell – *Dive Safety Officer*

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South Carolina
Aquarium

DIVE TEAM