

DIVENWS

102024

**INTERSPIROS
DIVING PROCEDURES
FOR EXTREMELY
COLD CONDITIONS**

**UPDATE ON THE
HISTORICAL DIVING
SOCIETY MUSEUM**

**THE BADGE:
BRIAN O'FLAHERTY**

**IDSA ANNUAL
MEETING 2024**



INTERNATIONAL DIVING SCHOOLS ASSOCIATION





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Alongside this new range, SMP will introduce an enhanced website feature that allows users to schedule and book rental equipment directly online, check availability, and access a database of manuals and spec sheets. Drop-down menus will also be available to select optional supporting equipment.

Interested? Keep an eye on SMP for the upcoming release of this new rental equipment range!



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**The Alan Bax Award
honorable mention:**

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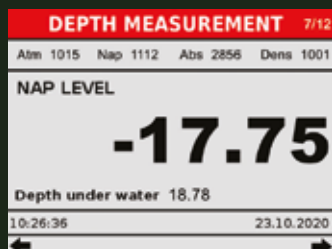
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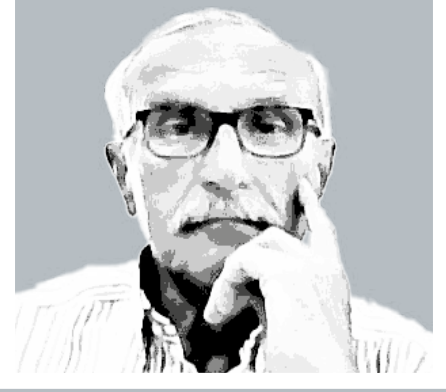
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FROM THE CHAIRMAN LEO LAGARDE

We would like to start with the last annual meeting held in Fréjus with ENS and the attenders that where at this meeting, it was a good to see that we have had 7 Full Members on the meeting.

The meeting was very good and a lot of good discussions in and after the meeting. We have visited the diving school of ENS on Thursday and them where in operation what is always good to see. And we would like to thank our host Jerome Vincent and all the staff of ENS for their hospitality and good services on the annual meeting.

One of the subjects we have discussed is about the IDSA Q-card, we see a lot cards/diplomas that are not controlled by IDSA. Please do notice that there are rules and regulations on the use of

the IDSA Logo and if you see falsification of the IDSA logo and/or cards please inform the IDSA office for this so we can take appropriate action.

We have had a good discussion on the Q-Cards, and we will again inform you that it is very important to follow the IDSA standards and after the students passed the exams that they will be honoured with the IDSA Q-Cards.

IDSA training and exams can only be done by our **full member schools**. They can ask the IDSA office to issue an IDSA Q-card.

And please do notice that all IDSA Q-cards issued are registered on the IDSA website, but it will be possible that some cards issued before 2016 will not be shown up, they can be re-

quested for verification with the IDSA office.

We are going to work on the discussions which we have had on the meeting and together with all the full members we must see that we are issuing the IDSA Q-card after each trained diver, so we get more and more IDSA Q-cards in the industry.

We trust that you all stay safe and hope you have a lot of new students.

Your Chairman,
Leo Lagarde

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IDSA news is looking for advertisers, so if you want to advertise, please let us know, the costs for advertising are:

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FROM THE EDITOR ROBERT DE BIE

There is a lot of work on writing IDSA news, and we can use all the help from all our members.

We have some standard items, topics in our magazine, such as:

Medical issues (by Dr. Hossam)

The Badge (each time 2 member will be asked to fill in some questions)

Historical Diving (by Peter Dick from Historical Diving Society)

But for these stories we need input from your side;

The Student, please ask your (ex)student to fill in some questions and have this sent with some pictures to us!

The Instructor, please ask your staff to write what they do on the school and how their experience are!

Your school, please take this opportunity to write about your school and take on this free publicity! Sent this to us with some pictures of your school.

For you as a member is a good media to introduce the school with pictures, challenges you are facing. When you have had an audit from IDSA or another organisation please write an article for IDSA news on this.

For all of us this magazine is not only to promote our organization but also

YOUR school. So also, for your instructors please write your article on your important job.

Being the editor of IDSA news is a very challenging and satisfying responsibility. After all, our readers rely on IDSA news to fulfil their needs regarding topics which they bring to the table.

I haven't had any response on co-editors for IDSA news. Please do notice that we are looking for HELP to make each time a new IDSA news this take a lot of time and effort with finding advertisements and stories, so please sent me an e-mail if you want to be a co-editor of IDSA news!

So, if you have interest to help with IDSA news, please sent an e-mail to info@idsaworldwide.org

Enjoy reading the IDSA News and Safe Diving Training.



IDSA ANNUAL MEETING 2024

24-27 SEPT FRÉJUS, FRANCE



IDSA annual meeting in 2024 was held in Fréjus. The host, Jerome Vincent of diving school EMS, was happy to host this meeting and to welcome everyone.

The weather was not perfect, but as we were sitting inside, it was dry.

The welcome drinks were fantastic, and the food was good. It was a pleasure to see everybody again, and a high number of full members were present. Members from Egypt, France, Belgium, the Netherlands, Norway, Ireland, South Africa, Sweden, and Spain came to the meeting.

We started the first day with a warm welcome from the Chairman, and he introduced the host, Jerome, and his team.

We started with an introduction of all the members; some sent in a small presentation, and others did not. After this, we had the formal report from the board, with special focus on the Q-cards

We did a check on the number of Q-Cards issued this year—359—which is 40% less in comparison to last year. We noticed that some of the full members are not issuing an IDSA Q-card.

The pricing of the Q-cards is based on the cost price, and it would be exceptionally good if all members issued the Q-Card after a course (and of course, the student has passed his exam for this). This will give IDSA a better name in the world, among contractors, and within IMCA. So, this is something we, as full members, must work on.

Then we had a presentation by **Mr. Didier Draguiev**, Director of Sales & Marketing at d'Azoth Systems, about his systems and diving computer.

After this, we had a short walk and a nice long lunch at the beach, which is always a good opportunity to speak with the other members and have some positive discussions.

After lunch, we continued with a presentation about diving in a nuclear environment by **Mr. Jean-Luc Dubedat**, Director of Hyperbaric Operations Expertise and Innovation Department at Nuvia France, and Christian Honnorat from the research center.

Then we had a workshop on whether and how we can deal with diving accidents. On this subject, we received a lot of input, which we will take back to the board.

In the evening, we had the IDSA annual meeting dinner at a suitable location in St. Raphael, and it was good to catch up with everyone again.

The next day we continued at ENS diving school with a nice tour of the school, where we could see a lot of the set-up and the way ENS is working professionally to educate divers.

We also had a presentation by **Julien Grandmontagne** on the development of cameras, lights, comms, and diving panels for the school.

Back at the hotel, we continued with the rest of the program, starting with

Dr. Hossam, who discussed the entry criteria and how they are implemented at the MECD Diving School in Egypt.

Then we had the topic of marketing within IDSA and discussed how to involve all members in IDSA news, banners, and the IDSA logbook for Divers and Supervisors, which are available at a lower price and can be purchased by members of IDSA.

We also spoke about the IDSA diver handbook and the supervisor handbook. We aim to send the first set-up of the Supervisor training to full members by the end of 2024.

Then the next speaker Dr. Hossam came on and spoke about **the dive towards a recognized ROV course accreditation.**

After that, we wrapped up the meeting, hoping that all members will have topics for discussion at the next annual meeting. We would like to express special appreciation for Jerome, Yasmine, and the rest of the ENS staff for the warm welcome and the well-organized annual meeting.



KIRBY MORGAN HISTORY PART 2



1954 KMAM-4

This was the first mask Kirby and Morgan built as partners. These were a simple steady flow mask for commercial divers. Nine were made.

Kirby recalls that the KMAM4 was their first mask together. He had just finished building the four helium recirculators for Murray Black. Shortly after Bev created the MM3 mask for Danny Wilson, Kirby and Bev decided to collaborate on these masks while simultaneously working on the next batch of recirculators. Bev played a significant role in the project, designing the mold and overseeing the entire endeavor. While Bev handled the fiberglass work, Kirby focused on the metal aspects. However, this particular mask had an unsettling story attached to it, resulting in a traumatic experience.

Morgan remembers that when they had just started their partnership, Kirby had a vision for a small free-flow mask, a scaled-down version of the initial MM1. Morgan expressed doubts about its marketability, emphasizing the importance of incorporating a regulator and communication capabilities. Demand masks allowed divers to hold their breath and hear communications, while free-flow masks posed challenges in this regard. Nevertheless, Kirby's determination led them to

create this mask, albeit in limited quantities. This marked the beginning of their journey towards developing the Band Mask.

Kirby recounts a harrowing incident involving a diver named Walt Swanson, who used one of their masks. During his dive at the Channel Islands, Walt's air supply abruptly stopped, causing his face to almost be sucked into the air hose. To escape this dire situation, he resorted to smashing the faceplate with his abalone iron, relieving the pressure and ascending along his hose. Upon reaching the surface, it became evident that both his eyeballs had popped out from their sockets and were resting on his cheeks. His tender intervened, covering his face with wet gunny sacks to preserve his eyeballs' moisture, and they headed back to the harbor. A doctor managed to pop back in the eyeballs using his thumbs, offering limited assistance.

Walt, known as a fighter, visited their shop and seemed intent on confronting Bev, potentially leading to a confrontation. Morgan recalls the incident when a car pulled up outside their workshop. A woman assisted a man with large patches over both eyes to the entrance. The man's face was severely bruised, with bloody eye sockets and burst veins, resembling

something out of a horror movie. The group inside the shop was shocked by his appearance and the woman's enraged accusations that their mask design had nearly killed her husband. Although the man initially sought a fight, Morgan convinced him to examine the mask first. Taking the mask, Morgan inspected it, starting with the one-way valve. Morgan discovered that the man had a new operator who failed to fix his air hose correctly and didn't clear it after the first cut-off. A strand of fabric and rubber from the hose had obstructed the one-way valve, causing the near-disastrous face squeeze during the second cut-off. The man and his wife examined the evidence, confirming it wasn't their fault. Despite the relief, the man's horrifying facial injuries spurred Morgan to develop an improved one-way valve for future masks.





1965 KMAH-1 (Air Hat)

The Kirby Morgan Commercial Air helmet. This hat was a copper shell with brass port mounts and inlet valve assembly. At the bottom of the bonnet, a brass neck ring with interrupted threads connected to a standard dress breastplate. Yokohama Diving Apparatus of Japan made the breastplate and neck ring and the bonnet was spun and shaped into top and bottom pieces from two sheets of copper by Hummel Products in Santa Barbara, California. Kirby and Morgan assembled the bonnet, soldered it to the neck ring, and formed it for ports. Then the brass port receivers, valves and air/gas inlet blocks were plumbed in place.

A similar helmet had been made by Kirby prior to 1965. These earlier helmets had a brass plate that stated, "R Kirby Commercial Helmet Santa Barbara California". The R Kirby helmets were converted bonnets that varied from Desco-Browne to Yokohama. Whatever bonnet was started with, the end result was a 4-light screw in Plexiglas ports with O-ring seals and most often, the inlet air valve was in the bonnet. One notable exception was a four-hat order from Murray Black at Divecon that was shipped with belly valves. Morgan helped Kirby build a few of these helmets (and a few gas hats) just prior to the formation of "Kirby Morgan

Corp." However, this history starts with the first helmet to bear the "Kirby Morgan" brass identification and marketed by the Kirby Morgan Partnership. (The Partnership was changed to "Kirby Morgan Corp.", a California corporation shortly after the formation of the partnership.)

The helmet (including the prior "R Kirby" models) had several improvements over previous designs. The view ports were made of one inch Plexiglas, threaded to screw into the helmet ports and sealed with O-rings. This eliminated the need for grill over the ports and thus improved visibility. It also greatly reduced the weight of the bonnet. A custom air-control valve designed by Dick Quitner was installed at the lower left side of the face port, thus removing the traditional "belly valve" from the diver's air hose. A muffled diffuser located above the air control valve more effectively silenced incoming air. This improved the diver's

communications and assisted in preventing loss of hearing.

No production numbers are confirmed, but probably less than 10 were made by Kirby and Morgan. At a later time, Yokohama Diving Apparatus took over the manufacturing of these helmets (and the gas hats). Some of the Yokohama helmets were sold by Kirby Morgan. The Kirby Morgan brass identification was soldered to the breastplates of these helmets. The way to tell who made the bonnets is to look for the spin marks, (made by Hummel for Kirby Morgan), vs. the rotational hammer marks (made by Yokohama for Kirby Morgan).

1965 KMHEH-2

The Kirby Morgan Commercial Helium Helmet. KMHEH 2. This helmet was nearly identical to the KMAH 1, with the addition of the Carbon Dioxide absorbent container, venturi system, mixed gas supply valve, and reduction regulator. Again, these helmets were made and sold by Bob Kirby prior to 1965 with the brass identification plates "R Kirby Commercial Helmet, Santa Barbara California." From 1965 and on, the hats were identified with the Kirby Morgan plates. The divers involved in the original design were Bob Kirby, Kenny Knott, Ed Wood, Jerry Todd, and Del Thomlinson. (Tom-lin-sun) the helmet differed in many ways from the U.S. Navy standard Mark 5 helium helmet in as much as a standard medical Sodasorb (Soda-Sorb) C02



THE KMHEH-2 FEATURING A VENTURI SYSTEM AND CO2 ABSORBENT CANISTER, WAS THE FIRST PRACTICAL COMMERCIAL HELIUM HELMET

absorbent chemical cartridge was placed in the rear mounted canister fitted on the back of the helmet. This allowed four improvements: First, the absorbent canister was pre-packed, second, it installed from the inside of the helmet prior to donning so there were no fittings exposed to make or break leaks, third, the entire bonnet, including absorbent chamber and absorbent were donned as one unit just prior to water entry. The fourth improvement was the reducer valve that fed gas to the venturi nozzle. It automatically fed the venturi with a pre-set pressure gas mix, which freed up the "rack operator" on deck from the chore of "chasing" the diver with an over-bottom regulator on deck. These reducer valves were simply a scuba first stage valve from a single hose scuba regulator.

This style of recirculatory helmet was the first practical commercial helium helmet with a venturi. Prior to this, Roberto Galeazzi (Gal-ee-azzi) of Italy had been granted an American patent in 1957 for a helium helmet that used a demand system. Six years later, Mr H Dan Wilson successfully used his own style of demand system helium helmet.

Of course, the pioneer in gas diving was the U.S Navy who showed the way in the 1920s. This was followed by the mixed gas saturation work of Captain George Bond, USN, in the 1950s and 1960s.

Morgan worked on gas helmets that had the original R Kirby plaques, prior to building the helmet having Kirby Morgan plaques. No production numbers stated, but probably less than 20 units were made with the Kirby Morgan manufacturer plaques.

Kirby: Bev learned this metal work very, very quickly. Within a couple of weeks, he could solder and silver solder as well as I could. Amazing.

Morgan: Those two helmets: KMAH 1 and KMHEH 2 are the absolute pinnacle of heavy gear helmets. What I considered the best team of commercial divers in the world came up with the helium hat design and put it together with Kirby, who I considered about the worlds best metal bender. That Kirby air hat was as good as a heavy gear helmet could ever get. Sure, there had been some small improvements over the years on Siebe's (seebees) original design, but what Kirby came up with was a giant leap. Ask anyone who's dove one. And I had nothing to do with that, it was all Kirby. He showed me how to build them, but that's it. My name has no business being on those hats, all I ever did on them was follow bob.

1965 KMM-5

The Kirby Morgan Mask 5.

In 1965, during production of the KMM4, the Kirby Morgan company started gearing up to manufacture the KMM5. It was a fiberglass mask

equipped with a steady flow valve and a demand regulator. It featured a rigid earphone on one side and used a Non-adjustable Scubapro regulator. This regulator was soon to be replaced with a U.S Divers Conshelf (Con-Shelf) regulator. This made installing the Dial-A-Breath a lot easier.

Bob and Bev manufacturing these masks concurrently with the SemiLite helmet, and it is easy to observe the many similarities between the mask and the helmet, for example the glued in face seal.

Six of these masks were made.





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INTERSPIROS DIVING PROCEDURES FOR EXTREMELY COLD CONDITIONS

By Lars Gustafsson Diving Sales Support Manager at Interspiro AB

Many of Interspiro AB customers are using our diving equipment in Extremely Cold Conditions; usually there is no problem in doing so, if only a few measures are taken when using it! The scope of this article is only to inform of dive procedures recommended and supported by Interspiro AB and the article will give the reader a better understanding of what is necessary to be able to safely use Interspiros diving equipment in Extremely Cold Conditions.

Warning! SCUBA Diving is an activity with risks involved, every increase in the task load, change of equipment or change in environmental conditions, like diving in Extremely Cold Conditions, different from that trained for, will increase the risk and task load dramatically! These cold conditions are manageable and this type of diving is regularly performed by a lot of Interspiros customers, BUT it requires a lot more! for instance a well and for the specific purpose trained dive team, lots of dive experience, a thorough risk assessment, proper dive planning and the use of adequate diving procedures for Extremely Cold Conditions.

All other dive related procedures/guidelines/regulations are NOT! Included in this article and these may differ between training organizations and countries. Make sure that you, the user, and all members of your dive team have adequate training on the procedures needed for this type of diving before conducting a dive in Extremely Cold Conditions!

Interspiros Divator MKII and MK III Cold Water Performance

The Interspiro Divator MKII and MK III SCUBA diving equipment as well as the DP 1 Surface Supply diving equipment are tested and certified according to the European standards EN 250, for Air diving SCUBA equipment, and EN 15333, for Air surface supply equipment, with the added extra criteria "Cold Water" Performance. This means that not only is the Interspiro equipment approved according to the European standards but also doing so with colder water than ordinarily used for the standards. The Interspiro Divator dive equipment has repeatedly been used in air temperatures down to -35°C and colder, and has successfully been used in water temperatures down to -7°C Although many of Interspiros customers use the Interspiro Divator diving equipment under far more extreme conditions than the equipment is routinely used in, there is a need to adapt some dive procedures when diving in Extremely Cold Conditions to get the best performance and least problems out of the equipment.

Some definitions: Freezing

Definitions used for categorization of freezing of diving equipment are:

- Internal freezing and
- External freezing.

Internal freezing is defined as an occurrence which is caused by water/

External ice build up on a Divator MK II regulator.



A Swedish Army diver ready for an ice dive using Interspiro composite cylinders, Divator MK II regulator, Divator Full Face Mask and Ibsophone wire communication.

water vapor entering with the breathing air, i.e. improper air quality at filling station, improper handling of hoses before a dive or other situations where water can enter in the "dry" internal side of the dive equipment. This should be a minor risk, and should happen very seldom if proper Air quality is maintained, gas (Air) analysis is frequently done and the equipment is correctly used and handled.

External freezing is the most common fault in Extremely Cold Conditions where water enters and freeze up to ice in the exhalation unit (Diaphragm attachment) or in the valve insert, causing the breathing valve to jam in an open position giving in most cases a free flow of air.

Ice Layer Growth due to Adiabatic Expansion

When diving in water with a temperature close to or below the freezing point of water, the adiabatic expansion of the air in the regulator, breathing valve and manifold will create enough cooling energy to enable a growing ice layer on the outer surfaces of these parts. This ice layer might interfere with the function of the dive equipment! (The salt content of the water will determine the freezing point of it; the worst condition is usually flowing cold fresh water)



Swedish Armed Forces divers preparing themselves for diving under Extremely Cold Conditions. The diving equipment might have to be looked for and dug up!

Pre Dive Procedures with the Interspiro Divator equipment (First dive)

When diving in Extremely Cold Conditions the diver should use a Divator Full Face Mask, properly used it decreases the risk for freezing and also protects the diver from the cold water. The breathing valves internal parts shall be checked and completely dry. The breathing valves non-return valve shall be leak tight. The anti-freezing internal rubber cap(s) shall be checked and completely dry. The Full Face Mask checks and donning shall be done immediately before entering the water. The diver should hold his breath, if possible, until he is under the water surface. When entering the water, it shall be done smoothly with a direct descent to below the waters surface. "In water" checks shall be made below the waters surface. The diver shall not break the waters surface except after the dive when exiting the water. A raised hand above the water surface means the diver is OK! (A life line shall always be used in ice diving and Interspiro recommends using wire communication when performing these dives!)

Divator MKII and MK III Cold Water problems

When diving with Interspiros Divator MK II or MK III diving regulators that has a low air warning devise incorporated in them. A growing outer ice layer, as described previously, could cover the reserve air valve lever/handle, so that the operation of the switch over to

bail out "reserve air" is impossible to do when the air pressure becomes low. The following parameters and combinations of them will increase the speed of the ice layer growth: High ventilation (high flow rate through the regulator), Water temperatures lower than the freezing point of water (and/or current, flow or cold high salinity water), Shallow dive (usually colder water at the water surface), Very long dive time (long time to cool down). Interspiro recommend divers who needs to dive in Extremely Cold Conditions with water temperatures close to or below the freezing point of water and who dives for long dive times to: Use a Divator MKII regulator without a Reserve Air Valve and repeatedly monitor the pressure gauge. Or use a Divator MK III regulator with the "Ice Dive Kit" mounted on the Reserve Air Valve handle and repeatedly monitor the pressure gauge. Or monitor the pressure gauge and cease the dive at a pre calculated air pressure higher than the reserve pressure (usually around 55 bar). Make sure to allow an appropriate amount of Air (air pressure) for a safe return to the surface including a safety margin and/or necessary decompression time. Another very good alternative is to use the Interspiro DP 1 Surface Supply air diving equipment where the amount of air becomes virtually unlimited for the diver and the build up of ice is transferred to the regulator on the DP 1. The diver must monitor his pressure gauge and confirm that the air pressure does not fall significantly in his "bail out" cylinder when diving with the DP 1.

Under all diving conditions if any sign of air loss or loss of functionality is en-

Warm water, from an isolation food container, is used to melt ice on a regulator.



countered cease/abort the dive!

Repetitive Dive Procedures with the Interspiro Divator equipment

When exiting the water after the first dive, into air conditions below the freezing point, the following procedures have/may have to be made hastily in order to ensure a repetitive dive and preventing the parts in the equipment from freezing stuck (not possible to operate). When doing these procedures an Air Gun mounted on a low pressure hose is recommended to be used. Remove the composite cylinder pack weight, if used! Blow the breathing valve dry by pushing on the purge button (a few seconds) before you remove the Full Face Mask or mouthpiece and possibly the Octopus. At the same time push the Full Face Mask against your face and/or block the outlet on the mouthpiece/Octopus so that the air is directed out through the exhalation unit and not to the sides of the Full Face Mask. This will remove most of the water in the breathing valve. Remove the Full Face Mask.

Remove ice from couplings and connectors on the regulator unit with warm water (Observe! Pressurized regulator) Dismount the exhalation unit from the Full Face Mask or mouthpiece and the Octopus breathing valve, if used. Blow dry the breathing hose and valve housing from water by quickly pushing on the lever a few times. Close the cylinder valve, depressurize and dismount the regulator from the cylinder pack. Dismount the breathing valve from the low pressure hose. Blow dry the cylinder valve from water. Dismount the valve insert from the valve housing and wipe and blow dry. Dismount all parts of the exhalation unit except the diaphragm unit with its securing ring. Wipe and blow dry all the parts in the exhalation unit. Shake, wipe and blow the Full Face Mask dry from water. Remount all parts contained in the breathing valve. Mount the breathing

valve on the regulator hose and mount the regulator on a new cylinder pack. You are ready for a repetitive dive!

Measures to be taken after a dive when diving the next day

Blow the breathing valve dry by pushing on the purge button (a few seconds) before you remove the Full Face Mask or mouthpiece and possibly the Octopus. At the same time push the Full Face Mask against your face and/or block the outlet on the mouthpiece/Octopus so that the air is directed out through the exhalation unit and not to the sides of the Full Face Mask. This will remove most of the water in the breathing valve. Remove the Full Face Mask. Remove ice from couplings and connectors on the regulator unit with warm water (Observe! Pressurized regulator) Dismount the exhalation unit from the Full Face Mask or mouthpiece and the Octopus breathing valve, if used. Blow dry the breathing hose and the valve housing from water by quickly pushing on the lever a few times. Close the cylinder valve, depressurize and dismount the regulator from the cylinder pack. Dismount the breathing valve from the low pressure hose. Blow dry the cylinder valve from water. Dismount the valve insert from the valve housing and wipe and blow dry.

Blow dry the area around the Anti Freezing Unit. Dismount the Anti Freezing Unit from the regulator with the unit turned downwards. Check that there is no water in the rubber cup(s) or on the surface under the rubber cup (s). Wipe and blow dry the regulator from any remaining water. Reverse the CDR Handle Anti Freezing Cover "Ice dive kit" if a MK III regulator is used! if

The outer valve housing of an Interspiro breathing valve after a free flow freeze up.



necessary blow dry. Hang the regulator with the reference pressure holes downwards. Wipe and blow dry the Anti Freezing Unit, leave parts to air dry.

Note: IF there is water on the inside of the Anti freezing rubber cup (s). The regulator unit must be serviced by an Interspiro authorized technician!

Dismount the valve insert from the valve housing and wipe and blow dry. Shake, wipe and blow the Full Face Mask dry from water. Leave the Full Face Mask to air dry with the visor up and the head harness turned against it. Dismount all parts of the exhalation unit except the diaphragm unit with its securing ring. Wipe and blow dry all the parts in the exhalation unit. Leave to air dry.

Measures to be taken with a freeze up of an Interspiro Divator breathing valve

In most cases, over 90 %, the freeze up occurs in the breathing valve and at a repetitive dive when there is some remaining water or moisture left in the breathing valve. The risk for a freeze up is also dependent on the diving time where water in the exhalation unit will eventually freeze. Usually the breathing valve freezes in "open" position so that the diver receives air during his return to the surface. A freeze up in the first stage is very scarce and is not dealt with in this article. The measures described below should be looked at as guidance or help for the diver and/or dive leader to be able, with small means, to continue a diving operation in Extremely Cold Conditions. The measures are not listed in any particular order and the measures described should be used according to the circumstances present around the particular dive. Arrangements and planning to be able to perform these measures should always be done in conjunction with diving operations in Extremely Cold Conditions.



Some Swedish Armed Forces divers ready to do a dive under ice, under Extremely Cold Conditions. Using Interspiro composite cylinders, Divator MK III regulator, Divator Full Face Mask, Divator Wing BC and Ibsophone wire communication.

- Dip the breathing valve exhalation unit in warm water until the ice melts. Do NOT dip the entire Full Face Mask or mouthpiece because of the risk of getting moisture/water through the non-return valve into the "Dry" valve insert side were it can freeze into ice. Water in the Full Face Mask will also create mist on the visor.

- Unscrew the exhalation unit with the help of the dive tender; remove the ice in the diaphragm assembly. Push on the lever a few times to blow dry air through the valve housing. Observe that the pin on the sealing disc often freezes shut when the hole for it is filled with water. Possibly use an air gun to blow dry air on the parts and remount the exhalation unit.

- Exchange the entire breathing valve into a dry one. Depressurize! Check that the o-ring is mounted for the Full Face Mask.

Note: The air cylinder should be immediately shut when the diver is on the surface. It should be opened carefully afterwards to check that the freeze up has been rectified. The freeze up should be rectified by the dive tender/diver, with the diver sitting on the ice or in a secure position.

If these recommendations are used Interspiro assures that diving with our Divator diving equipment will be possible to perform even under Extremely Cold Conditions!

THE BADGE

How did you get involved with diving?

What are your ambitions?

What annoys you the most?

In The Badge we talk to people from the Professional diving world and find out who they really are and what drives them. In this month's issue, we meet Brian O'Flaherty, who is a Senior Instructor/Coordinator Kerry College SCUBA Instructor Course from Ireland.



How did you get involved with the Professional diving world?

01

My journey into the world of professional diving began quite unexpectedly. Since 1998 I have worked as an instructor trainer and guide in mountain and paddle sports. I first began diving back in 2001 while in Australia and at the time, I was adamant that diving would remain a personal hobby. However, fast forward to 2020, and my path took a surprising turn. As a member of a Kerry College programme development group exploring the market need for qualified commercial divers, I was tasked with developing a

Scuba Diving Instructor training programme and Commercial Diving course. Kerry Education and Training Board invested in my development and training to achieve these goals, and what initially began as a personal interest has since evolved into a highly rewarding professional endeavour.

Who did you learn the most from?

It is challenging to pinpoint a single source, as I have gained invaluable lessons from various people throughout my life. My parents, family, children, and especially my wife, con-

02

tinue to teach me daily, often in ways I do not expect. In the diving world, I have learned a great deal from those I've had the privilege to dive with over the years, but my mentors, Sandra Fitzgibbon and Danny O'Reilly, have been particularly influential. Owen O'Donnell conceived the idea for a commercial diving course. His foresight in the development of this programme has been instrumental, providing me with a unique opportunity to advance and excel in this specialised area. The progress and success I have achieved as part of the programme development team are a direct result



Knots at Portroe



Liftbags at Portroe

Kerry College



of his innovative initiative and dedication to fostering educational growth in Kerry College. I have gained extensive knowledge about the importance of quality and due diligence in ensuring the safe and effective delivery of a programme.

What drives and motivates you?

My primary motivation comes from being part of a strong, collaborative team. I am driven by the ambition to bring this spirit into the diving industry by developing high-quality diver education at Kerry College. My goal is

03

to create an exceptional learning environment that not only meets but surpasses the standards for future divers in Ireland.

What frustrates you the most?

One of the primary challenges I've faced is the lack of effective communication. Additionally, I find it particularly frustrating when individuals are resistant to exploring new teaching methods that could enhance the learning experience for learners.

04

What is your life motto?

Everything in moderation, even moderation.

05

THE UNEXPECTED TEACHINGS FROM THOSE CLOSEST TO ME HAVE SHAPED ME THE MOST

The lightweight and compact design allows for rapid deployment

Simplified control panel, allows the attendant focus on the safety of the diver

Possible to change supply cylinder or cylinder package during the operation, for long duration dives

A thin communication cable can be wrapped around the hose

Doubles as a safety rope

Available in lengths up to 120 meters

The small diameter of the lightweight supply hose greatly reduces resistance in strong currents

Integrated regulator, no need for manual adjustment of pressure for various depths

The Divator™ DP1

The right kind of pressure for professional divers

Nothing beats surface supply diving in regards to safety. But bulky hoses and complicated systems, makes it a hassle for both divers and attendants. To simplify things, we designed the world's first high pressure surface supply system. With the hose weighing in at just a fraction of a traditional low pressure hose, it's much quicker and easier to handle. And since the regulator is incorporated with the diver's equipment, there is no need for the attendant to manually adjust the pressure – letting the whole team focus on the mission at hand.



INSTRUCTOR AT WORK

Tomas Näsström
Yrgo-Commercial Diving School

My name is Tomas Näsström, I am 47 years old and I live on the west coast of Sweden, but originally I'm from Härnösand in northern Sweden. Since 2020 I work as a teacher at Yrgo Dive School in Svanesund, Sweden.

I started my career as a diver in 2009 and have worked in both Norway and Sweden.

This is my first time at an Idsa event, and I'm very much looking forward to sharing my own experiences as well as hearing and learning from others. I think that it's of utmost importance that we who are in the same industry learn from each other.

Our students are currently with us for two years, where a large part of the training consists of training at diving companies. This is highly appreciated by both students and companies in Sweden.

Our training is subsidized for the students and about 90% of our students get a job right after the training.

In addition to diving, they also gain knowledge and training with us in welding, concrete and skipper exams.

I myself am responsible for welding and we are the only ones in Sweden who can issue an underwater license.

My expectation for these days is that we can develop and become even better at what we do, and I'm looking forward to visiting a French diving school.

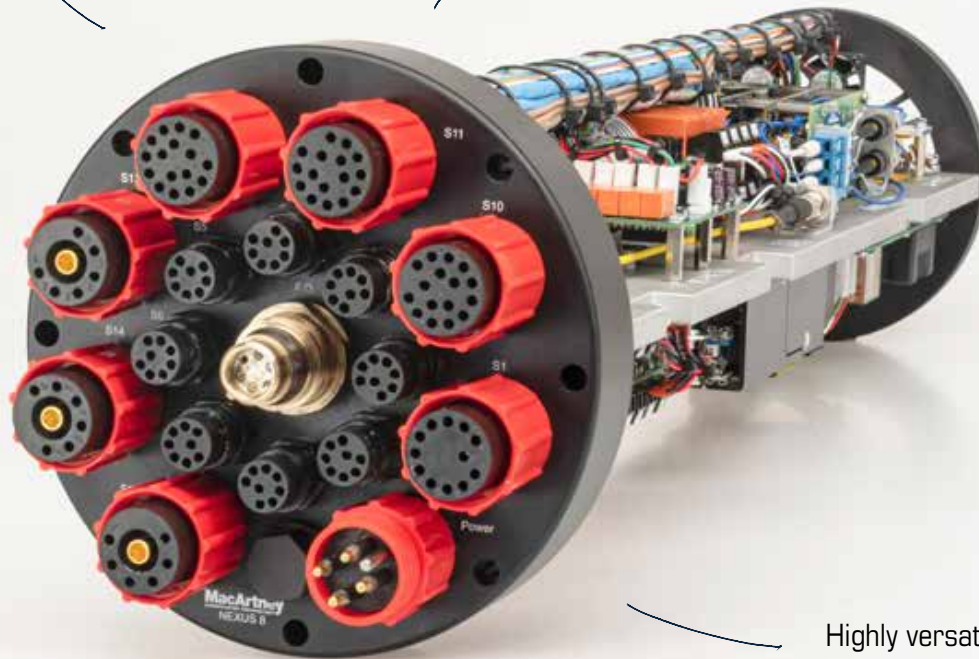


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MACARTNEY PRESS RELEASE

Empowering subsea connectivity
with MacArtney's cutting-edge EMO
Omni solution

The customisable EMO Omni multiplexer meets the evolving needs of underwater operations, from offshore energy projects and marine research to environmental monitoring. Offering unmatched adaptability and operational efficiency, it is an essential tool for today's subsea operators.

Built on the tried and trusted MacArtney EMO and NEXUS platforms, the new HD fibre optic video and multi-beam EMO Omni multiplexer represents a significant advancement in underwater data acquisition, enhancing the performance and scope of subsea projects.

Positive initial customer feedback confirms that it confidently meets the growing demand for adaptable, robust telemetry solutions. Notably, end-user requests for bespoke multiplexers that deviate from the standard portfolio in terms of size or features further validate its market relevance.

Andrew Palmer, the General Manager of MacArtney Canada, highlights:

“With the EMO Omni, we've expanded our lineup of dependable multiplexers, aiming to design a flexible product addressing varied industry demands worldwide. This achievement reflects our operations' adept collaboration across borders, illustrating our ability to oversee the entire product development process internally while benefiting from our global cohesiveness for success.

The EMO Omni multiplexer is compact, versatile and efficient. Includes high data output, real-time communication and multiple instrument and sensor options.

Seamless connectivity and data efficiency

Uninterrupted connectivity beneath the waves is paramount for achieving operational goals and optimising data utilisation.

The compact EMO Omni ensures seamless data collection and analysis, enabling informed decision-making and streamlined operations. High data output and real-time communication capabilities support multiple instruments and sensors with integrated diagnostics and remote monitoring features.

This functionality enhances operational efficiency and minimises manual interventions, ensuring consistent connectivity and efficient data transmission and management in diverse underwater environments.

Customisation at its core

At the core of the EMO Omni lies its highly customisable nature, tailored to meet the unique requirements of each operation and adaptable to a diverse range of subsea applications within offshore energy, naval projects, ocean science, marine research, and environmental monitoring.

The EMO Omni's adaptability extends to system integration, power supply, and material requirements, drawing on decades of MacArtney's industry experience

and exceptional workshop capabilities. Swift customisation, including bespoke harness cables, is readily available globally through our local workshops.

The connectors mounted will typically be from MacArtney brands, such as SubConn®, OptoLink™ and TrustLink™. However, the versatility offers flexibility in choosing from a wide selection available at MacArtney.

Focus on ease-of-use

With a focus on long-term performance and user-friendliness, such as intuitive interfaces, the EMO Omni aims for minimal downtime through ease of maintenance, efficient troubleshooting and quick issue resolution.

It seamlessly integrates with existing systems, enhancing subsea project performance and mission success.

MacArtney's newest multiplexer addition is available globally via local operations in North America, Europe, and the Asia Pacific.

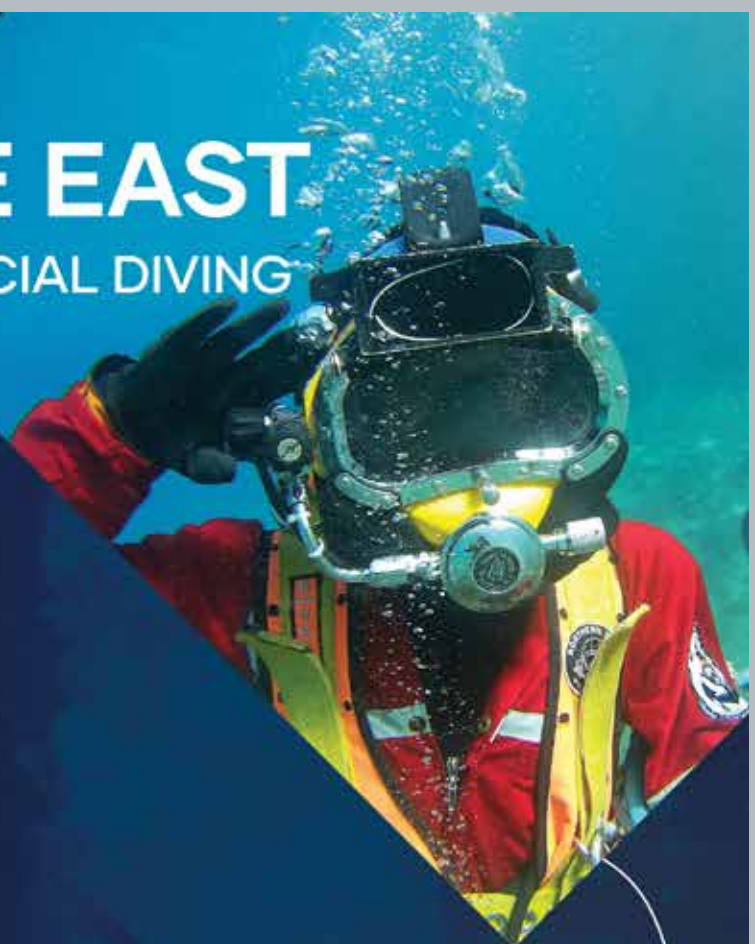
For additional information, please contact **Andrew Palmer**, General Manager, MacArtney Canada.

Tel. +1 902 434 1798,
email adp@macartney.com or visit
www.macartney.com





MIDDLE EAST FOR COMMERCIAL DIVING



MECD is one of the most prestigious commercial diving and ROV training schools in the world with a unique link to the commercial diving arenas.

With a passion to help our students in the acquisition of commercial diving skills to build a career in commercial diving industry, we have established training courses that are relevant to commercial diving industry requirements on a global level.



Our Courses :

- ✓ Surface Supplied Air Diver (inshore - offshore)
- ✓ Commercial SCUBA Diver (30 meters)
- ✓ Diving Supervisor (Inshore - Offshore)
- ✓ Underwater Welding course
- ✓ ROV Courses (IMCA recognized)
- ✓ DMT / DMTR (IMCA recognised)
- ✓ Trainee Air Diving Supervisor - TADS (IMCA recognized)
- ✓ DAN medical courses
- ✓ Client Representative.
- ✓ Dive Technician
- ✓ Underwater Photography
- ✓ Diving First Aid course
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INSPIRING
PEOPLE

MEDICAL ISSUE FOR SAFE DIVING

By Dr Hossam A. El-Masry - CEO Middle East for Commercial Diving MECD



NEUROLOGICAL EXAMINATION

The neurological state of a diver is important for medical team to determine the diagnosis of the nature of injury and consider as a guide in planning the treatment. These results help in determining treatment protocols. Neurological assessment should not delay any treatment. Start where the symptoms are described then conduct systemic motor examination. Results should be recorded accurately for communication with the medical personnel.

It is better to start taking a good history from the casualty which will assist in understanding what happened and reveal underlying medical issues like signs and symptoms, allergies, medications, medical history, last oral intake, events leading to the current situation. In addition to vital signs like pulse, blood pressure etc.

The Functional Areas of a Neurological Assessment



• Mental function

Assess Level of Consciousness alert or responds to verbal stimulus or respond to painful stimulus or unresponsive. In addition to orientation to person, place, time, reason for being there, we have to

assess the memory status by asking different questions.



• Cranial nerves

Smell (olfactory Nerve), Eyes (optic, oculomotor, trochlear and abducens nerves), Head (trigeminal nerves), Shoulders (accessory nerves), Hearing (auditory nerves).

• Sensory function

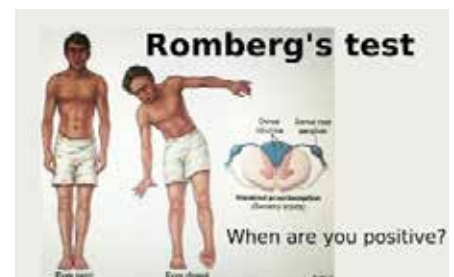
Check for numbness, discomfort – usually paraesthesia (tingling/‘pins and needles’) or pain in any area of the body.



• Motor function

This can be checked by measuring strength of various muscle groups and movements of both legs and arms.

Besides examining the reflexes like Babinski, Biceps & patellar reflexes.



Rapid Alternating Movement



• Coordination and Balance

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“...quick and accurate...”

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Extremely simple-to-use with 3 function keys and up to 4 screens



Live A-scan for visual measurement verification



Depth sensor gives live display of the depth which can be logged with each measurement

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Diver-Held Thickness Gauge

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BRITAIN



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AN UPDATE ON THE HISTORICAL DIVING SOCIETY MUSEUM



Figure B Communication Gallery



Each issue of the IDSA News has been carrying a story from the Historical Diving Society (HDS), as supplied by Peter Dick. He learned to dive in 1956, then ran the first civilian diving school on Malta in the 1960s. In 1970 he met Alan Bax and they remained firm friends for the rest of Alan's life. Peter developed a long-standing interest in the history of diving while working offshore as a sat. diver in the 1970s. He has been a member of the HDS from its inception and presently edits the Historical Diving Times and International Journal of Diving History for the Society.

In the UK we maintain close relations with these international societies and enjoy regular exchange visits. At home, we have specialist interest bibliophile and film groups, as well as an active 'Working Equipment Group'. This not only maintains and demonstrates vintage diving equipment, but encourages the public come and try it for themselves. The Society also publishes a respected annual International Journal of Diving History, a bi-annual HD Times magazine, facsimiles and newsletters and has an extensive reference library with a growing collection. All this, together with a well-established Annual Conference. We also have the only museum in the UK dedicated solely to diving, to help preserve our diving heritage for future generations.

The HDS Diving Museum is housed in a mid-nineteenth century fort coastal defences gun battery (known as No2 Battery) at Stokes Bay in Alverstoke on the south coast of England. Luckily we have managed to raise funding, and it is presented being renovated and extended, a building repair project is almost completed and we are about to start a project to develop new galleries throughout the building. in a project that will see it The museum will open again in the second half of 2025. The HDS 'collection' can then be displayed throughout the whole building in a high-quality, professional setting that will enable a better interpretation atmosphere for visitors.

To achieve this our consultants, designers, volunteers and officers of the HDS have worked hard as a tightly knit team to get us to this stage and have produced an exciting set of ideas for the galleries (see images below). This will be a game changer for both the Diving Museum and the Historical Diving Society. None of it would have been possible without the funding help of any number of organisations, which included the National Heritage Lottery Fund, Arts Council England, The Royal Society of London, South East and South West Museum Development, IMCA and Subsea 7.

The re-opening of the museum is planned in the 2nd half of 2025 and when you are in the UK it is a worthwhile to visit is.

The Diving Museum

No. 2 Battery
Stokes Bay Road
PO12 2Qt Gosport
United Kingdom
www.divingmuseum.co.uk
Historical Diving Society
www.thehds.com



Figure A Sport Gallery

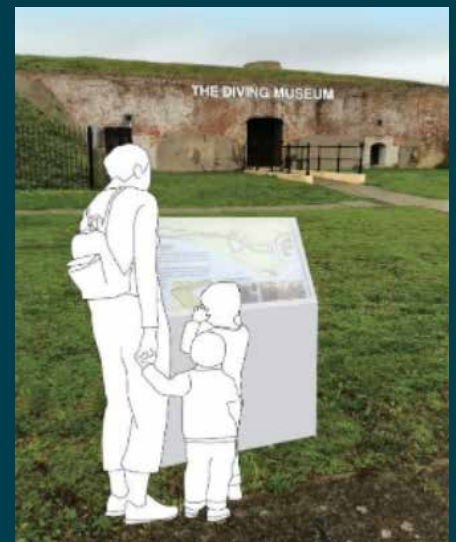


Figure C Military Gallery

KBA TRAINING ARTICLE

Commercial Diver Training



When looking for a career change or considering a career as a commercial diver, one will have many questions. How do I start? Where do I go for training to ensure the qualifications is recognised by the local authorities where one plans to work? There are more questions than answers available as it is a unique industry that requires unique skills sets. Where does one look to obtain knowledge, understanding and answers?

Commercial diving, whether it is for Inland Inshore work or offshore, is a professional career that requires extensive theoretical and practical training. To meet the growing demand for trained commercial divers over the years, training institutions have emerged developing their own country specific industry-based training schemes. These courses conducted by different countries vary in nature, duration, and content, depending on the specific commercial diving work requirements of the country, and the training framework. Each country has its own requirements pertaining to commercial diver training, and training institutions must meet these requirements to provide industry-satisfying training programmes and qualifications.

The job performed by a commercial diver is diverse. For example, an inland inshore commercial diver working in Singapore could be tasked with ship husbandry, propeller polishing, jetty inspection, underwater pile construction/repair etc. The diversity in tasks allocated to the commercial diver makes it obvious that a highly skilled person is required for such work. Safety, diving physics, underwater skills, knowledge in diving medicine and physiology, and diving first aid skills to name a few, are essential skills required to ensure the diver's safety, the safety of others, and the ability to perform the job to a certain standard of excellence.

Commercial diving is a hazardous occupation. Often, commercial divers work in low visibility conditions, increasing the likelihood that a diver will become entangled or experience a hazardous encounter, or in the worst-case scenario, human error. Due to these reasons, commercial diving operations throughout the world are mainly regulated, with requirements that are often more stringent than those for other working environments. To ensure the safety of divers, these regulations cover all aspects of diving procedures, training, competence and certification, and equipment. Operators of diving

schools and instructors should be subject matter experts on the regulations in their country.

Potential trainees planning to enrol in commercial diver training programmes should research where they wish to work upon graduation. By reviewing employment opportunities as well as commercial diving regulations in their country of interest, potential trainees will have an idea of the legalities and general operating conditions prior to taking courses. Many countries have established regulations covering commercial diving safety and diving operations either as national standards or as a series of regional and/or state laws. Countries such as the United States, Australia, United Kingdom, and Singapore have some of the most comprehensive general training in the world.

KBA Training Centre Pte Ltd (KBAT), is Asia's premier Commercial Diver Training Centre based in Singapore. It is managed by personnel who have in the commercial diving industry for over 35 years, and over 10 years operating an Inland Inshore Commercial Diver training centre. KBAT's dedicated training team includes commercial diver trainers (approved by Singapore's

accrediting body), diver medic trainers, who are trained, qualified and experienced in real life scenarios, and dive technicians.

KBAT is the ONLY government (Singapore Ministry of Manpower) approved commercial diver training centre in Asia. Trainees who have graduated from KBAT's training include individuals and company sponsored trainees from Asia including Singapore, Philippines, Malaysia, Indonesia, Bangladesh, India. The diverse trainees on the course adds great team building opportunities of meeting and making new friends while learning a new skill that one can establish a career from. Many of our previous students have returned to training as Commercial Diving Supervisors, while some have expanded their career and work opportunities by attending our IRATA Rope

Access training. KBAT is also the only training company in the world to offer training to the depths of the ocean and the heights achieved on rope access work, providing you with a wide range of employment opportunities on successfully completing the training.

Previous students who have attended our commercial diver training in Singapore are from a wide range of previous careers, including Grab Drivers, Airline Pilots, Environmentalists, Engineers, Michelin Chefs, university graduates, polytechnic graduates, current serving and ex-military divers. To date, we have also trained seven female commercial divers. Several of our graduates have continued their training by up grading themselves to HSE UK Offshore (50m) commercial diver qualification and now work offshore in the energy sector.



Contributed by KBA Training
marketing@kbatraining.org

About KBA Training Centre Pte Ltd

Established in 2006, KBAT has been in the forefront in providing training for the offshore, inland/inshore and the health and safety sector. KBA Training is the premier venue for International and National accredited training and is positioned to offer integrated specialist solution for consultancy and training to the onshore, wind / renewable energy and offshore industry. Website: www.kbatraining.org



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THE IMPORTANCE OF A DIVE TECHNICIAN IN COMMERCIAL DIVING

By Mona Shobair
Regional Sales Manager at Middle East for Commercial Diving - MECD

Commercial diving is a specialized field that requires a diverse array of skills and expertise to ensure safety, efficiency, and successful project completion. Central to this endeavor is the role of the dive technician, a professional who plays a crucial part in supporting divers and managing equipment. Here's a closer look at the importance of dive technicians in commercial diving operations.

1. Equipment Maintenance and Management

One of the primary responsibilities of a dive technician is the maintenance and management of diving equipment. This includes inspecting, repairing, and servicing dive gear, such as tanks, regulators, wetsuits, and surface-supplied diving systems. Properly maintained equipment is essential for the safety of divers, as any malfunction can lead to serious accidents or life-threatening situations.

2. Safety and Risk Mitigation

Dive technicians are instrumental in ensuring a safe working environment for divers. They conduct thorough pre-dive checks to confirm that all equipment is functioning properly and that safety protocols are in place. By identifying potential hazards and addressing them before a dive, technicians

help minimize risks associated with underwater operations. Their expertise in emergency procedures and equipment failure protocols is invaluable, as it can mean the difference between life and death in challenging underwater environments.

3. Technical Expertise

The complexity of commercial diving operations demands a high level of technical knowledge. Dive technicians are trained to understand the intricacies of diving systems, including gas management, buoyancy control, and underwater communication. Their ability to troubleshoot technical issues quickly ensures that divers can focus on their tasks without worrying about equipment failures or other complications.

ROV pilot technician is one of well-respected and highly paid careers in the offshore.

Training can help you to advance your career in the world of deep-sea piloting.

If you are new in the field, then the courses can help you to develop a basic understanding of ROVs and become an expert with the help of our qualified instructors.

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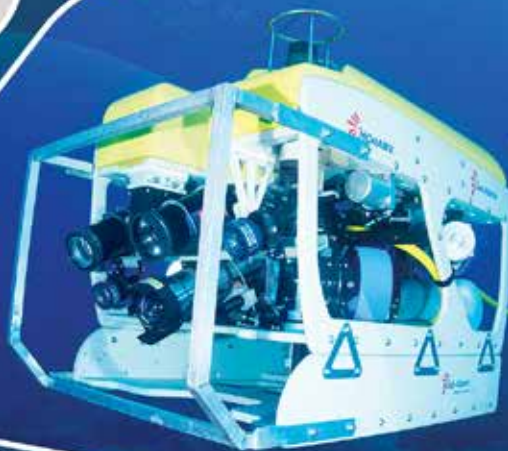
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MIDDLE EAST
FOR COMMERCIAL DIVING



DIVE TECHNICIANS ARE KEY TO ENSURING SAFETY AND SUCCESS IN COMMERCIAL DIVING

4. Support During Operations

During commercial diving missions, dive technicians play a supportive role by monitoring the divers and the equipment from the surface. They maintain communication with divers, providing guidance and assistance as needed. This support is critical, especially in complex operations, where situational awareness and coordination are key to successful outcomes.

5. Training and Development

Dive technicians often participate in the training of new divers, sharing their knowledge about equipment use, safety protocols, and best practices. Their experience and insights are essential in cultivating a skilled workforce in the diving industry. By educating divers on the importance of equipment care and safety measures, technicians contribute to a culture of

safety that permeates the diving community.

6. Environmental Awareness

With increasing focus on environmental protection, dive technicians are also becoming more involved in initiatives aimed at preserving marine ecosystems. They may assist in underwater assessments, contribute to environmental monitoring, or participate in projects aimed at cleaning up underwater sites. Their role in promoting sustainable practices helps ensure that commercial diving operations do not adversely affect the marine environment.

Conclusion

All in all, dive technicians are an essential component of commercial diving operations. Their contributions in equipment maintenance, safety assu-

rance, technical support, training, and environmental stewardship highlight their importance in this specialized field. As the demand for skilled divers continues to grow, so too does the need for competent dive technicians who can support these professionals in their critical underwater work. By recognizing and valuing the role of dive technicians, the diving industry can continue to operate safely and effectively, ensuring both the success of missions and the well-being of divers.



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NEW MEMBER INTRODUCTION

Hellenic Commercial Diving Academy (HeCoDiA)

Greece, from ancient times to its modern history, has been inextricably linked to the sea, both in terms of naval and diving activities. Let us not forget Archimedes with his law of buoyancy, and Alexander the Great, who, during the siege of Tyre, used the diving skills of Scylas to conquer it, laying the foundations for the evolution that came through the centuries. Reaching the historic islands of Kalymnos and Symi, where professional sponge diving became integrated into the lives of the inhabitants of modern Greece.

As the years passed, life changed, but in the hearts of Greek divers, there was a small gap that continued to grow. This was their absence from global commercial diving developments, in terms of knowledge, medicine, equipment, and technology. The demand in the inshore and offshore diving industry has skyrocketed, making the training of divers in new technologies and techniques imperative. Oil rigs, gas pipelines, the vast growth of commercial shipping, and numerous global projects now require a different level of diver, with a completely different mentality and training in safety, the use of specialized techniques and tools, as well as surface support personnel training.

Greece could not stay out of the global demand for well-trained and qualified divers. Thus, the **Hellenic Commercial Diving Academy (HeCoDiA)** was born, for the first time in Greece and the Balkans, founded by Damianos Veropoulos and Antigoni Tsirka. It became the first academy in Greece and the

Balkans, in general, to be certified by IDSA (International Diving Schools Association) in July 2024, as its newest member. This certification allows it to teach aspiring professional divers the necessary knowledge to work safely, with confidence in their abilities, and with excellent professionalism, adhering to the standards and specifications of IDSA.

Damianos Veropoulos has been active in the diving industry for over 30 years as a professional diver, with numerous missions under his belt and several thousand hours of diving. He also has extensive experience in diver training, is an instructor for recreational diving instructors, and owns one of the largest diving centers in Greece.

Antigoni Tsirka is a lawyer with over 35 years of experience, specializing in maritime law and the diving sector, and is also a recreational diving instructor with several thousand hours of diving experience. She recently became the owner of a large diving center on the island of Rhodes.

He.Co.Di.A. is based in Agios Konstantinos, Fthiotida, one of the largest ports in Central Greece. The choice of location was no coincidence. The diving sites are just a short distance from the shore, minimizing unnecessary travel time and preventing our students from being exhausted by long journeys.

The academy is supported by numerous instructors, including hyperbaric medicine doctors, specialists in



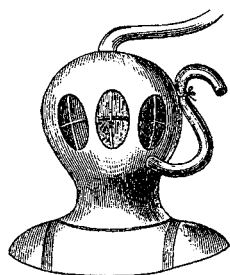
various fields, engineers, welders, diving supervisors, etc.

The classroom is fully equipped, large, and ergonomically designed to offer our students maximum ease in following and participating in the theoretical lessons. It includes a special dry welding classroom, a computer room, a library, two diving stations, an underwater work station, an L.A.R. station, and a pool for developing and mastering all underwater welding and cutting skills. We also offer free accommodation to our students in separate rooms, along with free access to kitchen, bathroom, and laundry facilities.



As there is no other similar school in Greece or the Balkans, we hope to become the model for all those interested in professional diving.





The Historical Diving Society

www.thehds.com

www.divingmuseum.co.uk

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*The Black Prawn Feltham with Chinese attendants in 1958.
Photo: Feltham family archive.*

HISTORICAL DIVING

THE BLACK PRAWN A FABLED DIVER OF THE CHINA SEAS

By Reg Vallintine

Portsmouth is a seaport with a naval dockyard in southern England, that has a long association with diving. Some years back a friend who lived there told me that when he was younger he had heard about a local diver known as 'the Black Prawn'. The only other thing that he could remember was that he was famous, had worked in the dockyard and had been mentioned in a book. This excited my curiosity and I was determined to find out more.



Wreck of the 'Tjibanjet' under tow by the 'Taikoo', among others, off Hong Kong. Photo: Feltham family archive.

As a starter I left a message for John Walker, a member of our Historical Diving Society, who had made the last ever helmet working dive at the dockyard. A few days later he telephoned back to say that the diver concerned was called Norman Feltham, and that his son John still lived in Portsmouth.

John Feltham turned out to be full of information and very helpful. It seems that his father had become known as 'the Black Prawn' during his many years working as a diver in the Far East, and that the book of his exploits was called "No Cure No Pay - Memoirs of a China Sea Sea Salvage Captain" by Captain William Worrall. Needless to say, I soon managed to obtain a copy.

The book make it clear that Norman got his nickname from the Cantonese crew of the salvage ship he worked on. unburned and often covered in oil Norman could never sit still, but was always running about stowing stores, organising people, repairing his diving gear and, of course, working under the surface in his trusty helmet.

Norman Feltham was born in 1916 at 120 Broad Street, Old Portsmouth, into a well established boat building family. Soon after leaving school he

became a shipwright diver apprentice at the dockyard. During the interwar years he then established himself as an efficient worker. He came to prominence when, in 1941, he was commended by the Admiral Superintendent for helping to rescue a Commander Dobson after an air raid.

That same year he sailed for Cape Town to join the Royal Dockyard at Simonstown. On that voyage he met his future wife Lucy. It was in South Africa that he married Lucy and became a fully qualified diver. His two sons were both born there.

After the war it proved difficult to find work in Britain, so after a short time working in the dockyard in Bermuda, he left for Hong Kong in 1950. Here he spent the following 21 years until his retirement living an adventurous life, which involved challenge, danger and considerable achievement.

Norman's key characteristics were cheerfulness and enthusiasm. Captain Worrall wrote, "He was one of the greatest shipmates you could wish for, a smiling, happy, contented, busy, bouncing expert who was not happy unless he was working. The dirtier and more hazardous he work the better he liked it. The

Chinese crew regarded him with a mixture of awe and affection because of his legendary feats underwater and has and has unfailing affability above it."

Norman and his 8-man diving team recovered aircraft, helicopters, twenty ships and an oil rig! He often dived alone in his early years in Hong Kong working off the steam tug 'Taikoo' commanded by Bill Worrall.

His many salvage attempts included the wreck of the 'Amonea' in 1960, aground in the southern Philippines. In 1967 he recovered the two sections of the Standard Oil Company tanker 'Stanvac Sumatra' that was drifting independently after she had broken her back 850 miles south of Hong Kong, returning them both to Singapore.

Once 'Taikoo' was straining with a tow line to get a ship off the rocks on Hainan Island in China, when it parted and was dragged into Taikoo's propeller forming a tight steel ball. Norman took his oxyacetylene torch and climbed into his diving dress in a temperature of over 100 degrees.

As Worrall watched him work 5 metres down through the clear water, two fast moving sharks appeared out of the depths and headed straight for Norman. He kept working and, when one came to close, he reached out and banged it on the nose. After a while those on the surface teased him by sending down empty beer bottles. Norman signalled that he wanted a full one. They sent it down together with an opener, and were later baffled when it came up empty. Somehow, Norman had managed to drink it through the helmet spit cock!

In 1965 Hong Kong was the scene of an air disaster, when an American Hercules transport plane crashed on take-off killing 58 American soldiers bound for Vietnam. Every effort made to rescue the 13 survivors from the blazing sea. Norman and his divers went down through the carnage, forcing their way into the submerged aircraft and recovering the bodies for many hours. Afterwards a letter from the Colonial Secretary referred to the risks of that salvage and rescue work and especially Norman Feltham, mentioning his calmness and efficiency in searching, raising and landing the wreck.

In recognition of his efforts over the years, in 1966, Norman attended Buckingham Palace, London, to

receive the MBE award from Queen Elizabeth.

He finally left Hong Kong in 1971 on the liner 'Orsova', to a chorus of fire crackers and flashing lights of farewell. Captain Bill Worrall escorted the liner out of sea with his steam whistle blasting.

Norman and his wife Lucy enjoyed a world cruise, but retirement was not in Norman's character. He still travelled and worked for friends in Portsmouth on many projects. One day in 1973 he fell from a ladder during one of these and later died, having never regained consciousness. He was sadly missed by his family and friends and will be remembered by those who worked with him in the China Seas.

NORMAN'S KEY CHARACTERISTICS WERE CHEERFULNESS AND ENTHUSIASM. THE DIRTIER AND MORE HAZARDOUS THE WORK, THE BETTER HE LIKED IT

With thanks and acknowledgements to John Feltham of Portsmouth and Captain Worrall of Queensland, Australia. This article first appeared the Historical Diving Times, No.22, 1998

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RIO EGUCHI

A PROFESSIONAL DIVER EXPLAINS



In what year were you trained as a professional diver?

2014.

Where did you receive your diving training?

In South Africa with Jack Dive Chest Commercial Diving School.

How did you experience the time of your training?

I feel more challenging when I do my underwater welding.

What is your technical background before starting the training?

My parents have their own company in the underwater services. Before starting the training, I was operating the project.

What did you have to do in the field of further education / safety training to practice your profession?

Always maintain the best quality of education for students. So that they can work safely and for the company.

How did you experience the time after your training - e.g. finding the right employer?

Feel happy and do the best.

Are you employed by a diving company or are you self-employed?

I work for my own company.

How did you find your way into the job market in the beginning?

Promoting on website. Visit to the company introduce the company service.

Have you underestimated things?

No.

Have you overestimated things?

No.

Where do you work now diving company / region / international / work field civil underwater construction, shipping, ports, SAT)?

I work for my own company inshore and offshore.

What is your specialty within the specialty of the diving company?

Inspection repair and salvage.

What does your day look like in the workplace?

When you have work it's fun. If you don't have work and are looking for activities to clean tools

How did you see your profession develop or foresee future developments in terms of innovation, knowledge transfer, rules about safe diving, etc.?

Seeing the future development is very promising. And I provide quality training and knowledge to the younger generation so that they can work in the maritime safely with safety standards.

Have you mapped out your future - are there still challenges?

For now it is enough. But the challenges are still there. Trying to give the best to the students.

If you had the choice now to become a professional diver -with the knowledge of today- what would you do?

Do my best and best quality.

How do you see the labour market developing?

There is still a big shortage of skilled workers.

How important is it to be able to work in a team where the dive supervisor is in charge, but you as a diver are also expected to think along about diving safety and the technical aspect of the assignment?

In a team, workers must support each other. And must be solid. Must obey the rules and listen to the instructions of the supervisor who leads. And safety will be created if we follow it.

What would you like to advise future divers?

Work responsibly. And prioritize safety. And provide quality for our company work.



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| Full Members | Country | IDSA Level |
|--|----------------|----------------------------|
| SAB AKVO | Belgium | 3 |
| Arab Academy for Science Technology & Maritime Transport (AASTMT) | Egypt | 3 |
| Middle East for Commercial Diving (MECD) | Egypt | 3 |
| Luksia Sukellusala | Finland | 2 |
| Ecole Nationale des Scaphandriers (ENS) | France | 3 |
| Hellenic Commercial Diving Academy | Greece | 3 |
| The Irish Navy Diving School | Ireland | 3 |
| Centro Studi CEDIFOP | Italy | 3 |
| Foundation NOK | Netherlands | 3 |
| Norwegian Commercial Diving School, Oslo (NYD) | Norway | 4 |
| Western Norway University of Applied Sciences, Diver Education (HVL) | Norway | 3 |
| OSNZ FROG | Poland | 2 |
| Oceanos Escuela de Buceo Profesional SL | Spain | 3 |
| Commercial Diving School of Gothenburg (YRGO) | Sweden | 3 |
| KBA Training Center PTE Ltd | Singapore | Specialist Diving Training |
| Interdive Services | United Kingdom | Specialist Diving Training |

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| GT Corporation SE | Estonia |
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| BÚVÁR KFT | Hungary |
| Ganpat University | India |
| Neel Diving Acadamy | India |
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| Kerry Education and Training Board | Ireland |
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| JVS Diving and Marine Services LLC | United Arab Emirates |

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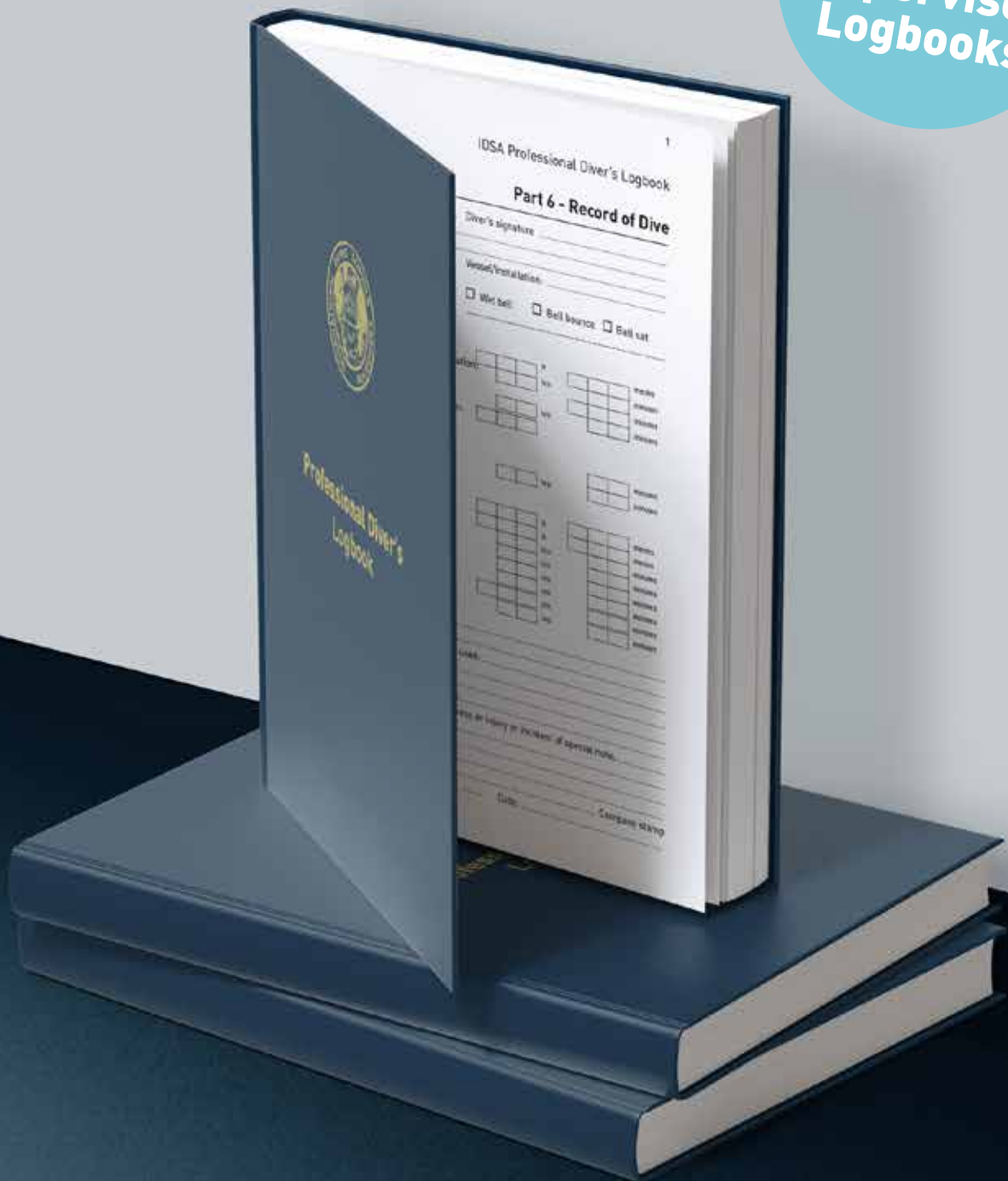
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