DIVENWS
042024

IDSA ANNUAL MEETING 2024

KIRBY MORGAN HISTORY

LORENZ DE MOOR A PROFESSIONAL DIVER EXPLAINS

THE BADGE: MICHEL QUINT MOHAMED ESSAIRY

IN MEMORIAM OF ALAN BAX FOUNDER OF IDSA

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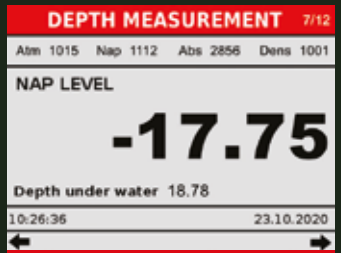

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FROM THE CHAIRMAN
LEO LAGARDE

It is difficult to start with writing down mine words at this moment, because a lot has happened our founder of the IDSA Alan Bax passed away on the 18th of February, he was not only the founder of the IDSA but also a good friend with whom I have had weekly skype meeting. He was a man with a lot of knowledge and stories of the Diving World and keep following as much as possible. And I will keep warm memories on the calls with Alan, and on all the trips we have done together and drinking a Gin and Tonic in the bar. Alan was a real gentleman.

A couple of weeks ago Robbert and I went to the house of Alan in France, to pick up 14 boxes with books all about diving, the wish of Alan was that these books will be left to the IDSA and so they can be used for the IDSA.

The Standards from the IDSA today is what Alan have start with, a high standard for training divers. And with this legacy we will continue and built further. For this we need all our members and especially the full members to train all our students in according to our standards and take their exam and have the IDSA Qualification card. So that more and more companies will ask if the are IDSA trained and certified.
The power is that worldwide IDSA members offers the same training conform IDSA standards & procedures in their own language in their own region. Which improve the safety on dive site as well. Our influence, with your support, goes beyond training.

I thank Alan for all his work for the IDSA and wishes Alan' family all the deepest sympathy and unwavering support. Wishing you peace, comfort, courage, and a lot of love at this time of sorrow. Our hearts go out to you at this difficult time.

We are now scheduling all the audits for 2024 and are very busy to set-up the Annual Meeting in September (24-27th) in France with our full member school Ecole Nationale des Scaphandriers (ENS) in Frejus France. So, we do hope that we can meet all our members.

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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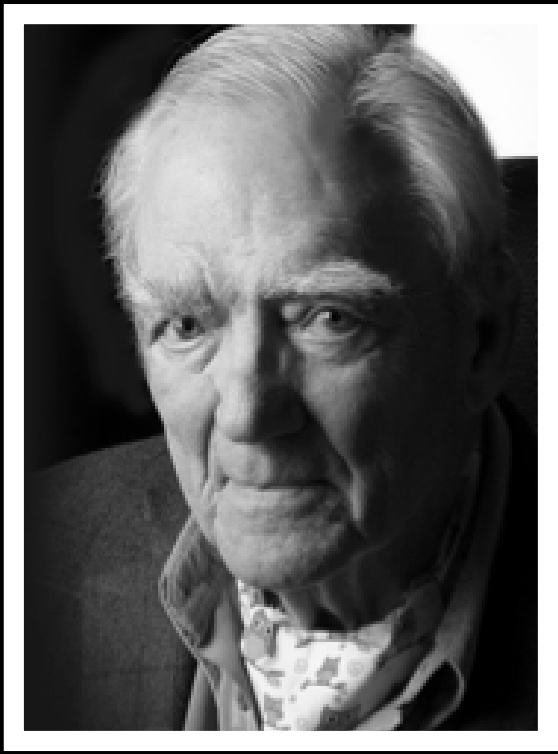


IN MEMORIAM ALAN BAX FOUNDER OF IDSA

IDSA was founded in 1982, formed by a group of owners or directors of diving schools, based around the annual meetings of the ADC (Association of Diving Contractors) in the United States. These meetings were a good opportunity to meet potential employers of the students who had been trained in their schools and to catch up on present trends and needs of employers so that students stood a good chance of future employment. In the absence of national and international regulations, such generalized agreement was the only way in which a relatively consistent approach to shared standards could be achieved. Alan and Jim were the first two 'Chairs' of IDSA, at first informally as an offshoot of the annual meetings during the early 1970s.

Alan, as co-owner and Director of Fort Bovisand Underwater Centre in Plymouth UK, and then as elected 'chairs' of what became known as the International Diving Schools Association (IDSA). Alan had a strong commitment to the setting of high standards for divers and diver training.

Alan did his training as a naval officer in the Royal Navy. As a schoolboy, all he ever talked about was joining the Royal Navy and in the week following his 16th birthday in 1947, he left home to join the training ship HMS Ganges on the east coast of England, starting as a 'boy seaman'. He rose through the ranks, completing officer training at Dartmouth and Greenwich, and then served in Frigates, Mine Sweepers, and Submarines, finishing finally as a Lieutenant Commander specializing in Under-Sea Warfare in 1960, which introduced him to diving.

Up to this stage, the navy had been everything he had hoped it would be, but his 40th birthday coincided with a phase of cutbacks in the armed services and a chance to take early retirement. During a ship's visit to India, he had met an American (Jim Gill) with shared interests in diving and underwater archaeology, and the two decided to go into business together, opening a center which could both teach diving and carry out diving contract work.

After a lot of searching, they finally found Fort Bovisand — a derelict fortress built on the eastern approaches to Plymouth Sound for defense against Napoleon 3rd (though, in typically British fashion, by the time it was completed, he was living in exile in England). They made inquiries about renting a room for use as a lecture room, but their application was refused - they could not have a single room but could rent the whole fort! This was something of a shock as the whole site was in a very poor state with the central road impassable and no fresh water available.

The Fort was to cost a considerable amount of money to bring into reasonable condition and its development was only possible in the early days with the support of volunteer divers who often exchanged their services for courses. But there were some very useful advantages, namely a space near the sea where it was possible to build a block of self-contained hotel-style rooms, casemates (gun rooms) which could be converted into dormitories for students

FROM NAVAL OFFICER TO DIVING PIONEER - EMBRACING NEW PATHS

on courses, and, crucially, a sheltered harbor. This had been built originally to provide shelter for sailing ships to collect fresh water when anchored in the Sound and, apart from one disastrous occasion, provided safe and sheltered landing for dive boats. There was also a kitchen, dining room, and bar — important for a residential center as the Fort was six miles outside the town! It also provided a center for an annual Underwater Symposium, reflecting Alan's interest and expertise in underwater archaeology - he was involved in finding the first ancient wreck in the Out Skerries (Die Liefde) and in locating the wreck of the Mary Rose.

Apart from training courses for divers at various levels and a number of linked specialisms (boat handling, underwater welding etc.), the Fort also offered employment to a considerable number of people including instructors, domestic staff, engineers, and the maintenance staff associated with any large establishment; as Director of the Fort, Alan was responsible not only for selection of students and oversight of standards but also of staff employment and timetabling whilst his partner had oversight of outside contracting work.

During this time the work with IDSA increased and Alan took responsibility for the administration which included the early negotiation with bodies such as HSE and MSC (Manpower Services Commission) to try to link course levels with those of outside bodies - a process which had been ongoing since the early days. By the mid 90's the work for IDSA had increased to such an extent that it was agreed that Alan should hand over the chairing of IDSA to another member and continue as Administrator - this coincided with the opportunity to sell his share in the Fort and move to France. The present move of some of the administration to the ASK Dienstencentrum in Pijnacker reflects the long-held intention to reduce some of the basic work of the Administrator to allow him time to develop links with other associations and broaden the scope of IDSA.

Alan married three times, Alan had two sons from his first marriage - the youngest sadly died from a heart attack last year – and two daughters from the third, with three grandchildren; he has been with his present partner – Jill - for the last thirty years. Jill died in 2023. Alan kept, in the last period, still interested in the IDSA and looking forward to the steps that IDSA was making for the future and his legacy.

Alan was awarded by IDSA in 2017 with a special award named after him, the Alan Bax Award, for all he had done in the last 40 years for the IDSA and for his strong commitment to the setting of high standards for divers and diver training.

FROM THE EDITOR

ROBBERT DE BIE

First of all, I want to stay still with the news that Alan Bax passed away on the 18th of February, he is not only the founder of the IDSA but also the formed editor of IDSA news. And I will keep warm memories on the IDSA meetings and the nice conversation with Alan about diving and about IDSA news. Alan was a real gentleman with a right mindset of what we in the industry has to give our students a Safe and high standard of training.

I thank Alan for all his work for IDSA and wishes Alan' family all the deepest sympathy and unwavering support. Wishing you peace, comfort, courage, and a lot of love at this time of sorrow. Our hearts go out to you at this difficult time.

In this seventh edition of the new version of IDSA news, we get more and more to our goal having this magazine for the members by the members. It was maybe less stories from our members, so please let your instructor and students (new or former) write some articles.

We still need you help more and more.

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.

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

Medical issues
The Badge
Historical Diving
The Student if we get your articles!
The Instructor if we get your articles!
Your school if we get your articles!

So please ask your instructors and students (or ex-students) to write an Article for IDSA news.
Finally we trust that you can identify yourselves in these topics and that this will encourage you to take part in the next edition of the magazine, therefore we ask you to send us articles regarding your schools, education and from the divers who followed the trainings.
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 FREJUS, FRANCE

The annual meeting of the IDSA will be held in Frejus France at our full member school ENS (Ecole Nationale des Scaphandriers) of Jérôme Vincent.

THE SCHOOL

Based in Frejus, on the French Riviera between Marseille and Monaco, France, the "*Ecole Nationale des Scaphandriers*" (ENS) is the National Training Center which issues certificates of competence in underwater operations. It is also the only commercial diving school accredited by the French government (Ministry of Labour) and recognized by the two major international organizations:

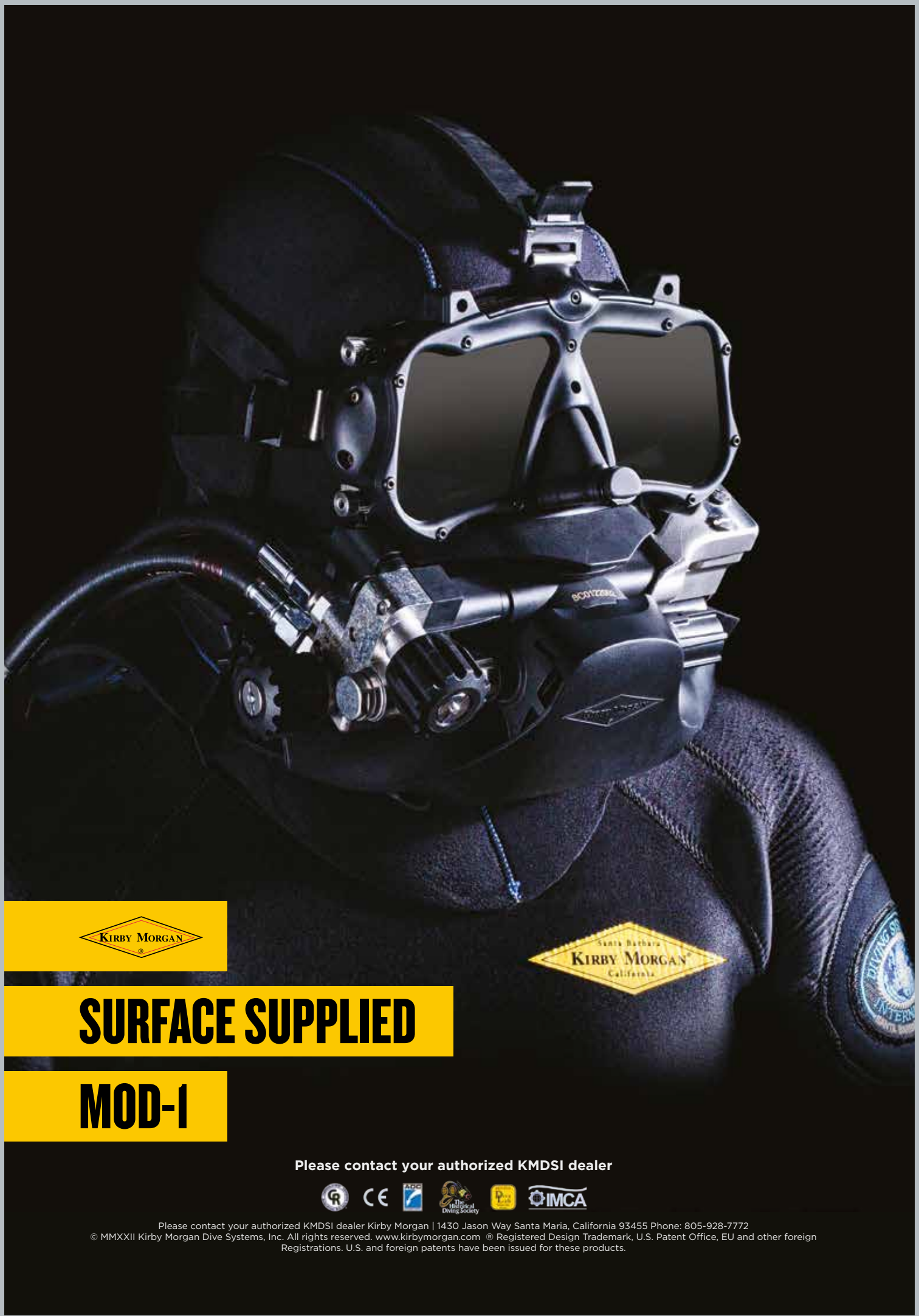
- IMCA (International Marine Contractors Association);
- IDSA (International Diving Schools Association).

ENS is authorized to issue their official certificates which are essential for the professional life of the commercial divers everywhere in the world.

The program will be followed in the next coming months.

SAVE THE DATE 24 till 27 SEPTEMBER

We do hope that we can meet all our members on the Annual Meeting!!



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KIRBY MORGAN HISTORY

1955

The First Bob Kirby Mask. In the early 1950s, I was a navy diver on the sub tender U.S.S Nereus in San Diego, but was restless. I started living a double life and was living on a fishing boat part of the time, and on the Nereus the rest. I started diving commercially in my off-duty hours and hooked up with Lad Handleman in 1955. I was introduced to him by Jerry Todd in San Diego. Lad was diving abalone with a guy called Rex Rosenberry and they were using Widolf (why-dolf one word) masks. Now these were not the fancy oblong Widolfs with the nice face seals that turned up later. No, these were the old circular ones which were always interesting to dive. The brass ones would sink and the aluminum ones would float. Rex had terrible eyesight and could not wear glasses inside the Widolf. He and Lad let me dive one of their Widolfs and, like them, I got just a terrible pain from how tight the damn thing was. It was a gruesome experience. I had met a navy shipyard welder called Henry Hanson who dove a bit with Chuck Snell part time. Henry was pretty unique as he was a black guy, and there were not many black divers around those days. Henry did not like the widolfs at all, and made several of his own style from stainless steel. These were an absolute work of art, Marvelous! So I designed my mask after Henry's. Like him, I constructed mine of stainless steel and made a few changes by trial and error. This was my first mask and it worked just great. It got me started on making dive gear. It is now on display at the Santa Barbara maritime museum.

1960

MMX-1. The Morgan Mask Experimenta11 Bev Morgan: I was ab diving out of Newport Beach with Jimmy Maag's Newport fleet. I was hanging out with Pat Curren who was diving abs with the fleet. Curren and I had struck up a friendship and were making surfboards when we were ashore between ab trips. Some folks from the San Diego Aquarium, Sea World, came to see us. They had women divers there using the Ram Engineering old style Widolf masks and they wanted a mask with a larger viewport so the audience could see the girls' faces better. Curren and I made a mold and turned out a couple of masks. Sea World passed on them so we ended up making a couple more and selling them to ab divers. The masks were free-flow like the Widolf's and Ram's, but were made of fiberglass with brass fittings. Air was supplied

TRIAL AND ERROR GOT ME STARTED ON MAKING DIVE GEAR

through a non-return valve at whatever flow the compressor was set to make. It didn't take long to learn what RPM to run the compressor for the depth the diver was diving. I recall we only made four of these masks.

1960-1961

MMX-2. The Morgan Mask, Experimental 2. Morgan: We were always trying to figure out ways we could fit more abs on the boat to make more money. As a way of lightening the boat we experimented with putting a Sportsways demand regulator on an MMX-1 mask and tried using a smaller and lighter compressor to feed it. It worked! We only made two of these using the MMX-1 as a starting point. These were fiberglass with brass fittings and there was no side block. Right at this time I quit ab diving and went off to edit Sutfer magazine. I still did the odd ab run but I was kind out of the business.

1964

I started working on the Purisima. The Purisima is considered the first American lock-out diving bell. Somewhere near completion of the bell, someone walks into the shop with a standard Jap hat breastplate and tries to fit it through the bell hatch.

At the time, I didn't know what intellectual property was, let alone how to register anything. I took care of them by buying the property that they were renting. They underestimated the cost of moving, went broke, and sold off the remains of their company.

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LORENZ DE MOOR A PROFESSIONAL DIVER EXPLAINS

Lorenz De Moor (26) from Erpe – Belgium
Commercial Diver at SUBMAR – Ostende Belgium

In what year were you trained as a professional diver?
2023.

Where did you receive your diving training?
In Sub Akvo Belgium (S.A.B.-Diving) Port of Antwerp.

How did you experience the time of your training?
Everyday was different with all sorts of techniques that we were able to try and learn. Sometimes the things went very fast but we always had the chance for questions and extra explanation. Many thanks to the teachers of SAB-Diving!

What is your technical background before starting the training?
I worked as a solar panel installer, a welder and I studied at the Antwerp Maritime Academy.

What did you have to do in the field of further education / safety training to practice your profession?
After the training nothing, but I will do an extra course of underwater welding.

How did you experience the time after your training - eg finding the right employer?
There are a lot of vacancies available. It is just finding the right company for you. We were also guided in this by SAB-Diving. During our training, we were put in touch with potential employers, which ensured that myself and my colleagues were working within a month after our training.

How did you find your way into the job market in the beginning?
This was rather difficult because we graduated just before the Christmas Holidays. Bt during our training at the SAB-Diving Institute, we were put in touch with potential employers, which ensured that myself and my colleagues were working within a month after our training.

Have you underestimated things?
Not really.

Have you overestimated things?
I did not really know what to thing before the training. I didn't immediately have an idea of what to expect from the programme, but it all turned out to be very positive.

Where do you work now (diving company / region / international / work field civil underwater construction, shipping, ports, SAT)?
I work at Submar Belgium, as a B4 Commercial Diver, working mostly in Dunkirk at the moment.

What is your specialty within the specialty of the diving company?
It is to early to say we can have speciallity.

What does your day look like in the workplace?
In the morning we take all the equipment we need for the job. We leave with the truck and trailer and we set up all the equipment. We do our diving work with a whole diving team (f.e. in locks) and when the job is over, we clean all the equipment and turn back to base.

DIVE SAFETY SHOULD BE EVERYONE'S CONCERN

How did you see your profession develop or foresee future developments in terms of innovation, knowledge transfer, rules about safe diving, etc. (Do you see differences in the workplace since you started and now)?
It is to early to see a development. It is too early to say anything meaningful about this. We will first try to gain sufficient experience in the workplace. I do believe that great innovative advances are on the horizon and that more and more importance will be attached to safety in the diving industry and of the diver in particular.

Have you mapped out your future - are there still challenges?
Let's see what the future brings, it is boring to map it out… But I'm always open to new challenges! It keeps a person busy…

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

How do you see the labor market developing?
It is to early to see a development. But like I said… we will first try to gain sufficient experience in the workplace. Innovation is the future and the importance of safety must come first.

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?
This is awesome! It is not just about the diving but all the technique we can use. And, by the way, Dive Safety should be everyone's concern.

What would you like to advise future divers?
Make sure you have a clear picture of what the sector has to offer and what the job entails! That's the first step of knowing what you're doing. Talk to enough commercial divers and listen to their stories.

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The TrustLink Metal Shell (MS) design prioritises reliability in a high-density connector, addressing the challenges of harsh marine environments with limited space.

Paul Anthony, Global Business Manager Connectivity, emphasises the Hybrid's innovation:

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Customer-driven innovation

Building on the success of the TrustLink MS connectors, the Hybrid naturally extends the series. It is developed in response to customer demands for a small, all-in-one connectivity solution supporting numerous applications, including efficient and reliable data transmission with minimal attenuation and interference.

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Exceptional flexibility and robust connections

The Hybrid offers remarkable flexibility, featuring two optical passes that enable the combination of single-mode and multi-mode fibre optics, along with four electrical contacts. Expanded optical beam technology ensures robust and secure connections, positioning it as the ideal connectivity solution where the accuracy and integrity of transferred data are paramount.

Furthermore, its easy-to-clean connector design ensures seamless maintenance.

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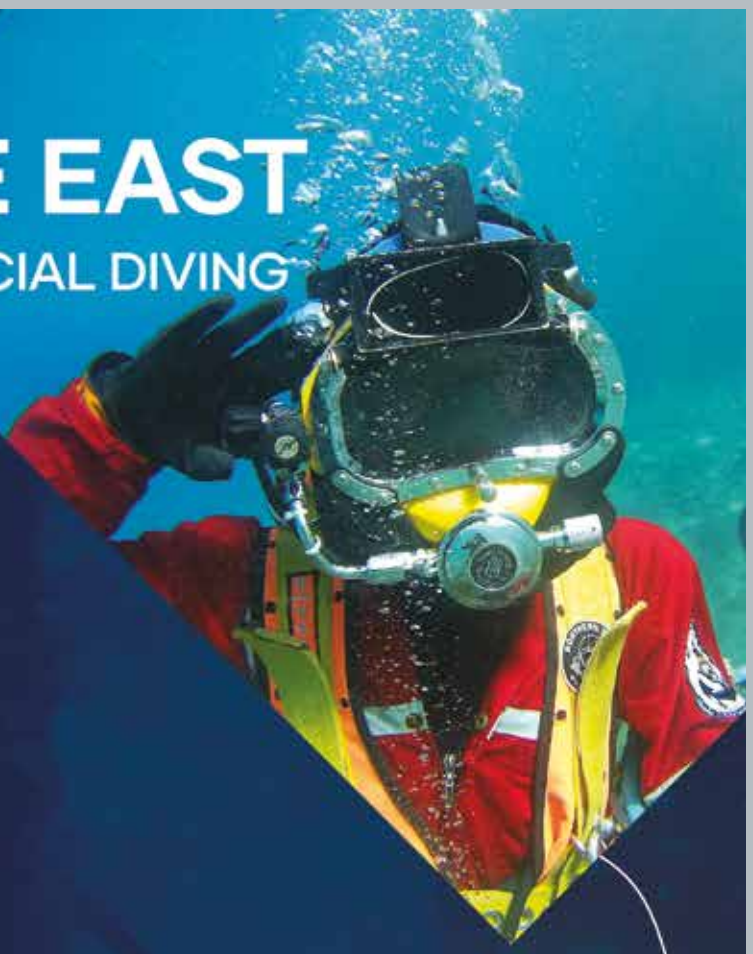
For additional information, please contact Paul Anthony, Global Business Manager - Connectivity.
Tel. **+45 7613 2000**,
email **pa@macartney.com** or visit **www.macartney.com**

MacArtney Underwater Technology launches the TrustLink™ Metal Shell Hybrid connector, combining power, data and communication in one for a minimal footprint with maximum performance.

MIDDLE EAST
FOR COMMERCIAL DIVING



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INSPIRING PEOPLE

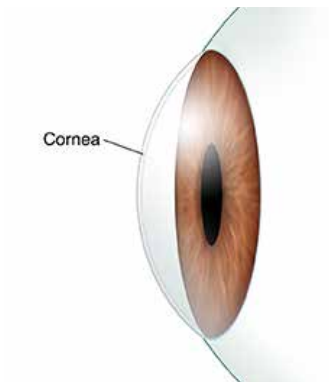
MEDICAL ISSUE FOR SAFE DIVING

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

WELDER'S BURN (ULTRAVIOLET KERATITIS)

Personal protective equipment, commonly referred to as "PPE", is equipment worn to minimize exposure to hazards that cause serious workplace injuries and illnesses.

Our eye surface is composed from white part called conjuctiva & circular part in the middle called cornea. The cornea is the clear cover on the front part of your eye. It helps focusing the light and protects our eye from dust and germs. In Addition, the cornea also filters Ultra Violet rays before they enter our eyes. Too much Ultra Violet rays can irritate the superficial corneal cell & cause its inflammation & damage.



Ultraviolet keratitis, also known as Photokeratitis, is an acute syndrome that commonly occurs after an unshielded exposure to the welding arc. The exposure may not be initially apparent to the welder, as there is a latent period (6 to 12 hours) between exposure and onset of symptoms.

The symptoms are pain, swelling, redness & forign body senstation (like sand or dust) in the eyelids. Subconjunctival hemorrhage due to rupture of the fine vessels in the conjunctiva may be due to mild trauma (rubbing the eyes). Sometimes it is associated with photophobia and vision abnormalities (clouds). Mild cases heal in 8-24 hours, more severe cases may take up to 24-36 hours. Looks serious but is not as it is a reversible condition.

Never to use vegetables over the eyes as it is still a wrong tradition with some divers & welders to use tomatos, potatos or cucumbers . Having the patient lie quietly in a dark room or using sunglasses, cold compresses will decrease the symptoms plus sedation or strong pain killers may help. Special lubricant eyedrops may be used.

Using welding shields will decrease the amount of ultraviolt rays absorbed by the cornea and will prevent its inflammation.

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His parents told no one and sacrificed everything to give him, his siblings and his future children a better chance in life than what post-WW2 (military occupied) Hungary could offer.

George Edes didn't know he was heading to England, but once in the UK he took every opportunity open to him!

He went on to do a mathematics degree...

...played a lot of poker, became a commercial diver and a ship surveyor which took him to Japan.

"...Around the age of 30, he closed a ship survey business in Japan and headed back to the UK, with his wife, to start all over again."

TOGETHER WE FORM A STRONG COMMUNITY AND LIVE BY VALUES THAT UNDERPIN THE COMPANY CULTURE AND MAKE CYGNUS GREAT TODAY!

Cygnus Instruments was born in 1983...

"...Edes created a new ship survey business, Surtest Marine, and used it as a platform to develop pioneering ultrasonic thickness gauges."

As soon as the products were proven, a new company Cygnus Instruments was formed in 1983.

Cygnus Team and Values

Sadly, George and his wife died in 1988. What followed was a series of turbulent chapters for the business. Their daughter (Lulu) joined Cygnus in 2005 determined to protect her father's legacy. Those tough times are now in the company's past, but appreciated because the team is strong-willed and passionate as a result.

"...now the founder's legacy is a platform on which to build our own."

Where we are, 40 years on...

This year Cygnus have celebrated their 40th anniversary! Here's what we've been up to...

Diversifying product lines for wider industries

Strengthening distribution and service worldwide

Elevating Cygnus brand and customer experience

Building even more robust and reliable equipment

The Cygnus team is growing from strength to strength!

Complete underwater services

As one of Norway's leading suppliers of underwater and diving services, we supply the full spectrum of underwater services both nationally and globawlly. We're proud of our efforts to build, secure and maintain the unseen, essential infrastructure of our society.

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SUBMARA
Underwater specialists

FIVE COMPANIES CREATE NEW, NATIONWIDE GROUP WITHIN DIVING AND SHALLOW WATER SERVICES

The regional leading diving companies Dykkerteknikk AS, IMC Diving AS, EB Marine AS, Anleggsdykk AS, and Olav Erik Hagen AS with their subsidiary Norwegian Tunnel Inspection AS have formed a new, nationwide diving services group.

The group will become one of Norway's leading players within shallow water diving and Rov adjacent subsea services, with the highest quality in the marked on both safety and deliverability. The group can utilize each company's expertise, technology, and equipment park to offer a wider spectrum of quality services both nationally and internationally. The group will professionalize and improve the HSEQ management, documentation, and tender processes.

Each company will continue to offer their services to current and new customers locally as separate regional divisions, as well as they will now be able to offer national services as a group.

The companies also have a cutting-edge expertise that makes it natural to consider internationalization within some areas. Combined, the group delivered revenues of 45 mill Euro in 2023.

The group has more than 100 employees distributed among locations in Tofte, Stryn, Bergen, Stavanger, Oslo and Kristiansand.

"Together as a group, we will continue to build on the sound foundation that has been put down in all the decades we have been operating. The goal is to continue the work in strengthening our position and become the preferred provider to our customers", says Jørn Oksnes, CEO IMC Diving AS.

"As a combined group, we can share technology, equipment and divers in a more appropriate way that will lift the total quality of our services. We see a large potential in further developing each company's ROV and trenching solutions, both regarding the software and hardware", says Fredrik Breiby, CEO Dykkerteknikk AS.

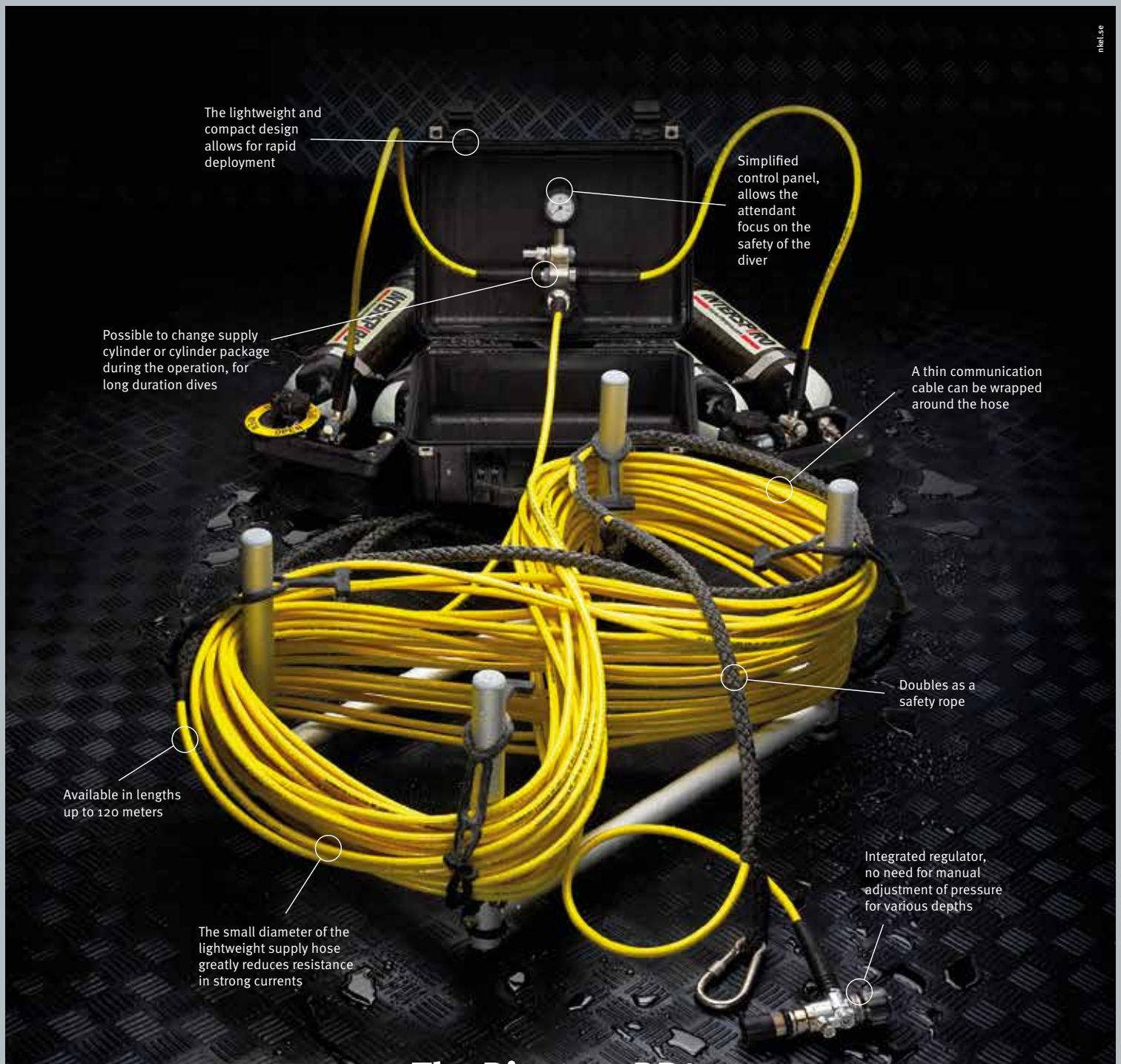
"Our customers are still our first priority, and we will ensure that the customer relationships remain as strong in the new group, where we can deliver even better shallow water services than before", says Olav Erik Hagen, CEO Olav Erik Hagen AS

We pride ourselves on our work to build, secure and maintain the invisible, but essential, the infrastructure of our society.

WE CAN DELIVER EVEN BETTER SHALLOW WATER SERVICES THAN BEFORE

SUB MARA
Underwater specialists

dykkerteknikk a/s · IMC DIVING · EB MARINE DYKKERFIRMA · ANLEGGSDYKK · O. E. HAGEN AS DYKKERFIRMA · NORWEGIAN TUNNEL INSPECTION AS



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.

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INTERSPIRO
Keeps You Breathing

KBA TRAINING ARTICLE

Why is Self-Contained Breathing Apparatus (SCUBA) used for Commercial Diving work instead of Surface Supplied Diving Equipment (SSDE)?

This question is asked on a regular basis, and often the answer falls into three response groups.

1. **Group 1 would use SSDE;** understands safety, achieves the scope of work in a timely and professional manner, with direct oversight and support from the trained, qualified diving supervisor and surface supplied trained divers. This takes into consideration emergency readiness and wellbeing of the workforce while the work is conducted with good communications with the diver and often live video camera feed. The answer is simple, and along with supporting reasons why, it is a resounding YES.
2. **Group 2 would use SCUBA;** are trained, fully informed and knowledgeable but have work pressures to 'get the job done quickly' with more divers in the water or possibly see the restraints of using SSDE is too cumbersome, or an attitude of 'no one is watching' so we can get away with it!
3. **Group 3 would use SCUBA;** are either not knowledgeable or advised of the hazards related to commercial diving or commercial diving methods, regulations, and industry guidelines; or just want the work scope completed by 'divers'.

Both Groups 2 and 3 lack understanding of the hazards and risks involved or are risk takers?

There are various industry regulations, industry guidelines that are provided when considering the type of commercial diving equipment to be used. With this, the training requirements for commercial divers and diving supervisor is outlined in such industry regulations and industry guidelines.

It is sometimes said that SCUBA divers are much more mobile under water than divers using surface supplied equipment. While this may be true of a free-swimming SCUBA diver, with no lifeline or other attachment to the surface, the free-swimming SCUBA diver is seriously affected by poor visibility, sea currents, tides and other underwater work hazards.

Self-Contained Underwater Breathing Apparatus (SCUBA) has several serious concerns and limitations, but not limited to:-

1) A limited single supply of air.
2) No emergency backup air supply.
3) Diving equipment (mouthpiece regulator and half mask) that are not suitable for use while working.
4) No communications between the diver in the water and the diving supervisor on the surface.
5) Unable to determine actual depth and decompression requirements in a controlled manner.
6) Challenges faced when locating lost diver and in recovery.
7) Improper diver training, with only a recreational diver's training certificate
8) No supervision of the divers and work being conducted.

In comparison:-

Surface Supplied Diving Equipment (SSDE), has many safety system controls in play when used by trained personnel. Surface Supplied Diving Equipment has the following benefits: -

1) Unlimited surface air supply.
2) Surface supplied emergency air supply.
3) Divers' emergency bailout cylinder (air supply) carried by the diver.
4) Diver's helmet providing head protection.
5) Full face / head protection (regulator will not fall out the divers mouth even if the diver becomes unconscious).
6) Primary and secondary communications allowing the diving supervisor to talk to the diver as the work is being carried out. Allowing the diving supervisor to provide guidance and instruction which substantially improves efficiency of the work. The diver can tell the diving supervisor if they feel unwell or have a problem.
7) The length of the umbilical in relation to the worksite is known and enables rapid location and controlled recovery of the diver in an emergency situation.
8) The diving supervisor can monitor the diver's breathing pattern and will be alerted if the diver becomes distressed.
9) Option for Underwater camera and lights to be mounted on the diver's helmet / mask, allowing the diving supervisor to see everything the diver is doing, and record all work carried out in real time (live).

WHY is it then, with all the advantages for both safety and operationally benefits using Surface Supplied Diving Equipment (SSDE) is Self-Contained Breathing Apparatus (SCUBA) still used? Even when there are robust regulatory requirements with heavy penalties for the use of SCUBA, or the higher potential of diver injury or fatality, its use is still prevalent.

OPPORTUNITY - One aspect is the OPPORTUNITY to use SCUBA diving equipment. Even with dive boats fully geared up with surface supplied diving equipment, if SCUBA cylinders and regulators are available – it will be used.

SOLUTION - Remove all SCUBA Cylinders, regulators and half masks off of the dive boat / site.

SOLUTION - Client / site management awareness for what is safe commercial diving operations.

WITH SSDE EVERY DIVE IS A STEP FORWARD

Using a surface supplied diving system with two working divers and one standby diver, the maximum bailout air cylinders required will be four. Having any more provides OPPORTUNITY to use for SCUBA diving.

Responsibility / Accountability

There are many people / entities who are responsible and accountable and who needs to consider this. WHY?

1. The Client: the site owner / shipping company / agent hiring the diving contractor, is **Responsible and Accountable** for ensuring the diving contractor awarded the work, conducts the work scope in accordance with contract, regulations and industry guidelines for safe diving operations.
2. The ship / vessel owner / site management, is **Responsible and Accountable** for ensuring the selected diving contractor, conducts the work scope in accordance with contract, regulations and industry guidelines for safe diving operations on site.
3. The vessel Master / Captain and Chief Engineer / site management, is **Responsible and Accountable** for ensuring the diving contractor, conducts the work scope in accordance with contract, regulations and industry guidelines for safe diving operations on site, and ensuring all Permit to work requirements are implemented prior to commencing works.
4. Diving Contractor, is **Responsible and Accountable** for ensuring safe diving operations are conducted by providing suitable equipment, trained and

competent personnel and a suitable working diving safety management system (DSMS).

5. The Diving Supervisor is **Responsible and Accountable** for ensuring safe diving operations are conducted at all times, the safety of the divers and dive team, and the successful completion of the work.
6. The Divers are **Responsible and Accountable** for ensuring they are suitably trained, fit to dive and follow the instructions of the diving supervisor.

While all individuals have a level of responsibility and accountability it is everyone's responsibility to put their hand up and **'STOP WORK- the dive'**, if they believe the means of operation is unsafe.

While it is only the diving supervisor who has the responsibly to say it's safe to commence diving operations when all permits, checks are completed and it is safe to do so.

Now is the time to revisit your Risk Management Process, ensure your non diving personnel are aware of the hazards and risk management controls involved, diving supervisors, divers are suitably trained, have suitable equipment onsite to work with (no SCUBA available and only surface supplied diving equipment on site), and suitable support in emergency preparedness.

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**

SAFETY AND SUCCESS GO HAND IN HAND

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 Michel Quint, who is a Senior Commercial Diving Instructor from The Netherlands.

01

How did you get involved with the Professional diving world?

In 1999 I joined the Royal Dutch Army; the Air Mobile Brigade (Red Barets). My former instructor was a PADI Instructor and taught me SCUBA diving from 2000 on. In 2003 I became a PADI Instructor and after a period of four years as a Red Baret (1999-2003) I volunteered for a function as an Engineer Diver at the Royal Dutch Army and succeeded after a trial period. An Engineer Diver at that time (around 2004) also received a commercial diving training, diving up till 50 msw and with an open bell. So, after succeeding the course, I received my commercial diving certificate.

02

Who did you learn the most from?

Well, looking at it from a commercial diver point of view, I think it is not one person who taught me most – but a variety of them. First of all, my parents; they taught me the ground principles of respecting people. Besides that, I think that the training I got becoming a Red Baret, my time abroad, the training I received from my instructors at the Engineer Diving School, getting my credentials as an Engineer Diver all helped and assisted in becoming the person I am today. So, in a way, I thank them a lot.

03

What are your drives and ambitions?

My drive is my family, my wife and children. Look, everybody has to make a living. My wife is making sure the situation back home is the best as possible for all of us. She looks after the kids in general and makes sure that everything is in order. I look after the financial side of it. But want to do it in a way that suits me best. I want to work in an environment with the

people I trust and like working with, with equipment the best suitable for the situation and of the highest standards. I love my job; I really think it is the best one in the world. Helping people getting to know a little bit of my world, makes me feel great. I really think I can help them by teaching them all I know AND I am 100% sure that I also learn from them as well.

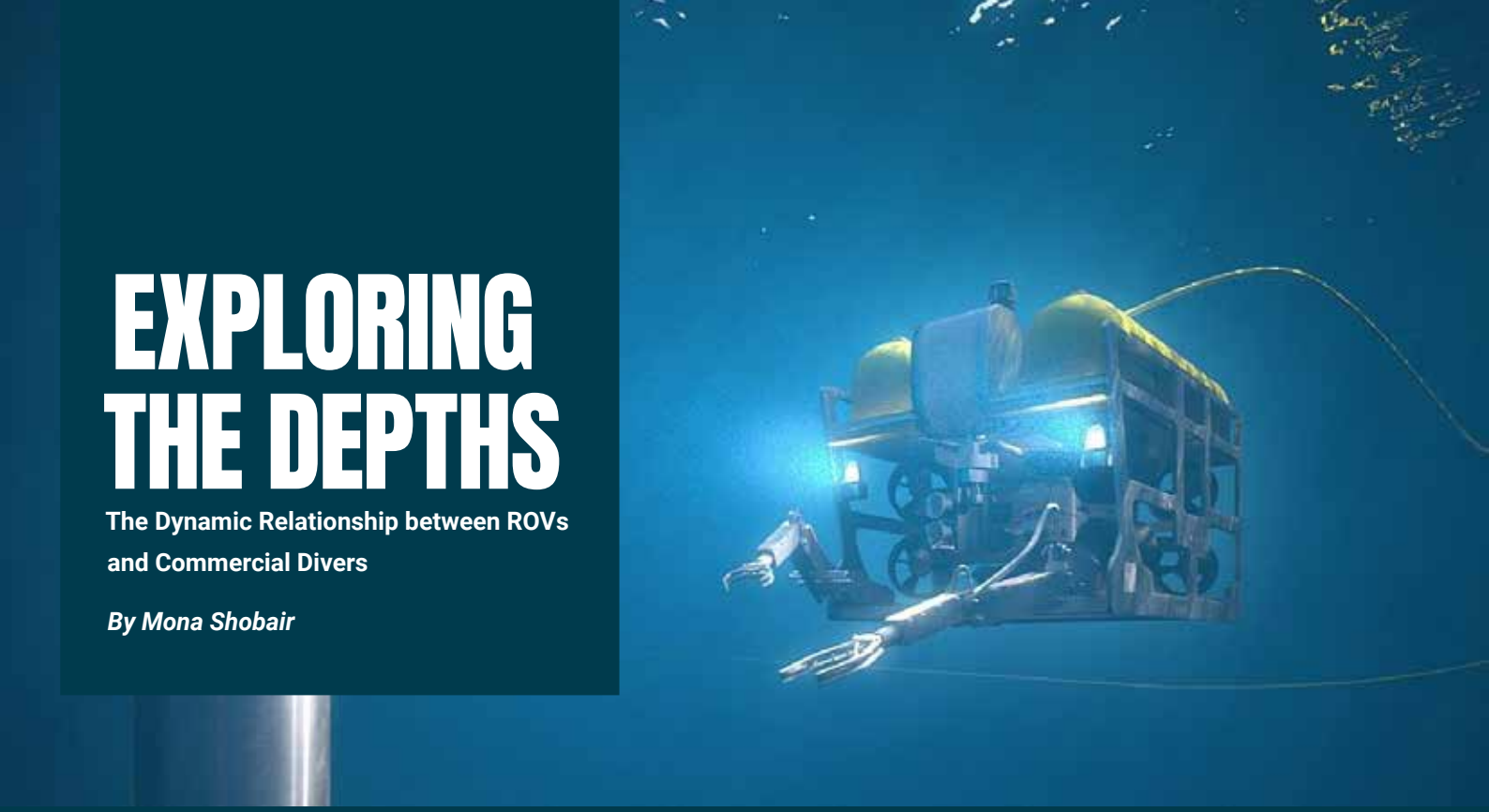
What annoys you the most?
Dishonesty and liars.

What is your life motto?
Carpe Diem 😊

04

05

HELPING PEOPLE GETTING TO KNOW A LITTLE BIT OF MY WORLD MAKES ME FEEL GREAT



EXPLORING THE DEPTHS

The Dynamic Relationship between ROVs and Commercial Divers

By Mona Shobair

ROVs and commercial divers often work together in a collaborative manner to maximize efficiency and safety in underwater operations. Here are a few ways in which they complement each other:

1. Pre-Dive Inspection: ROVs can be deployed to conduct initial inspections of underwater structures or environments before commercial divers are sent in. The ROV can provide a visual assessment, gather data, and identify potential hazards or areas of concern. This information helps divers plan their dive and prioritize tasks.
2. Data Collection: ROVs equipped with advanced imaging systems and sensors can capture high-resolution images, videos, and other data from underwater environments. This data can be used by commercial divers to gain a better understanding of the work site and make informed decisions about their tasks.
3. Support and Assistance: During commercial diving operations, ROVs can provide support and assistance to divers. They can be used to transport tools, equipment, or supplies to divers, reducing the need for divers to make repeated trips to the surface. This enhances efficiency and conserves the divers' energy.
4. Remote Monitoring: ROVs can be used to monitor and observe commercial divers while they are underwater. This allows supervisors or support teams to have real-time visibility into the divers' activities, ensuring their safety and providing assistance if needed.
5. Task Execution: While commercial divers excel at performing hands-on tasks in underwater environments, there are certain tasks that are better suited for ROVs. For example, ROVs can be used for tasks that require precision, endurance, or working in hazardous conditions. By delegating these tasks to ROVs, divers can focus on other critical activities.
6. Emergency Response: In emergency situations, ROVs can play a crucial role in assisting commercial divers. If a diver encounters a problem or becomes incapacitated, an ROV can be quickly deployed to provide support, rescue, or retrieve the diver.

Overall, the combination of ROVs and commercial divers allows for a comprehensive and efficient approach to underwater operations. By leveraging the strengths of each, teams can enhance safety, optimize task execution, and collect valuable data for analysis and decision-making.

TEAMS CAN ENHANCE SAFETY OPTIMIZE TASK EXECUTION AND COLLECT VALUABLE DATA

NEW MEMBER PİRİ REİS UNIVERSITY

Maritime Higher Vocational School Underwater Technology Program

In the 2013-2014 academic year, education and training began in six separate programs at the new campus of Piri Reis University in Tuzla, and continued with eleven programs.

- Maritime Transportation and Management
- Marine Engineering Management
- Shipbuilding
- Underwater Technology
- Marine and Port Management
- Marina and Yacht Management
- Marine Brokerage
- Mechatronics
- Logistics
- Culinary Arts
- Computer Programming

Purpose of the Underwater Technology Program

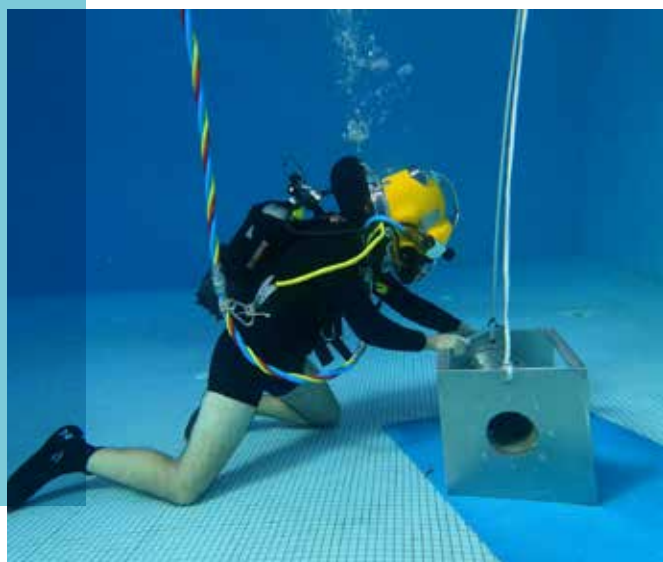
Our two-year program consists of four semesters and started education in 2020-2021 Education and Training Year. The purpose of the program is to train professional divers, referred to as Diver First Class, in accordance with Turkish Governmental Rules & Standards as defined in the Regulation of Professional Divers, providing them with all the necessary knowledge and experience in underwater diving, salvage, and rescue techniques required by the maritime sector and other fields of industry.

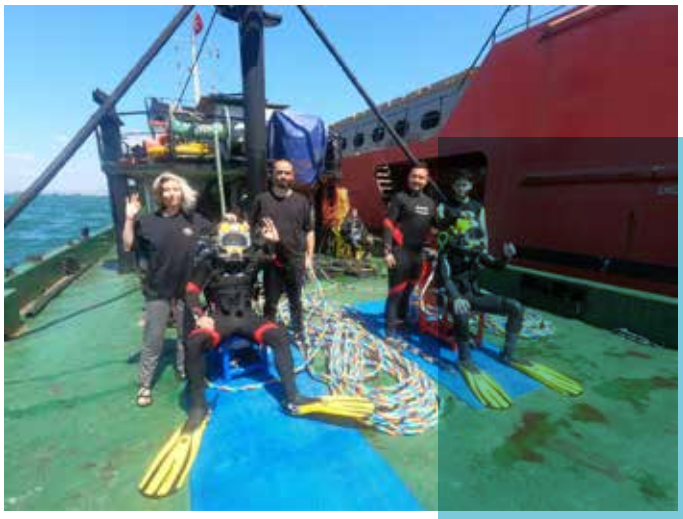
Theoretical and applied trainings for 4 semesters in accordance with the lesson plan determined by considering the needs of the profession and the professional qualifications of the diver are given by academic staff with diver expertise and experienced in both military and civil diving.

Since the training language of the program is English, students admitted to this program should attend and successfully complete a one-year English program in the PRU Prep Class. Only after this language training students will be able to follow Program lessons and be able to perform their profession anywhere in the world.

Students graduate from this program will have the following qualifications.

- Have detailed theoretical & practical knowledge about underwater physics and biology as well as the effects of increasing pressure on human body.
- Have detailed theoretical and practical knowledge about Air Diving (SCUBA and Surface Supplied Diving System) and Mixed Gas Helium Oxygen Diving (Surface Supplied) including Dive Planning, Decompression Theory, Routine Procedures and Emergency Procedures.
- Have detailed theoretical knowledge about diving incidents and accidents, diving disorders and their treatments,





- Ability of working in underwater construction, salvage and rescue projects, as well as Underwater Ship Husbandry works,
- Ability of recompression chamber operator,
- Ability of using all kinds of underwater and deck tools and equipment, including underwater welding, and have theoretical knowledge about explosives,
- Ability of using underwater imaging devices and interpret the images obtained by using computer technology,
- In line with the acquired knowledge and skills, he can comprehend, apply and follow technology in new techniques and practices related to the profession,
- Have and apply the maritime and shipping knowledge required by the profession

During our applied diving trainings, safety is considered paramount. In order to benefit from a controlled training environment, we use this Training Pool for shallow water basic diver trainings and emergency diving procedures trainings.

The dimensions of the pool:

Length :	25 meters.
Width :	13 meters.
Depth :	2,2 and 5 meters.
Platform height :	4,5 meters.

We also have a Diver Training Center under the structure of Continuing Education Center of PRU, which is authorized by Underwater Sports Federation of Türkiye for recreational diver trainings regarding the rules of CMAS-Confederation Mondiale Des Activities Subaquatiques-Worl Underwater Federation.

Internship Application

Workplace Internship; Before graduation, it is mandatory to complete a 30-day internship for the Underwater Technology Program

The Historical Diving Society

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Charity No. 1159032

Promoting and Preserving our Diving Heritage

Everything we do today is history tomorrow.

From Snorkels to Superlites, the Historical Diving Society is dedicated to recording our diving heritage for future generations.

Your diving experience is part of the story. Share it with us. www.thehds.com/join-us

HISTORICAL DIVING

DEVELOPMENT OF THE 'STANDARD' DIVING DRESS (1823-44)

by Peter Dick, Historical Diving Society

In parts of the world, the old faithful 'standard' diving dress with its distinctive copper helmet, still finds regular employment as a very safe cost-effective method of working in reasonable water depths. Yet, while that may be true up to a point, new approaches to working underwater began establishing themselves after World War II. As a result, during the 1950s the standard dress was rapidly losing centre stage in the diving world. Amazingly, it had remained there for well over one hundred years since, as tradition has it, Augustus Siebe started work on its design in 1837.

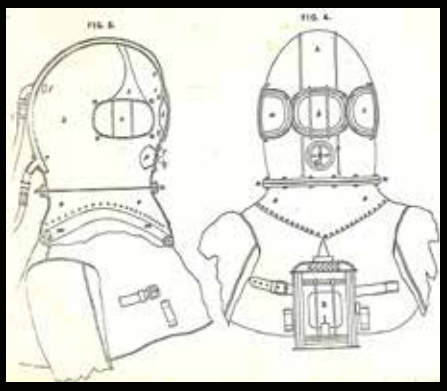
A Standard dress, with standby diver (HDS).

Augustus Siebe (1788-1872) was born in Saxony, he fought at the Battle of Leipzig and settled in England in 1816. By 1819 he had founded, what later became, the world-famous diving company of Siebe, Gorman and Company, mostly based on his inventive skills as an engineer. The forerunner of the Standard Dress first came into public view when it was employed by Colonel Pasley of the Royal Sappers and Miners, in the clearing of the wreck of the 'Royal George' from Spithead (off Portsmouth in southern England) between 1839 and 1844. To get to that particular point in dress design Siebe had incorporated and built on earlier ideas, albeit in a businesslike way and, astonishingly, without holding any patents. His genius shone through in the way he listened to the salvage divers and made improvements, so the main features we are now so familiar with were in place by 1842.

First had come the 'open dress'. That is, it was open-bottomed which allowed water to rise up inside. The design used at Spithead was later to be called the 'closed dress', where the helmet was joined onto a full-length waterproof dress. Water was excluded and air pumped from the surface balanced out inside and outside pressures. Later in the 19th century, this latter design evolved into the 'Standard Dress'

The 'Open Dress'

The traditional view of Siebe inventing the apparatus first came into question in 1970, when Alexander McKee's book 'History Under the Sea' revealed that, as early as 1823, Charles Deane had patented an apparatus for entering smoke-filled buildings as early as 1823 (UK patent No. 4869,1823). This had a copper helmet, later to become known in diving history as the Smoke Helmet.



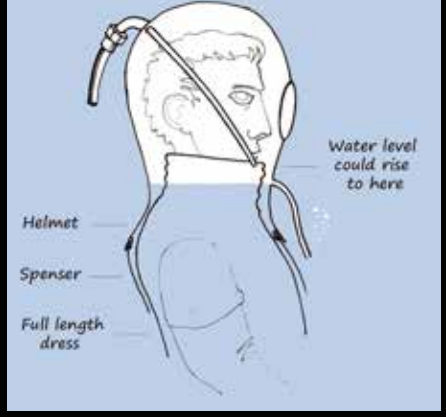
Charles Deane's patent drawing (1823). Note the internal layout of the helmet.

Deane's apparatus had three windows, a corselet cushioned onto the wearer's shoulders and internal ducting to direction incoming bellows supplied air over the windows, to stop them misting over. But, as it found no acceptance with the fire assurance companies, by the late 1820's Charles, together with his brother John, had turned to diving. Initially, they conducted diving experiments in the Croydon Canal just south of London, using bellows to supply canvas (over a wicker frame) and leather helmet designs. In 1828 they tackled the wreck of the 'Carnbrae Castle' that sunk in 28 feet of water off the Isle of Wight, but were recorded as not being able to reach any appreciable depth. That same year they first approached Siebe for help in constructing (more likely redesigning) their diving dress, a development phase during which he appears to have manufactured some (experimental) helmets for them.

In 1831 George Hall, a well-respected diver from Whitstable, suggested that they both improved their apparatus using a diving bell's 'force (air) pump' and that they again approach Siebe who, '...added a tube inside the helmet to bring air in front of the diver's mouth'. The resultant equipment made its first reported appearance on 5 December 1831, when one of the Deane brothers made two brief descents into the relative shallows of the River Thames in central London to inspect the central pier of Southwark Bridge.

Later to be known as the 'open dress', this comprised a full-length dress of the new (supposedly) waterproof MacIntosh material (UK Pat. 4808, 1823), with a high collar and wrists sealed shut with tape or rope. Over this came the helmet with an attached short, open-bottomed jacket called a 'spencer', which acted as a kind of flexible diving bell. Excess air and diver exhalations escaped by way of a flexible tube which hung down from the helmet to mid-chest level. Its length maintained a controllable air volume inside the 'spenser'. Should it have filled with air the diver would have rocketed upwards. On the other hand, should there have been an interruption of the air supply, the internal water level could rise as far as the air tube in front of the diver's mouth. Internally, to stop it from flooding, the full-length dress had a high collar originally tied off with a red handkerchief.

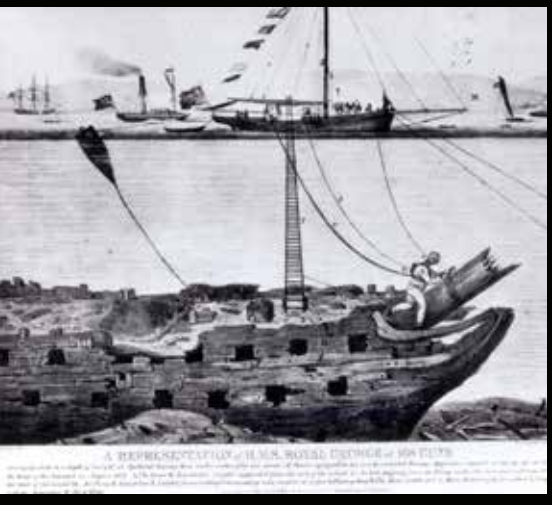
Given the inefficiency of the earlier air pumps, this must have been a regular occurrence, and it meant that the diver could easily drown if he fell over and lost the trapped air volume. From later evidence, we know that such accidents did occur, but there is nothing on record of the Deane's involvement. From a booklet published by the brothers in the early 1830s, however, it is obvious that their 'open dress' was already being copied. It gave no details of the design of their dress, but it did mention there being 'spurious' copies.



Siebe's tube brought air in front of the diver's mouth. This meant that an interruption in the airflow could allow water to rise as high as the helmet volume.

The brothers moved their operations to the Portsmouth area of Southern England where, in 1832, it was probably John Deane who descended to the wreck of the 'Royal George'. He also experimented with an adjustable air exhaust tap set into the front of the corselet, so that he could control the amount of air retained in the dress. Unfortunately, on one occasion he rose too fast, hit his head against a vessel's hull and was nearly killed.

Reputedly a dive to 60 ft (~18 m), the location he was shown working on had to have been much shallower. He appears to be wearing one of the helmets Siebe must have fabricated for the brothers, with twin eyeglasses. Note the ladder which, due to inefficient air pumps that took time to build up pressure, allowed him to make a very slow descent and, to allow expanding air to escape, a slow ascent.

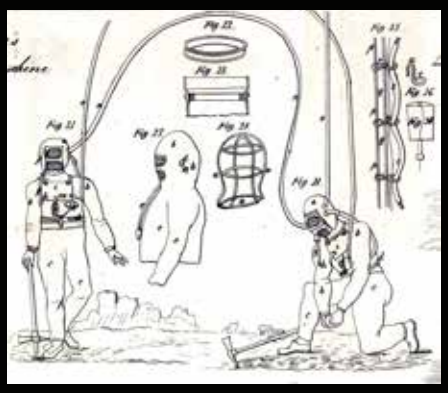


Deane on the 'Royal George'.

The 'Closed Dress'

The first 'closed dress' patent we know about was that of an American Leonard Norcross in 1834 (US Patent 14 June 1834). All credit to him, his story is interesting but it is not part of our storyline. Neither is the first 'closed dress' to be patented in the UK by John Frasewr the following year (22 June,1835, No,6929). This was functional and used by Fraser into the 1840s. Our interest lay with the second one to be patented a month later, by John Bethell

(UK Patent No.6757, 1835). Probably to avoid any problems with Charles Deane's 1823 patented metal helmet design, Bethell's helmet appears to have been based on a canvas-covered wicker frame.



Bethell's patent 1835.

His patented helmet design was based on a canvas-covered wicker frame. Unlike the open dress, Bethell's allowed the diver to kneel and look down at what he was working on. With an 'open dress' this position must have been behind some accidents. If the diver's weights were placed too high on his body, as the weight shifted forward the helmet could have fallen off his head.

For information on what went on in the late 1830s, it is necessary to consult the Proceedings of the Institution of Civil Engineers for 18 March 1856. More precisely, the discussion period following Mr W. Heinke introducing his apparatus, which was soon to compete with Siebe's dress. Even as a handwritten transcript, the discussion is revealing. Most major figures in the diving world were present in the audience, including the then Lt. General Pasley, Siebe's son Henry (Siebe Junior) as well as an inventor named John Bethell.

It began with Siebe Junior giving the audience a reason why a 'closed dress' design had been necessary.

'... as diving came into general use, several accidents happened, through inexperienced divers not keeping themselves in the proper position, when using the open helmet. In consequence of this Mr. Siebe in 1839 introduced the close helmet, and at the same time Mr. G. Edwards (M. Inst. C. E.) proposed one nearly similar. Although not personally acquainted with each other, it was not until both had perfected the idea, that they found they had been working to attain the same object ...'

Mr G. Edwards had been the civil engineer in charge of Lowestoft harbour, in Norfolk, a colourful figure, who on 28 May 1839, had delivered a paper to the Institution entitled 'Improvements in Diving Apparatus'. He even displayed the apparatus which had been dived several times, saying that it had been used, 'successfully in a variety of positions underwater.' It is very likely that at this point Siebe did not have a working 'closed dress' apparatus but that he had talked about it, as Edward's said that he did not wish to 'depreciate such plans'; the emphasis being on the word 'plans'.

Edward's never patented his design, so we have no illustration of what the helmet looked like. In his description he came straight to the most salient point, the connection between helmet

and dress (of MacIntosh material). The helmet had a strengthened lower rim with screw pins set to 'one and one-half inches' (38 mm) apart around its circumference. Probably around twelve in all. The neck entrance to the full-length dress had an edging of soft India rubber, notched to fit over these pins. Lap jointed brasses (also known as brailles) then compressed this rubber seal 'parallel' onto the helmet rim to make a seal. That is, the seal was not on a shoulder-contoured corselet, but in one plane around the base of the helmet. Used air left the top of the helmet and passed down an external metal pipe soldered in place, by a 'circuitous' route to an exhaust valve at neck level which was kept closed by a 'slight spring'.

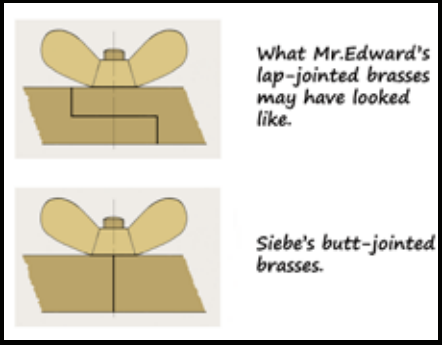
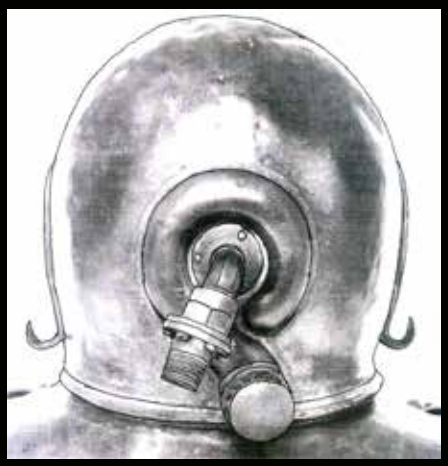


Image shows lap and butt joined brasses.

Four days after the meeting, a letter arrived at the Institution from Mr Edwards. Written in a state of some distress the last paragraphs, which were crossed out but still readable, described his problem. '...Mr Bethell having examined my apparatus declared the escape pipe to be an infringement of his patent in as much as my escape pipe opening is about the mouth of the diver...' Edwards ended by saying that John Bethell had threatened legal proceedings against him unless he made the internal opening of his escape pipe lower in helmet, and this he intended to do. But he was too late, as three days later (4 June1839) Bethell had obtained an injunction causing him not to manufacture or even exhibit his apparatus.

Based on later events we can only guess that Siebe then came to an accommodation with Edwards, somehow by-passed Bethell's objections and brought out a new helmet design. This was based on Charles Deane's original 1823 Smoke Helmet patent, which had a shoulder-contoured corselet. He could do this because Deane's (nominal) 14-year patent would have expired in 1837, which is the year Siebe was later said to have started to design his equipment. There is an example in the Science Museum, London, with "A Siebe, London" and "patented" stamped on the front of the corselet. It was, of course, never patented. As with Deane's design, it has butt-joined brasses to make a seal with the corselet, while at the rear is Edward's 'circuitous' exhaust pipe and exhaust valve, with the air inlet passing through the centre.



Edward's circuitous exhaust valve, with the air inlet at its centre.

Note that the centrally located air inlet has a one-way valve. It is not known whether this is a contemporary or a later addition.

Pasley began work on removing the wreck of the 'Royal George' in 1839, using military divers from the Royal Sappers and Miners as they were

HIS GENIUS SHONE THROUGH IN THE WAY HE LISTENED TO THE SALVAGE DIVERS AND MADE IMPROVEMENTS

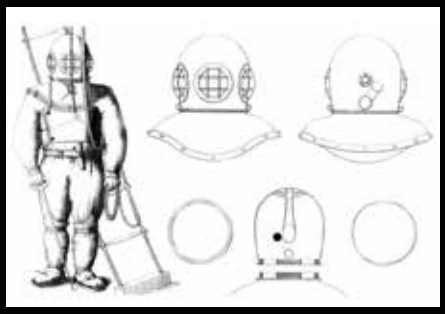
cheaper to employ than civilian divers. Having heeled over and sunk in 1772 the wreck lay in up to 90 feet (27 m.), and it represented a massive challenge. John Bethell dress, which had enjoyed some level of success and now had a metal helmet, appears to have been the only dress initially available that season. It was certainly in use when Siebe supplied Pasley with a set of his apparatus, probably on approval. It had a favourable impact on the divers. They did not like Bethell's dress, which had a waist seal that leaked and took so long to do up and undo, that they could not take it off between dives.

As a result, during an official visit by their lordships of the Admiralty, Pasley put Bethell's dress on trial alongside Siebe's. The outcome was a foregone conclusion. During the trial, Corporal Harris in Siebe's dress was back on deck having placed his gunpowder charge on the wreck, before Bethell's dress was even screwed up tight. The First Lord of the Admiralty, Lord Minto, was then invited to fire the charge electrically. This too could not have gone down well with Bethell, as he had already had his electrical detonation equipment design rejected. Bethell went on to make some unsuccessful modifications to his dress, the outcome being that the Admiralty permitted Pasley to cut it back for use as an 'open dress'. Unsurprisingly, Bethell's bitterness still showed through in the

transcript of the Institution of Civil Engineers meeting in 1856.

Siebe's helmet must still have had Edward's 'circuitous' exhaust valve route, as Pasley said he could see no use for it, removed it and soldered the exhaust valve directly over a hole punched in the lower part of the helmet. They tried it out at Chatham in November of 1839, it did not leak and Siebe agreed to the alteration. The Admiralty went on to place an order for Siebe's equipment on 4 May 1840 for use on the 'Royal George' salvage. Siebe then went on to tackle an outstanding problem. Siebe Junior later said that due to the overheating of air pumps, the stench of oil in the air supply was often so great that the divers could hardly stand it. As a result, during the 1840 season, Siebe introduced his new water-cooled air pump, which had three pistons, improved leather seals, and was said to deliver an impressive pressure of 240 pounds per square inch. It was probably the best air pump for divers to date. This solved the oil stench problem, and Pasley was so impressed that he immersed his other pumps in similar water tanks to improve their efficiency. Siebe also introduced the screw-in front helmet window that season, at the request of the divers who wished to breathe fresh air between dives.

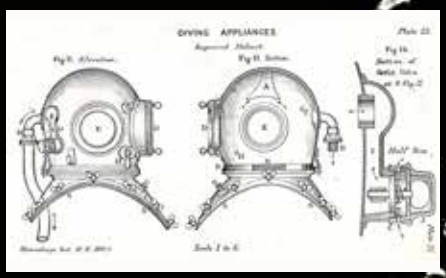
In December 1840 Pasley wrote a report to the Admiralty with a title that said it all: 'Report on the various Diving Apparatus employed in the removal of the 'Royal George' namely - Messrs. Deane's, Bethell's and Siebe's - that Mr, Siebe's is the best adapted for the Public Service'. In 1841, again at the request of divers, Siebe then introduced the removable helmet, with alternate blank and threaded screw segments which allowed it to be lifted clear, or clamped watertight again, with a one-quarter turn. His dresses then stayed in use throughout the remaining salvage work without problem, which was to establish Siebe as a leader in the world of diving equipment manufacture.



A sketch of Siebe's dress in use on the 'Royal George' salvage in 1844.

A later modification came with the general use of vulcanised rubber after Samuel Goodyear had patented that process in 1844. Edward's original soft India rubber seal must have been unreliable, while Siebe had used leather and sealed the dress wrists by binding them tightly. The new product was much more compliant and durable, eventually leading to new neck and wrist seals, together with a new waterproof dress fabric. Another later modification was the diver adjustable air escape valve. This allowed the diver to hold back or release air pressure within the dress to suit his immediate circumstances and it removed total reliance on the rate of pumping of air from the surface.

During the second half of the 19th century, the name 'Standard Dress' appears to have been popularly assigned to the Siebe Gorman dress then available. It was a design that stood the test of time, eventually even being adapted to oxy-helium diving. This culminated in a 610 ft (185 metre) surface-orientated Royal Navy dive, by George Wookey in Norway in 1958. By then new challenges and new ideas were already in the offing.



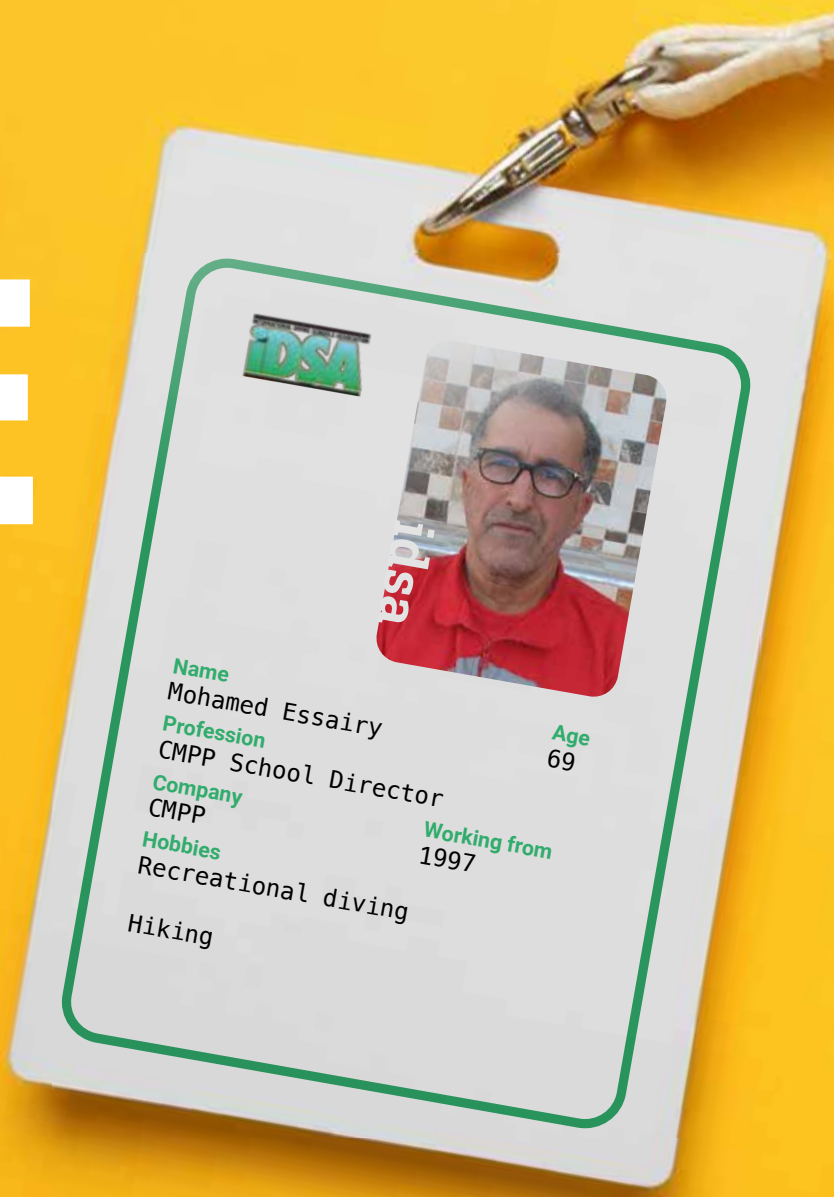
Siebe Gorman Standard Dress equipment in 1882.

This article is based on 'Development of the Standard Diving Dress (1823-44)', Peter Dick. 3. International Symposium on Underwater Technology, 1991, Geesthacht, Germany. With thanks to Dr Mike Burchett.

The Royal Sappers and Miners (coll. The late Reg Vallintine).

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 Mohamed Essairy, who is the CMPP School Director from Morocco.



01

How did you get involved with the Professional diving world?

I started scuba diving at a recreational diving club, and since there was no commercial diving training center in MOROCCO at the time, there were small companies doing underwater work, and when I mastered the basic skills of diving, I started participating in some work tasks as a volunteer.

In 2009 the CMPP center was created by a friend of mine, I started helping him managing the courses and at the same time I passed my LEVEL I and LEVEL II.

After my friend decided to end the school, he sold it to me and now I am the manager of this center.

I learned that entering the world of commercial diving requires specialized training, obtaining relevant certifications, gaining practical experience, and actively seeking opportunities in the field.

02

Who did you learn the most from?

I learned a lot from the first training director within the CMPP (Jean Pierre ASCHERI) who became a great friend. We worked together for the training of several commercial divers and I also learned from other instructors who worked with me in the CMPP. Each one had a different training method I learned a lot of things through the years.

03

What are your drives and ambitions?

My motivations and ambitions for working in commercial diving are often linked to the passion for the sea, the technical challenge, the diversity of tasks, the job prospects and the sense of adventure and exploration.

Motivations and ambitions for working in commercial diving may vary from person to person, but here are some common reasons that attracted me to this field:

- Adventure and passion for the sea
- Technical challenge
- Variety of tasks
- Sense of adventure and exploration
- Contribution to maritime security

What annoys you the most?

04

I am really annoyed that despite my efforts, Morocco has not yet a legislation about diving or any official norms for a commercial diving degree. Due to the lack of legislation there are a lot of companies that enroll commercial divers with no experience and most of them exhibit fake documents obtained illegally. There are many accidents in my country due to ignorance, and this really makes me sad. Nevertheless, I continue to work with local authorities in order to improve the security and the awareness in the field.

What is your life motto?

05

"Carpe Diem" – a Latin phrase that translates to "live your life in the present of each day",

This motto encourages me to worry less about the future and to forget about the past.

It is important to live your life with good purposes and gratitude, making each day an opportunity for personal growth and happiness.

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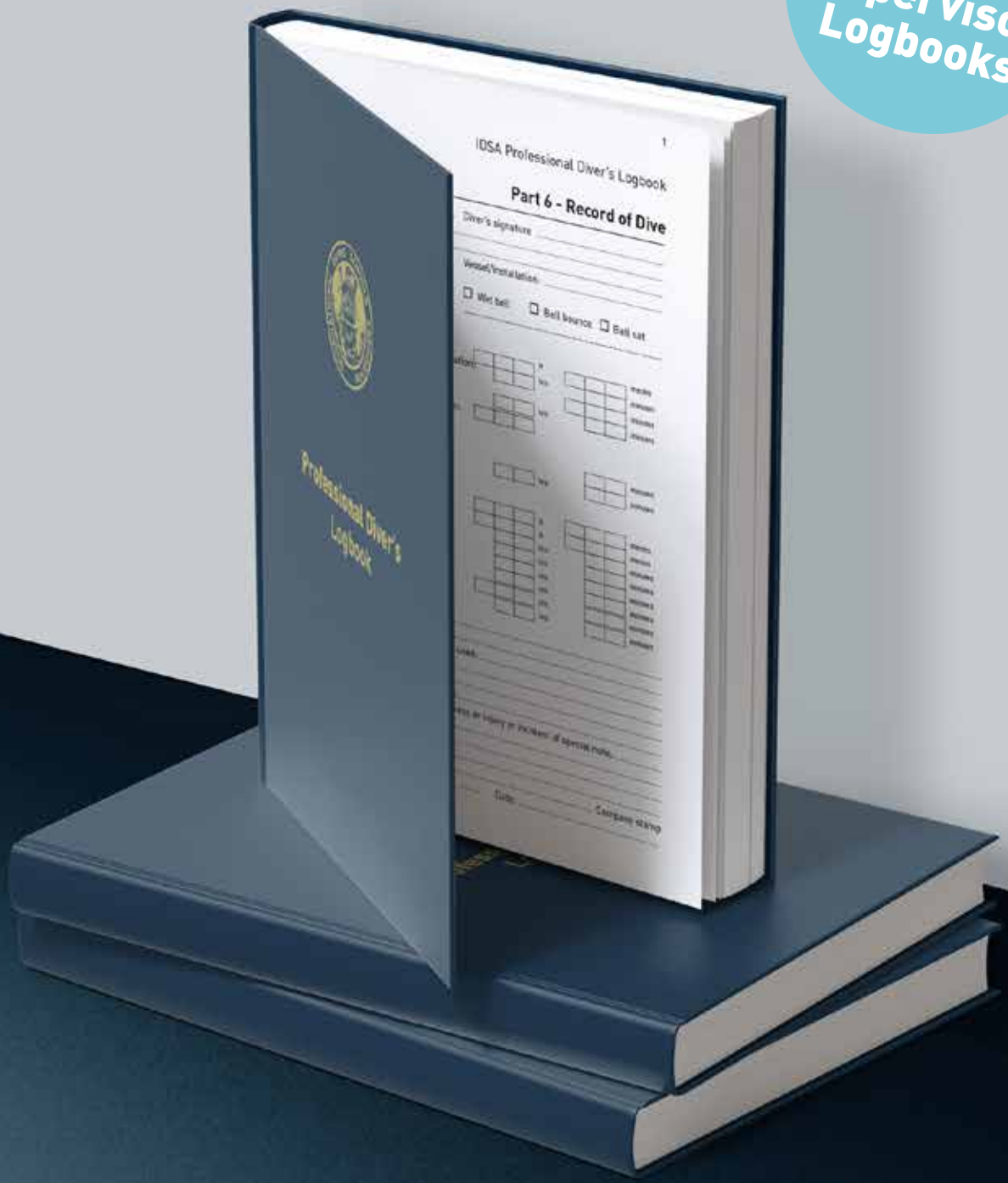

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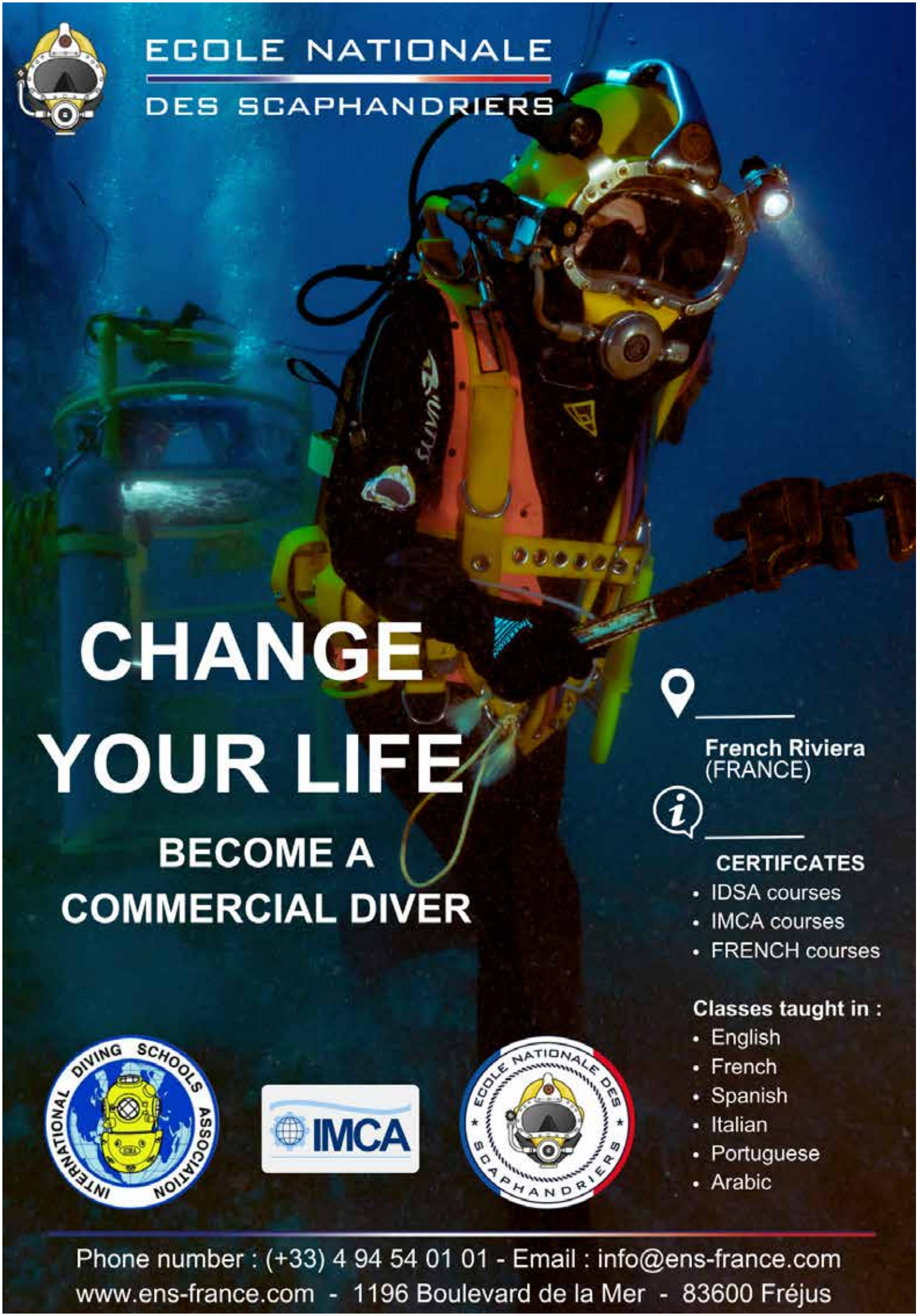
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