INTERNATIONAL DIVING SCHOOLS ASSOCIATION

iDSA NEWS

EDITION No 33 MARCH 2019

THE USE OF VIAGRA IN DIVING
THE DAWN OF DIVING IN ARGENTINA
PROTECTION OF ARCHAEOLOGICAL SITES
NEW IRISH AWARD

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INTERNATIONAL DIVING SCHOOLS ASSOCIATION
IDSA
NEWS

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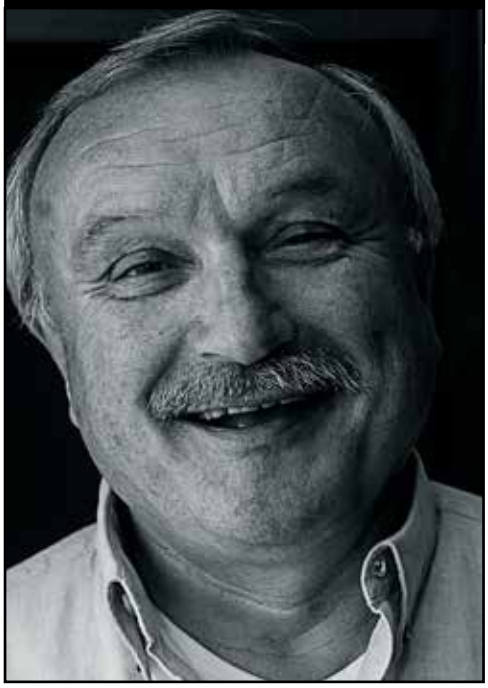
Front Cover photograph by Mike Norriss

FROM THE CHAIRMAN



Dear Members

It is pleasing to report that after several years of relentless lobbying by Manos Kouvakis – Director of the Full Member School CEDIFOP, Sicily that the new Italian Regulations in the pipeline are based on the IDSA standards– Congratulations to Manos and his team.

Changes are being made back at IDSA's Head office in the Netherlands. Over the years the main industry related diving organisations have become centralised in the National Dive Centre, in the city of Delft, and as underwater intervention has become more sophisticated and regulated, with it goes the need for more office space. Accordingly, I have been able to obtain authority to move from our present office building to a larger one not too far away in the city. This may have caused some disruption to the administration in the latter part of March and early April, but I hope members were not too inconvenienced.

Apart from the current offices used by the Diving Contractors Association, for the control and issue of diving related certification, and other diving activities, there willbe a separate and independent 'Desk' for IDSA. As I think some members already know Alan Bax is winding down his present commitments and they are being taken up gradually by the IDSA 'Desk' which will be under the supervision of Carin Bot our present Secretary, the majority of the transfer will be complete by the Annual meeting but all being well Alan hopes to stay in touch as Editor of 'IDSA News'

Finally, may I pass on his apologies for the very late publication of this issue, health, computor failure and other matters have triggered the delay, and it is hoped they will not reoccur.

I look forward to seeing many of you at the annual meeting in Oslo, (September 16 to 19)

Leo Lagarde

IDSA Chairman Leo LaGarde presenting Manos Kouvakis with CEDIFOP's first annual membership certificate in 2009

Oslo Commercial Diving School NYD

IDSA ANNUAL MEETING RETURNS TO OSLO 16-19 SEPTEMBER

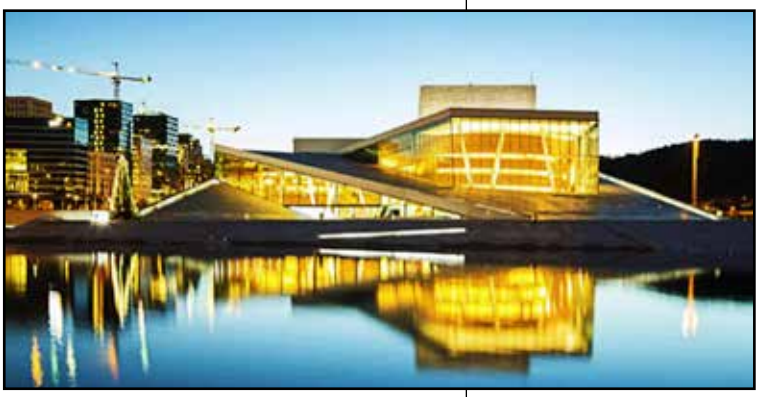
Instructor and students from NYD

NYD, the Norwegian subsea training center celebrates 30 years in operations this year, making it a natural host of IDSA's annual meeting.

With more than 300 divers passing through their various courses annually, NYD is a long-time prominent member. Almost half of all IDSA qualification cards issued go to NYD graduates. NYD is also the first and only member training to IDSA level 4, closed bell diving.

Since hosting the annual meeting in 2014 lots have changed at NYD. A tour of the school will undoubtfully be one of the highlights of this year's meeting.

The venue of the meeting will be



the same as in 2014. Thon Hotel Opera is conveniently located at the doorsteps of the airport express train at Oslo Central Station, a short 20-minute train ride from Oslo airport (OSL) who has good connections with Europe.

The hotel is located in an exciting new part of the city. A former industrial harbor area has recently been transformed to a modern business and residential area, with the architecturally iconic Opera house as the main attraction.

Oslo, the distant and remote outpost which once was Christiania, has in recent years turned into one of Europe's fastest-growing capital cities, with a population of 700,000 expected to reach the 1 million mark within the next twenty years.

Dozens of lively cafes, bars and restaurants have popped up, and continue to do so, all over town, at a rate which even most Osloites find hard to follow.

And whilst the once rusty docks have transformed into luxurious seafront architectural marvels, other less known pearls of Oslo's industrial past have been re-discovered and revamped into foodhalls, colleges, bars, and art galleries, breathing a much-needed breath of fresh air into Oslo's cultural life.

Oslo is the cold north. It is also warm summery days on the fjord. Oslo is skiing and trekking in the Oslomarka and fine dining later the same evening. Oslo is Munch, the Opera, stunning parks, unique cocktail bars and restaurants, and a vibrant urban scene.

NYD and IDSA welcome you all to the annual meeting 16th – 19th September 2019.

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opera@olavthon.no

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Book your room by August 10th with booking code 27893002 to secure a room at 1895 NOK pr night including breakfast and WiFi. 300 NOK for extra person in the room.

Travel from Oslo Airport (OSL) with the airport express train. Departs every 10 minutes. Conference fee:The conference fee is set to 350 Euros pr person. The fee includes lunch Tuesday – Thursday, dinner Wednesday evening and refreshments during the meetings. Bank transfer in advance, only.

ABOUT ANNUAL MEETINGS

Jill Williams

Ex Minute Secretary

The north coast of Brittany is well known for its stunning scenery but notorious for its weather – we therefore looked forward to the AGM with somewhat mixed feelings! How wrong we were – we were blessed with three days of perfect weather, and not a cloud in the sky so were delighted with our good luck! The hotel itself was very good, with a spa for those of us who took time off. As this was the first time for about 25 plus years that I have been able to 'relax' during the meetings (Carin having taken over my 'job' of taking the minutes) I felt I was really lucky, although there were enough spaces in the programme for everyone to make use of the facilities too, and we were all able to swim together in the large indoor pool.

In all there were 25 members present, some of whom had not been to an AGM before. Talking to them I felt that they found the experience worthwhile as they were able to follow not only the formal aspects of the Association but also get a 'real feel' for the support and commitment of members. For some it was clear that the Association was different from what they had expected but that it still had much to offer. In addition, the long-term members are open to input from newer ones so the contributions and discussions are to be welcomed. It is often useful to understand why some new ideas are rejected – sometimes because they have been tried before and found not to be useful; sometimes because, in practice, they do not necessarily conform to the overall aims of IDSA and might, indeed, be counter-productive, and discussion within the group can often make the underlying reasoning clear.

There are a number of examples of how members can contribute and become involved in developments in IDSA. For example, many new members may not realise that IDSA Board members are elected for two years, with the option to stand for re-election. New board members need to be proposed and seconded by Full or Associate members of IDSA but for several years now there have been no such proposals and so Board Members have remained largely the same since there has been no-one to replace them, placing an unnecessary burden on those already in post. If members would like to become involved please make sure that a proposal, duly seconded, is sent to the Administration at least two weeks before the date of the AGM.

In a similar way, items which members feel are important can be brought to the AGM by proposing them in good time for inclusion. It is clear, for example, that a number of members would like to use the IDSA logo on their advertising material but are prevented from doing so by IDSA regulations. Interestingly, this has never been suggested as a topic for discussion at an AGM. Perhaps if enough members are concerned it could be suggested as a topic for discussion.

The 2018 meeting was held at one of our newest schools – in contrast, the one this year will be held at the school of one of the founding members, NYD near Oslo. Members will be able to note the differences between the two, where one is at the beginning of its development and the other shows what progress can be made over a considerable number of years with the support of government and industry, where both have invested heavily in its progress, and with strong long-term leadership. As members of IDSA we look forward to your attendance and participation at Oslo

THE SALVAGE OF THE YACHT "LE LALIBELA" BY ECOLE NATIONALE DES SCAPHANDRIERS (FRANCE)

In October, the luxury yacht "Le Lalibela" based in the port of "Golfe Juan", suffered a terrible fire and, despite the presence of 70 firefighters, sank after 18 hours of fighting against the flames.

From the beginning of the sinking, the wreck began to release in the billionaires' port its 55,000 liters of diesel. A rescue operation was then launched urgently by the public authorities.

This delicate operation was entrusted to the divers of the"Ecole Nationale des Scaphandriers" with the logistical assistance of the Eiffage group.

After 8 days of diving, this 45 meters long and 380 tons vessel was successfully recovered. To be able to accomplish this task, an enormous resource has been implemented: anti-pollution barriers, 10 divers, 430,000 liters of air distributed in 18 inflatable lifting bags (including two huge 103,000-liter inflatable flexitanks imported from the Netherlands), a battery of compressors as well as pumps representing a total of 2800 m3 hour to empty the wreck.

Once installed, all these means restored the vessel's buoyancy in less than one hour. And then, the lifting bags were removed, and the vessel was made seaworthy to allow it to be towed to Aliaga in Turkey where it would be scrapped in a specialized shipyard.

A new success of the École Nationale des Scaphandriers which, once again, was able to show its know-how and its ability to re-act to a major maritime accident so preventing major pollution in a prime recreational site.

ONE STEP BEYOND DECOMPRESSION TABLES AND PERSONAL DECOMPRESSION COMPUTERS (PDCS)

By Bob Cole FRSCTD DMS
SAA Decompression Officer, former CMAS Technical Director and Author of Out of the Decompression Matrix,
ISBN 978-1-905492-28-2.

I got into diving by chance. During the 1955 Easter holiday I met a man with an aqualung; he gave me two instructions . . . "Keep breathing in and out through your mouth and don't hold your breath". That was it! I enjoyed it so much that he said: "Now go to hospital and have that smile surgically removed from your face." I have that smile every time I dive and I'm still diving 63 years later.

In those days the training was nowhere as good as it is today and the equipment was also rubbish by today's standards. Some of the information given seemed to be counter-intuitive. I asked many, many questions, particularly about decompression. Many of the answers didn't seem to make a lot of sense to me! This was the start of my research into decompression.

For example, the ascent rate at that time was 25feet/minute (about 7.5m/minute). Clearly for open water ascending via a vertical shot-line is easy and allows better control, following a low-angled long anchor-line may be too slow at depth. But, the big question was: "How do we judge the correct ascent rate when there is no anchor/ascent line?" The answer: "Follow the small bubbles". It seemed to work. However, in the 1960s a new set of Tables came in to use and the ascent rate changed to 60feet/minute (18m/minute). I asked the same question. The answer came back: "just follow the small bubbles". In the early 1970s the ascent changed yet again, this time to 15m/minute! The answer remained the same: "Follow the small bubbles."

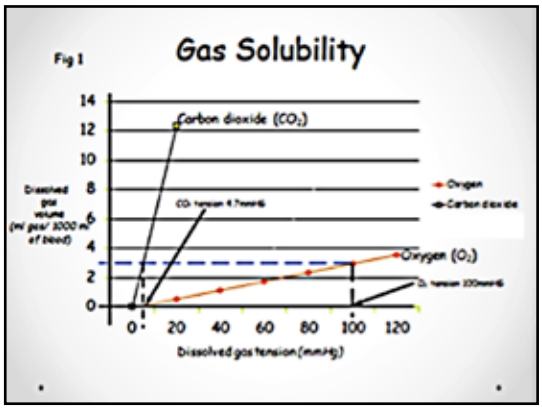
My next question was, of course, how do these bubbles know which Tables I'm using? In those days there were no such things as ascent gauges or personal decompression computers (PDCs). But we survived.

Over the years equipment and techniques have improve massively. That can't be said for our basic understanding of decompression: in more than 100 years of research, since Haldane, Boycott and Damant paper in 1908: we've yet to define the true pathology of decompression illness (DCI), yet we survive mostly without major trauma.

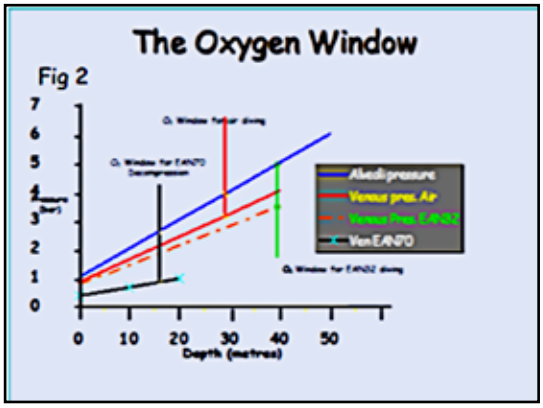
More recently ascent rates have been reduced from the 18m/minute to something somewhat gentler and in a number of cases within the limits of the oxygen window. If you can keep your internal bodily pressure below the external ambient pressure, bubbles are less likely to form. Keeping within the "Oxygen Window" will help in this regard.

THE OXYGEN WINDOW

Consumed oxygen is metabolised into the same volume of carbon dioxide (CO_2). Fortunately, CO_2 is about 20 times more soluble than oxygen; see Fig 1, which in this case creates a



tension of 100mm Hg, whilst the same volume CO_2 causes a tension of only 4,7mmHg. Therefore less pressure within the circulation, which provides us with the so-called Oxygen Window (it's a pressure gap). This gap varies with depth; it's relatively wide at depths of 40m and beyond, reducing on ascent to become very small as the diver nears the surface, see Fig 2. The algorithm



and pressure transducers used in modern PDCs take advantage of this fact, keeping the diver within designed ascent control-range. This, it seems, provides some control over bubble birth, growth and decay. Divers without such devices are not good at ascent control. Experiments made in the USA, a number of years ago by Tom Mount, timed divers ascent rates. They asked each diver their ascent rate: all were convinced that it was less than or equal to 18m/minutes. However, a number popped out of the water to their waste-line and were timed at between 27/36m/minute (90/120feet/minute)!

The closer controlled ascent rates, deep-stops and safety-stops employed cur rently seem to have reduced the incidents of DCI and in particular those involving the central nervous system (CNS). However, we are still dogged with DCI and I'm led to believe that more than 50% of these cases are within the limits of the Tables/PDCs used by the diver!

Decompression algorithms base their calculations on blood flow (perfusion) for a range of tissues throughout the body. Most, if not all, divers know that if they work hard underwater they will need to add some extra time to their stops or even add some extra stops to allow the additional inert gas acquired during the work phase to be safely liberated. So, are there other situations that divers should consider to reduce the risk of DCI? Well, clearly if you accept that hard work underwater increases the uptake of inert gas and therefore requires additional decompression to be safe from DCI, then other behavioural situations that alter

perfusion rates should be considered.

DECONGESTANTS: EPHEDRINE, SUDAFED

Decongestants vanquish runny noses by causing swollen blood vessels in the mucus membrane of the nose and sinuses to tighten. When taken in pill form, this effect extends throughout the body.

Pseudoephedrine, the active ingredient in most decongestants, also causes tightening in the blood vessels in the brain, which can trigger insomnia, restlessness and anxiety, as well as headaches if the blood vessels narrow too quickly. Potentially this could affect your decompression obligation, causing you to move outside the parameters of your Tables/ PDC, thus increasing the risk of DCI.

When considering the implications of medication, you should also consider your medical condition: the reasons for taking the said medication – ask yourself: "Am I really fit to dive?" You see; the important question may be "What's wrong with me and not what's wrong with the

medication!

Important: Nasal sprays may also alter blood flow. When planning to dive avoid the use of anti-seasickness pills that cause drowsiness. These drugs can also alter blood flow. Be careful with whatever medication you use when diving. It's always wise to check your own particular issues with a hyperbaric doctor.

SILDENAFIL: VIAGRA, CIALIS, LEVITRA

Something else to think about; Viagra has a number of effects on blood circulation (perfusion).

Blocking the enzymes also increases the amount of Oxytocin in the brain. Sometimes called the "love hormone," Oxytocin facilitates emotional bonding. In addition, animal studies indicate that Viagra increases the cerebral blood flow (CBF).

DIVING AND VIAGRA

Viagra works to increase the levels and activity of nitric oxide (NO), a known vasodilator (ie "NO" opens-up blood vessels and allows greater blood flow (perfusion) thus increasing the uptake of inert gas when diving. From Norwegian research on rats it seems this is an important aspect for divers using the drug before diving, because it also "increases perfusion to the brain. This may take the diver outside the parameters of the Tables/PDC being used, which in turn may increase the risk of DCI.

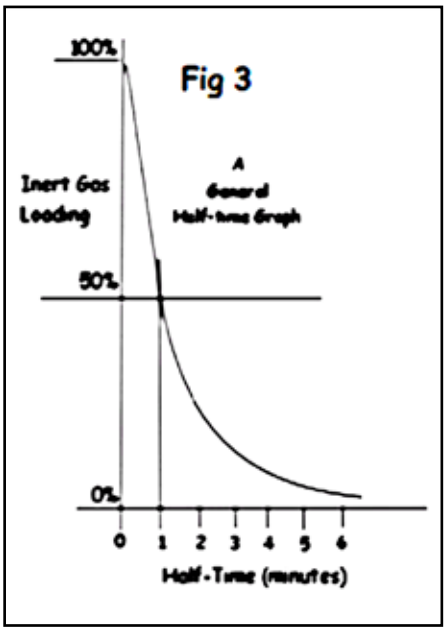
WHAT TO DO?

If you take Viagra for a heart condition and/or hypertension, you should no longer dive without clearance from a cardiologist who has considerable experience in hyperbaric medicine.

If you are fit and well and use Viagra for other reasons, then make sure you allow sufficient time for the medication to wash-out of your body before diving.

When should you stop taking Viagra if you are going to dive?

There was no clear message given by the research regarding when to stop taking the drug and diving. However, the half-life, see Fig 3, of Sildenafil (Viagra)



is 4 hours, Vardenafil (Levitra) is 6 hours and Tadalafil (Cialis) is 18 hours. Which means that the strength of the drug reduces to half in the period shown and by half again for each Half-time period up to a maximum of six, when it is considered that the drug has dissipated, see the Half-time graph above.

So to completely clear these drugs from your system takes six half-lives: 1. Sildenafil (Viagra) - 24 hours, 2.Vardenafil (Levitra) - 36 hours and 3. Tadalafil (Cialis) - 105 hours.

Please double check your medication with your doctor or pharmacist.

DOUBLE CHECKING

Finally, may I mention "CHECK LISTS"? Diving is a risk game and it seems rather strange that very few divers run a check list to manage their diving. The check list system has been employed by pilots in the aviation industry for many years. This was born out of investigations into air crash accidents. The system has helped reduce accidents caused by human error.

Even the medical profession have taken a leaf out of the aviation book and now employ the system. When first introduced it reduced human error issues by about two thirds. The system made it acceptable for junior staff to question the actions of senior surgeons.

The International Trade Twin Tower Safety Manager in the USA used checklist, which saved many lives in the 9/11 disaster. They're simple, easy to use and well worth a thought.

Dive check lists and Run-time charts reduce the propensity for human error before, during and after the dive. They're also useful even down to the level of packing for that blue water holiday!

IRISH COMMECIAL DIVER TRAINING

Bord Iascaigh Mhara, is the Irish state agency responsible for the development of the seafood industry its, associated training and services. The head office is based in Dublin on the east coast adjacent to Dun Laoghaire harbour and BIM has two permanent nautical training colleges, one in Greencastle on the north coast and the other Castletownbere in the remote south west. There are also two mobile BIM training units providing on-site safety training nationwide.

Castletownbere is an important fishing port with one of the largest whitefish landings in Europe. Situated at the mouth of Bantry Bay, the harbour is sheltered from the Atlantic storms by Bere Island so even in the worst of weather vessels can find a safe haven. Bantry Bay extends some 20 miles inland and has played an important role for navy ships and submarines during periods of conflict. Ireland's largest oil refinery is based at the head of the bay on Whiddy Island. It was here that the Betelgeuse disaster occurred on Jan 8th,1979 with the loss of 50lives. While discharging crude oil to the terminal, an explosion occurred causing the Betelegeuse to sink in 40 meters of water adjacent to pier. Smit International carried out a major salvage operation and, having cut the stricken vessel into three sections, raised each part and floated it to shore using a combination of bespoke winches' and pulleys specially manufactured for the operation and floating docks. It was the largest maritime salvage operation Smit Int. had undertaken up to that date. There is a very good documentary that was shot live while the works took place. Free swimming scuba divers feature highly as they cut and burn independently in up to 40 meters of water. For diver training schools, it is a useful tool to illustrate how health and safety legislation has impacted on the diving industry reducing risk and making the divers role safer. https://www.youtube.com/watch?v=mFXEU85Ayal

In 1993 BIM established commercial scuba diver training programmes to support the growing aquaculture industry. These programmes were approved by the HSE and divers were awarded the then HSE Part IV certificate. Inshore Surface Supplied (Part III) training courses were added in 1997 and the delivery of programmes continued until 2001 when an internal BIM

IRISH COMMECIAL DIVER TRAINING (continued)

organisational review suspended the programmes. In September 2016, in response to industry demand, BIM determined to re-establish both programmes. However, during the intervening period much had changed in the national certification arena which had endured two major restructuring and rebranding processes.

The end result is that Quality and Qualifications Ireland (QQI) is now the national body who govern all further education and training awards. Award standards must first be established followed by a course validation process to ensure that course providers meet the specified criteria. This process took almost two years to complete and required a working group with the requisite knowledge and skills to develop the new awards. This working group included representatives from the Irish Health and Safety Authority (HSA), BIM, IDSA, QQI, specialist diver training consultants and representatives from the diving industry. Collectively, new award standards for both Commercial Scuba and Surface Supplied Diving (Inshore) were created and are now listed as QQI Awards and on National Framework of Qualifications at Level 6. Both these awards are based on the previous programmes' specifications, IDSA and HSE standards for diver competencies. The learning outcomes are almost identical to IDSA and HSE, with the addition of some new material relevant to the divers intending to work in the aquaculture industry. BIM Diver Training programmes were then submitted to QQI for validation and were approved in September 2018. On the completion of a pilot programme and QQI audit, BIM will make an application to the Health and Safety Executive UK for recognition of the new QQI Commercial Scuba and Surface Supplied Diving (Inshore) awards.

With students eager to start training, the first Commercial Scuba Diver course commenced on October 1st with a week of Occupational First aid, Oxygen administration and Diving First Aid. The following 4 weeks saw divers learning dive theory, basic scuba skills, the use of full face masks with both hard wire and through water communications systems, underwater inspection, photography, search techniques, and the use of lifting bags and simple hand tools.

Many fish farms in Ireland continue to employ scuba divers and for this reason it is important to ensure that Commercial Scuba Divers are fully trained and competent as well as being familiar with the type of work they may be expected to complete. Fish farm diving requires divers to carry out mortality removal, net inspections, mooring system inspections and a host of associated tasks on an almost daily basis. The aquaculture industry is now the single largest employer of commercial divers in Ireland. It is hoped that, under the new Safety, Health and Welfare at Work (Diving) Regulations 2018 (S.I. No. 254 of 2018) and approved codes of practice due to come into effect March 2019, fish farms will move from the use of commercial scuba operations to surface supplied diving operations where practical. Current diving legislation in Ireland (S.I. No. 422 of 1981) does not technically apply to fish farm diving and for this reason many employers chose to take the easy and perhaps less expensive option of working with scuba.

While writing this article (Nov 2018) we are currently in the middle of the first Surface Supplied Diving (Inshore) training course. BIM have invested in all new equipment with an IMCA-certified containerised Dive Control Station, a 20' containerised compression chamber, work tools, custom made underwater work stations, camera systems etc. Divers carry out a range of tasks as detailed in the award standard including searching and lifting procedures, cutting and burning, survey and report writing, dive planning and risk assessment, panel operations as well as the on deck skills required of a good diver and tender.

QQI have very specific requirements for evidence-based assessments and so a detailed record of all practical and theoretical assessments, underwater minutes, logged dives etc. must maintained and submitted for auditing prior to awarding student certifications.

The road to establishing a new award, new programme and setting up a new school has been challenging and busy. As with any new product, this one will be reviewed on completion of the first programmes by a review committee and modifications will be made to ensure the best possible outcomes for students, industry and BIM. Many divers from the previous generation of courses continue to work in the diving industry. Some have progressed and moved to offshore air or sat diving, some are still engaged in aquaculture and some are now employed as staff on the current programmes. While BIM's training operation is small scale the commitment is to deliver high quality training that is industry relevant, and producing divers that are competent and confident in the skills they have learnt on the course.

FIRST INTERNATIONAL SYMPOSIUM ON THE PROTECTION OF UNDERWATER ARCHAEOLOGICAL SITES AND EDUCATION OF PROFESSIONAL DIVERS

SUCCESSFULLY HELD IN MONTENEGRO

The first International Symposium on the protection of underwater archaeological sites and the education of professional divers was held from 17 to 20 September in Budva, Montenegro. The initiative was the Regional Diving Center for Underwater Demining and Divers Training and International Academy of Underwater Techniques and Science from Rome. It was under the auspices of the Ministry of Culture of Montenegro.

The preparations and ideas for organising of this kind of symposium came from a very clear need to protect underwater archeological sites as well as the need to evaluate very rich and above all interesting underwater archaeological sites. These are often the target for many thieves. The sites are of great importance to the culture and history of Montenegro as well as its promotion. Many European countries devote verey serious studies and expeditions to their underwater archaeological sites. They also have well planned strategies for protection of cultural heritage.

Many meetings were held earlier this year with the president of the International Academy of Underwater Science and Technique and his representatives. We first met in Bologna and then in Ustica during the Award winning ceremony of this prestigious Academy.

On that occasion it iwas agreed that several eminent experts, who were members of the Academy and the president Mr Sebastiano Tusa attend this international symposium and share the experiences of Italy and more particularily Sicily which is very rich in underwater archaeological sites. They have vast experience with the technology of underwater archaeology. We wanted to learn how this region and country in general deals with the issue of protection and conservation of this part of their cultural heritage.

Apart from eminent experts from Italy, the presentations on the First International Symposium also had experts from Slovenia, Croatia, and Serbia. From Montenegro there were representatives from the Government: the Ministry of Culture, the Centre for Archaeology and the

Conservation of Montenegro, the National Museum, publicists, representatives of the diving clubs members of the Diving Association of Montenegro as well as representatives of some non-governmental organizations interested in the protection of the sea as well as our heritage in it.

In addition to the issue of protection, the International Symposium was also aimed at the education of divers. There was a need for divers to familiarise themselves with special diving apparatus and various innovations in diving equipment. Bear in mind that many archaeological discoveries are located at great depths and require the use of specialized equipment as well as the use of the kind of gas needed for this kind of diving. Experienced divers shared their knowledge on these topics. Many technological advancements have made these sites more accessible enabling divers to remain much longer on site than that was the case during earlier dives .

The director of RCUD presented the International Diving Schools Association to the conference. He talked about the current cooperation and possibilities for future cooperation between IDSA, RCUD and the Faculty of Organizational Sciences of Slovenia. These organisations are developing study programs for instructors and supervisors from the disciplines of professional and sport diving.

The conclusion of all participants was that the issue of protecting the archaeological sites should not be something to be neglected. There is a constant need to develop strategies to protect archaeological sites and great assistance can be provided by countries such as Italy, Slovenia , Croatia who actively deal with these issues.Thre is a need to understand the significance and value of the enormous cultural heritage located at depth in our part of the Adriatic Sea.

More and more, divers and archaeologists are coming accross the devastation of ancient sites. We must draw the attention of the Media and the public to this serious problem. The Regional Diving Center for Underwater Demining and Divers Training will continue numerous activities and cooperation with all interested institutions in Montenegro. On the international level, Montenegro, as a country, with a rich culture and tradition, must promote and preserves the rich cultural identity that is under its waters.

The Bergen International Diving Seminar
"Sharing best practice by meeting"
2019
Are we adapting to a volatile market?

Bergen International Diving Seminar
13th and 14th November 2019

Planning for the seminar is ongoing and we already have confirmed presentations from authorities in Norway, UK and Australia. It is also confirmed we have a very interesting presentation of a research project headed by the Norwegian University of Science and Technology with collaboration from Equinor and TechnipFMC. AkerBP will present their experience and future strategy for diving operations.

Please keep an eye on our webpage, the program will be updated as we get the various presenters confirmed. If you have a good idea or would like to present anything, please get in contact.

Registration for both exhibitors and participants can be done by sending an email to NUI (post@nui.no). The online registration site will be available in a few days from now, you will be able to log in from the webpage.

There will be stands available for exhibitors

Seminar partners:

IMCA ADCI DMAC OFHB

The Bergen International Diving Seminar is arranged by NUI AS on behalf of The Association of Operators for Hyperbaric Lifeboat Reception Facilities (OFHB):

AkerBP equinor REPSOL TOTAL vår energi

SPIRIT ENERGY GASSCO subsea 7 TechnipFMC

Bergen, 13th and 14th of November 2019

For further information please visit www.nui.no or contact us on **+47 55 94 28 00** or post@nui.no

DIVER HELMET TRAINING THE NEED FOR A STANDARDISED APPROACH

by Tim Stevens

The need for a standardised approach in diver training is well known and is one of the key principles of the IDSA diver training programmes. Whilst each school teaches students to safely operate diving equipment, there is no standard written procedure for safety critical equipment that is used, each school relying on the experience and underpinning knowledge of individual instructors, whose own personal bias comes through to the students. To ensure that correct training with no personal bias, IDSA should therefore initiate a standardised approach to certain safety critical elements of training.

On several occasions in the past year whilst conducting diver assessments and dive systems audits, I have found that the level of underpinning knowledge concerning the use of diving helmets is very much lacking. Whilst I do not know whether these divers and supervisors were trained by an IDSA school or not, this lack of knowledge seems to be indicative in many sections of the industry.

During one occasion whilst assessing some "experienced" divers from the Indian subcontinent, the other assessor and myself were so concerned about the lack of knowledge, that we instigated some simple faults into two helmets and asked the candidates to inspect the helmets, connect them up to an umbilical and bail out supply and the perform the predive checks you would expect an experienced diver to know.

Each helmet had five faults, and there were 12 assessment candidates. The results truly shocking, only one candidate found one fault, the other 11 candidates would have happily used the helmets as they were. Or to put it another way, of the possible 60 life threatening faults to be found, 59 of these were missed.

On another occasion in Spain whilst conducting a dive systems audit, I came across 2 band masks fitted to umbilicals, still wet from the last dive. Both of these helmets had band keeper plates missing, Dry Suit Inflation Hose restrictors missing from the side block, One had the oral nasal valve in the wrong way round, and a bail out regulator was missing its PRV. These helmets were being used daily by experienced divers, supervised by a qualified person and none of them had spotted or reported any defects

Again on another occasion talking to a UK based supervisor I asked, you have a new diver wearing a KM37 and it starts to take on water, what are your instructions to him. I got the standard reply" open the free flow valve and blow the water out". Then I asked, the same new diver is wearing a KM27 and reports it is taking on water, what instructions do you now give him, and I got the standard reply back. I then told him "its not working", Why is it not working? The supervisor had no idea. The reason it was not working is that on the KM27 the water drain valve is on the side of the helmet. To drain the water from a 27 the diver has to turn his head to the left and face down, the water is then over the drain valve and can be blown out. This supervisor and many others I have spoken to have no idea of the difference between the two helmets. This level of ignorance on a helmet that has now been around for nearly 30 years is truly frightening.

For the past few years teaching, assessing, auditing and supervising, I have found that the level of knowledge about the equipment being used is falling, and in some cases appalling. When trying to ascertain why there is this lack of knowledge of the fundamental equipment used in the diving industry, the most common answer is " I was never taught that at school", or "when did that change".

DIVE HELMET TRAINING THE NEED FOR A STANDARDISED APPROACH (continued)

It is therefore quite apparent that a standardised approach to teaching the use of diving helmets, and a programme of continuing development is essential.

This approach is already available and has been for the past 10 years, Kirby Morgan in association with Dive Lab Inc have produced the User and Operators course and examination. This 5 to 6 hour course covers the pre dive inspection, general and emergency procedures, simple maintenance and post dive procedures. There are a set of excellent Power point presentations to cover the entire course which is followed by a simple examination. As well as a complete list of manufacturers check list to cover all aspects of helmet use. Any current (indate) Kirby Morgan technician is qualified to teach the course, which can be easily incorporated into an existing commercial diver training programme.

Using this programme schools can ensure that students are taught to the manufacturers own operators instructions, which if there was any litigation brought against the school, will certainly assist in the defence of the case.

Students, Divers and the Industry at large will benefit from individuals who are trained from the start as how to inspect, use equipment correctly and conduct correct post dive maintenance, which should limit the amount of down time from defective equipment, prevent damage to helmets and equipment from inappropriate handling and ensure that best safe practice is employed when using it.

This course is also ideal to be used as a method of continuing professional development for diving companies and contractors who wish to prove their commitment to staff training. Companies who employ a current (indate) Kirby Morgan qualified technician can run the course inhouse at very little additional expense, and is an excellent method of reinforcing existing knowledge as well as introducing new equipment, products and procedures, as the technicians themselves have to undertake periodic retraining which also covers these new products.

Kirby Morgan dealerships and approved training schools can provide this user operator training if required.

Candidates who complete the course and examination can be registered with Kirby Morgan / Dive Lab for a fee of $30 US where they will receive a wall certificate and qualification card.

It must be remembered that this is NOT a technician course, and whilst simple user maintenance is taught, repairs and ongoing maintenance must only be conducted by properly trained and qualified helmet technicians.

Having run this course earlier this year for a company, the divers and supervisors were amazed at the level of information and knowledge that they gained, and once again I heard the old phrases “when did that change” or “I was never told about that”. The company involved has actually gained a contract by showing that their staff have been trained to the correct up to date standard, and are looking to have more staff trained in the near future as the benefits of less downtime and breakage are showing through.

Further information can be obtained from any Kirby Morgan dealership or by contacting Dive Lab in Panama City, Florida, USA, or from one of the approved diver training schools.

A standardised approach using standard published procedures can only benefit the entire diver training industry in terms of safety, economics and the perception of a competent professional individual leaving training schools, with hopefully increased prospects in gaining employment.

ACTORS IN HISTORY:

THE BEGINNINGS OF PROFESSIONAL DIVING IN ARGENTINA, AT THE PORT OF MAR DEL PLATA

by Veronica Iñurrieta

Professional diving activities were to expand in line with the growth of Argentina during the 19th century, when an increase in foreign trade, especially to Europe and Great Britain, called for larger ports capable of handling greater capacities. The development of the country also led to the arrival of millions of immigrants, the majority from Europe. They were welcome, because at this time there was an increasing need for more workers generally. Many of them were to stay on, including a few groups who were already professional divers; these ended up helping to build the port at Buenos Aires. Most of these were Italian, who could be said to have pioneered diving in Argentina.

Nowadays in summer Mar del Plata is the principal city for tourism in Argentina, with its coastline and 40 km (25miles) of attractive sandy beaches. However, when Argentina was still growing at the end of the nineteenth century, Mar del Plata was little more than a settlement with around one hundred inhabitants. Although it had a short history at that time, in the future it was to have a long one regarding diving activities.

Vicente Carboni first arrived in the Argentine at the age of 22, to work as a diver on the port in Buenos Aires. An Italian, born in Sanpierdarena near Genoa in 1839, he was to be a diver all of his life. While in Buenos Aires he lived in La Boca, a district of immigrants from Genoa and it is doubtful exactly when he first came to work at the little settlement of Mar del Plata. Without a doubt he was employed by Mr. Pedro Luro, who built up most of the village during the 1880s and owned the dock under which Carboni did all of his diving.

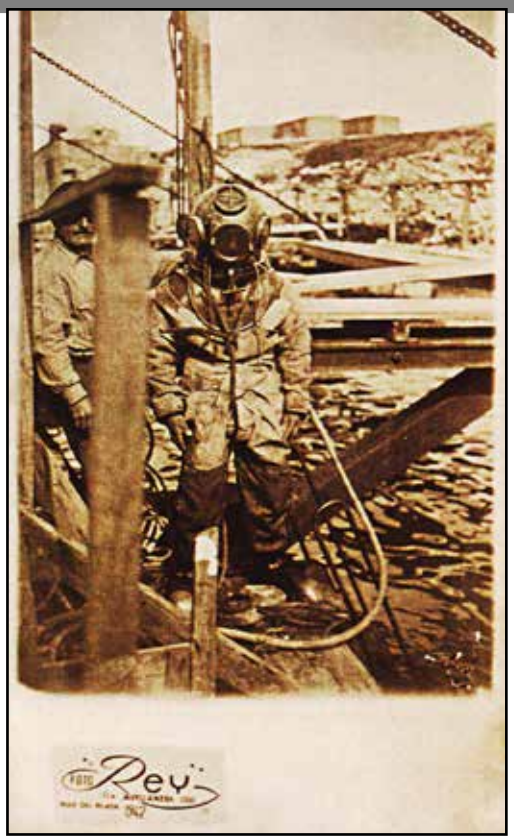
As a professional diver Carboni was to work at all the ports in Argentina, though he choose Mar del Plata as the place to settle his family. The reason it seems is that he could see the potential of the village, with its sandy beaches, as a centre of tourism. In fact, his family were to pioneer services to tourism while Carboni, the old Italian diver, died in the village in 1925.

Without any doubt the immigrants coming into the country were to be essential to its progress, as at the end of the 19th and beginning of the 20th century, the government began

The Lebanese diver José Ayub

taking an increasing interest in public works. Of the projects undertaken, the construction of the deep water port in Mar del Plata became the most important, the responsibility being delegated to The Société Nationale de Travaux Publics, from Paris, a subsidiary of the French construction company Allard, Dollfus, Sillard and Wirit, who had already built the port of Montevideo in Uruguay and carried out several similar projects in the Mediterranean.

The new port was to be situated 8 km (5miles) to the south of Mar del Plata proper, at a place with fresh water from rivers. There were also a lot rocks but nothing more. A thousand workers together with their families were to be brought into this area by the French construction company, more arriving by 1913 when worker requirement was to be at its highest.



Olanda left & Ayub in standard gear

Among these workers were a few groups of divers and of course, they were all foreign. Some names that can be identified include Antonio Olanda (the oldest and most experienced), Don Juan, Daciosa, Piccolo, José Lascienza and José Ayub. The French company was to employ divers into the 1940's, though it is impossible to put together a full list of names, as no written records were ever kept and they have faded from memory with time. Most probably in more of 30 years of working on the building of the port and it maintenance, many more divers were involved. Certainly, none left their personal history and, for the moment at least, their names should be consider as lost.

Interviewing José Ayub´s son, I established that he had been born in the Lebanon in 1894 and first arrived in the Argentine in 1913. His real name was Hussein Mohamed Yamal-Eldeen, but he prefered José Ayub. He first became a diver very shortly after being first employed by the French construction company. Most probably he simply learned on the job from the older divers, as had Antonio Olanda. In the eventuality, Ayub was to remain a professional diver at the port of Mar del Plata for 33 years, from when he arrived in 1913 until 1946.

The construction of the port may have been a relative simple task, but it required a lot of hard work. The location was open and faced seaward, the water was very cold, the bottom sandy, there were currents and low or zero visibility. Their first job was to build two long breakwaters which, would then offer protection from the weather while other work on the port construction was undertaken.

The Italian diver Olanda, with Ayub (right)

First, the construction called for the divers to level the bottom by removing rocks. With this finished, they then began positioning hundreds of cements blocks, each of 30 or 40 tonnes. These were raised, positioned and then lowered into place by a steam crane named "Titan", a diver following the descent of each block. Once in place, he had then to use his hands and feel that it had been positioned correctly, if so then they moved on to positioning the next block. In this way, one by one, over months and years, these few foreign divers built both breakwaters. The southern one, more than 3000 metres (over one mile) in length, offered the principal protection, while the northern one was 2500 metres long.

The fishing and commercial port at Mar del Plata was to become very important, and the French company made a film about its construction. In it scenes from 1914 and the beginning of 1920s show how they obtained the rocks and made the cement blocks. Although it only lasts two minutes, it is still possible to see the how divers worked, as the block was lowered and they submerged with it. This film is the presently property of the Museum of the 'port's men' of Mar del Plata, the 'Cleto Ciocchini'.

A group of divers in the 1930s

Ayub on a concrete block, with the Steam crane in the background

All of these divers used the classical diving equipment, and no great water depth was involved. They were to spend all their life as divers at Mar del Plata's port, yet only a few photographs and scenes of the film show them and their equipment. It is a pity that their efforts are still largely unknown, even to the 'port's men' and to local history. All that is known for sure, is that the first professional diving at Mar del Plata in the Argentine was carried out by Italians and Lebanese.

Mar del Plata was to become a very important city to the development of diving generally in South America during the 20th century, due to the presence of a naval force. The naval diving school began its first diving course in November 8th,1921, teaching the use the standard diving dress, not only to members of the armed forces but also to civilian professionals, especially from other countries such as Brasil, Bolivia, Peru, Colombia and Uruguay. In 1950 Mar del Plata became the home of Eugenio Wolk, the founder of the special Italian frogmen divers of the Second World War. Because of this the diving school at Mar del Plata now has a very important place in the history of diving in South America.

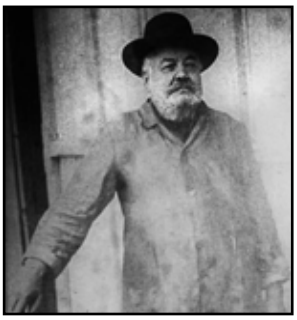
About the author: Veronica Iñurrieta, who is in her thirties, was born in Mar del Plata. She graduated as a history teacher in 1989 and since then has worked in public schools. Although she first took a diving course in 1995, she dates her consuming interest in diving history from November 2000, which was when she took a series of tests after a two week course at the diving school of the local naval base. Her aim had been to enter the navy and, as a civilian teacher, it was considered that she would have a minimal knowledge of diving. However, to the surprise of the military divers she took second place, which unfortunately was still not good enough as there was only one place available. Perhaps it was fortunate for us in the HDS, because what she discovered during those two weeks was that she could bring her two passions together; history and diving. The necessary permissions were subsequently granted for her to gather information together for a book on diving history and December 200 saw her carry out her first interview with an 'old' diver, as she begun her search into the history of diving in Mar del Plata. Today, she tells the HD Times that she has more than 50 cassettes of interviews, with around 40 interviees already interpreted and rewritten, together with a large number of folders full of other information..

None of this has been without problem, as she works alone in her spare time and consequently progress is slow. Much of the information what she knew would be of interest she found was either widely dispersed or lost altogether, as in the case of army records. In the eventuality her most useful source turned out to be the retirement records of divers, held in the naval base; which is why she required permission to study them.

Veronica says that the structure of the army, who carried out the diving work was similar to the Royal Navy, with an enormous gap between officers and men, who carried out the diving and got wet. So, although there are a number of books on naval history available to her, they were all written by the officers. The men did not write books, which is why she began gathering oral histories, with which to hopefully fill the holes in local diving history and assure its continuity.

Based on her work so far, Veronica is now writing a book on the history of diving in Mar del Plata - in Spanish of course. As she puts it, if it was in English it would take her ten years. Finally, why does she really have an interest in the local history of diving? For her it is very simple. She too is a diver in the same cold water and low visibility of the South Atlantic. She loves history and consequently found that stories of the divers to be very emotional. Someone she felt, should at least try to put their exploits on record for future generations. As she put it to the HD Times, 'Divers are actors in history'.

Undated postcard of the port of Mar del Plata, showing the breakwaters



Vicente Carboni, the first professional diver in Mar del Plata

ITALIAN DIVING LEGISLATION UPDATE

PRESIDENTIAL DECREE

7 December 2018, n. 31.

Regulation concerning training courses aimed at the activities of industrial diving in implementation of art. 5 of the regional law 21 April 2016, n. 7.

THE PRESIDENT OF THE REGION

Given the Statute of the Region.

Given the decree of the President of the Region February 28, 1979, n. 70, which approves the consolidated text of the laws on the system of the Government and Administration of the Sicilian Region.

Given the ministerial decree of 13 January 1979 “Establishment of the category of divers in local service.

Given the regional law of 15 May 2000, n. 10 “Rules on management and on employment and employment relationships of the Sicilian Region.

Given the directive n. 2005/36 / EC of the European Parliament and of the Council of 7 September 2005 concerning the recognition of professional qualifications.

Given the legislative decree 9 November 2007, n. 206 “Implementation of directive n. 2005/36 / EC concerning the recognition of professional qualifications, as well as of directive n. 2006/100 / EC which adapts certain directives on

the free movement of persons following the accession of Bulgaria and Romania.

Given the regional law of 16 December 2008, n. 19 “Rules for the reorganization of regional departments. Order of Government and Administration of the Region.

Given the decree of the President of the Region January 18, 2013, n. 6 “Regulation implementing Title II of the regional law December 16, 2008, n. 19. Restructuring of the organizational structures of the regional departments pursuant to the decree of the President of the Region 18 January 2013, n. 6 and subsequent amendments and additions and implementation of article 34 of the regional law 15 May 2013, n. 9.

Given the decree of the President of the Region June 14, 2016, n. 12 “Regulation implementing Title II of the regional law December 16, 2008, n.19.

Restructuring of the organizationalstructures of the regional Departments referred to in Article 49, paragraph 1, of theregional law 7 May 2015, n. 9. Amendment of the decree of the President of the Region 18 January 2013, n. 6 and subsequent amendmentsand additions

Given the legislative decree 16 January 2013, n. 13, containing “Definition of general rules and essential levels of benefits for the identification and validation of non-formal and informal learning and minimum system service standards national certification of skills, pursuant to art. 4, paragraphs 58 and 68, of the law of 28 June 2012, n.92

Given the decree of the Ministry of Labor and Social Policies, in conjunction with the Ministry of Education, University and research, of 30 June 2015, concerning the definition of an operational framework for the national recognition of qualifications regional and relative competences, within the national repertoire of education and training titles and qualifications professional, of which to the art. 8 of the legislative decree 16 January 2013, n. 13;

Given the regional law of 21 April 2016, n. 7 “Regulation of training contents for the activities of industrial diving and in particular the art. 5.

Given the regional law of 17 May 2016, n. 8 “Provisions to promote the economy. Staff regulations. Provisions various and in particular art. 30 “Regional Qualifications Directory.

Given the decree issued by the council n. 2570 of 26 May 2016, together with the Annexes, for the approval of the Qualifications Directory of the Sicilian Region called Repertory of Qualifications, as a contribution to the national qualifications plan regional as per the decree of 30 June 2015 of the Ministry of Labor and social policies and in line with the national system of certification of competences, pursuant to Legislative Decree 16 January 2013, n. 13.

Given the regional law of 29 December 2016, n. 29 “Regional Certification System”;

Considering that article 5 of the aforementioned regional law 21 April 2016, n. 7 provides for the adoption of the implementation regulations of the provisions of the same, with particular reference to the recognition of the training standards referred to in Article 3, paragraph 2, and the methods for the establishment, operation, maintenance, registration and cancellation of individuals, of the telematic Directory referred to in Article 4;

Given the opinion n. 278/2018, made in the meeting of 11 September 2018 by the Administrative Justice Council for the Region

Sicilian (business number 00088/2018

Given the resolutions of the Regional Council n. 409 of 24 October 2018 and n. 436 of 6 November 2018;

On the proposal of the Regional Councilor for Education and Professional Training in agreement with the Regional Councilor for the family, social policies and work; ISSUES the following regulation Art. 1

Training standards for the achievement of qualifications

Kirby Morgan Course

Pommec organizes regularly the Kirby Morgan Basic Maintenance and Repair Technician Course,
Next dates:

Week 21: Thursday 23 + Friday 24 May 2019
Week 36: Thursday 5 + Friday 6 September 2019
Week 44: Wednesday 30 + Thursday 31 October 2019
Week 50: Thursday 12 + Friday 13 December 2019

Location: Bergen op Zoom, the Netherlands
Duration: 2 days

Please let us know if you would like to attend on one of these dates:

pvanmechelen@pommec.com

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ONLY

**FULL MEMBERS (DIVER TRAINING)
are authorised to award
IDSA Diver Qualifications;
they do so having successfully completed an
On-site audit to IDSA Standards.**

ABOUT IDSA

The Association was formed in 1982 as a result of a meeting between Schools attending the American Diving Contractors Conference (Now 'Underwater Intervention') in New Orleans.

The aims of the Association were then, and are now

- To implement common International Standards of Diver Training
- To provide a means of effective communication between schools.
- To improve the quality of commercial diving education
- To work towards improved standards of safety, emergency drills and procedures.
- To provide a common and collective voice to government industrial agencies on any matter affecting members.
- To co-operate on matters which may improve placement opportunities for graduates from member schools.
- To promote any activity, idea or subject which furthers the international operations of the Association.

The Association is concerned with all divers - Offshore, Inshore and Inland - as well as non diving qualifications e.g. Supervisor, DMT and LST. The Association has established International Diver Training Standards based on the consensus opinion of its many members, they are available in a separate publication. The Standards provide both a yardstick for those responsible for either administering existing National Standards or creating new ones, and a guide for Clients, Diving Contractors and Divers themselves. It is considered that the introduction of these Internationally agreed diver training standard will have the effect of;

- Equating Standards Internationally.
- Providing Guidance to Organisations setting Standards for the first time.
- Improving Safety.
- Providing Contractors with a direct input to the Diver Training Syllabus.
- Enabling Contractors to bid across National Borders on a more even playing field.
- Improving Diver quality.
- Providing Divers with greater Job Opportunities.

Some governments have and will, set their own National Diver Training Standards. The IDSA programme provides a means of equating them by maintaining a Table of Equivalence - see the Publications section of the Association's Website.

IDSA MEMBERS DIRECTORY AS AT 31 MARCH 2019

Ref №	School Name	Contact(s)	E Mail	Country
	FULL MEMBERS (DIVER TRAINING)			
FF04	Luksia Sukellusala	Jarno Seppanen	Jarno Seppanen@luksia.fi	Finland
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FF08	The Ocean Corporation	John Wood	president@oceancorp.com	USA
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FF29	Ecole Nationale des Scaphandriers (ENS)	Jerome Vincent	J.vincent@ens-france.com	France
FF30	Western Norway University of Applied Sciences, Diver Education (HVL)	Finn Hansen	finn.hansen@hvl.no	Norway
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FF32	Middle East for Commercial Diving (MECD)	Hossam Elmasry	hosmasry@mecd-egypt.com	Egypt
FF33	Egyptian International Diving School (EIDS)	Mohsen El-Gohary	mohsengohary@inw.com.eg	Egypt
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FS03	JFD-National Hyperbaric Centre	Jessica Seymour	j.seymour@jfdglobal.com	Scotland
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AS27	Israeli Professional Diving Academy (IPDA)	Peter Vered	ipda@netvision.net.il	Israel
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AS47	IDEA Kuwait	Khaled Taleb	kuwaitidea@yahoo.com	Kuwait
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IDSA MEMBERS DIRECTORY AS AT 31 MARCH 2019

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IN10	Drafinsub S.R.L	Marco Vacchieri	marco.vacchieri@drafinsub.com	Italy
IN15	De Zeeman Pro NV	Olivier Ramos	info@dezeeman.be	Belgium
IN16	Advacotec Ltd.	Beat Engel	info@advacotec.com	Switzerland

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RE01	Association of Diving Contractors (ADC UK)	Taira Caton	secretary@adc-uk.info	UK
RE02	Association of Commercial Diving Educators (ACDE)	Bill Hyder	info@acde.us	USA
RE03	Association of Diving Contractors International	Phil Newsum	pnewsum@adc-int.org	USA

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