A full-page background image of a diver in a dry suit and helmet, suspended by a rope underwater. The diver is looking towards the camera and giving a thumbs-up. Bubbles are visible around the diver's head.

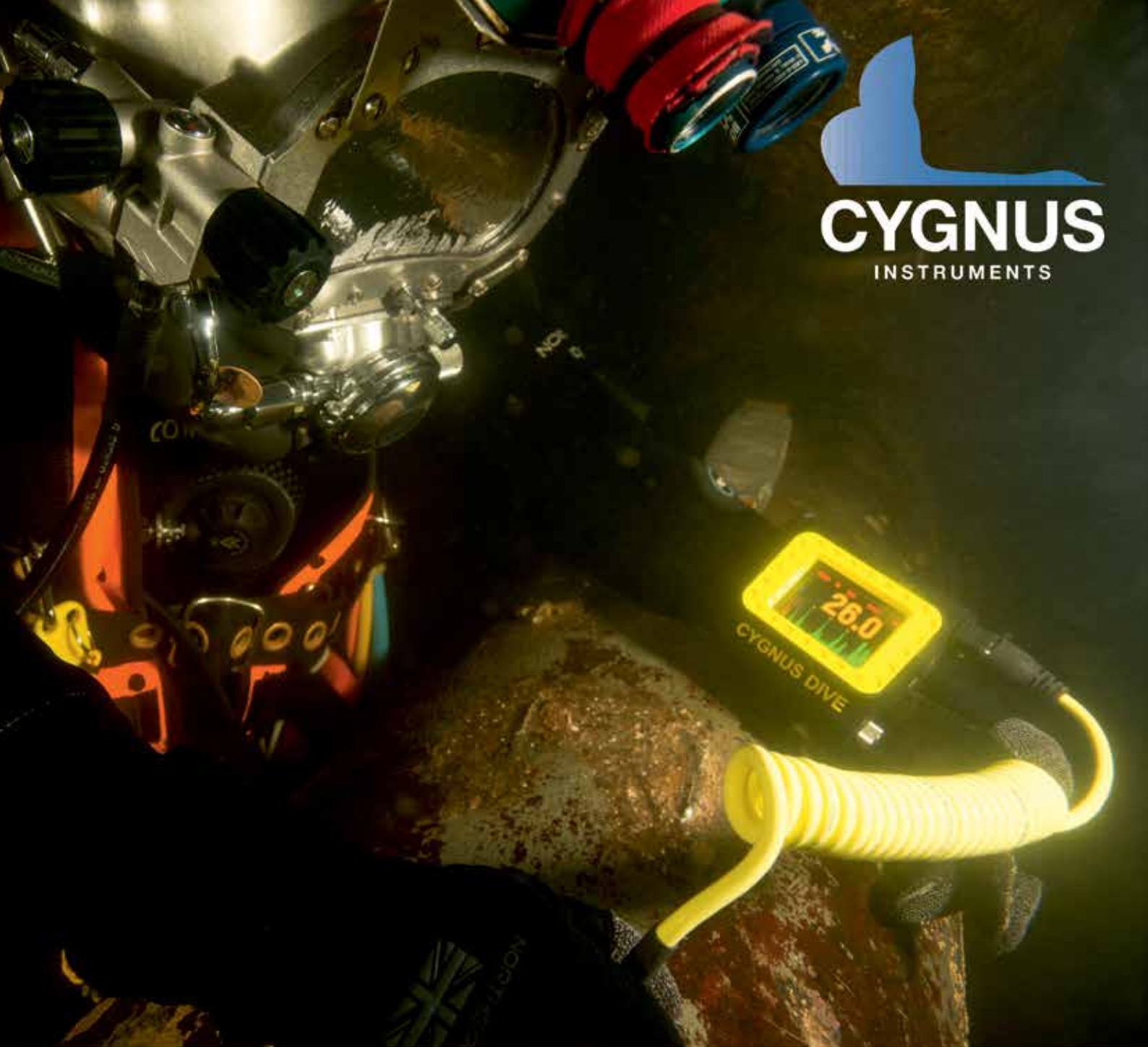
INTERNATIONAL DIVING SCHOOLS ASSOCIATION

iDSA

NEWS

EDITION No.30 JUNE 2017

- **A FIRST FOR SINGAPORE**
- **WORLD'S FIRST FOR JFD's COBRA**
- **THE PALERMO AGENDA**
- **A NEW GENERATION OF UNDERWATER WELDING RODS**



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FROM THE CHAIRMAN



Dear Members

I am very pleased to welcome a new Full Member – The Western University of Applied Sciences, Diver Education (HVL) in Bergen, Norway. The school was a founding member of the Association, but after some years because of political and other pressures became an Affiliate.

However, in recent years the pressures have changed and as a result – and much hard work – they have re-applied for Full Membership and successfully completed their audit (See article on pages 8 & 9) and we look forward to their continued support and involvement with the Association.



IDSA chairman Leo Lagarde and Diver Education daily manager Finn Hansen shake hands after audit approval.

The preparations for the Annual Meeting in Palermo are well in hand but it would be good to receive more Agenda items from you the members, so that we can debate proposals for the improvement of the Association, and those of concern.

Membership is of course most important and it fluctuates from year to year as some members leave and others join, however, I am glad to say that our present membership is 55 and we have several active enquiries. In some cases there is, inevitably, a considerable amount of time between the initial enquiry and acceptance as a Full Member. This time lapse is sometimes because applicants are unaware of the high standards which IDSA requires, while in others the problem may be in ensuring that the proposed course(s) cover the IDSA syllabus – as an International standard the IDSA syllabus requires knowledge of procedures and equipment that are not necessarily used locally, but it is important that an IDSA trained diver is aware of them and where it is considered necessary, able to use them.

The IDSA Board works hard to ensure that standards are upheld; there is support for new schools in the construction of their application in an acceptable way, but it is also important that each school reaches the required standard at audit and, equally, that it maintains that standard through to the re-certification audit – held every 5 years from the date of the initial audit. There is also a procedure for investigating complaints and these are always taken seriously, though it is also important that schools realise that there may be different ways of achieving the same objectives. If any school has concerns then it should consult the Board. The maintenance of high standards is in the interest of us all; equally, complaints should always be based on evidence and not just hearsay.

A handwritten signature in blue ink, likely belonging to Leo Lagarde, the IDSA chairman.

THE 2017 ANNUAL MEETING TO BE HELD IN PALERMO 17th TO 19th OCTOBER, HOSTED BY C.E.DI FO.P, A FULL MEMBER OF IDSA



ABOUT PALERMO



Sultry, edgy, noisy and chaotic, Palermo feels like an eastern bazaar transplanted to the edge of Europe. Fought over by Phoenicians, Arabs, Normans, Swabians and Spaniards, the city reflects the influence of all in its architecture, its people and its food, which, fruit-packed and spicy, is positively life-enhancing. And, if the sheer energy of the city centre proves exhausting, the splendid, expansive Mondello beach and the Tyrrhenian Sea are just a bus ride away.

The east-west axis is created by corso Vittorio Emanuele, at the end of which stand two must-see attractions: the Cappella Palatina at the Norman Palace and the cathedral. The Palazzo Reale or Palazzo dei Normanni (piazza Indipendenza, 091 705 7003-705 6001, closed Tue, Thur) was one of the finest courts of medieval Europe. Adapted by the forward-looking Normans from the original Saracen palace, its highlight – and indeed one of the highlights of the whole city – is the Cappella Palatina (closed Tue, Thur). Built between 1132 and 1143 and once the private chapel

ACCOMMODATION

The Conference Hotel is the Astoria Palace

Address: Via Montepellegrino, 62, 90142 Palermo, Italy

Phone: +39 091 628 1111

E Mail: astoria@ghshotels.it

Web: <http://astoria-palace-hotel-palermo.hotel-ds.com/it/>

Special rates have been arranged for the period of the Meeting which are :

Single Room : Euros 75 per night

Double Room : Euros 85 per night

BUT bookings must be made by 18 September quoting IDSA.

CONFERENCE FEE

The meeting is open to both Members and non- members - the latter as observers. The Conference Fee is expected to be Euros 325 per delegate for members, and Euros 375 for non-members. This will include Attendance, welcome drinks on Tuesday evening, refreshments throughout the meeting, lunch Wednesday and Thursday, the Association dinner on Thursday evening and any necessary transport.

Wives or partners wishing to attend meals and other social occasions e.g. the Association Dinner, are very welcome on payment of the amount relevant to the event.

TRAVEL

The Hotel is about 30 minutes drive from the Hotel, and the fare is about Euros 50 one way. There is also an Airport Bus to the city centre.

of Roger II, its intricate interior is an excellent example of combined Arab-Norman craftsmanship, seen in the richly carved ceiling and the patterned marble floor. The period from the start of Roger II's rule in 1130 to the death of Frederick II in 1250 saw multiracial medieval Palermo flourish. The monarchs lie buried in the impressive cathedral, a short walk from the Norman Palace, which is a hotchpotch of styles and additions to the 12th-century Norman original.

Other attractions include the lush green oasis of the Orto Botanico (via Lincoln 2B, 091 623 8241, closed Sat and Sun afternoons), housing an enormous variety of exotic plants, and the excellent Archaeological Museum (viale della Libertà 52, 091 611 6805). After the trials of the 1980s, the assassination of two anti-Mafia judges in 1992 and the gangland killings of the mid '90s, Palermo is, for many, synonymous with the Mafia. But, while they are largely responsible for the post-war neglect, the city is no longer in the stranglehold of the bad old days, and a visitor is unlikely to see any obvious signs of Mafia life.

Tourist information: piazza Castelnuovo 35 (091 6058406)

PRELIMINARY PROGRAMME – Subject to Change



TUESDAY 17 October

1830 to 2000 Registration in the Astoria Palace Reception and Welcome Drinks in the Bar

WEDNESDAY 18 October

0930 WELCOME

1000 MEETING SESSION 1

- Introduction of Delegates and apologies for absence
- Chairman's Introduction and the report of the Executive Board
- The acceptance of the Minutes of the last meeting in Larnaca 11 to 13 October 2016
- Matters arising from the Minutes not included in the Agenda.
- Administrators Report.
- Treasurers Report.
- The Election of the Chairman

1115 Break

1135 MEETING SESSION 2

- The Promotion of IDSA
- IDSA News – Possible improvements. Help from Members
- The use of the IDSA Logo
- The new style Wall Certificate
- Using the Social Media

- CEDIFOP Proposal for a Student Register

- A reduction in the annual subscription for an organisation wishing to teach Level 1 only

1240 Group Photograph

1300 Lunch at the Astoria Palace

1400 MEETING SESSION 3

- Liaison with other organisations
- The European Diving Technology Committee (EDTC)
- COFRAC - French Committee of Accreditation
- IDRCF – The International Diving Regulators and Certifiers Forum
- IMCA – The International Marine Contractors Association

1445 Break

1505 MEETING SESSION 4

- IDSA Supervisor Training
- The IDSA Rescue Diver Qualification

1700 END of DAY

THURSDAY 19 October

0930 MEETING SESSION 5

- A Proposal for an IDSA Commercial Diver Instructor Qualification
- A new system of Training at NYD
- Any other Business the Chairman may allow
- Date and Place of next Meeting



1300 Lunch at the Astoria Palace

1400 A presentation of new Cavit Cleaner Equipment – To be confirmed

1500 Observe a CEDIFOP course during a practical surface supplied training session

1600 Return to Hotel

1830 Pre Dinner drinks

1930 Association Dinner



NOTES :

- *The above programme above is subject to such changes as are necessary for it to run smoothly. Times are approximate.*
- *All meeting sessions and meals including the Association dinner on Thursday evening will take place in the Astoria Palace Hotel*
- *Transport will be provided from the Hotel and return as necessary throughout the meeting*



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- 1 x External bypass hose

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The first Female Inland Inshore Commercial Diver in Singapore Certified Under the ISO 29990:2010 Standard Scheme New Course Funding Available with subsidies of up to 95% for eligible candidates!

A FIRST FOR SINGAPORE

Commercial diving has always been predominantly a male-dominated industry, due to the nature of the working environment which can be harsh and both physically and mentally demanding. However, we are seeing a twist in this sixth run of the KBAT Commercial Diver training course that has come to an end as of late May 2017. KBA Training Centre is proud to announce its FIRST female Singaporean diver – Ms. Siti Naqiah Binte Tusliman who has completed both the Level 1, Commercial Self Contained Underwater Breathing Apparatus (CSCUBA) Diver course and Level 2, Surface Supplied Diving Equipment (SSDE) Diver course.

The graduates have proven their competence during the course of training and two of them inclusive of Ms. Naqiah have successfully secured their employment with a local-based diving contractor. The training has been an eye-opener for Naqiah despite the physical challenges, do stay in tune as there will be a feature story about

her training journey soon.

Five out of the six trainees who have completed the training had successfully applied for the new course funding approved by SkillsFuture Singapore Agency (SSG) formerly known as the Workforce Development Agency (WDA) under Singapore Workforce Skills Qualifications (WSQ) system.

1. Skills Development Fund (SDF) training Grant - Company Sponsored or Self-Sponsored Individuals (Singapore Citizen or Permanent Resident) is eligible up to 95% subsidy whereby the final grant amount is subject to SSG's approval.

2. SkillsFuture Credit (SFC) - Eligible candidates (Singapore Citizen) will also be entitled to use their SkillsFuture Credit to get reimbursement if they wish to utilise their SFC.

The training which is accredited under ISO 29990:2010 Standard and approved by the Ministry of Manpower Singapore, is open to all nationalities who are interested to become a commercial diver at only a fraction of the price compared to training in the United Kingdom, Australia or South Africa. Moreover, upon successful completion of the training, the candidates have the opportunity to progress forward to the role of an offshore commercial diver by completing a 4-week HSE Conversion Package at Professional Diving Academy Dunoon, Scotland - UK which will certify them with a UK HSE Part I - Surface Supplied and Surface Supplied Top-Up certificates. These certificates will allow them to work in practically any inshore / offshore worksite globally.

In Singapore, there are currently an approximate of 150 - 200 inland/inshore commercial divers with only about 25% having undergone the certified ISO 29990:2010 Standard Commercial Diver training programme or equivalent that fully complies with the National Commercial Diving Standards in Singapore. There is a need for more awareness and support from the industry, government and associations in order to raise the operational safety standards and promote professionalism in Singapore's commercial diving industry.

The next training has been scheduled and confirmed as follows:

COURSE	DATES
<i>Level 1 - Inland/ Inshore CSUBA Diver</i>	<i>3 July - 28 July, 11 September - 6 October</i>
<i>Level 2 - Inland/ Inshore SSDE Diver</i>	<i>31 July - 25 August,</i>
<i>APTITUDE DAY</i>	<i>Half-day Trial session before Level 1 training starts: 29 May, 30 May or 28 August</i>

For further information regarding course fees, scheduled dates and in-company package, please contact KBAT at Tel: +65 6542 4984, pebbles.tan@kbassociates.org or visit our website at www.kbatraining.org

NORWAY'S DIVER EDUCATION SCHOOL IN BERGEN



New truck-based mobile divepost.



Students undergoing pool tests to qualify for training.

The Diver Education School is located in Bergen, Norway and is part of the Faculty of Engineering and Business Administration at the Western Norway University of Applied Sciences. Formerly known as the Norwegian State Diving School, the school has a near 40-year history in training divers. Today the school has a strong focus on quality of education and in 2005 it replaced a course-based curriculum for commercial diving with a 1-year vocational programme with this goal in mind. In addition the school trains rescue divers for Norwegian fire brigades and rescue services, offers various courses related to underwater work and takes an active part in the development of national regulations concerning diving.

The school has a 2400 square metre facility and access to excellent underwater conditions for dive training, it employs 18 full-time employees. As a

subsidiary of the Western Norway University of Applied Sciences it also cooperates with other university institutes as a participant in thesis research, mainly engineering students developing hardware and software solutions for underwater work.

The school is currently expanding its capabilities greatly, with many new dive-posts and related infrastructure having been built or being in the process of being built. A new quay has been added, a new wet-bell has been delivered from SMP, a new Nitrox dive-post has been designed and constructed, a truck-based mobile dive-post for carrying out external courses has been purchased and has been used with success, a new Haux chamber to be used on conjunction with surface decompression diving is underway and a pilot project for a diving barge has just started.

In 2016 it was decided by management to undergo certification for a full membership in IDSA up to level 3 training, partly as a focus on quality and partly to support IDSA ambitions when it comes to quality of education and focus on safety in dive training. On the 12th of May 2017 IDSA auditors Leo Lagarde and Wim



New quay with SMP wetbell in the middle.

Gerrits arrived to carry out the IDSA-audit and subsequently approved the school for inclusion in IDSA as a full member

As of today the school holds big hopes for the future and welcomes the possibility to partake in IDSA as a full member.

Student in the 1-year vocational diving program.

Photos: Tarjei Holsen



AIS DEVELOPS A NEW GENERATION OF UNDERWATER WELDING RODS

Queen's Award-winning manufacturer, Advanced Industrial Solutions (AIS) has developed a revolutionary new welding electrode which will save marine companies significant time and costs on underwater welding projects.

The AIS 'Barracuda Gold Welding Electrode' is a specialist welding electrode which gives a better, stronger, underwater weld and operates for up to eight hours – significantly longer than other underwater electrodes. However, in testing it far exceeded this timescale, achieving a Class B weld after 24 hours of submersion.

This unique innovation means the underwater welder needs less electrodes to complete each job and returns to the surface less frequently so projects can be completed considerably faster with less wastage.

Underwater welding is used extensively in the maintenance and repair of ships' hulls and subsea structures and the Barracuda Gold is set to improve the efficiency and effectiveness of these projects dramatically.

The Barracuda Gold's outstanding performance is possible thanks to a specially formulated waterproof coating which ensures maximum resistance to water and moisture penetration and less underwater oxidation. Advanced Industrial Solutions developed the product after months of extensive research and testing of different chemical formulas in



both freshwater and saltwater. The final Barracuda Gold product, which comprises of multi-layers of specialist coating applied over a two-week period, is manufactured in Advanced Industrial Solution's state-of-the-art fabrication facility in North East England under strict quality control methods and procedures and to ISO 9000 standards.

Head of AIS Technical, Chris Evans, said: "The Barracuda welding electrode was an internationally patented product in the portfolio of Speciality Welds. When Advanced Industrial Solutions acquired Speciality Welds in 2015, we recognised the opportunity to develop a next

generation product and applied our highly innovative approach to eventually come up with the Barracuda Gold.

This product is a significant development which will benefit both the marine and subsea sectors. The increased length of time it will last in water will enable underwater welding projects to be completed in considerably less time.

We are anticipating high worldwide demand and have already received orders for the Barracuda Gold from the USA, Australia, Malaysia and Europe.

To find out more or to order please call 0845 800 1810 or visit

specialwelds.com

As well as specialist underwater welding products, AIS Training will soon offer underwater welding training to commercial divers. The company's underwater welding tank is currently being completely refurbished but, once it's back in action, qualified commercial divers will be able to get basic, intermediate and advanced underwater coded welding training courses and/or test days to help them advance their careers.

20% Discount

on **Bombardier** Cavitation Machine



COMMERCIAL DIVER TRAINING LTD.



Diving Vessels 'Hambleton' and 'Loyal Watcher'

A happy Offshore Air Diving Course

Having just got out of sat, I find myself on deck with time to reflect on the past years at CDT, whilst waiting for the elusive chopper home!

It's been a busy time for training, despite the pressures imposed upon the industry as a result of the "challenging market conditions" offshore.

The primary air diver training vessels, Hambleton and Loyal watcher, both had refits over the winter of 2016/17.

In addition to the usual planned maintenance, new hot water suit burners were installed for use during the HSE offshore air diver programmes. Dive control's electronics were upgraded, as were the galleys, mess rooms and TV lounges aboard both vessels.

These improvements reinforce the vessels unparalleled status within the industry.

The acquisition of a new work barge has increased the school's capability to provide extensive tools training as standard within all programmes.

Our belief that commercial divers should be trained to work subsea, as opposed to simply performing rescues and logging dive time remains central to our philosophy.

Perhaps this is why so many graduates have made the transition from the school into the real world in such a short period of time. CDT's programme of "post graduation support" also helps, including CV



The Magazine for Underwater Professionals

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TWO YEARS ON

George Graydon, Director

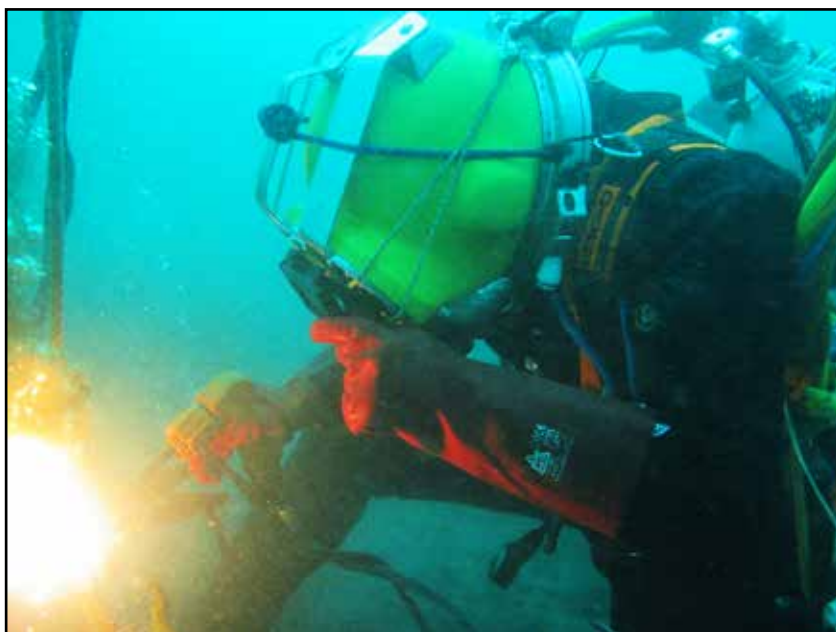
preparation, accountancy workshops and network building.

Training remains “mobile” with phases conducted from numerous shore based locations, support vessels and barges, reflecting the variation encountered at work. CDT students live aboard as all programmes are residential, so “home” moves wherever the diving takes us!

Our sister company, Commercial Diving and Maritime Limited, has also had a record season, due in part to the high quality of the personnel employed, all of whom have previously trained at CDT.

Our commitment to the students continues long after graduation and I fully expect to see CDT logbooks offshore in the near future.

For me now, it's back up to the heile lounge, bag in hand, ready to put my “teaching head” back on!



Training for work





By Jill Williams

IDSA PEOPLE

SIJTSCHÉ ZWIERS

By the year 2000 IDSA had grown to such an extent that the work of chairing the association and acting as Secretary had become too much for one person. Clearly the majority of the work on a day-to-day basis falls to the Secretary. Alan had already ceased his connections with Fort Bovisand and retired to France and had time to undertake this role, which allowed for continuity, but what was needed was someone to take over the role of Chair. At that time the representative of the Dutch Diving Association (NDC) was Sijsche Zwiers and she was elected to take over the role of Chair of the Association.

Sijsche's background is in Civil and Administrative Law. During university, like most students, she also worked part time in various jobs, mainly secretarial but also in pubs - which probably proved useful to dealing with divers at a later stage! In 1986 she started as Association Secretary of NADO and NDC in Holland. At that time NDC was just starting up and she was the first and only staff under the supervision of Koos Huijskens, using a rented room and the use of a copy machines

and PC borrowed from IRO (the Industrial Council for Oceanology) of which Koos was director. His major interest was professional diving and he was mainly responsible for its development in Holland. Sijsche's first job was to write to all Dutch diving companies to ask if they were interested in organised representation; her second was to organise a meeting of representatives of government and industry that was to become the Board of NDC.

By 1988 enough activities and income had been generated to make it possible to go on and Sijsche was made Director of NDC, also serving as Secretary for NADO. In 1992 Koos retired and Sijsche was elected Treasurer of EDTC in his place, in 2000 she became Chair of IDSA - a position she occupied until 2007. During that time there was considerable interest from schools in the United States and IDSA meetings were held both there and in Europe. However, progress was difficult because of fundamental differences between the systems of training in America and the rest of the International scene. Put simply, the American system of professional diver training takes students from entry level to a stage where they have a thorough - but



basic - knowledge of diving, but are not yet ready to earn their living as divers. They then move from the schools to employers who offer what, in Europe, would be seen as an apprenticeship level where they learn further skills and gain work experience with potential employers. At the end of this they 'qualify' as divers and seek jobs in their own right at proper levels of pay. In contrast, the European / IDSA system takes students into schools and offers a full training at various levels. At the end of each level of training the student is qualified to seek work with an employer at that level. In order to work at a higher level the student goes back to a school to get further training and qualifications and can then apply to employers for work at this new level.

Much of the work whilst Sitjsche was Chair was the exploration of whether these two approaches to training could be reconciled, in order to be able to offer IDSA recognition on both sides of the Atlantic. It was, however, much more complex than at first

appeared, involving not only training methods and establishments but also authorities offering 'recognition' of qualifications (eg. HSE, EU etc) and those who would be needed to insure both individuals and diving companies. What did emerge, from all the work undertaken, is that there is no easy way to combine two totally different systems. On the other hand, the continuing studies encouraged a number of European schools to join IDSA at various levels since it was seen that the Association did have much to offer the training system, albeit somewhat different from that which had been anticipated.

By 2007 Sitjsche had served seven years as Chairperson but changes at NDC offered her the opportunity to change direction and she went to work with her husband using her legal skills in the area of asylum seekers within the European Union – a position she still works in today but with increasing time for her garden!



Multigauge 3000

The Underwater Thickness Gauge

Tritex Multiple Echo Underwater Thickness Gauges

Measure metal thickness only and ignore coatings!

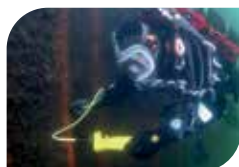


PERFORMANCE is the most important feature of our ultrasonic thickness gauges.

You want the gauge to give reliable, accurate measurements in the most demanding of applications. Whether it's coated, bare metal, corroded or clean, the Tritex Multigauge range has proven to be reliable, simple, accurate and robust.



The Multigauge 3000 Underwater Thickness Gauge uses multiple echo to completely ignore coatings up to 20 mm thick, only the metal thickness is measured. The excellent performance means that one probe type can be used for all applications, including extremely corroded metal, with no probe zeroing.



All measurements are error checked to ensure only accurate readings are displayed, even on uncoated metal. The gauge is simple to use, with little operator input, and has a large bright 10 mm display which ensures it can be easily read by the diver, even in poor visibility. It easily upgrades to a topside repeater with either a surface display unit or datalogging option.

The gauge uses multiple echo and single crystal probes in accordance with class society regulations.

Tritex gives you the excellent performance that you would expect, with free annual calibration for the life of the gauge.



simple . accurate . robust

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JFD'S COBRA system passes conformity assessment for CE marking making it the only fully certified deep diving emergency breathing system in the world

An industry first in achieving CE marking compliance to NORSOK U101 'Diving Respiratory Equipment' and EN14143 'Self-contained Rebreathing Apparatus' for an emergency breathing system

CE certification achieved through rigorous testing to provide assurance of performance in the most arduous conditions

The system provides next level capability for new generation diving operations

JFD, the world-leading subsea operations and manufacturing company and a part of James Fisher and Sons plc, has successfully completed rigorous trials on its new COBRA (Compact Bailout Rebreathing Apparatus) system verifying its capability and performance to CE Mark status.

COBRA is the only commercial emergency rebreather system in the world to have been granted CE Marking status to NORSOK U101 (Diving Respiratory Equipment) and EN14143 (Self Contained Rebreathing Apparatus), leading the way in terms of safety and functionality.

COBRA was designed and developed by JFD in response to a crucial need for bailout technology which can support the depth requirements and excursion durations of new generation diving operations.

Norway pioneered new guidelines which stipulate that a diver must have a minimum of 10 minutes emergency breathing gas calculated at a breathing rate of 62.5 l/m which render open circuit bailout methods non-conforming at depths greater than 56m. The only two systems in the world which can satisfy these requirements are JFD's Divex SLS and COBRA.

The Divex SLS has been sold globally by JFD for the past 20 years. In response to Diver feedback, JFD designed COBRA to further enhance the SLS technology creating

WORLD FIRST

JFD's COBRA passes conformity assessment for CE marking making it the only approved system of its kind

a compact, easy to operate and maintain, mechanical system which can provide up to 45 minutes endurance. COBRA is the only system which can be tested any time by the diver, this is a step change compared with previous systems which once activated, could not be switched off.

Rigorous tests and trials have been undertaken throughout the development and CE marking assessment phases in order to assure performance under the most arduous conditions, environments and breathing requirements. The trials included measuring the work of breathing (WOB), testing operational parameters, resistance and endurance tests as well as pressure and environmental testing. As part of the CE Marking process, two days were spent testing COBRA using independent divers within the JFD dive tank pushing the kit to the required limits.

Successfully passing the assessment declares that COBRA meets the required safety, health and environmental standards to comply with EU legislation to the standard EN14143 and NORSOK U101.

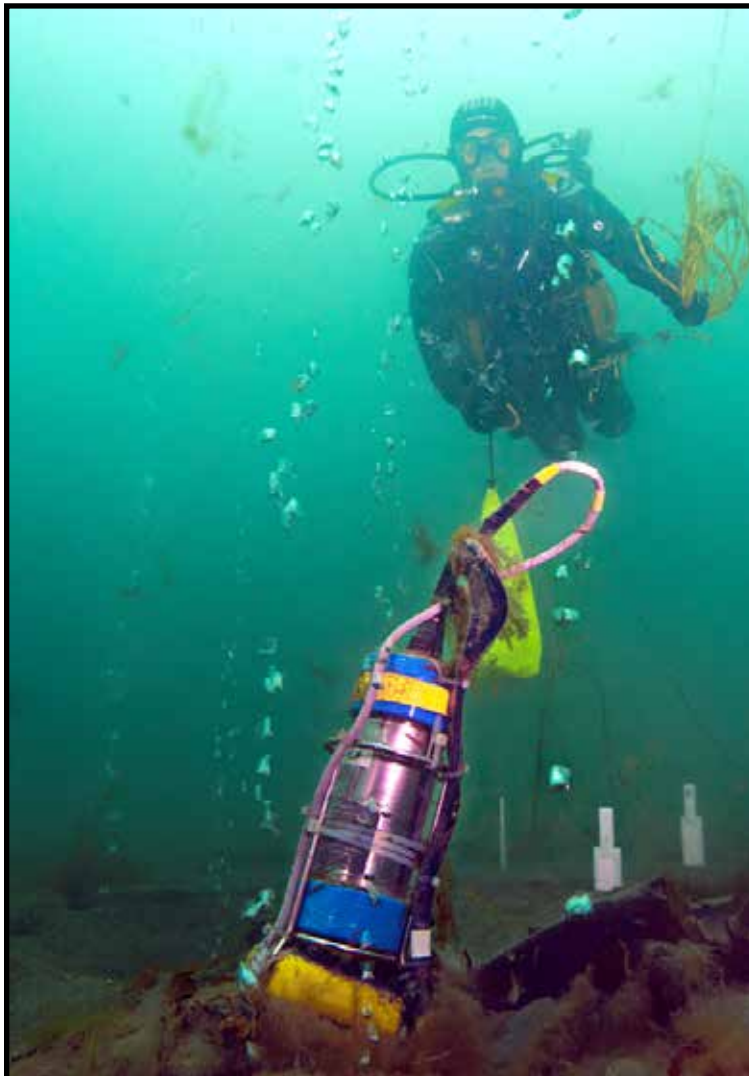
JFD has received an extremely positive response to COBRA following recent seminars and events and has already sold a number of sets globally.



THE UK'S NATIONAL FACILITY FOR SCIENTIFIC DIVING

by Martin Sayer
BSc PhD MAE FSUT
Head of Unit NERC
National Facility for
Scientific Diving

*Accurate
deployment
and retrieval
of equipment
monitoring an
experimental
sub-sediment CO₂
release*



The UK's National Facility for Scientific Diving (NFSD) was established in 2002. Hosted by the Scottish Association for Marine Science (SAMS), the NFSD provides divers, equipment, training and scientific/technical support that underpins a wide range of interdisciplinary research in the underwater environment.

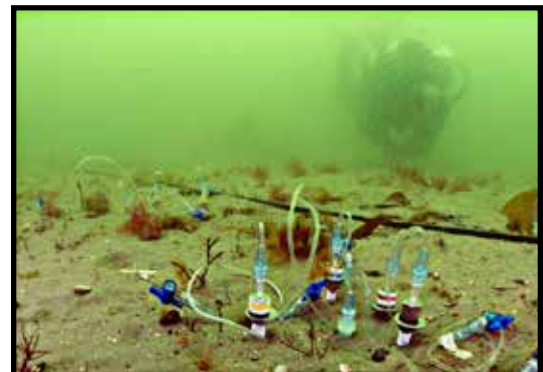
Scientific diving is a research tool that can sustain a wide range of scientific disciplines, particularly in complex environments, and contributes unique multidisciplinary datasets that add value to other ocean observation systems. Since its establishment as a UK National Facility, the NFSD has supported studies investigating topics as diverse as sea-level measurement, water-quality assessment, light measurement, functional ecology, cell biology, animal genomics, paleoclimatology, ocean acidification, biogeochemistry, eco-physiology, habitat mapping and science-based maritime archaeology.

The NFSD also provides training through being both an accredited Health and Safety Executive (HSE) professional diving school, and an accredited Royal Yachting Association



Comparing the temperature measurement performance of dive computers against a CTD

(RYA) small boat teaching facility. Training is only provided to divers and small boat users who are actively engaged in associated research programmes. Access is controlled



Diver-deployed probes used to examine the dynamics of sediment pore water

through a formal application process that is peer-reviewed by the Facility's own Steering Committee, made up of diving professionals and scientific divers.

The value of the Facility to the wider scientific community is measured in many ways, but the main assessment tool is the quality and quantity of research articles that are published based on the science that has been supported by diving. Some recent example of research outputs that have used NFSD support are:



Darling et al., (2016).

The genetic diversity, phylogeography and morphology of Elphidiidae (Foraminifera) in the Northeast Atlantic. *Marine Micropaleontology* 129, 1-23.

Kupper et al (2016).

Arctic marine phytobenthos of northern Baffin Island. *Journal of Phycology* 52, 532-549

Smale et al. (2016).

Linking environmental variables with regional-scale variability in ecological structure and carbon storage function of kelp forests in the United Kingdom. *Marine Ecology Progress Series* 542, 79-95

Wright et al. (2016).

SCUBA divers as oceanographic samplers: the potential of dive computers to augment aquatic temperature monitoring. *Scientific Reports* 6, 30164

In addition to its diving work, the NFSD also currently hosts an NHS-registered



Sampling long-lived bivalve molluscs



NFSD portable diving unit with recompression chamber

recompression facility that provides emergency care for injured divers. The NFSD divers can, therefore, also operate the NFSD portable (containerised) recompression chamber that supports diving operations in remote locations around the world (rated +40 to -40°C).

Scientific Diving in the UK is represented by the UK Scientific Diving Supervisory Committee (SDSC). The NFSD attends meetings of the European Scientific Diving Panel (ESDP) on behalf of the SDSC. One of the aims of the ESDP is to maintain a framework on which scientific diving

competencies recognised in different Member States can be translated easily and effectively in order to facilitate trans-national working. This has been achieved mostly through the adoptions of the European Scientific Diver (ESD) and the Advanced European scientific Diver (AESD) standards.



NFSD divers evaluating the underwater application of LiDAR (Light Detection And Ranging) and fluorometric photography



MARINE GOODS AND DIVING EQUIPMENT

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ALLTAB: UNDERWATER TECH FOR THE 21ST CENTURY

"How come no one has done this before?" is one of the most popular questions that Alleco Products, a Finnish SME founded by professional divers, receives.

Bringing a tablet underwater is the newest and most innovative tool for professional divers available on the market. "Simply put, there is nothing like the Alltab in the global market", claims Dennis Hamro-Drotz, CEO of Alleco Products. "The key value of the Alltab is its simplicity; it works just like a consumer tablet with all features and a working touchscreen – with or without gloves. It meets military standards and requires virtually no training."

Alltab, the world's first underwater tablet with a fully functional touchscreen has seen continuous R&D and product testing, since it was featured in an IDSA article in 2015. R&D activities have been made possible by external funding from EU's Horizon 2020 SME instrument, as well as funding from the Finnish funding agency for



innovation and Alleco's own internal funding. The first commercially sold units have been shipped to selected pilot customers. In comparison to the previous version, the tablet case has been made slimmer and sleeker with improved user interface and hardwired charging, including the possibility for data transfer through a USB port.

For professional divers, the possibility to bring more or less unlimited amounts of data, such as drawings, along under water, as well as connecting external cameras (GoPro's etc) are features that provides new and more efficient ways of working. The powerful Android tablet

computer inside provides the necessary power to run all the necessary software, maps and drawings, in addition to Alleco's own in-house Navigator application and Allure data collection software. Military divers can benefit from the Navigator application which allows the diver to plan routes, mark positions and track movement on the go. The Allure data collection software allows the diver to create custom data forms and sheets before the dive, collect the data with speed and precision underwater and let the software automatically compile the results when the dive is finished and upload it to a server. Alleco staff members, who themselves work with underwater surveys, find this feature extremely useful.

In addition to the tablet and diver specific softwares, the company has also brought to the market a small and portable GPS & internet buoy, called Allhub, that allows for both GPS- and internet connection while underwater - again something unprecedented in the diving community. Customers have also found it very useful to use the tablet as an operating platform for external devices, as it can be connected, without hardwired solutions, through Bluetooth and Wifi, also while underwater, albeit only over short distances.

Currently, the tablet comes in two versions. The Alltab black MilPro model for military and professional customers with 150m depth rating that is sold through Aqua Lung

International, and the blue TechRec model with 90m depth rating. If you have a need for new and innovative tools, and would like to use modern and mobile technology also in your underwater work, these innovations are definitely of interest to you.

For more information about the Alltab and Alleco Products, please contact sales@allecoproducts.fi or visit our website www.allecoproducts.fi



"Fishers make the **most powerful** and ruggedly constructed underwater metal detectors you can own"

-Jack Fisher,
Founder



Fishers Pulse 6X and 8X detectors detect all metals, on land and underwater. Their Diver Mag 1 is a super sensitive detector for iron/steel targets and works above and below water. All are built for commercial operations and have audio and visual readouts.

Interchangeable coils for Pulse 6X & 8X make them extremely versatile.



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KLINGERT DIVES AGAIN IN WROCLAW

by Peter Dick.
Newsletter editor.
An HDS Poland event.

We were in Warsaw eighteen months ago at the diving Museum Nurkowania (<http://www.muzeumnurkowania.pl/>) run by Karina Kowalska of the HDS Poland, who showed us a circular tube made of tin plate. It was not much to look at, but she assured us that it was the base for a re-build of the well-known Klingert diving machine dating from the end of the eighteenth century.

Around six months ago Karina, together with Justyna Wasiak, brought us the Klingert story in a book on his life. The title in English is Karl Heinrich Klingert, Citizen of Wroclaw and it was reviewed in the last issue of the HDTimes.

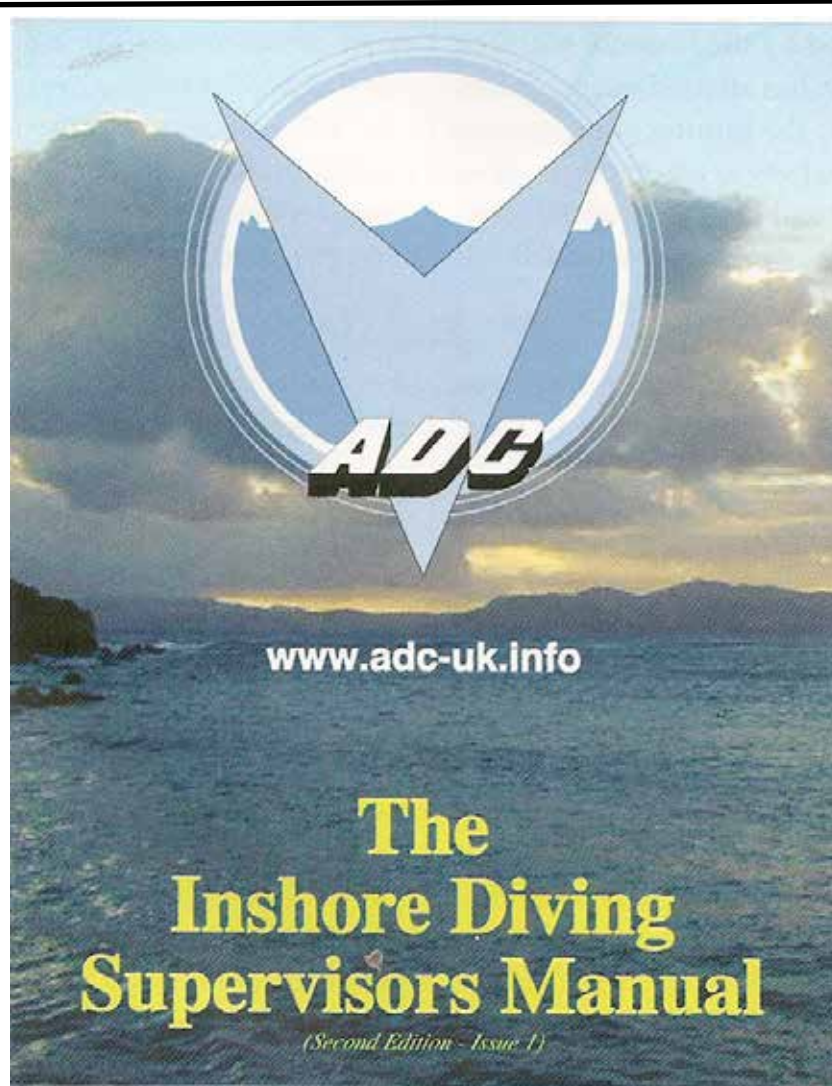
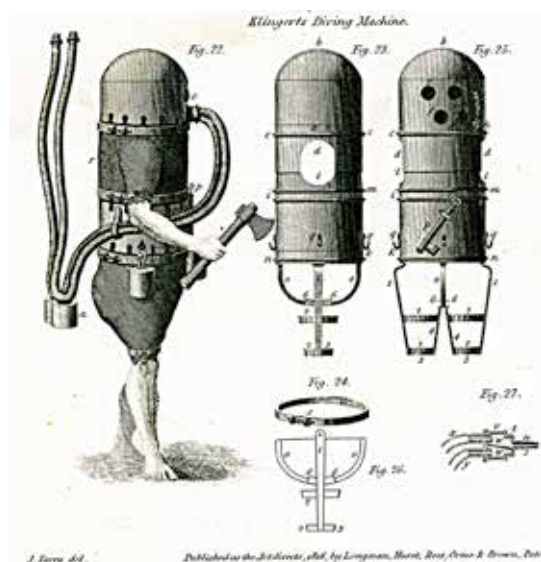
Then, early in 2016, came an invitation to Wroclaw, (better known as Breslau some 200 miles south of Warsaw) as the tube of tin plate had by then evolved into a complete rebuild of Klingert's apparatus which was to be dived, or rather re-dived, in the river Oder.

In Warsaw I was met by Wieslaw Wachowski, Chairman of the HDS Poland, and whisked off to the old town to meet Karina, Philippe Rousseau and Félix Tailliez, grandson of Commandant Tailliez who had been Cousteau's boss in the French navy. Philippe of course is an old friend, and I had first met Félix a few years ago in Marseille at an HDS France meeting where he told me that he



..... Justyna Wasiak helps Gregor Kowalski into the lower part.

was slowly getting his grandfather's papers together with view to publishing them. It would seem that was still an on-going project, but will eventually make a very interesting contribution to 20th century self-contained diving history.



*The top half of
Klingert's equipment
waits patiently
while*

There were a lot of HDS members already there when we arrived in Wroclaw, including a large contingent from the HDS Poland along with the usual band of Czech HDS diehards. Lars Gustaffson and his wife, Bjorn, Vidar Fondevik and his wife Torill, Hauge, and Stein Stavdal Paulsen and his wife Aud were all from HDS Norway and Lothar Seveke from HDS Germany. Lothar, incidentally, is editor of their excellent magazine TauchHistorie. The UK was well



represented with Margaret and Martin Marks, Liz Gibbons and Mike Fardell, Cheryl and Peter Wingett and of course myself as a 'hanger-on'.

The old town of Wroclaw is bordered on one side by the river Oder, and on the other three by stretches of water in the form of moats. It was, in fact, in one of these that the trial of Klingert's machine was to be made.

I had always imagined Klingert's diver as trying the gear in the river Oder with a minimum



*Behind Karina, husband Gregor is already
in the water and slowly submerging.*



THE BERGEN INTERNATIONAL DIVING SEMINAR 2017

Sharing best practice by meeting



The Bergen International Diving Seminar will take place on the 15th and 16th of November 2017 at the Clarion Hotel Bergen Airport. Please make a note in your diary and make sure that you find the time to attend this well established event.

The main topic of the seminar will be 'Smarter solutions to address the industry's future.'

The Program Committee have already started work on a stunning programme in support of the Seminar's slogan 'Sharing best practice by meeting.'

We are looking forward to seeing you this November in Bergen and please do not hesitate to contact us if you have any practical questions regarding the seminar.

The following speakers have already confirmed their participation:

Allen Leat, IMCA Chief Executive.

Øyvind Mikaelsen, Subsea7, Executive Vice-President Commercial

Johan de Bie, IHC Hytech B.V. Managing Director

More speakers will be announced in the next Seminar News

You will find the late dated at: <http://www.nui.no/2017/-2/>

The members of the program committee are:

Cato Hordnes, Statoil (Chair).

Steve Sheppard, Helix.

Øyvind Leonnechen, Technip.

Joar Gangenes, Subsea7.

Rolf Røssland, NUI.





With the top half in place, Gregor is fully 'dressed in' and ready to go.

of fuss and bother, as it may not have worked properly. Let's face it, a re-build was in much the same position, but the diver, who turned out to be Karina's husband Grzegorz (for obvious reasons, I call him Gregor), a Warsaw University professor no less, was not to be afforded that level of privacy. Karina had foreseen something of a problem beforehand, but as a crowd of onlookers gathered, the local fire brigade boat turned up as a safety cover, then a local TV crew arrived and she had to contend with it all.

Look at the illustration of the original of Klingert's apparatus and you will realise that it was not really practical to use leather for the arms and leggings for the rebuild, so neoprene had to suffice. Well, Gregor got as far as putting on the neoprene knee length breeches and lower tin plate half of the dress, held up by braces over his shoulders, when first the radio, then the TV crew cornered him for interviews. From my viewpoint he looked a bit like a half dressed medieval knight just before going into battle.

I must admit that it had previously occurred to me that the trial dive was a very serious undertaking, which was to have Gregor submerge encased in diving equipment designed well over two hundred years ago and breathing while underwater through two tubes. There could be serious consequences if anything went wrong. I do not speak Polish, but from their expressions none of this appears to have registered with the radio or TV crews, for whom this was obviously just another story. To his credit Gregor came across as totally unfazed, a lesson perhaps of how experienced divers can so easily 'rise above it'.

By the time Gregor returned to his dressing-in session, a ladder had been fixed on the sloping river bank, the breathing hoses laid out, stand-by divers were dressed and ready to go, the fire brigade boat had moved in closer

and a dense crowd of onlookers had suddenly gathered. The top part of the dress was now put on over Gregor's head. This consisted of another tin tube, surmounted by the helmet, which slid over the lower one, while leaving the arm holes free. It too used neoprene, as a jacket with short sleeves. The two parts were then held in place with what I thought should have been a giant Jubilee clip, but was in reality was a very long plastic tie-wrap. It is difficult to compare him to a fully dressed standard diver, except to say that he then 'toddled' off to the water's edge, was helped to sit down with his legs in the water and had some weights attached around his waist. He was then ready to go. The big moment had arrived!

At this point Karina was heard to exclaim 'Please don't let my husband drown'. Then he was in the water and there followed a bit of juggling with weights, after which it was



Post dive, something caught their interest. From the right we have your editor, Lars Gustaffson (HDS Sweden), Gregor Kowalska (HDS Poland), Stein Stavdal Paulsen and Vidar Fondevik (HDS Norway).

going, going, and he was gone - underwater. I will not venture to say how deep he went, only that the top of the helmet disappeared from view.

There were two reasonably wide bore hoses (look at the pictures and judge for yourself), one allowing air to freely enter the helmet. Gregor however, held the exhalation pipe in his mouth, a configuration intended to avoid a carbon dioxide build-up in the dress. While still on the surface he could feel the flexible parts of his dress react as he breathed, but once underwater it seems that he became too involved with other things such as his buoyancy to notice anything associated with his breathing. In other words, the breathing system worked quite well. His main problem he said was moving around, as a wet early summer had seen the moat fill up with mud and vegetative debris and he was in it up to his thighs.

Back in the heat on the surface after his dive Gregor had to be the coolest man around, as the show gradually wound down and people drifted off in the mid-day heat to riverside cafes for drinks. That evening we all packed into a very old restaurant in the basement of the Town Hall. There were around forty people present representing eleven countries and after we had been treated to a massive meal of traditional Polish fare, Karina made some presentations which included Mike Fardell receiving a charming wire representation of Klingert's apparatus. This, we hope, will become a centrepiece on the 'high table' at future conference dinners.

Thank you very much Karina, Gregor and Justyna. A personal thank you to Wieslaw, who looked after me very well, and of course the members of the HDS Poland. You were all wonderful hosts and we will have happy memories of Poland and Wroclaw in particular; which as I can now point out on the map.

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.

THE INTERNATIONAL DIVING SCHOOLS ASSOCIATION (IDSA) LIST OF MEMBERS

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Luksia Sukellusala	Level 3	Finland
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Irish Navy Diving School	Level 3	Ireland
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Oceanos Escuela de Buceo Profesional SL	Level 3	Spain
Swedish Armed Forces Diving and Naval Medicine Centre	Level 2	Sweden
Yrgo-Commercial Diving School of Gothenburg	Level 3	Sweden
The Ocean Corporation	TBD	USA

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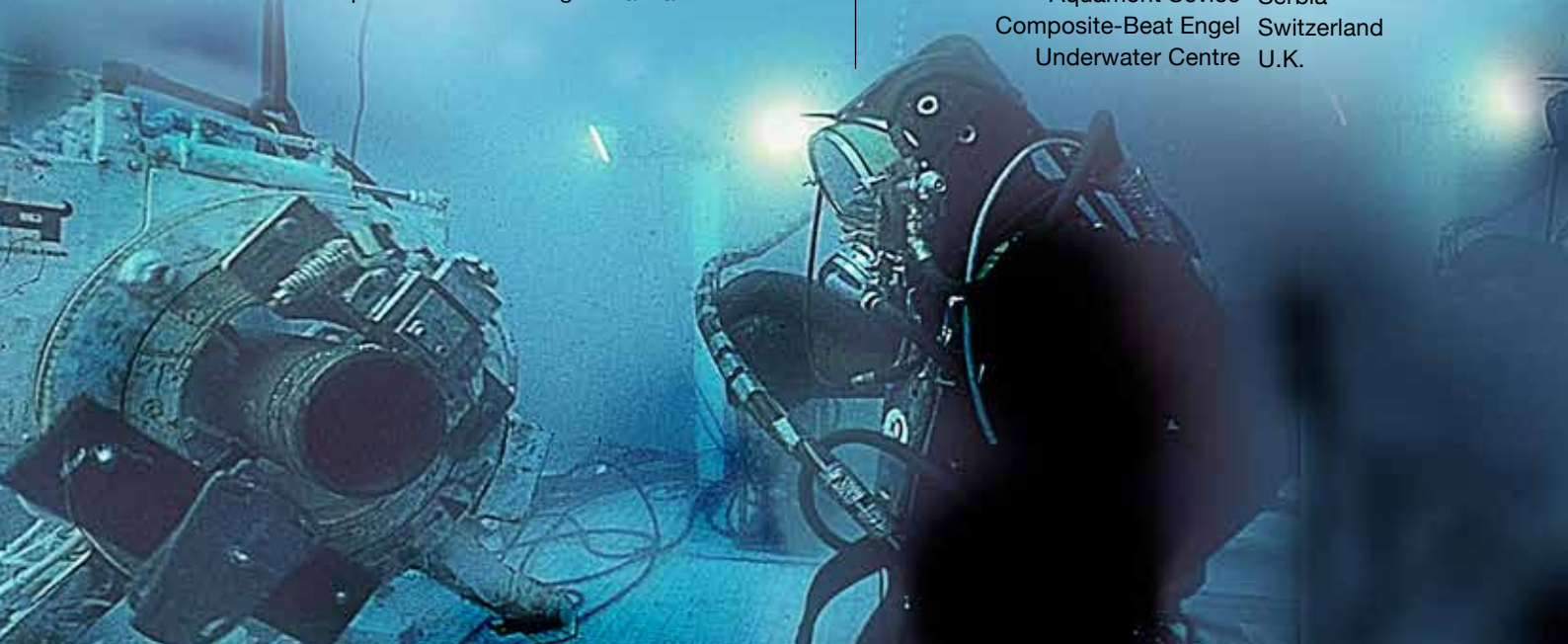
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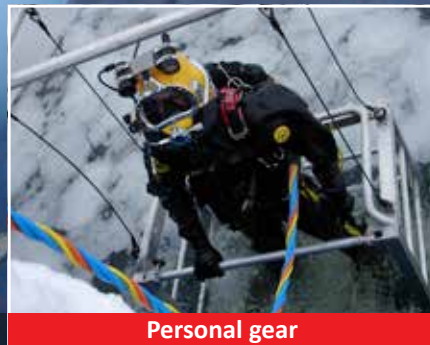
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