MAKING Waves

IMCA

INFORMATION AND INSIGHT FROM THE INTERNATIONAL MARINE CONTRACTORS ASSOCIATION

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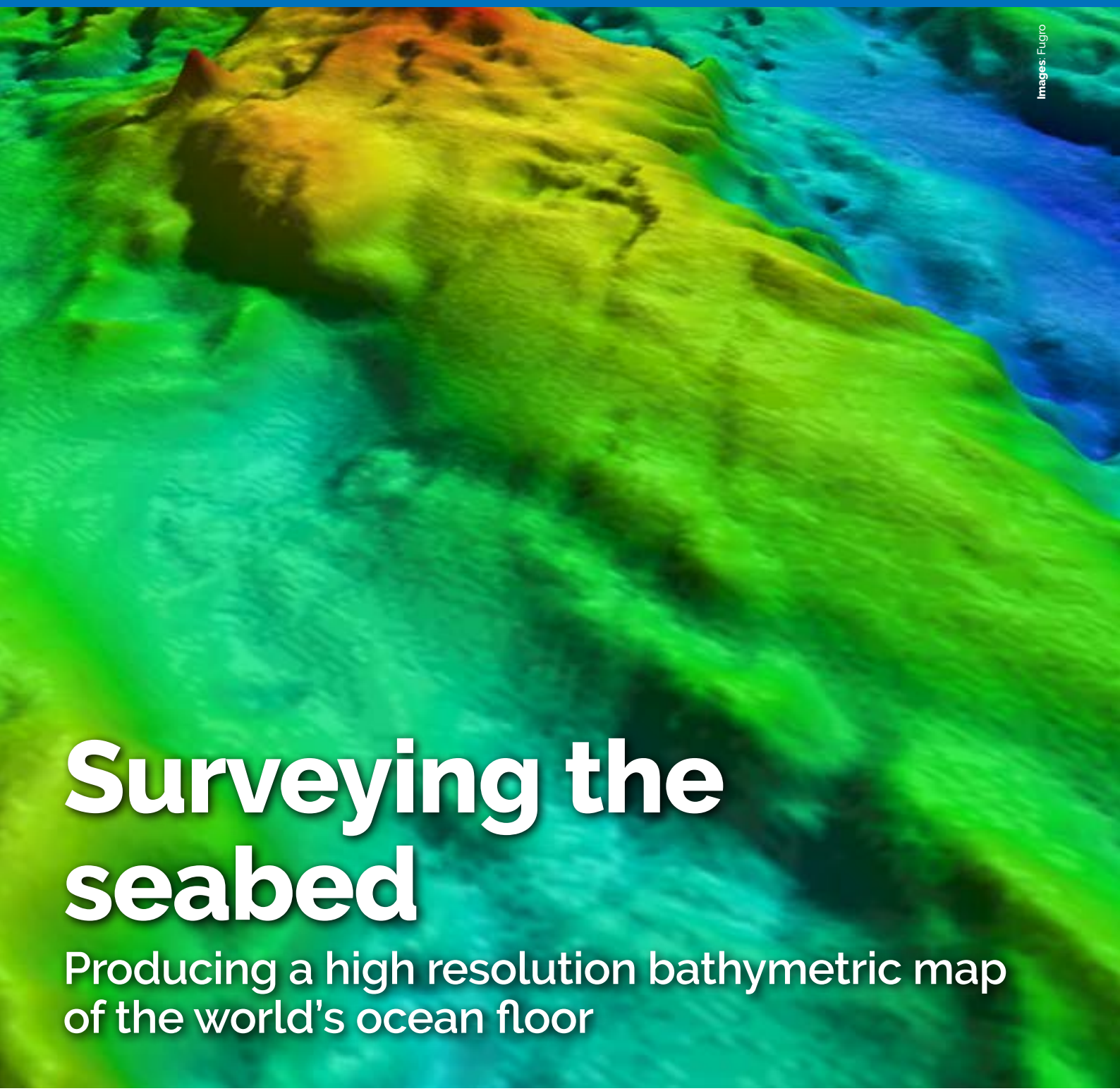

Images: Fugro

Surveying the seabed

Producing a high resolution bathymetric map of the world's ocean floor

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Highlights

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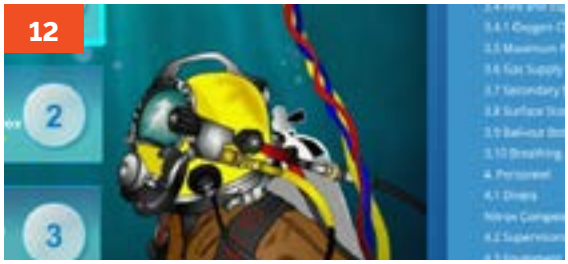

Delivering effective training

eCMID's popularity grows

Remote intervention and technology

IMCA

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Meet the full team at imca-int.com/secretariat

MAKING Waves

Making Waves is published quarterly to promote knowledge of matters affecting the offshore, marine and underwater engineering industry.

The views expressed on these pages are those of their respective authors and do not necessarily reflect the policies or positions of IMCA itself.

Ideas for articles of potential interest to our membership are welcome – please send your contributions and ideas to makingwaves@imca-int.com

Welcome
from the IMCA CEO

Welcome to the April edition of Making Waves. The last three months have been busy for IMCA. Let me mention just three initiatives that are making good progress:

1. In the critical area of commercial diving safety, we have been working with IOGP (International Association of Oil & Gas Producers) to establish an international forum with the following purpose and ambition:

- Bringing leading industry stakeholders together in a non-adversarial, cooperative effort to promote international oil and gas diving safety;
- Providing a specialist forum for discussions, sharing ideas and experiences, and for targeting themes for improving diving safety;
- Facilitating effective communications between the leading oil and gas diving industry stakeholders in order to avoid disagreement or confusion, and to manage any potentially contentious issues;
- Supporting and promoting the leading industry associations in their efforts to develop and maintain appropriate international guidelines for the safe conduct of oil and gas diving operations;
- Supporting leading industry associations in their efforts to develop and maintain a standardised approach to the safe conduct of oil and gas diving operations;
- Facilitating ongoing improvement in international oil and gas diving safety.

We last met with IOGP at the time of the UI Conference in New Orleans, and we hope to continue to make progress during the next quarter to finalise the terms of reference.

2. We have been working with our colleagues at OCIMF (the Oil Companies International Marine Forum) to develop a forum to enable marine contractors to engage with OCIMF and specifically their OVID (Offshore Vessel Inspection Database) system of vessel assurance. We have agreed to establish a joint committee to further the industry's use of the OVID programme and to address issues and challenges with regard to its improvement and implementation. The overall aim will be to improve the efficiency of the vessel assurance process by pooling the knowledge and expertise of oil companies and their marine contractors, while at the same time maintaining the highest standards of vessel assurance and risk management. The first meeting of the committee took place in mid-April with a great spirit of cooperation and purpose; we are looking forward to building this into a long-term working relationship with OCIMF.

3. IMCA is proud of our Consultative Status at the IMO, which is the specialised agency of the United Nations responsible for regulating shipping. IMCA has always taken an active role in the work of the IMO. A critical subject today, which is attracting a lot of attention, concerns greenhouse gas emissions. The IMO strategy in this regard is organised by the highly authoritative Marine Environment Protection Committee. IMCA has been supporting the Committee's work by collecting and analysing data from a sample population of 66 DP vessels operated in 2017 by our board member companies. This exercise has helped considerably to explain in a factual and realistic way the particular power needs and fuel consumption cycles of DP ships, in comparison with the general shipping market. We are hopeful that this work will be useful to the IMO in assessing future fuel efficiency metrics. Details of our paper, submitted with IOGP, can be found on our website.

Lastly, our feature article showcases a fascinating project being led by Fugro in mapping the oceans for the betterment of marine science. Their support to the Nippon Foundation GEBCO Seabed 2030 Project, is a global initiative to produce a definitive, high resolution bathymetric map of the entire world's ocean floor by 2030. This is not a commercial venture and looks to consolidate data from many existing sources plus new sources such as conducting mapping exercises completely automatically when ships are transiting between projects. I am sure that many of IMCA's members will be interested and possibly able to contribute to this cause in the future.

Allen Leatt
IMCA CEO

DIGEST

Published since issue 85:

ALERTS

- Safety flashes 1-8/18 (33 incidents)
- DP event bulletin 1/18 (5 events)

PUBLICATIONS

Revised:

- Dive technician competence and training (IMCA D 001 Rev. 2.1)
- Guidance on competence assurance and assessment: Marine Division (IMCA C 002 Rev. 3)
- Guidance on competence assurance and assessment: Offshore Survey Division (IMCA C 004 Rev. 3)
- Guidance on diving operations in the vicinity of pipelines (IMCA D 006 Rev. 2.1)
- Auditing of IMCA training courses for diving personnel (IMCA D 005 Rev. 1.1)
- Resilience Awareness Programme – Modules 1- 5

BRIEFING

- 2 consultations
- 8 information notes
- 4 regulatory notifications
- 1 statistics

Catch up at any time online:
imca-int.com/digest

Steve Sheppard joins IMCA's Board

Steve Sheppard of Helix Well Ops (U.K.) Ltd has been appointed to IMCA's Governing Board.

Steve is the Diving Manager at Helix Well Ops in Aberdeen, which has been a strong supporter of IMCA over many years. He has extensive industry experience in diving operations and is known as an industry expert in diving health and medical issues.

IMCA's CEO Allen Leatt said: "We are very pleased to have Steve on our Board. He knows IMCA extremely well and is the current Chairman of our Operations Committee and Diving Division Management Committee, as well as the industry's representative on the Diving Medical Advisory Committee. I am sure Steve will serve our Board and our Members' interests very well."

Steve started life as a physiologist, graduating with honours from Aberdeen University in 1981. After graduation, Steve studied at the University of Oxford as a D.Phil student before leaving to work offshore in the life support side of the diving industry with Comex.

After 10 years on a variety of offshore worksites around the world, Steve transferred to onshore operations, first with Norcem Comex Subsea and then with Stena Offshore and its evolution through to what is TechnipFMC today. Steve has been Diving Manager with Helix Well Ops for the last 12 years. He is currently in his second term as Chairman of IMCA's Diving Division Management Committee.

IMCA's MEI Business Development Adviser receives life time achievement award

IMCA's Captain Chris Rodricks was awarded a prestigious Life Time Achievement Award at the Indywood Maritime Excellence Awards. Chris, IMCA's Business Development Adviser for the Middle East & India, was presented with the honour by the principal guest at the event Mohammed Ibrahim Alqahthani of Saudi Aramco.

The Indywood Maritime Excellence Awards are organised in association with the International Maritime Club and are designed to recognise and facilitate efforts made by maritime organisations and personalities towards the development of their sector.

IMCA's CEO, Allen Leatt, said: "We are delighted that Chris has been awarded this richly deserved Life Time Achievement Award.

"As the citation stresses, the Lifetime Achievement Awards recognise the contributions of an individual over the whole of a career, rather than – or in addition to – single contributions."

Chris, who has been involved with the maritime industry since 1971 as a young Cadet, said: "It's a great honour to be presented with this award and I was both surprised and delighted when my name was announced. It was a very proud moment to receive the award for doing something that has given me so much enjoyment for so many years."

IMCA shortlisted for OSJ Europe Award

IMCA members were well represented at the annual Offshore Support Journal Awards held in London on 7 February. Three IMCA members, together with the Association, were shortlisted for the Dynamic Positioning Award. These were:

- Guidance Marine – Cyscan AS
- Kongsberg Maritime – DPS integrated reference solution
- Wärtsilä/GulfMark Offshore – remote-controlled DP trial
- IMCA – consolidated DP guidelines

The award is given to the developer of an innovative DP product or system, or contractor responsible for an especially innovative application of DP on a project. Congratulations go to Kongsberg Maritime for winning the category.

IT team

IMCA has a new IT Services team, providing enhanced support within the Secretariat and to our committees, workgroups and wider membership.

Adam Hugo is our new IT Services Supervisor & Systems Developer. His is a familiar face, having worked for IMCA from 1998 to 2010. Commissioned in 2016 to redevelop our website, Adam stayed to work on other projects then was recruited to this new role. Responsibilities include maintaining and improving the Secretariat's IT network, website development, data services and advanced helpdesk support.

Jordan Lawler joined in December 2017 as our new IT Services Assistant. He provides frontline support for the Secretariat's IT network, online services provided to committee members and for the IMCA eCMID vessel inspection system. Having completed an IT apprenticeship, Jordan brings experience of working for an IT support company, where he gained exposure to a variety of systems and working environments.

Dubai hosts Middle East & India regional meeting

IMCA members from across the Middle East and India came to Dubai for the first of this year's regional meetings.

The well attended meeting at the Jebel Ali Hotel on 17 January was Chaired by Mike Dravitski of Fugro, who introduced the newly formed six-member regional committee.

At the half-day event IMCA CEO Allen Leatt gave an update on the Secretariat's work and on the development of the Resilience Awareness Programme for people working in the marine contracting industry. Delegates recognised that while this is not often discussed, it needs urgent attention by the industry in the current market.

The meeting also included a presentation by Mike Dravitzki on Fugro's recent work to locate the missing Malaysia Airlines flight MH 370.

There were also presentations on diving gases – how they are produced, where they are found, why there are shortages and supply fluctuations; and on the S1-Vasishta project and the challenges of working on the east coast of India.

The meeting concluded with a discussion on how to make members more proactive and contribute to IMCA's work in the region.

Houston hosts North America regional meeting

Around 60 delegates from over two dozen member companies attended IMCA's North America regional meeting in Houston on 1 February in Houston, USA. Blaine Thibodeaux of Fugro, started the meeting by introducing himself as the Chair of the North America region and the other members of the inaugural committee.

As well as receiving an update on the Secretariat's work from Technical Director Richard Benzie, there were three industry presentations.

Laura Stewart of the JFD-National Hyperbaric Centre, presented on hyperbaric evacuations and the advancement of hyperbaric rescue units like the Self Propelled Hyperbaric Lifeboat (SPHL). The primary advantage of an SPHL over a traditional hyperbaric rescue chamber is its ability to move divers to a safe area away from the diving vessel or facility in a pressurised atmosphere.

The second was an informative presentation from Sergio Garcia of DNV-GL on the progress of Data Smart Classification (D-Class).

D-Class is a concept in which offshore industry classification rules incorporate the use of modern and sophisticated technology. This enables the development of new verification tools and methods and a move away from the invasive, calendar-based tools and methods used by the offshore industry today.

Lastly, Eric Roan, IMCA North America Representative provided an update on the progress of the Coast Guard National Offshore Safety Advisory Committee and its subcommittees – Diving, Offshore Supply Vessel, Drilling, and Production.

Book offer

Over the past 20 years or so, IMCA has received legal advice from the international law firm Stephenson Harwood LLP. They provide IMCA with various forms of corporate and commercial advice ranging from constitutional issues, contracts, property etc.

The firm is perhaps better known within our sector of industry for their offshore oil & gas practice, where they are engaged in many contractual and dispute resolution matters – and are no doubt known to many of our Members. Two of the firm's partners, Stuart Beadnall and Simon Moore, have recently published a book called Offshore Construction: Law and Practice.

For those serious professionals engaged in contract management, the book is available via the publisher's website: www.routledge.com/9781138799967 with a 35% discount code OCLP230, valid until 31 August. The authors' royalties from the sales will be donated to a charity, The Mission To Seafarers, which provides help and support to seafarers in distress due to situations such as piracy attacks, shipwrecks and abandonment.

CALENDAR

MAY

22: **CMID AVI Spring 2018 London Seminar**
London, UK

17: HSSE committee
22: Competence & Training cttee
23: Marine Division committee
29: Lifting & Rigging committee

JUNE

26: Offshore Survey committee

JULY

10: ROV committee

SEPTEMBER

27: **IMCA Lifting & Rigging Seminar**
Amsterdam, The Netherlands

OCTOBER

16: **North America region**

NOVEMBER

Look out for information on the **IMCA Annual Seminar 2018**

Key to events shown listed above:

- IMCA events
- IMCA committee meetings
- Supported third-party events

See the latest calendar in full at: **imca-int.com/events**

NEW MEMBERS

IMCA is pleased to welcome the following new members:

- Aberdeen Drilling Consultants
- Ardent
- Ardent - Europe & Africa
- Dive Works Subsea Solutions
- Dynamica Ropes
- Extramare Oy
- GAC Marine LLC
- INEOS E&P A/S
- James Fisher Subtech Group Ltd - Europe & Africa
- James Fisher Subtech Group Ltd - Middle East & India
- MITek
- Ral Offshore Structure Engineering Company
- Sapura Geosurvey Sdn Bhd
- Sodexo SA - Energy & Resources

View the full member directory at **imca-int.com/members**

IMO report

IMCA in climate change discussions at IMO

The IMO fuel oil consumption data collection system became effective on 1 March 2018. It requires owners and operators of ships of 5,000 gross tonnage and above to collect and report data to an IMO database from 2019. The mandatory system is intended to be the start of a three-step process to analyse data collected using transport work proxies to feed in to a policy debate by the IMO Marine Environment Committee (MEPC). This will lead to a final agreement on targets and measures, including an implementation plan in 2023.

In February 2018, IMCA and the International Association of Oil & Gas Producers (IOGP) submitted a paper to MEPC on the difficulties of defining appropriate energy efficiency metrics for Dynamically Positioned (DP) ships to be used at the second stage of data analysis. IMCA collected data from a sample of 66 DP ships. This was used to make recommendations on the applicability of transport work proxies or other metrics.

The research highlighted that the DP ship market was a very small niche with different ways of working to shipping transportation markets. As a result, energy efficiency metrics could not be comparable, and therefore the application of such proxies should not be extended to DP ships. Put simply, the offshore industry will appear to look very inefficient in transport mode at the second stage of data analysis, because it is not a transportation market it is a marine construction market.

"IMO 70: Our Heritage – Better Shipping for a Better Future"

This year IMO celebrates 70 years since the Convention establishing the organisation was adopted. For this reason, the World Maritime Day theme for 2018 is 'IMO 70: Our Heritage – Better Shipping for a Better Future'. The theme prompts the shipping community to reflect on the past, but also to look ahead to address current and future challenges for the industry. IMCA's Policy & Regulatory Affairs Advisor, Eleni Antoniadou, attended the 70th anniversary ceremony on 6 March 2018 at the IMO Headquarters in London.

IMO 70 OUR HERITAGE BETTER SHIPPING FOR A BETTER FUTURE

Update on Offshore Safety Directive review

In March 2018, the European Commission invited member states and the industry to exchange views and experiences on implementing the Offshore Safety Directive at the European Union Offshore Oil and Gas Authorities Group meeting. The Commission is preparing a roadmap to assess the Directive's effectiveness and areas of potential amendments.

IMCA joined with the International Association of Drilling Contractors and the European Community Shipowners' Associations to submit an industry letter on the Directive's review.

IMCA aims to underline the fact that in recent years many operators refrained from their full responsibility by allocating liabilities for pollution and consequential losses to marine contractors. Nevertheless, the licensee/oil companies are the only parties which have the privilege and responsibility for the exploitation of hydrocarbon reserves - not their supply chain contractors – and should remain fully liable.

Freelancers demonstrating their competencies

Contractors are increasingly reliant on freelance personnel. At present, the main tool used to assess their competence is a curriculum vitae (CV, or résumé). This is not always satisfactory and the requirement for freelancers to demonstrate their skills and experiences is becoming increasingly common.

Clients, the oil and gas companies, are driving a change. They want to move away from CVs to the use of competence portfolios. Some contractors also require this as part of their quality assurance systems.

In general, people want to know that those who work alongside them are competent in their work. A competence portfolio would allow individuals to demonstrate to everyone's satisfaction that they are able to carry out and perform required tasks to a given standard.

With this in mind, an IMCA workgroup, initially formed of members of the Offshore Survey Division Management Committee, was convened to develop an easy, cost-effective and measurable way to assess and verify the competence of freelance personnel agency workers and sub-contractors. The work has been developed with the oversight of IMCA's Competence & Training Core Committee and is intended to be applicable to personnel involved in all technical disciplines in which the Association's members operate.

The electronic Personnel Competence Portfolio created, based on IMCA's existing competence framework, consists of an explanatory introduction with examples, FAQs, a customisable Excel spreadsheet, and four additional Word documents which can be used for Observation Records, Questioning Records, Witness Testimonies, and Candidate Testimonies.

The portfolio is intended to be a dynamic document used to record tasks showing the freelancer's different competencies and therefore suitability for a role. The Competence Portfolio, to be rolled out initially in the offshore survey division, before being made available more widely, will provide assurance to the freelancer, the agency, the contractor and their client.

Download the new materials at **imca-int.com/competence**

What should a DP vessel look like following a period of layup?

Delegates at the IMCA Marine Technical Seminar held in Amsterdam in 2017 were asked before and after the event: What should a DP vessel look like following a period of layup?

The result was a little unexpected. Prior to the event 12% answered that the vessel should be in a better condition than when it entered layup. However, when asked after the event, the percentage rose to 31%.

This was an encouraging outlook and led to the IMCA Marine Division Management Committee agreeing to produce a concise note with relevant information to reactivate a DP vessel following a period of layup. This would consist of evidence gathered from the two marine seminars held in 2017 and guidance currently available to the industry.

IMCA Marine Division Management Committee to produce a concise reference note to assist reactivation of a DP vessel following a period of layup

A workgroup has been formed and is due to complete its work in May 2018 and the information note published for members in June 2018.

Accreditation for DP Practitioners

An IMCA workgroup was formed in January by the Marine Division Management Committee to devise a scheme to accredit DP practitioners. The aim is to improve the consistency and conduct of DP trials and to set a minimum level of knowledge for DP subject matter experts.

There are two proposed categorise of accreditation:

1. A company DP authority: A person who provides advice on DP assurance processes and who is typically employed by a DP vessel operator or a DP vessel chartering company (i.e. the client)
2. A DP trials and assurance practitioner: A person actively involved in performing DP FMEAs, FMEA proving trials and DP annual trials.

The scheme is likely to have three key elements:

1. An initial desk top assessment of the applicant's certification, qualifications, experience and knowledge
2. A method to confirm suitability for accreditation
3. Ongoing knowledge retention and development via a structured Continuous Professional Development programme.

The first meeting of the workgroup was held in January 2018. Detailed proposals of the proposed scheme are to be presented to the Marine Division Management Committee at their meeting in November 2018.

DP station keeping event reporting rises

Reporting of DP station keeping events by IMCA members increased by 25% during 2017. This is hugely encouraging with reports received from 75 separate vessels. Certificate of participation and industry leadership were issued to 34 IMCA members.

The following were reported in the year:

- 17 DP incidents
- 56 DP undesired events
- 25 DP observations.

This equates to 17.3% of reports being DP incidents and therefore resulting in the loss of DP capability.

Over the past three years the trend is positive: in 2015 the percentage was 25% and in 2016 23.1%.

IMCA will continue to promote the reporting scheme, hence providing the industry with useful feedback to maintain safe and efficient DP operations.

Definitions

- DP Incident: A major system failure, environmental or human factor which has resulted in loss of DP capability
- DP Undesired Event: A system failure, environmental or human factor which has caused a loss of redundancy and/or compromised DP capability
- DP Observation: An event that has not resulted in a loss of redundancy or compromised DP operational capability but is still deemed worthy of sharing.

New Marine Renewable Energy Committee sets its objectives

IMCA's newly formed Marine Renewable Energy Committee met for the first time in January 2018 chaired by Alan MacLeay of Subsea 7. The committee set the following five objectives for 2018:

1. Produce three relevant toolbox talk guidelines for marine operations in the offshore renewable energy sector
2. Develop an IMCA presentation covering the requirements for standardised boat landings and gangway landing areas
3. Produce three safety alert/bulletins, the first could cover unexploded ordinance
4. Provide appropriate guidance on the use of immersion suits
5. Plan for an IMCA technical seminar in 2019 to highlight the work of the committee during 2018.

Further details are available in the minutes of meetings available on the IMCA website.

Seabed 2030: Fugro urges IMCA's Offshore Survey members to become involved

Much less than 20 percent of the world's oceans are mapped using modern survey techniques; by 2030 the aim is to have a definitive, high resolution bathymetric map of the entire world's ocean floor

Fugro is leading the marine survey industry in support of the NF-GEBCO Seabed 2030 Project, a global initiative to produce a definitive, high resolution bathymetric map of the entire world's ocean floor by the year 2030. The initiative is facilitated by the General Bathymetric Chart of the Oceans (GEBCO) project in partnership with The Nippon Foundation (NF) as a means to inform global policy, improve sustainable use and advance scientific research.

Currently much less than 20 percent of the world's oceans are mapped using modern survey techniques. David Millar, Fugro's government accounts director in the Americas explains, "Fugro is in a position to help close this data gap, and we are committed to doing our part through the Seabed 2030 project. Fugro operates on and in the world's oceans on a daily basis and supporting Seabed 2030 was an easy decision to make."

Crowd sourced bathymetry is one of the main ways Fugro is participating in the project. In 2017, the company devised a methodology to collect high resolution bathymetry datasets while its survey vessels transit between projects. Thanks to innovations in its technology platform, these ships are able to collect data without dedicated staff on board. Around 65,000km² of data has been collected to date, and Fugro has just doubled the number of vessels working on the project to four. The company plans eventually to roll out the approach to its entire deepwater global survey fleet.

Fugro is also working with its clients to investigate how proprietary data might be shared with the scientific community for the benefit of humankind. It is recognised that some datasets contain sensitive information. In such cases, the integrity of client-owned data can be protected by reducing the resolution of the datasets and/or delaying their release until sensitives are removed.

Image: The Nippon Foundation/GEBCO

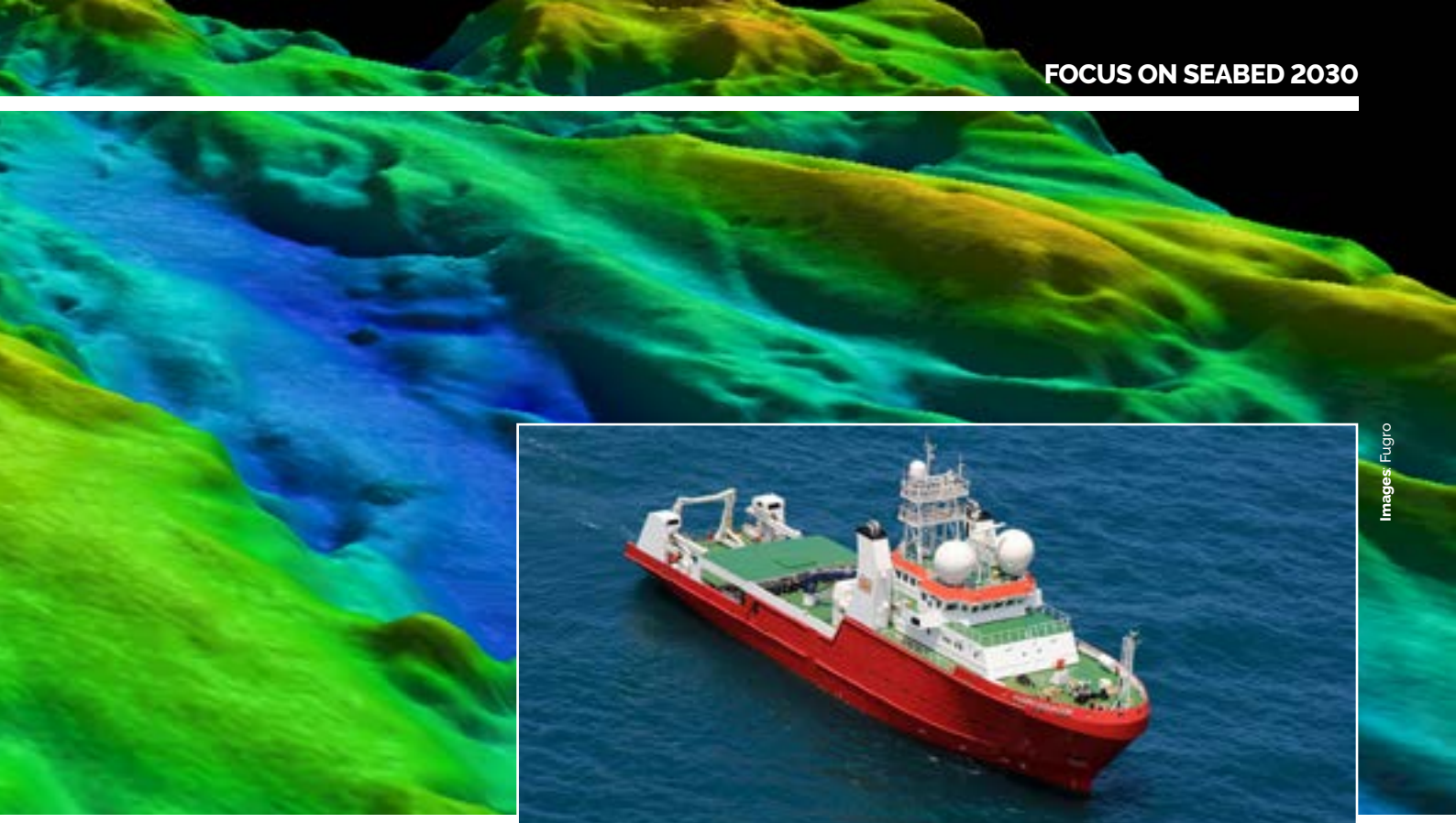
David Millar, Fugro Government Accounts Director, Americas, speaking on the importance of sharing data to create a culture of international cooperation

Urging others to get similarly involved

As an International Contractor (ICo) member of IMCA, Fugro is demonstrating its global presence, and commitment and involvement with IMCA, by urging others with offshore survey expertise to get similarly involved – there are some 175 members of the IMCA Offshore Survey Division. "We are proud to lead industry participation in this way," says David Millar. "Seabed 2030 provides a perfect opportunity for us to contribute to global society and practice good ocean stewardship." Any IMCA member whose vessels are equipped with echosounder systems—whether for survey or navigation—are in a position to contribute.

As he said at the recent NF-GEBCO Seabed 2030 Project press conference in Tokyo, "It is our sincere hope that our actions will inspire and motivate other socially responsible ocean and maritime corporations to take similar steps. Maybe we can convince our submarine telecommunication customers to donate bathymetry data from their cable route surveys ..... Maybe we can convince our oil and gas customers to donate bathymetry data from exploration seep surveys .... Maybe other survey companies will make similar commitments to discuss the donation of privately-held data with their customers and donate bathymetry data from their vessel transits."

Along with its data contribution and data brokering efforts, Fugro is helping to establish a workflow for integrating third party datasets in the overall Seabed 2030 database. This process will address such things as data formats and



Images: Fugro

In 2017 Fugro delivered approx 65,000 km² of bathymetry data to the Seabed 2030 project, collected from two of its survey vessels, including Fugro Equator

metadata stands, with the goal of simplifying and accelerating the rate of crowd sourced contributions and data sharing arrangements.

So far 28 international organisations are participating in and supporting Seabed 2030, whose networks now extend across almost 50 countries. But, as Seabed 2030's Project Director Satinder Bindra explains, "We need to exponentially scale up this international cooperation. Working seamlessly and constructively with policy makers, research and academic institutions, civil society and marine industries is mission critical. Companies that share data with Seabed 2030 will be issued a special commendation, be invited to our key forums and will become key stakeholders in the project. Their contribution will ensure we can collectively support the United Nations' Sustainable Development Goal #14 'to conserve and sustainably use the oceans, seas and marine resources for sustainable development'."

Fugro's own Seabed 2030 involvement dates back more than 18 months to the programme's initial stages, starting with participation in the 'Mapping the Ocean Floor' panel at the Forum for Future Ocean Floor Mapping, and followed by industry input to the Seabed 2030 Road Map and membership on the Seabed 2030 Establishment Team.

Image: Fugro

Fugro collects multibeam echosounder data from specialist equipment housed in a gondola platform mounted beneath the hull of survey vessel Fugro Equator

Topically the GEBCO-Nippon Foundation Alumni Team, heard early in March that they had progressed to the final round of the Shell Ocean Discovery XPRIZE. Their concept involves a Kongsberg Hugin AUV supported by the SEA-KIT™ unmanned surface vessel, USV Maxlimer, which allows high-resolution bathymetry and imagery data to be collected remotely. The announcement came just two weeks after the NF-GEBCO Seabed 2030 Project became officially operational on 20 February.

IMCA members get involved in IMO discussions

The beginning of 2018 marked an important milestone for IMCA's work at the International Maritime Organisation (IMO). Two members, the Chair and Vice-Chair of the Marine Policy and Regulatory Committee, attended and participated in IMO meetings.

Peter McCombie of TechnipFMC offered insightful technical comments during the industrial personnel discussions at the Ship Design and Construction (SDC) Sub-Committee.

Kyle Pemberton, of McDermott International, contributed to IMCA's engagement with the Pollution Prevention and Response (PPR) Sub-Committee.

Kyle is a vessel manager at McDermott International, responsible for the marine, technical and budgetary management of two vessels. Below, he gives us his insight to some of the issues the IMO is deliberating and what they might mean to IMCA members.

IMCA's Policy & Regulatory Advisor Eleni Antoniadou with McDermott International's Kyle Pemberton at the IMO

The IMO PPR's fifth session recently recommended a ban on ships carrying non-compliant marine fuels, to simplify the enforcement of the 0.5% global marine sulphur cap in 2020. What could be the implications of such a ban for the offshore industry?

Kyle: Most of the offshore fleet already use Low-Sulphur Marine Gas Oil (LSMGO) and shall continue to comply with the new regulations. However, non-offshore, i.e. conventional shipping, vessels, which enjoy the use of heavy fuel oil for international voyages may have compatibility issues using LSMGO. It is likely that the implementation will be laced with some trial and error for these ship owners, as they strive to meet the sulphur cap regulation. Modifications may be required to be made to their equipment with the engagement of engine manufacturers to meet the deadline.

For the offshore fleet, the concerns are different; it's more about supply chain disruption. The sudden massive demand for compliant fuel from the maritime industry will give fuel suppliers the problem of meeting greater demand.

In this scenario the market will not be able to keep up with industry demand and shortages may be created in the Supply Chain. At this point, owners are left with the dilemma of seeking a limited supply of compliant fuel. In this the case, owners and operators may be exposed to penalties for not having compliant fuel. To date, there is no guide for owners/ operators, and Flag/ Port states in how to handle such a situation. The offshore industry shares the burden of this risk, as there is no legal certainty regarding protection to cover scenarios where compliant fuels are not available on the market.

As the implementation deadline draws closer, but the availability of compliant fuels remains uncertain, do you think that IMO's guidelines for consistent implementation of the 2020 sulphur cap offer sufficient support and guidance to the industry?

Kyle: The IMO adopted the regulation in 2008. In October 2016, it was decided that the implementation date should apply from 1 January 2020. The PPR Sub-Committee believes

that inconsistencies in the implementation of compliant fuels can cause disruptions to the supply chain of marine fuels. The Sub-Committee met in February and proposed a scope of work for a transitional plan with a roadmap to becoming sulphur compliant.

It is understood that the roadmap includes requirements for the cleaning of tanks and fuel systems by certain periods. While this is the right approach moving forward, some vessels may face an inevitable task of modifying their systems to comply. One can only envisage that this will impact on an organisation's capital expenditure.

It is therefore prudent that such concerns are brought to light and that there is sensitivity to the impact on budgets. Moreover, PPR guidelines will be required to introduce controls for Port State bodies to adopt approaches to deal with non-compliance and with in-use fuel oil samples. The concern here is whether (or not) the shortage of fuel is a causal factor leading to non-compliance is documented.

PPR 5 discussed also the need to seek uniformity and clarity in fuel oil sample testing and verification. Do you believe that the draft amendments to MARPOL Annex VI on testing and verification procedure of in-use fuel samples was a step forward on behalf of IMO?

Kyle: The testing and verification of in-use fuel sample points received wide support from various delegations within the PPR Sub-Committee. MARPOL Annex VI, Regulation 14, is the first level of control from non-compliance to ensure that bunkered fuel is compliant. Once onboard, it is the responsibility of the owner/operator to ensure that the loading of the fuel does not get contaminated with high sulphur fuels. The IMO's MEPC.1/Circ. 864 guidelines for onboard sampling for the verification of the sulphur content of fuel oil provides the position of the sampling point; taking into consideration its ease of access, various fuel oil grades for combustion, position in relation to the service tank and the equipment. The proximity to the equipment however, shall account for the flow rate, temperature, type of oil and the pre-pressure. Moreover, IMO addresses the safety aspect by including guidance on the position of the point in relation to heated surfaces and electrical equipment, as well as the proper drainage of holding facilities.

Many Port States are already sampling in-use fuel for vessels. Hence, it is prudent that a standard or industry practice is ascertained. It is a good move for IMO to set up the infrastructure to handle fuel oil sampling for in-use fuels as it guarantees a uniform and consistent approach to discerning the in-use fuel. This initiative also eliminates the ambiguity and the possible incorrect analysis of in-use fuels.

The mandatory ban on non-compliant fuels, will spur interest of more organisations in the way of the in-use fuel oils and their sulphur content.

The Amazon. Kyle Pemberton is a vessel manager at McDermott International

Image: McDermott International

Is training being delivered effectively?

Darren Brunton, Managing Director of KBA Training, considers the value of training and how it is delivered

Career development must be about more than simply attending an occasional training course and being issued with a certificate. For individuals, it should be about continuous personal and professional development. It is important for companies to continuously invest in the training and development of their staff in order to promote organisational growth and achieve high-quality outputs. Workers themselves must be ready to embrace training opportunities and reap the rewards that a commitment to lifelong learning can bring. Those with the right mindset – those who are willing to embark on a lifelong journey of skills upgrading – are the ones who will rise within their organisations and prosper in their careers.

Training methods in the offshore diving and ROV industry have long been staid and old-fashioned. Classroom based "chalk and talk", and more recently PowerPoint slides, have been the mainstay of training courses. There has been a lack of novel and informed educational thinking. The attitude of offshore industry educators has most often been "this is how we have always done training, so what's wrong?". In truth, our industry has been slow to look at ways of establishing more effective and interactive training methods capable of meeting the needs of the offshore industry now and in the future.

Traditionally, many marine contracting companies have looked at training and certification as a cost, without appreciating the wider benefits that well-selected high-quality training can bring to them and to their employees e.g. a more competent and a safer workforce, access to better career opportunities, increased remuneration, and access to alternative career paths.

Preparing for the pick-up

During the recent downturn, many clients and contractors have frozen or reduced training budgets. However, when the industry picks-up, and for some that is now, the expectation will be that they have a trained and competent workforce. While a handful of organisations and individuals have had the foresight to continue investing in training and development during the downturn, many have not. A minority will be ready for when the upturn comes.

For a lifelong commitment to learning, individuals and organisations need to look beyond the bare upfront cost of training. An appropriate approach to the management of training should be adopted. Such an approach should address the following questions. What are the training needs/priorities of the organisation/individual? What should be gained from the proposed training? What training methods should be chosen for the best outcome? Will training be delivered in a suitable mode? Is the course interactive, with practical or simulated scenarios and not just 'chalk and talk'? Are the training providers and their trainers experienced and competent educators able to offer the right learning environment? Finally, what will be the return on investment – how will you check that the training has worked?

A modern approach to training

The offshore industry can modernise its approach to training. IMCA courses, as an example, involve considerable classroom attendance requirements, yet in today's learning world much of this classroom content could be delivered using an online Learning Management System (LMS) with technical, interactive modes of training and learning. Training can be made available 24/7, with the mindset of lifelong learning being "anytime and anywhere". Using such training and learning techniques will enhance the competence of the workforce and better engage learners.

Certain training methods have built-in means of testing learners during the course of their training to ensure that they have completed and understood the course content. In some cases, it is possible to document and demonstrate that learners have implemented what they have learned correctly by recording their actions on the worksite. This completes a 360° circle of learning, implementation and validation.

IMCA's recognised and approved courses are essential to 'life support' and critical to ensuring a safe working environment. For example, a trained Diver Medic is expected to be able to treat an injured person and perhaps save that person's life. Therefore, it is not advocated that the requirement for classroom attendance should be totally removed from IMCA courses. Face-

Images: KBA Training

to-face interaction remains an important element of training, but having a system of online prior learning that can be completed before attending a course could well reduce the length of the attendance period and allow trainers to focus more on the practical elements of the training during the attendance phase itself.

The overall result should be a better learning experience for the student and a more competent individual at the end of the training. Another major advantage of utilising an online LMS is that, following their initial training, it should also be possible for learners to revisit the online LMS to refresh their knowledge and stay updated with current information and techniques.

One question we are often asked is, "if we study online and only have to attend the classroom for three days instead of five days, will the course fee be reduced?". In fact the saving is in the attendance time. Travel time, time away from home or work, accommodation and general expenses – all of these are costly. The training providers still provide the training venue, enhanced simulators and/or practical training. They will also have invested in an LMS capable of providing lifelong learning support. The return on investment for such modes of training will continue to grow as the industry recovers and the requirement for appropriately trained, certified and competent personnel increases.

Image: SolstadFarstad

SolstadFarstad's Normand Maximus

eCMID's popularity grows

Over 2,300 vessels listed on the eCMID database

There has been a marked increase in the use of IMCA's eCMID inspection scheme for offshore vessels that benefit from an independent International Safety Management health check.

Over 2,300 vessels from more than 1,000 owners and operators are now listed on the eCMID database, which is consulted by more than 3,800 users each year. Inspections are undertaken by almost 400 Accredited Vessel Inspectors (AVIs) – and this number is rapidly expanding under the AVI eCMID scheme run by the International Institute of Marine Surveying.

To manage the increase in use and enable enhancements to the eCMID website and software, IMCA is to introduce a nominal charge for each eCMID report uploaded by an AVI from 18 June 2018. This will also enable IMCA to respond to feedback from stakeholders on, for example, the use of non-Windows platforms, further website and software developments, and to expand the user helpdesk.

The additional features to the eCMID scheme will enable IMCA to develop better performance and safety outcomes for vessel operators and owners.

eCMID has served the offshore oil and gas and renewable energy industries well since 1999. It provides shipowners with a practical overview of how effectively their safety management system is being applied on their vessels, with the understanding it has been carried out by an AVI.

SolstadFarstad has decided to include its whole fleet in IMCA`s eCMID database. Tor Johan Tveit, Operations Director AHTS/PSV Strategic Regions, for SolstadFarstad said:

"One of the main reasons for taking this decision is to have a common platform where we can administer the data of our vessels and to verify accuracy. We see the benefit of controlling the input, which again makes it easier for the Accredited Vessel Inspector (AVI) when going onboard to perform the inspection. This allows more time for the AVI to focus on the inspection and less time searching for vessel specifications.

"SolstadFarstad believes that the quality of the inspection will be of a higher standard due to this simplification of the inspection regime. A high focus throughout the Company going through such an extensive merger is to search for ways to standardise, simplify and look for good working platforms. We have concluded that eCMID gives us this. We also believe that this can reduce the number of inspections, which is welcome both for the personnel offshore and the onshore organisation. Lastly, an overview of inspections carried out throughout the fleet gives us a good working platform in order to easily extract the needed report or to analyse data."

The eCMID database is at **imcaecmid.com a**nd further information on the AVI scheme is at **emidvesselinspectors.com**

IMCA recognition of ADCI surface supplied diving qualifications with International Endorsement

IMCA now recognises the new Association of Diving Contractors International (ADCI) qualifications marked with the International Endorsement with immediate effect. The newly recognised qualifications can be found in the recently issued IMCA D 01/18 Diver and Diving Supervisor Certification and are:

- ADCI Entry Level Diver/Tender – International Endorsement
- ADCI Surface-Supplied Air Diver – International Endorsement
- ADCI Surface-Supplied Mixed Gas Diver (HEO2)– International Endorsement.

No other ADCI surface-supplied or mixed gas qualifications are recognised by IMCA.

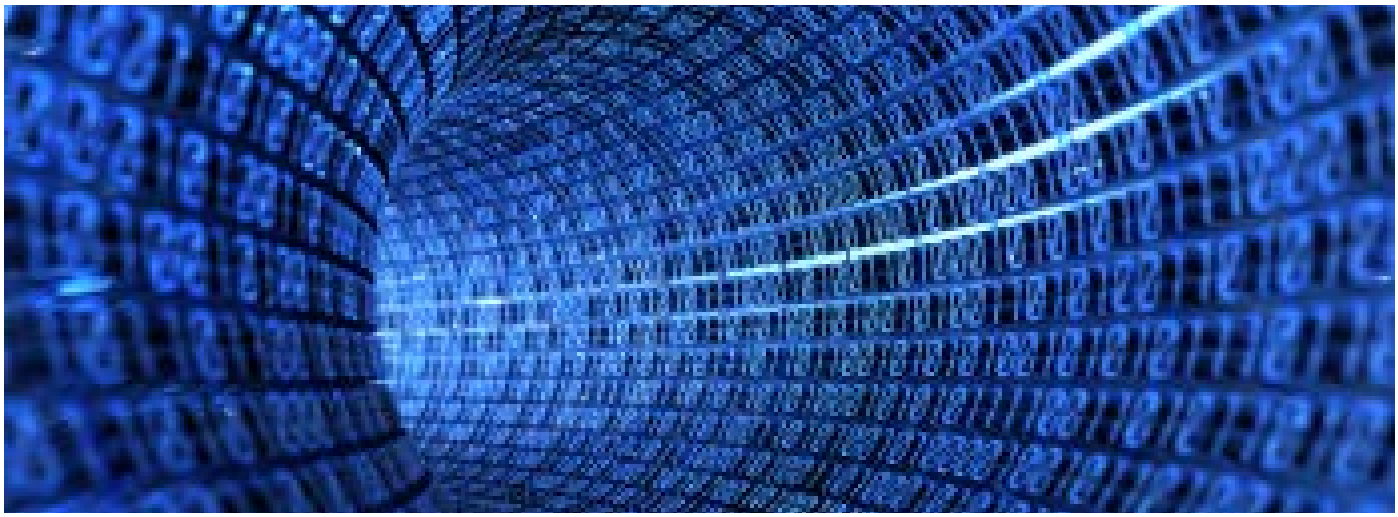
IMCA is pleased to have worked with ADCI over the past year to resolve differences in the surface supplied training standards between ADCI and IMCA members' requirements. Divers holding the new ADCI internationally endorsed certificates can now embark directly onto the IMCA Supervisor scheme.

The new qualifications will benefit IMCA's US members, and also the Association's world-wide membership. This initiative has opened the door to further potential collaboration in other areas of mutual interest with ADCI in the future.

New lifting guidelines

The Diving Division is pleased to advise members that a revised version of IMCA's core lifting and rigging guidance document - Guidelines for lifting operations – (IMCA LR 006) has now been published. The revised document contains a considerable amount of new guidance aimed specifically at lifting operations involving divers, including advice on:

- the safe positioning of divers during subsea lifting operations;
- the use of planned stop points when lowering/lifting objects to/from the seabed;
- the appropriate use of certain selectable crane and winch modes during lifting operations involving divers;
- diver handling of lifted objects underwater.



A basic understanding for a complex future

JG Duncan, Remote Intervention Service Manager at TechnipFMC and Chairman of IMCA's ROV Committee, looks at the future of Remote Intervention

In the world of Remote Intervention, technology will change all of our working lives, offshore and onshore.

At a recent ROV seminar a colleague quipped "in a few years there will be no ROV pilots, surveyors, mariners or engineers; only clever digitally enhanced bespoke artificial intelligence". A sobering thought? For me, no – just a realisation that technological advance is continuous and never-ending.

Digitisation is the new normal: for the generations to come, it will be an industry of baffling and wonderful complexity based on 0s and 1s. There will be automated vessels, ROVs, AUVs gathering data seamlessly, quietly, remotely, and in an unobtrusive and environmentally acceptable manner.

The skills and competencies of the coming generation, growing up as they have in the on-line world, will be very different from ours. A large digital library of facts to assist them is very useful. Which will prevail: human, remote or artificial intelligence intervention?

In the medium term, all three. However, knowing about data still requires something far more basic - understanding. It's still necessary to have the knowledge to understand what the facts are, how the 0s and 1s can be interpreted, how data can be best used.

As ROV operators, to fully know and understand our operations, we need to remember a huge array of facts. Data alone is not enough: facts and information are not the same thing. We must have an understanding of what the data means. The next generation of remote intervention pilots and engineers will still need an underpinning of basic intelligence gathering skills – reading, writing, maths and science – in order to be able to make the correct technology judgements and decisions for the future.

Yes, technology may change rapidly, but an understanding of the facts underlying our operations will still be very important.

The role of IMCA's ROV division

Competitive market economics continues to encourage a drive for more efficiency. This happens through standardisation, through collaboration between educational establishments and industry, and through the development of smarter technologies.

What then is the role of IMCA's ROV Division Management Committee?

The Committee is there to ensure that the offshore intervention industry still has the best possible sounding board available. We should understand that change is inevitable, and ensure that our guidance documents continue to reflect that change.

Keeping up with technology and continuing to interface with regional educational establishments and schools, helps to bring a focus to the help we can offer future generations. Local engagement is key. All major industry operators sponsor schools, and spend time and effort to actively engage with the next generation of operators and engineers in local schools, colleges and universities. It's important that IMCA supports and encourages this process.

Over many years, IMCA has developed a stable foundation for industry alignment, setting baselines in competence and training, in safety, and working towards building and sharing industry knowledge and good practice. It is our collective responsibility to continue to learn and to continue to build knowledge for our future.

Re-tuning the IMO Diving Instruments

IMCA and the International Association of Oil & Gas Producers (IOGP) have jointly put forward a proposal to the International Maritime Organisation (IMO) for the revision of its two diving instruments: resolution A.831(19) the Code of Safety for Diving Systems and resolution A.692(17) Guidelines and specifications for hyperbaric evacuation systems.

When the IMO instruments were first developed, they successfully helped to address international offshore diving system safety issues at the time. However, the Code has not been revised since 1995, and the Guidelines have not been revised since 1991. This has led to omissions and obsolescence in the current documents in comparison with contemporary industry guidance.

IMCA and IOGP have jointly submitted two papers to IMO outlining why industry believes the work of revising the two diving resolutions should be placed on the IMO agenda for the next two years. IMCA's Senior Diving Technical Adviser Bryan McGlincy and IOGP Diving Operations Subcommittee Chairman Rick Taylor, also presented the case for revision to a plenary session of the IMO Ship Systems and Equipment Subcommittee in March.

A decision from IMO is expected by the end of May. If the work goes ahead, the earliest possible date for completion will be 2020.