

Building resilience

The background of the cover features silhouettes of several workers in hard hats and safety gear, standing on a platform with railings, looking out towards the sea. One worker on the left is wearing a bright yellow safety vest.

Industry response for a personal resilience awareness programme

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

MAKING Waves

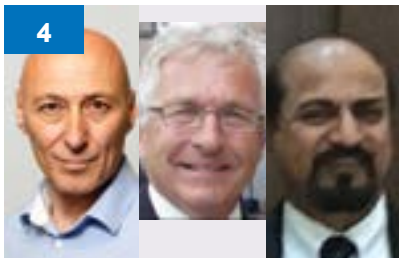
Making Waves is published quarterly to promote knowledge of matters affecting the offshore, marine and underwater engineering industry.

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

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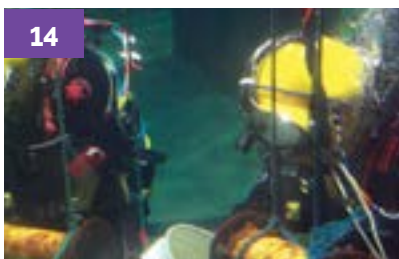
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Welcome from the IMCA CEO



Welcome to the January 2018 edition of Making Waves. Our main feature this month looks at our industry's response in developing a personal resilience awareness programme. Shell initiated the concept in 2017, as a pragmatic recognition of the potential impact on people as a result of the restructuring and uncertainty which the oil and gas industry has been enduring. The materials from this initiative provided the framework for the development of the IMCA awareness programme.

Put bluntly, concerns over employment prospects have never been far from the surface in anyone's mind recently. The hypothesis is that these additional pressures and anxieties can impact individual health, safety and operational effectiveness. Consequently, developing our personal resilience through awareness and discussion can better help us manage stress and make better-quality decisions.

Resilience allows us to respond more effectively, and bounce back quickly when things go wrong. Successful sportsmen and sportswomen practise and develop their mental strength and toughness, as well as their physical strength and skills, thereby growing their physical and mental resilience.

Tailored for our members

The IMCA resilience awareness programme has been tailored specifically for the marine contracting industry. This gives us an efficient and consistent product targeted at our sector. Subsea 7 took the lead on its development, and it was quickly agreed by our Board to be an IMCA branded product made available to the whole industry.

This is a great example where IMCA can step in to promote and develop a project of common interest for our membership. The programme

comprises a number of modules which are video based, where crews can participate in teams and discuss the issues in an open and frank way. Video filming has taken place on Subsea 7 and Heerema Marine Contractors' vessels and yards, and we thank these companies for their leadership on this project. When complete, all the materials will be freely available on our website.

New faces and new work streams

The pace of work of IMCA is very strong with plenty of initiatives ongoing in addition to our usual workload. Like every company in our industry we have adjusted our workforce in recent years, but we are now in the process of building the team in line with our strategy. In the Diving Division Tim Helsdon and Kester Keighley are newly onboard, in the area of client engagement David Bloom and Chris Rodricks have joined us, and Achilleas Georgiou has recently joined as Head of Communications. This rebuilding will continue in other critical business areas, but be assured we are prudently managed and will always focus on efficiency and value for money for our Members.

Our research into the three new strategic themes of Standardisation, Digitalisation, and Environmental Sustainability is proceeding at a good pace. The pilot committees have met several times in the past three months, and will be reporting their findings to the Board in December. Details will be published in the next edition.

Allen Leatt
IMCA CEO



DIGEST

Published since issue 84:



ALERTS

- Safety flashes 23-30/17 (34 incidents)
- DP event bulletin 04/17 (5 events)



PUBLICATIONS

Revised:

- Guidance on subsea metrology (IMCA S 019 Rev. 1)
- Guidance on operational activity planning (IMCA M 220 Rev. 1)



BRIEFING

- 2 IMCA updates
 - 2018 member subscriptions
 - Safety flash incident feedback
- 2 consultations
- 4 information notes and statistics
- 2 regulatory notifications
- 1 statistics

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

Keeping in touch

Member co-ordinators should have recently received the biannual contact check report from our Membership Services Group.

This provides an opportunity for you to check that the correct people within your organisation are listed as points of contact with IMCA for relevant activities. In particular, members are invited to submit details of representatives for the newer committees – Marine Policy & Regulatory Affairs (established earlier this year), Contracts & Insurance (upgraded to core committee status) and Lifting & Rigging (upgraded in 2016).

The secretariat has reduced the previous high number of emails, with a monthly digest providing the primary route for keeping members advised of new publications, briefing documents and committee minutes. Contacts are also invited to local meetings and specialist seminars according to their specified interests.

Email your contact updates to
membership@imca-int.com

Engagement the priority for three new IMCA appointees

Increasing engagement with members, clients and regulators is a key objective, not only for our current technical portfolio of diving, marine, offshore survey and ROV, but also in new areas we wish to develop, such as standardisation of oil company specifications, environmental sustainability and digitalisation of the oilfield. Three exciting new appointments have been made to strengthen IMCA in this area.



Head of Communications – Achilleas Georgiou

Achilleas will use his wealth of experience and proven track record of success in managing communications in marine contracting and related industries to help raise IMCA's profile. This will enable us to influence and shape the marine energy industry, and thus be the leading voice for our members – offshore, marine and underwater engineering contractors.

Achilleas joins IMCA from Amec Foster Wheeler – a global engineering and project management company, seen as one of the best global brands in its sector. Prior to that he managed corporate communications for two IMCA members – McDermott and Subsea 7.



Director for Client Engagement – David Bloom

Having spent over 40 years in marine contracting – notably with Oceaneering, McDermott and Subsea 7 – David Bloom is an exceptionally well-known and respected business development executive within the oil and gas industry.

In this new part-time role, he has all the credentials to build engagement with members' clients.



Business Development – Middle East & India – Chris Rodricks

As a previous Chairman of the IMCA Middle East & India region, former Seamec Managing Director Chris Rodricks brings a wealth of experience and a wide network of industry contacts to this new part-time role.

Chris has had a long and distinguished career in both operational and management roles with leading industry names such as India Steamship, Essar Shipping, GAL Offshore and Seabulk Offshore, in addition to 14 years with Seamec.

Awards recognition for Eleni

IMCA Policy & Regulatory Affairs Adviser Eleni Antoniadou was nominated for the prestigious Greek International Women Awards. The awards recognise outstanding professional achievements across the world.

Eleni represents members at IMO, with the EU and other bodies, and works with

expert committee members to develop IMCA positions and advance our sector's interests.

"Navigating an evolving legal system, advances in technology, both shipping and energy law, and the perpetual regulatory negotiations create a stimulating intellectual environment for me," says Eleni.

Diving team expands

With a busy technical work programme, two new appointments have been made to our diving team, under Senior Technical Adviser Bryan McGlinchy, as we also welcome back Pete Sieniewicz on a part-time basis.



Tim Helsdon joined in October as our new Technical Adviser – Diving. He brings a lifetime's experience in the diving industry and in-depth engineering knowledge of life support and dive systems. Tim has worked on vessel conversion projects as well as design and commissioning of new build systems.



Kester Keighley is our new part-time Technical Assistant – Diving and is heavily involved in the technical review of diving contractor membership applications. He officially joined the team in November, having undertaken similar work for the Association in the past.

Find out more about the new faces at imca-int.com/secretariat

Subscription fees for 2018

In the past 13 years there have only been three occasions when subscriptions have increased – and then only modestly. As a result, IMCA has been hampered in being able to develop the association's scope, deepen its offering to Members, and develop new strategies for the future. The subscription levels today are striking when compared with other leading associations.

The secretariat has implemented the cost savings and efficiency measures that all Members have experienced as a result of the industry downturn. As a result, IMCA is financially sound, runs an annual surplus and has a strong balance sheet. Nevertheless, the Board has considered the future funding requirements, and sees no choice but to realign the subscription levels commensurate with the ambition of making IMCA a stronger voice in the industry. This not only means within our current technical portfolio, but also in new areas identified in our strategic review of standardisation, digitalisation, and environmental sustainability.

We also want more engagement with our Members and directly with oil companies and energy companies – your clients.

Members may well have seen many of the changes we have implemented at IMCA over the past two years. We have:

- Realigned our cost base and implemented extensive operational efficiency measures.
- In a steeply declining market, maintained membership above 900.

- Completely re-engineered our governance system to be in line with modern practices.
- Implemented wide scale membership surveys with great feedback.
- Conducted a strategic review of our market positioning and way forward.
- Completely updated our technical portfolio of over 200 guidance documents.
- Worked with OCIMF to reduce duplication in vessel assurance.
- Worked with IOGP to reduce duplication in diving assurance.
- Sponsored the Shell Resilience Programme for the benefit of all Members.
- Introduced a suite of 15 new safety training videos in 10 languages.
- Been very active on the Jones Act agenda in the USA.
- Been very active in the area of marine policy and regulatory affairs, particularly with the IMO.
- Introduced client engagement as a strategic priority in Europe, the USA, and the Middle East & India regions.
- Deepened our Member engagement with over 100 meetings and events per year.
- Introduced a suite of technical seminars conducted in various locations.

Going forward, we want to do more and better things for our Members, including the new technical streams and all underpinned by a strong communications programme. For all of this and more, we would ask the continuing support of all our Members.

Online publication orders

Our website has been updated with a new IMCA Store section for ordering online.

Implementation of the system sees the catalogue of logbooks, competence records and other printed items all available ensuring that members around the world can place and pay for orders at their convenience.

The IMCA Store features both a secure

online payment system through PayPal and automatic calculation of delivery costs to the country of choice.

Members should find this online system to be an efficient and seamless way of purchasing IMCA publications.



Order now at imca-int.com/store

NEW MEMBERS

IMCA is pleased to welcome the following new members:

- | | | |
|--|--|--|
| <ul style="list-style-type: none"> • Bluday Technology AS • Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB) • Chrysaor Holdings Ltd • EDF Energies Nouvelles • Fred. Olsen Windcarrier AS | <ul style="list-style-type: none"> • Horizon Maritime Services Ltd • Maritime Support Services Limited • Pirie & Smith Ltd • Plymouth University • Rigil Services Sdn Bhd • Saudi Aramco – Marine Department | <ul style="list-style-type: none"> • Toll Energy and Marine Logistics • TR Arastirma Gelistirme Uretim Yazilim San. Ve Tic. Ltd. Sti. • Triton Marine & Engineering Consultants Ltd • Windnova Systems S.L |
|--|--|--|

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



London events – September 2017

IMCA and DMAC address diving medical issues

DMAC

IMCA and the independent Diving Medical Advisory Committee (DMAC) collaborated on a seminar and workshop on 25-26 September in London for around 100 delegates on current medical issues for the offshore diving industry.

IMCA supports the work of DMAC, which is comprised of diving medical specialists. The event was useful for both organisations, as it brought together DMAC members with different contractors and industry participants. Doctors could advance their understanding of the operational challenges being faced, while contractors gained access to world-leading expertise. IMCA staff and committee members also gained valuable input for current and potential future work streams.

Diver nutrition and hydration

The event began with presentations focusing on the nutrition and hydration of saturation divers whilst working. The importance of hydration has been recognised in some countries already. In

Norway and the UK, there have been changes in guidance and legislation, which require divers to have a drink during a bell run and take a short break during diving operations.

The lack of sunlight, tough physical work and the impact of shift patterns all exacerbate the problem. In an effort to address nutrition, a diver-specific menu was designed by a chef to ensure that divers had the necessary calorie intake by making food more attractive and palatable within the saturation environment.

IMCA was already producing guidance on diver health and medical issues. This will now include an additional chapter specifically on hydration and nutrition issues in saturation.

Diving beyond 300 metres

The seminar also looked at the challenges of operational diving beyond 300 metres, together with the history of using hydrogen as an alternative breathing mixture at depth. Unfortunately, most operational deep diving

research was undertaken in the 1980s with little done on the topic since.

A typhoon in South East Asia created a need to rapidly decompress divers in saturation when it was thought that the barge, which had lost most of its anchors, was in danger of foundering. Whilst in time the situation was stabilised, emergency decompression had started. At the time of stabilisation, the divers had been decompressed at roughly twice the normal rate and halfway to the surface with no apparent ill effects.

It was clear from the experience that there was little information on the topic and the physician involved was breaking new ground. DMAC will now look at whether emergency abort tables would be useful.

Participants gave highly positive feedback and it is hoped to hold similar events in the future.

Cyber security of offshore vessels



IMCA and the Oil Companies International Marine Forum (OCIMF) hosted a cyber security event during London International Shipping Week, attracting around 100 delegates.

Allen Leatt, IMCA CEO, opened the event with a short scene-setting address. He spoke of the industry being engaged in cyber warfare with a variety of enemies and previewed the expert presentations that would follow on the threats and how best to deal with them.

The threat of unauthorised access to vessel systems was the subject of the presentation by Mike Hawthorne of the Aristos partnership. Poor 'cyber hygiene' – weak passwords or open administrator rights – was an easy way in and he showed how this could make breaking in to vessel control systems.

Jostein Jensen of Kongsberg spoke on cyber security in the 'maritime industrial revolution' – as increased digitalisation across 80,000 vessels in the world with open communication brings new risks. Operational and information technologies are increasingly interconnected and a holistic approach to cyber security needs to be followed for people, processes and technology.

Jonathan Roberts of Rolls-Royce gave an interesting presentation on the cyber security issues of highly connected vessels and

autonomous infrastructures. His key message, delivered using a number of case studies, was that if systems are not secure, they are not safe.

A contractor's perspective was given by Ian Hindmarsh of TechnipFMC. He spoke about the high value of remote access to systems, while at the same time understanding the potential risks. Personnel are both the greatest asset and most significant risk, hence a change of attitudes to cyber security is required.

Alex Ferrant of Context Information Security gave a demonstration of how easy hacking into and taking control of devices including cameras and smartphones could be without adequate controls in place.

Mate Scorba of DNV GL continued on safe and secure remotely connected vessels. He described the evolving threats and compared the cost of security versus the cost of a breach.

After a panel discussion, Andrew Cassels, OCIMF Director, drew the event to a close by noting that preparation for a successful attack was crucial too. Whilst everything should be done to prevent attacks, some would get through. Good contingency planning would minimise the impact and limit the damage.

Full report at imca-int.com/events

Bergen hosts Europe & Africa meeting

Alongside the Bergen International Diving Seminar, at which IMCA CEO Allen Leatt gave a presentation on IMCA developments, the Europe & Africa Committee organised a meeting entitled 'Looking to the digital future' which attracted over 30 delegates.

The chairman, Pascal Grosjean of TechnipFMC, provided details on the recently formed committee, its members and work, while Allen Leatt updated attendees on governance, secretariat and technical developments.

Four topical presentations were then delivered by local member representatives on the digital theme:

- Autonomous vessels and hybrid power – Harry Verhoeven, Kongsberg
- Digitalisation: a vessel integrator's perspective – Ivar Knutsen, Vard Design
- Digitalisation: improving reliability and fuel consumption – Lars Christian Larsen, DOF
- Digitalisation: a classification society perspective – Jérôme Faivre, Bureau Veritas.



Singapore events – November 2017

Singapore technical seminars look to the future

The Novotel Clarke Quay in Singapore hosted IMCA's largest events hub of 2017, with over 300 members and invited experts assembling for three technical seminars and an Asia-Pacific meeting.

The future of ROVs

Around 60 delegates attended a one-day seminar, sponsored by Atlas Professionals, which posed the question 'What does the future hold for the ROV industry?'. A series of presentations looked at how increasing automation, digitalisation, robotics and machine learning will influence industry and business.

The ROV sector wants to remain competitive and to be able to take advantage of technological developments. This event offered an opportunity to discuss how it could achieve that.

Following the presentations, there were workshops that helped to identify areas where the ROV committee could most effectively direct its efforts in search of practical solutions.

In the first session, delegates heard about the Bumblebee AUV – a prize-winning and innovative autonomous vehicle solution being developed in co-operation between academia and industry. Presentations followed on developments in accurate blue light-based subsea communications, on possibilities for sharing or merging sensors, and towards better ROV positioning. A workshop addressed the challenges in moving forward with future technology.

The next presentations covered the use of resident and shore-based ROVs, in place of vessel-based piloting, and how to do more with less through smart inspection vehicles.

The afternoon session had three interesting presentations on future possibilities. These included university developments in soft robotics, progress in artificial intelligence/machine learning and possibilities for lithium batteries in the coming years.

The seminar closed with a workshop aimed at identifying solutions to some of the challenges discussed earlier in the day. Some of the ideas suggested included IMCA acting as a conduit between industry and academia, and continuing to ensure exposure to ideas and technologies from different industries through seminars and workshops such as this.

Asia-Pacific regional meeting

Delegates from all the seminars came together

for the quarterly IMCA Asia-Pacific meeting. This included an update on global activities and secretariat changes by Technical Director Richard Benzie. There was discussion of recent safety flashes and enhancements to their online listing, plus a session to share safety lessons. Client representatives reiterated the value in learning safety lessons from incidents via the IMCA safety flash system.

Diving sector focused on safety

A safety-focused diving seminar took place on 28-29 November, sponsored by McDermott International. The seminar was chaired by Shin Niwa (Ocean Works Asia – day one) and Steve Sheppard (Helix Energy Solutions Group – day two). Guest speakers covered a variety of topics ranging from diving safety management systems to the involvement of national rescue services in hyperbaric evacuation planning. Particular highlights included a class B digital dive control simulator demonstration by Felix Gorbatshevich of PaleBlue and a panel discussion featuring Nigel Lusby (Shell Global Solutions) and Dr Jean-Yves Massimelli. A full report will follow in the next issue of Making Waves.

DP the focus for Marine event

IMCA Marine Division members in the Asia-Pacific region came together for a well attended two-day event, sponsored by Subsea 7. The seminar concentrated on practical vessel assurance and engaged attendees with topical debate during four sessions.

Vessel reactivation was the focus of the first session, chaired by Mike Meade of M3 Marine. Presentations gave useful information on the practical, legal and insurance aspects of reactivation. Workshops followed, resulting in a request to the Marine Division Management Committee (MDMC) for a workgroup to oversee the creation of an information note on the topic for members. The workgroup will amalgamate the work carried out at this seminar and the one in Amsterdam in June (see page 14 for more on this topic).

Session 2, chaired by David Marren of Swire Pacific Offshore, provided information on the IMCA Marine DP committee and the



DP station keeping event reporting scheme.

Lively workshops included debate on recent DP events. Recurring themes will be highlighted in the first DP event bulletin of 2018 as a learning opportunity.

The morning of day two explored the possibilities for accrediting DP practitioners, under the chairmanship of Joey Fisher of M3 Marine. Another lively debate explored the pros and cons of such a scheme and provided suggestions covering required initial qualifications, examination and paths for continuous professional development. Ideas developed during the workshops will be presented to MDMC with a recommendation that a workgroup further explores the possibility of IMCA introducing an accreditation scheme.

Preview of eCMID developments

The Marine session was an eCMID workshop chaired by Mark Ford (IMCA) and Joe McWilliam (Pelorus QHSE Solutions). Delegates were briefed on how the eCMID can be used as an ISM compliance check and a tool for inspecting a vessel following lay-up.

The January 2018 changes (see page 14) were reviewed, together with plans for future development and potential wider roll-out of the eCMID system. Changes within the IMCA eCMID team, where additional support would soon be available, were also noted.

CALENDAR



The schedule of events for 2018, including IMCA seminars, workshops and regional meetings, plus participation in and support for selected third-party industry conferences, is currently being finalised and will be published online once available.

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



BUILDING RESILIENCE

Leading IMCA members have come together to develop a resilience awareness programme tailored to the marine contracting industry

“Successful IMCA organisations are built on resilience.”

We are becoming increasingly aware that one of the key attributes of a successful organisation is its ability to cope with challenging issues and to bounce back. The capability of an organisation to do this effectively is largely dictated by the resilience of its people.

Resilience is also known to have a direct impact on safety performance. A lack of personal resilience can lead to poor decisions, mistakes, distraction, fatigue and unsafe behaviours – all of which are contributory factors in accidents. As with safety, good personal resilience is not only beneficial for individuals but it is also good for the business.

Resilience directly impacts the capacity of an organisation and an individual to adapt to change brought on when going through downturns, upturns and other transitional cycles in the business environment.

All companies will face challenging conditions at various times and their level of resilience will have a significant impact on

their ability to cope. However, most of us have not spent much time trying to understand how resilient our people are, how they came to develop their resilience or what we can do to help them improve this capability.

In realisation of the need to improve, increasing numbers of organisations are focusing on this. They are developing programmes to help improve their employees' understanding of resilience and what they can do to increase their individual resilience.

The same goes for all of IMCA's member organisations, so we have developed an introductory resilience awareness programme. We have worked together with a number of our member organisations to develop this programme for employees. It is based on Shell's successful marine operations resilience programme and is a video module format to provide consistency and ease of delivery to suit the wide variety of worksites managed by IMCA members.





The programme

The resilience awareness programme videos and supporting materials, including guidance instructions, are to be made freely available to all members via the IMCA website.

The IMCA introductory resilience awareness programme is simple to use and is made up of six short videos with accompanying guidance notes. It is designed to be used on worksites where small groups of employees meet to watch the video together and participate in a discussion to share their personal thoughts and experiences. The discussion is the key part of the process of helping them to grow their mutual understanding.

Each module sets out to explain an aspect of resilience covering the psychology of how we behave and things we can do to build our personal resilience. This is supported by questions designed to help us think about the issues raised and to spark conversations. To make it relevant to our people, each module contains footage from personnel on our

members' vessels and onshore worksites sharing their thoughts and experiences.

The programme is designed to explain:

- What resilience is and why it is important to us
- How to think and act safely under pressure
- How to cope better with change
- The importance of physical wellbeing
- The importance of mental wellbeing
- How to make good, safe decisions.

Helping our personnel to be more resilient will support their safety and health while better equipping them to deal with issues they may face individually or in their teams. Investment in building personal resilience is proactive and helps people to grow their capabilities in this area, far better than the impact of stress on personnel and the organisation.

Our thanks to Shell, Allseas, Heerema Marine Contractors, McDermott International, Saipem, Subsea 7 and TechnipFMC for their assistance in helping us to develop this programme.

Meeting the sustainability challenge

Sustainability is one of three new hot topics identified by IMCA. Pilot committees have been established under the leadership of IMCA Board members to take this forward.

In this article, Mattijs Bolk of Heerema Marine Contractors describes an award-winning industry sustainability initiative supported by a number of leading IMCA members – *Our Oceans Challenge*.

The challenge

Two thirds of our planet is covered in water. Our seas and oceans are fundamental to life for all living creatures, thanks to the goods and services they provide. Unfortunately, the health and productivity of the oceans are facing serious challenges which, if left unchallenged, would likely only increase.

The offshore industry is becoming more aware of its use of the oceans and of its sustainability footprint. Companies need to deal with pressing environmental issues such as offshore noise production and waste management. However, in challenging economic times, addressing sustainability within each company individually can be at odds with the need to remain competitive.

Collaboration brings opportunity

Our Oceans Challenge (OOC) is a collaborative initiative supported by many industry parties who, by coming together, can help identify and address the most urgent challenges. OOC supporters acknowledge the need for sustainable development of their ocean-related businesses.

By identifying the most urgent sustainability challenges in the offshore industry and speaking about them publicly, creative solutions can be developed at an accelerated pace.

In 2016, OOC concluded an open innovation cycle. This was based on five distinct challenges: new ocean resources, big data, (re-)using offshore structures, minimising noise impact and contributing to cleaner oceans.



Image: Our Oceans Challenge

OOC shares these challenges via an online platform, inviting practical and innovative solutions. Ideas and proposals can be submitted, and discussed by engineers, other experts and individual enthusiasts, with a three month period of peer and expert review. A selection is made of the most promising solutions, which then receive intensive development and mentoring. Finally, business plans for the most promising

concepts are presented to potential investors and partner companies, with the potential to be supported as an independent start-up.

Public Outreach Award

By connecting industry knowledge centres, entrepreneurs and other sustainability initiatives, 167 solutions were proposed to the five challenges, with several accelerated and in the process of piloting or start-up. The success of the initiative was recognised with the Public Outreach Award at the Offshore Energy Conference in October.

The next big idea

In 2018, OOC will be back for a new cycle of open innovation. Based on the success achieved during the previous two rounds, there is already high interest from industry, knowledge partners and potential investors in what comes next.



Image: Our Oceans Challenge

Thom Koning, President of Our Oceans Challenge, accepting the Public Outreach Award at the Offshore Energy Conference

Find out more and get involved at www.ouroceanschallenge.org

IMCA provides input to BIMCO contract updates

Members of the IMCA Contracts & Insurance committee have been kept active by the Baltic and International Maritime Council (BIMCO).

Supplytime 2017

BIMCO published a fourth edition of its widely used Supplytime OSV charter party in June, 12 years after the previous edition. The form was subjected to intensive review over two years and numerous experts from the offshore sector were involved.

The new edition aims to set out a more coherent contract, with terms and conditions that are easier to apply and which reflect legal and commercial developments over the past decade. Among other changes, the document also incorporates BIMCO's latest standard clauses on matters such as war risks, infectious diseases, sanctions, the Maritime Labour Convention and dispute resolution.

Simon Ellis (Subsea 7) and Eduard Verlinden (Heerema Marine Contractors) both played an active role during drafting to help ensure a pragmatic and balanced document resulted.

Decommissioning

The IMCA Contracts & Insurance committee will now be turning its attention to the forthcoming BIMCO work on offshore decommissioning, which is due to be published in mid-2018. Gea Smid (Allseas) and Benjamin Minnee (Heerema Marine Contractors) are representing IMCA on the drafting team, along with a number of other members co-opted via other routes.

Contracts for decommissioning works are usually highly convoluted, as parties tend to include a wealth of information, as well as attempting to address every potential risk that may arise. It is anticipated that a new BIMCO standard contract will address the identified challenges and reduce the costs of negotiations and drafting for our sector.

Sharing member lifting expertise

An important part of IMCA's Lifting & Rigging committee work is to liaise with regulators, manufacturer bodies, standards organisations and other industry associations. Such engagement enables sharing of experience and good industry practice and can avoid or reduce costly duplication of effort and variation in requirements in different markets or jurisdictions.



Image: Salpem

ABS lifting certification

The American Bureau of Shipping (ABS) recently approached IMCA for assistance with its revision of the *ABS guide for certification of lifting appliances* in respect of heavy lift cranes.

Various issues were discussed with ABS, with a particular emphasis on pointing out that heavy lift cranes are not operated in the same way as typical cranes installed on offshore oil rigs and drilling platforms – every heavy lift is an engineered lift.

Another discussion point was how the load acceleration limitation of 0.07g was not appropriate. Many heavy lift vessels experience greater acceleration, but with load peaks able to be maintained with the crane's 1.1 dynamic amplification factor (DAF). It was pointed out to ABS that such a limitation could hinder a heavy lift vessel's operating window and lead to the operator being required to use a bigger crane than necessary for the lift.

OMHEC personnel guidance

IMCA is also actively involved in the Offshore Mechanical Handling Equipment Committee (OMHEC). The current focus is on revision of OMHEC G05 – *The lifting of personnel offshore*. This document aims to provide guidance to the offshore industry on how to ensure that workers can be safely transported to and from fixed or mobile offshore installations should helicopter flights be unavailable.

Reference is made to IMCA guidance – *Guidance on the transfer of personnel to and from offshore vessels* (IMCA M 202) and *Guidelines for lifting operations* (IMCA LR 006) – by OMHEC where appropriate.

Lifting & Rigging in brief ...

- The updated *Guidelines for lifting operations* (IMCA LR 006) are out for industry review, with publication due in Q1 2018.
- *Guidance on non-destructive examination (NDE) by means of magnetic rope testing* (IMCA LR 004) is under review, with inclusion of discard criteria being considered.
- Terms of reference have been agreed for a new workgroup reviewing test methods for high performance fibre slings.

Helideck competence

The IMCA Competence & Training committee has been engaging with OPITO, 'the global, not-for-profit, skills body for the energy industry', on proposed changes to its helideck training standards.

The standards have been developed at the behest of the Oil & Gas UK Aviation Safety Technical Group (ASTG) in order to provide an industry standard for the workplace competence

of personnel dealing with helicopter operations. While a UK-led initiative, the guidelines will doubtless see wider adoption led by global clients active in the ASTG.

For more details, contact
Nick.Hough@imca-int.com



Image: Subsea 7



IMO report

Climate change is currently one of the main priorities at IMO, where Eleni Antoniadou has been busily involved in discussions on behalf of the marine contracting industry.

World Maritime Day 2017

IMCA joined in celebrating World Maritime Day 2017 at IMO headquarters in London on 28 September. The theme, 'Connecting ships, ports and people', was chosen to provide an opportunity to focus on the many diverse actors involved in shipping and logistics.

The theme was built on the 2016 theme, 'Shipping: indispensable to the world', and focused on how IMO can help its member states develop and implement maritime strategies that invest in a joined-up, inter-agency approach that addresses a range of issues, including the facilitation of maritime transport, increasing efficiency, navigational safety, protection of the marine environment and maritime security.

IMO CO₂ strategy advances

IMCA was the voice of the marine contracting industry at recent intensive discussions on climate change at IMO, advancing the development of a comprehensive CO₂ reduction strategy for the international shipping sector.

The IMO intersessional meeting on the reduction of greenhouse gas (GHG) emissions, which convened in London in October, saw some progress, such as the initial definition of short, medium and long-term measures. Current international efforts include the UN Framework

Convention on Climate Change, the 2015 Paris Agreement and the 2030 Agenda, in particular the 13th Sustainable Development Goal to "take urgent action to combat climate change and its impacts".

The agreement on a list of candidate measures (short, medium and long-term) marks a significant step in providing clarity to owners, operators and ports, who should be paying close attention to upcoming negotiations in anticipation of immediate effects on their businesses. Member states agreed on the following provisional timeline:

1. possible short-term measures could be finalised and agreed by the IMO Marine Environment Protection Committee (MEPC) between 2018 and 2023;
2. possible mid-term measures could be finalised and agreed by MEPC between 2023 and 2030; and
3. possible long-term measures could be finalised and agreed by MEPC beyond 2030.

The dates when the measures can effectively start to reduce GHG emissions will be identified for each measure individually.

IMCA will remain engaged with the IMO stakeholders and actively participate in the discussions at MEPC 73 in April 2018.

20 years of IMCA safety flashes

At the meeting of the Marine Safety Forum in Aberdeen on 2 November, Nick Hough gave a presentation entitled '20 years of Safety Flashes'. He looked at members' safety concerns then and now and identified possible trends.

In other safety flash news:

- Future IMCA regional meetings will include a short and snappy presentation on the most interesting recent safety flashes from the previous quarter.
- A star rating system has been added for individual alerts on the website. Readers are encouraged to rate them based on usefulness/value and lessons learnt.
- Early in 2018, IMCA is to publish a summary of incidents reported by members during 2017. This will set out the main trends, common points of concern and the lessons industry needs to keep working on to reach a zero-incident workplace

Safety statistics 2017

It will soon be time for contractor members to submit their safety statistics for 2017.

We seek a swift and timely response from members in order to publish the finished report in early Q2. To achieve this, we need data in the first quarter of 2018.

We will be collecting information on first aid injuries, remedial treatment cases, LTIs and fatalities, as well as safety observation frequency.

Supporting IOGP's Project Safira

Chris Hawkes, Safety Director of the International Association of Oil & Gas Producers (IOGP), attended the Q4 meeting of the IMCA HSSE committee to make a presentation on IOGP's *Project Safira* – their ongoing initiative for eliminating fatalities from the oil and gas industry.

He said that, as an industry, we are good at sharing lessons but can be less good at learning them. He went on to say that we have to become more nimble to quickly deliver practical, impactful solutions.

The HSSE committee and the secretariat will continue to work closely with IOGP's Safety committee and its subgroups to ensure that IMCA members are better able to learn safety lessons and work towards an incident free workplace



Eleni Antoniadou, IMCA Policy & Regulatory Affairs Adviser, (second left) and IMO Secretaries-General Efthimios Mitropoulos (2003-11) and Kitack Lim (2015-present) at a reception for World Maritime Day 2017

Surface supplied diver training

IMCA recognises a variety of diver training certificates for work in accordance with the *IMCA international code of practice for offshore diving* (IMCA D 014).

The association has never been involved directly with entry level offshore diver training. It has always taken the approach that it will recognise diver training certificates issued under credible, independent organisations such as national authorities, including HSE (UK) and ADAS (Australia), amongst others.

With a global industry and workforce, the secretariat regularly receives enquiries about the certificates that are recognised.

IMCA-recognised certificates

The list of IMCA recognised qualifications is routinely reviewed and revised as necessary.

The current version is IMCA D 16/16 – *Diver and diving supervisor qualifications*. Only divers holding one of these recognised diving qualifications should be employed on a project where IMCA compliance is required.

IMCA also maintains a list of contact details for issuing authorities to assist contractors in checking the validity of certificates presented to them. This is published in IMCA D 05/17 – *Verification of diver qualifications*.

Requirements for recognition

In an effort to clarify the criteria for recognition of diver training certificates, information note IMCA D 07/17 has recently been issued. This sets out requirements such as government or government-appointed oversight, training site health and safety, syllabus and membership of a relevant diver training standards organisation.

Special arrangements may be applicable in unregulated areas of the world, as described in IMCA D 16/16.

Training syllabi

During 2017, questions were asked about what should be included in entry level offshore commercial diver training.

IMCA consulted the offshore diving industry and the Diving



Image: KBA Training

Division committee subsequently developed a list of the essential skills that our members feel must be included in training for those embarking on a career as a surface supplied diver offshore.

This guidance has been published in information note IMCA D 08/17. IMCA is aware that since this note was issued, a number of certification agencies are now in the process of modifying their own requirements to ensure that they fulfil the IMCA criteria for surface supplied diver training. Newly trained divers will then be suitably prepared with the theory, practical skills and safety awareness needed for a successful career offshore.



Image: The Underwater Centre Fort William

Integrity and trust remain key as IMCA examinations move online

It has been a long-standing practice for examinations as part of the IMCA Diving Supervisor and Life Support Technician certification schemes to be taken at 'official' venues, such as British Council offices around the world, or where IMCA member facilities and other trusted individuals have been paid to provide invigilation services.

This practice has been overwhelmingly successful in ensuring the integrity of the examination system; candidate identities have been verified, the examination environment strictly controlled and the security and confidentiality of exam content has been preserved.

There have been downsides to this approach: the time and inconvenience for candidates (and employers) of exams taking place only in selected locations globally; the time required to identify venues and to liaise with invigilators/candidates on availability; and the overall expense, which has diverted funds that could otherwise go towards other work on behalf of IMCA members.

Now, with increasing popularity of home study-based education for professional and

university-level qualifications, a new sector, online proctoring, has developed, providing high-integrity remote invigilation services.

The hardware set-up required of examinees is no more than a standard PC/laptop with webcam and microphone/speaker setup.

Identity verification using public domain wide-ranging questions is a fundamental aspect of the online process, as is continuous, real-time observation during exams. Security measures include recording of keystrokes and immediate intervention in the event of any suspicious behaviour.

After in-depth study of the technical capabilities and extensive testing, IMCA has decided to implement such a system for its exams. The Diving Division committee is confident that online proctoring will satisfy our stringent requirements for content security, identity verification and exam-time vigilance. Implementation of the new online examination system is currently being finalised and will be launched in January.

Details on the certification schemes can be found at imca-int.com/dscs

DMAC update

Two guidance documents have recently been revised by DMAC, the independent Diving Medical Advisory Committee:

- **Fitness to return to diving after decompression illness** (DMAC 13 Rev. 2)

The revised guidance takes into account current opinion concerning recovery from other forms of neurological and pulmonary injury. As a result, minimum intervals for return to diving after different forms of decompression illness have been extended.

- **Recommendations for flying after diving** (DMAC 07 Rev. 2)

The updated guidance takes into account clinical experience and evidence from a number of scientific investigations conducted since the last review. Minimum intervals between diving and flying have been extended. Longer time intervals than the stated minima are recommended, in particular if the planned journey involves a number of take-offs, as journeys involving multiple flights are likely to carry an increased risk.

DMAC guidance is available for free at dmac-diving.org



Established lay-up locations

Reactivation – an opportunity to make DP safer

The requirements when reactivating a DP vessel following a period of lay-up were considered during a session at June's IMCA marine seminar in Amsterdam.

One of the conclusions was that, given the right circumstances, there is no reason why a reactivated DP vessel should not re-enter service in a better condition than when she was laid up.

Since that seminar, Joey Fisher of M3 Marine, a member of the IMCA Marine DP committee, and IMCA Technical Adviser Andy Goldsmith, have provided conference audiences

with further information on this subject – Joey at the Asian OSJ Conference in Singapore during September and Andy at the Offshore Vessel Connect Conference in Oslo during November.

IMCA's second marine seminar of the year, in Singapore on 29-30 November, advanced the debate further.

Delegates at the two IMCA seminars provided valuable contributions. These will be assembled into an information note containing advice for consideration when reactivating a DP vessel. The note will be published early in 2018.



eCMID changes

As of 1 January 2018, two important changes to the eCMID system have come into effect:

1. Paper CMID reports are no longer be recognised by IMCA – we will only recognise inspection reports generated within the eCMID database (imcaeamid.com)
2. Only accredited vessel inspectors (AVIs) are approved to conduct eCMID vessel inspections and upload inspection reports into the eCMID database.

Those working towards accreditation can only carry out inspections if supervised by an AVI who enters their details into the database. IMCA encourages non-AVIs to apply for their accreditation at ecmidvesselinspectors.com.

These changes have been planned for several years and are fully in line with our strategy to modernise the system technically and professionalise the system administratively.

In addition, the Marine eCMID Committee has agreed further important developments of the database. This will require further investment and a nominal charge per vessel report will be introduced in mid-2018 to fund ongoing development and maintenance costs.

System updates

The eCMID database website and inspection application are being updated to reflect these and other technical changes. Guidance on using the eCMID system (IMCA M 167) and downloadable user guides are also being updated in preparation for the new year.

Finally, as part of these updates, the website and application will be brought up to date with a refreshed design featuring the eCMID logo shown above.

DP station keeping event reporting

IMCA members contribute to the continuous improvement of dynamic positioning (DP) operations through the submission of reports on DP station keeping events that others can learn from.

The causes and possible consequences of 18 separate events have been analysed and anonymously shared with the industry via four IMCA DP event bulletins during 2017.

Further analysis of these events has led the Marine DP Committee to highlight two areas of concern – over-reliance on DGNSS as a position reference system and the apparent occasional lack of operational planning.

Bulletin 04/17 contained two reminders of guidance common to IMO and IMCA:

- When two or more position reference systems are required, they should not all be of the same type but based on different principles and suitable for the operating conditions.
- Before every DP operation, the DP system should be checked according to applicable vessel specific location checklist(s) and other decision support tools such as

activity-specific operating guidelines to make sure that the DP system is functioning correctly and that the system has been set up for the appropriate mode of operation.

Certificate of participation

Those members contributing to the IMCA DP event reporting scheme are entitled to display a certificate on their DP vessel bridges.

This instantly identifies to clients that the company is responsibly sharing lessons learnt with the industry via the IMCA scheme.



Find out more at
imca-int.com/dp-events

Find out more at
imca-int.com/ecmid



Decommissioning data sharing initiative



Sam Hanton of Proserv, a member of the IMCA Offshore Survey committee, reports on a new collaborative database for the decommissioning sector

From an industry perspective, decommissioning of offshore infrastructure is a no-reward exercise. It is unarguably necessary but, not unlike other sectors of the industry, economically the focus is on maximising efficiency and minimising cost. Where decommissioning differs is that what we have to work with is pre-determined by design and installation choices some decades earlier.

It's clear that with some design phase planning the subsequent decommissioning, years or decades later, can be made significantly more efficient. It's with this ultimate aim that the decommissioning specialists of 16 operators,

contractors and consultants have joined forces to generate a database to capture decommissioning lessons and provide guidance in design.

The *Design for Decommissioning Subsea Database*, now published as part of the SPE *PetroWiki*, has been developed to provide feedback from late life and abandonment operations and provide practical guidance to engineers when designing new or modifying existing facilities.

The database helps identify decommissioning issues based on real industry lessons learnt, and will assist those in the sector looking to develop solutions which could be implemented in future designs.

Collaboration and sharing of information has allowed the creation of the database, but wider participation, contribution and use of the information will continue to add value to the database, and drive future decommissioning efficiencies.

See the data at petrowiki.org/design_for_decommissioning

Metrology guidance update

Subsea metrology procedures are expanding rapidly to provide ever higher accuracy solutions. With this in mind, a fresh update of *Guidance on subsea metrology* (IMCA S 019 Rev. 1) has been issued by the Offshore Survey committee.

The document provides guidance on commonly used subsea metrology techniques, with discussion of the engineering requirements and some of the advantages and limitations of each technique.

Long baseline (LBL) acoustic systems and techniques are covered in detail, as these systems are generally the most adaptable and most widely used in the industry today.

However, with a rapid pace of technical change and ongoing development of deep water fields, other methods are being developed, including photogrammetric metrology, inertial navigation system (INS) metrology, simultaneous localisation and mapping (SLAM) techniques and laser scanning, all of which are covered in the new document.

Joint seminar from SUT, THSiS and IMCA

On 1 November, the Society for Underwater Technology, The Hydrographic Society in Scotland and IMCA joined forces to host a well-attended half-day seminar entitled 'The leading edge of value-based subsea inspection'.

The aim was to help identify innovative solutions to the challenges of subsea inspection and surveillance in the cost-conscious era.

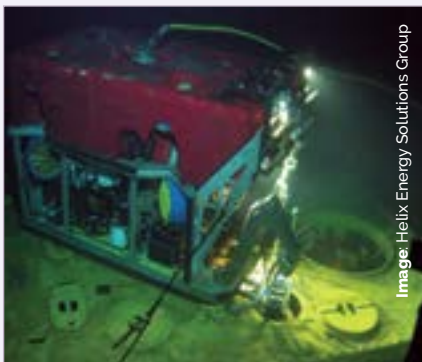
A number of interesting presentations covered how technological development is enhancing operational efficiency, including a significant decline in the cost of data processing and storage, miniaturisation, improved subsea robotics, machine learning and artificial intelligence.

ROV statistics

The annual snapshot of ROV personnel and vehicle numbers was completed in November and has now been published.

Around 40 contractors took part and the data received confirmed that the much-discussed uptick in the market is not yet here.

In order to provide even more timely information, to assist members with their own decision making, data collection will now take place on a biannual rolling basis, with publication of ROV usage and personnel numbers around eight weeks after the snapshot dates.



Full report available to members at imca-int.com/statistics

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