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COMPETENCE WORKSHOP



makingwaves issue 60 CONTENTS

























From the **President**

Andy Woolgar, Subsea 7 IMCA President 2011



IMCA members work hard to deliver safe and efficient projects. Much of IMCA's delivery for members is in support of this aim. One aspect, competence, has increasing importance - as demonstrated by the cover focus and content of the previous issue. In addition to the two competence events in Aberdeen and Singapore earlier this year, a one day event is taking place on 8 September 2011 in Houston, USA.

IMCA provides a competence framework from which members can develop their own schemes across a common format that aids cross industry recognition. This is now freely available on the public website along with other IMCA publications. When it first launched in 1999 the framework provided competence tables for 42 safety-critical positions. Since then a further 13 positions have been added and it will continue to be extended as required. The new positions are not all so safety-critical, but each is important in helping the contractor deliver a safe and efficient project. IMCA continues to encourage members to develop their own schemes and to enrol their staff. A piece of ongoing work which is nearing fruition covers freelance staff. Our industry has many itinerant workers so IMCA is developing freelance packs that such personnel can use to record their competencies, help organise their portfolios and facilitate on the job assessments.

A strong link between IMCA and individual workers is through logbooks used by both permanent and freelance staff alike. IMCA has published 14 of them, the latest of which is for auditors and inspectors. It fits with the several standard audit formats that IMCA publishes but can be used for any audit, survey or inspection. Further logbooks are in the pipeline and they all contribute to recording competence.

After Macondo, the US authorities have been emphasising the skills and experience expected from personnel in the Gulf of Mexico. This is being handed down by the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) through its Safety and Environmental Management Systems (SEMS) requirements. IMCA is working with the Bureau through the Offshore Operators Committee (OOC) to clarify what skills and experience should be expected and how it should be demonstrated in our sector by using the existing IMCA competence material.

This (and related) work has raised the question of elevating competence from our sector's offshore workplace to onshore and management personnel and 'corporate' competence. The standard components of qualifications, skills and experience that are demonstrated and assessed are harder to pin to a corporation. But being tough does not mean it should not be done.

around IMCA

the wind

IMCA forms the Renewable Energy Workgroup

In October 2010 IMCA held a renewable energy workshop in Amsterdam, the Netherlands, which highlighted a number of issues relating to IMCA members working in the offshore renewable energy industry. It was agreed that a workgroup should be formed to address these issues from the evolving offshore renewable energy industry, and the first meeting of the new workgroup took place at the end of June at IMCA's offices in London, UK.

The workgroup is open to all IMCA members and will meet approximately every three months, mainly reporting to the Marine Division Management Committee, the Safety, Environment & Legislation Core Committee and the Europe & Africa Section. Although it will draw on current European experience of this work, all IMCA publications are designed to have worldwide application and the groups work will be international.

The workgroup has the following terms of reference:

- A forum for dialogue about renewable energy marine operations;
- Formulating IMCA opinion on renewable energy to be publicised as necessary;
- Identifying gaps in existing IMCA guidance;
- Identifying new guidance which IMCA could publish and help draft;
- Providing input (reporting to) other IMCA committees about renewable energy as necessary;
- Raising awareness of IMCA's existing guidance in this area;
- Participating in other industry forums and workgroups and promote discussion with relevant bodies;
- Promoting membership of IMCA to companies active in this area.

Members have already identified a number of key issues:

- Identifying appropriate marine operational safety requirements for the sector;
- Contributing to safety improvements through sharing safety incidents, collecting safety statistics and identifying areas for improvement;
- Creating safe regimes for SIMOPS and personnel transfer.

The next meeting of the workgroup is scheduled for the end of September 2011, where it will build on its already healthy work programme. If you would like any more information please contact Paul.Bayliss@imca-int.com

around IMCA

Publications Available for Free Download

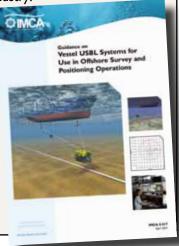
We have recently made our guidance publications available as freely downloadable PDFs on the IMCA public website:

http://www.imca-int.com/documents/publications.html

This is to provide better availability and access to these important documents. We want to see them widely available and used by all in the industry, including non-members, for the good and safety of the industry.

Companies and other organisations will be able to provide links to our documents from their websites, intranets and PDF documents making access much easier.

Feedback from other organisations and joint workgroups is proving very positive and we hope this change will help you all in your daily work. HW



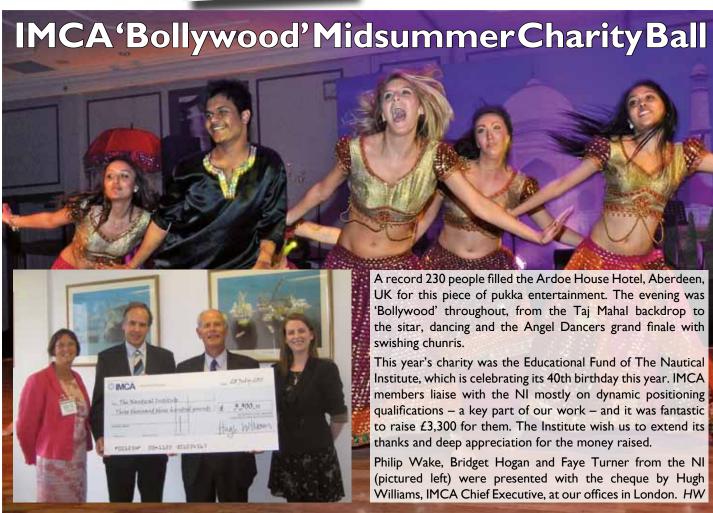
Hello, Goodbye

June saw the return of Claudine Bleza, one of our Events Co-ordinators, from maternity leave after the birth of her daughter. We are very pleased to welcome her back.





We also saw the departure of Sara Donaldson, who had been covering for Claudine since July last year. She did a tremendous job filling Claudine's shoes and will be missed by the IMCA Secretariat and members alike. We all wish Sara the best of luck for the future. KG



core activities

Annual Seminar

The programme and registration form for the 2011 IMCA annual seminar are now online. Being held in New Orleans, USA on 9-10



November, the theme for this year's event is the future of marine and subsea oberations. It will consider where our sector is going and what tools are needed in order to constantly deliver added value for clients.

This year we

are very pleased that eight organisations are endorsing the seminar: ADCI, API, IADC, MTS Dynamic Positioning Committee, OCIMF, OGP, OOC and the Offshore Support Journal.

The packed programme includes presentations on the seminar theme from keynote speakers as well as themed sessions for marine, diving and ROV/offshore survey topics. A number of workshops are also planned, covering a broad range of technical issues following on from the presentations. Gordon Kelly from the IMCA secretariat will also be present to answer any questions members might have related to the CMID database.

The social events are always an important part, providing great networking opportunities. The seminar dinner will be on 9 November on a Mississippi steamboat, and a drinks and buffet reception is being held on the evening of 10 November at the Aquarium of the Americas.

An exhibition of products and services from IMCA supplier members is an integral part of the seminar, and delegates have access to coffee, tea and lunch breaks during the event. For full details on the seminar and to register, please visit: www.imca-int.com/events/seminar ΙB

800 IMCA Members!

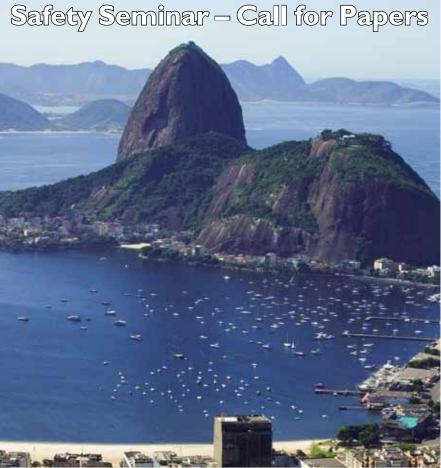
IMCA is delighted to announce that we have passed another milestone. At the time of going to press we have a membership of 806. As fantastic as this is, IMCA is always looking for more companies to help us to provide an always improving knowledge base and a common industry voice. ABu

IRF Summit Conference 2011

IMCA is pleased to be attending the International Regulators Forum (IRF) meeting in Stavanger, Norway in October.

The Petroleum Safety Authority Norway (PSA) will host this extraordinary safety summit conference under the banner of working together to improve offshore safety. The IRF is responding to a paradigm shift following the Deepwater Horizon/ Macondo (spring 2010) and West Atlas/Montara (August 2009) incidents. The aim is to share the work of the regulators and IMCA is keen to take part.

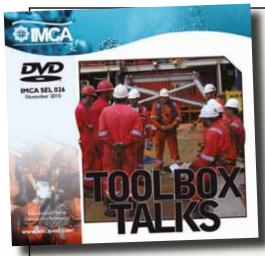
The programme can be found at www.irfconference2011.org/programe.cfm If members have any comments they should direct them to Hugh.Williams@imca-int.com



Plans are now underway for the 2012 safety seminar, being held on 21-22 March 2012 in Rio de Janeiro, Brazil. The theme for the event is risk and impact in marine operations and, as ever, the seminar will focus on marine construction and vessel activities. While presentations across the whole spectrum of safety, environment, health and legislation are sought, the thrust of the 2012 event will be on asset-threatening events. As noted in a recent report on the lessons learnt from the Gulf of Mexico incident, too often safety is thought to be a matter of the occupational safety hazards of 'slips, trips and falls' rather than the safety-critical activities that threaten assets.

A call for papers has recently been issued and IMCA is interested in topics including: the interface between occupational safety and asset-threatening events (process safety), major incident investigation, compliance auditing, workforce involvement, asset integrity, corporate responsibility, the environmental impact of major incidents, and class, flag and coastal state regulation of major hazard events. IB

core activities



Competence Corner

DVD

The Competence & Training Core Committee is taking forward the production of a DVD aimed at getting the competence message across. The DVD format will be similar to the already published and available Toolbox Talks DVD produced by the SEL committee. A workgroup has been formed to write the script and progress the design of the DVD, which will cover a broader scope than just focusing on

competency and training. It will look at the bigger picture of learning and development in the workplace, from reviewing CVs and qualifications to career development into more senior roles.

It will also incorporate information on the importance of a competent workforce from other perspectives, including internal and external factors such as the desire to be a competent worker, the desire to work with a competent safe team, regulations, legislation, audits, tenders, commercial factors and health, safety and environment factors.

Assessor Case Study

To help contractors develop and use competence schemes based on the IMCA competence framework, IMCA has published case studies describing how individuals and contractors have benefited from them.

An assessor case study is being produced to complement information notes IMCA C 07/10 Case Study – Development of a Competence Assurance and Assessment program and IMCA C 02/11 Training and Competence Case Study – The Individual Worker.

The assessor case study focuses on the different career paths of two assessors from one member company, both of whom share a drive and passion for training and assessing people to a high standard. Their employer has supported them through an external assessor course to help them develop their own skills and knowledge for their new roles.

Confined Space Entry

It is a sad fact that confined space entry fatalities continue to occur. The prevention of these incidents remains an important part of the SEL committee's work programme and IMCA is moving forward with the development of a confined space entry DVD. A draft script is being prepared based on material shared with IMCA by one of our ICO members. Consideration is being given to collaborating with a UKbased service provider with excellent training facilities for confined spaces (dummy tanks, etc.), which would be a good location for filming. The proposed DVD would be aimed at workers and supervisors who work with and in confined spaces, and would be intended to provide clear

and easy to understand guidance on the dangers involved. NH



Endenbura.com







Auditor/ Inspector's Logbook

This logbook is a universal tool, designed for all disciplines to record their audits or inspections. Company internal audits, vessel inspectors (CMID) and DESIGN audits are just a few of the examples of when it can be used. It can assist in demonstrating competence for auditor/ inspector advancement through company or organisation competence schemes, or assist with career development and progression.

The logbook contains areas to record continuing and professional development, internal company and external training courses, competencies that match IMCA competence tables for auditors and inspectors, as well as the type of audit and inspection experience. KC

core activities

Safety & Environmental Management Systems

Under the new US Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) requirements, operators must have approved Safety & Environmental Management Systems (SEMS) in place by 15 November 2011 for all oil and gas operations on the US outer continental shelf (US OCS).

Contractors are not required to have SEMS themselves, but operators' SEMS must include procedures for contractor management, including documenting agreement on contractors' health and safety practices and ensuring the competence of their personnel.

The new rules are likely to have a significant impact on all contractors operating on the US OCS. Those that operate internationally will probably have appropriate systems in place, but demonstrating everything to the level of detail expected may prove a challenge.

IMCA has been monitoring discussions on how to comply with SEMS and trying to ensure operators are aware of the IMCA materials and of the procedures marine contractors already have in place. Details are being circulated via the IMCA Central & North America Section, and members operating in the US should be discussing the requirements with clients. *EC*

Emergency Response Standards & Guidance

The requirement for any organisation to respond effectively to any given emergency is critical to managing the incident successfully. It is essential that sufficient emergency response standards are in place to minimise the impact of personnel injury, damage to the environment, company reputation and implicated assets.

Technip, chair of IMCA's Security Task Force, has implemented a standardised emergency response approach world-wide within the group.

Specific processes have been developed to enhance the company's response to any given incident. It includes dedicated procedures and tools to notify an incident when it occurs, to provide an adjusted and reactive response, and to investigate and report the incidents consistently.

Based on Technip's security best practices and lessons learnt, the Security Task Force has decided to set up a workgroup to develop emergency response standards and guidance for any given scenario. This will include recommendations to identify the necessary resources and procedures required to implement an effective system, guidance on both the management of the media and family response during an incident, and the related training and emergency response exercise methodology to test the procedures in place and improve them on a regular basis.

Our thanks to Nigel Hope of Technip for this article.





regional news

Europe & Africa

UK Bribery Act - International Impact

The UK Bribery Act came into force on I July 2011 and applies to all companies conducting business in the UK, including foreign commercial organisations operating in the UK, and their employees or business partners – including those based overseas. Under the Act, in a particular case of bribery, it is a full defence for an organisation to prove that it has adequate procedures in place to prevent persons associated with it from bribing. Companies will therefore need to assess the risk of bribery being committed on their behalf and ensure they have appropriate policies and procedures in place. As is already the case, facilitation payments are considered bribes. The UK government guidance on the type of procedures companies could put in place can be downloaded from http://www.justice.gov.uk/guidance/making-and-reviewing-the-law/bribery.htm and further details can be found in information note IMCA SEL 09/11.

Once again IMCA is pleased to be a sponsor of SPE's Offshore Europe in Aberdeen, UK on 6-8 September 2011, and we will be at Stand No ID64. The Europe & Africa Section will hold its meeting from 09:30 hours on 7 September in the AECC meeting rooms and all members at the event are welcome. The section meeting will update members on the regional work, report on the reformed renewables workgroup and have a presentation and discussion session on decommissioning.

South America

The section will next meet on 21 September 2011 in Rio de Janeiro, Brazil. The meeting will include a presentation on training, competence and personnel shortages. This subject was aired at the previous meeting and dominates concerns about the upcoming boom of work in the region.

Middle East & India

The section has elected its new Chairman, Christopher Rodricks of SEAMEC, who takes over from Roy Donaldson of Topaz Marine. We thank Roy for his service to the Section since May 2009 and we congratulate Chris on his new role.

IMCA held a briefing session in Baku, Azerbaijan on 15 June – the first time IMCA had held a meeting there. The event was opened with a welcoming address from Rauf Veliyev of SOCAR, the national oil company, and was followed by presentations on IMCA and its structure, the implementation of subsea engineering solutions utilising ROV intervention tooling, the CMID and vessel assurance, annual diving system auditing, and marine challenges in operating in the Caspian Sea. A further briefing session will be held in Baku on 6 October 2011.

IMCA is pleased to be one of the supporting organisations of the Seatrade Middle East Workboats, taking place in Abu Dhabi, UAE. We will be exhibiting at the event and hope to see a number of members and industry colleagues at stand T10.

Asia-Pacific

The section has a new Chairman – Steve MacMillan of McDermott International Inc., taking over from Andy Bolton, who retired from Technip in June 2011. We wish Andy well and congratulate Steve on his new role. As Steve was Vice-Chairman, an election will be held for this role. The next section meeting will take place in Kuala Lumpur, Malaysia on 20 September 2011, including presentations on the optimisation and preservation of off-hire assets and dry underwater welding, and workshop sessions on nitrox diving – with consideration given to proposed new nitrox guidance, vessel assurance and the use of the IMCA vessel assurance framework.

Central & North America

The next section meeting will take place in Houston, USA on 8 September 2011, together with a workshop on competence. The workshop will contain a mixture of short presentations and discussion sessions and will include an overview of the IMCA competence assurance and assessment framework, case studies from members on implementing in-house schemes based on this framework and discussion on the newly introduced Safety & Environmental Management System (SEMS) and its impact on regulating competence schemes.

The 4th Annual Canadian Underwater Conference and Exhibition is to be held in Vancouver, Canada from 23-25 October 2011. The theme is man & machine underwater: allies or adversaries, and Paul Evans will be attending as a speaker to present a paper on diving alongside ROVs, focusing on IMCA's guidance on ROV intervention during diving operations and guidance on simultaneous operations. For details visit: www.underwaterconference.ca





diving

Nitrox Update

The workgroup established to develop guidance for surface supplied nitrox diving operations has now met three times, set out key issues to be addressed and prepared an initial draft document. The workgroup is made up of IMCA contractor and supplier members, as well as consultants and representatives from ADC and the UK HSE, and plans to address subjects such as safety considerations, operational limits, risk assessment, equipment failure, fire and explosion risk, maximum partial pressure of oxygen, compressed air intervention, personnel competencies, equipment and selection of decompression tables. The workgroup will also look into commercially available nitrox generators and how they are currently being used offshore. PE

Country	Number of centres	Approving body
Australia	3	ADAS
England	3	IMCA
Italy	2	IMCA
Netherlands	2	NDC
Scotland	2	IMCA
South Africa	2	IMCA
Canada	I	IMCA
Egypt	I	IMCA
France	I	IMCA
Honduras	I	IMCA
India	I	IMCA
Malaysia	I	IMCA
New Zealand	I	ADAS
Norway	I	IMCA
Singapore	I	IMCA

Diver Medic

It is a requirement of IMCA guidelines (D 014) that one member of an offshore dive team, other than the supervisor, who is not diving should be trained to a higher standard of first aid known as diver medic.

In the absence of a scheme, IMCA established one in 1999 for auditing and approving diver medic training and published IMCA D 020 – IMCA Scheme for recognition of diver medic training – guidance for training establishments.

Over the past ten years there has been advancements in medical equipment and the course syllabus for diver medic training has been reviewed. IMCA

aims to revise the guidance accordingly and release it by the end of the year.

Currently the IMCA approved course is offered by 23 training centres in 15 countries (including reciprocal agreements in place with the Australian Diver Accreditation Scheme (ADAS) and the Netherlands Diving Centre (NDC)).

More information on approved training centres is available at:

http://www.imca-int.com/ divisions/diving/profile/ personnel/training/medic.html

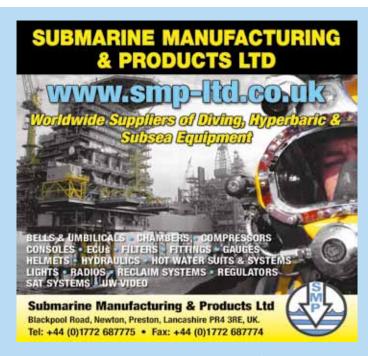
Contractor Membership Still On The Rise

Contractor membership of the IMCA Diving Division continues to expand. As it is the only membership category subject to an assessment procedure involving an audit process, it is often seen as aspirational for smaller or newly formed diving contractors around the world.

The assessment procedure enables a company to demonstrate they have the ability to undertake offshore operations to IMCA guidelines and is split into four phases: document submission, desktop document review, visit to applicant for an on-site audit, and then IMCA Overall Management Committee review. The outcome of the OMC review is either rejection, to grant full membership or to grant a one-year temporary membership. This latter option may be given to a new offshore diving contractor during which time they will be able to gain offshore operational experience before a re-audit is carried out after a year. The audit process itself asks for certain documentation and procedures to be in place, as detailed in information note IMCA D 06/10.

To date, IMCA Diving Contractor membership currently stands at 104, with 16 audits having been carried out so far in 2011. PE





marine

IMO Update

New energy efficiency rules After months of high-level negotiations, IMO agreed in July to adopt new energy efficiency regulations, which are due to enter into force on I January 2013. Ships of 400 GT and above will have to be issued with an International Energy Efficiency Certificate, certifying that a ship specific Ship Energy Efficiency Management Plan (SEEMP) setting out measures for improving operational energy efficiency - is on board. New ships will also have to comply with an Energy Efficiency Design Index (EEDI), although this will not apply to offshore support vessels for the time being.

Revised IMO rules on ships'

Revised IMO rules on ships' garbage (MARPOL Annex V) are due to take effect from I January 2013. There has also been a change in emphasis. Instead of stating which types of garbage may not be discharged, the new rules prohibit the discharge of all garbage unless expressly provided otherwise.

Review of on board noise limits

An IMO correspondence group is finalising the draft revised Code on Noise Levels on Board Ships, for completion in 2012. The group has yet to decide how to address specialist ships, including DP vessels, but IMCA is encouraging IMO to maintain the current exclusions for crane and pipelaying barges and to ensure any revised limits for new vessels do not exceed existing 'comfort class' standards.

Draft polar code

IMCA has been following the development of a mandatory code for ships operating in polar waters. The code will build on the existing polar guidelines and introduce additional mandatory safety and environmental protection requirements, taking account of the specific risks of operating in polar waters. IMO has yet to decide the extent to which the new code will apply to existing ships. For more details on IMO issues, please contact Emily.Comyn@imca-int.com

DP Trials

IMCA has recently published IMCA M 190 - Guidance for developing and conducting annual DP trials programmes for DP vessels - intended to assist vessel operators in the development of a suitable annual DP trials programme. It promotes consistent content for similar vessels, demonstrates more effectively the vessel's ability to maintain position following identified single failures, demonstrates that the DP system is in good working order, contributes to the effective management of the failure modes and effects analysis (FMEA), and ensures best use of time available for DP system tests by effectively identifying which items need regular checks.

Sister publication, IMCA M 191 – Guidelines for annual DP trials for DP mobile offshore drilling units – sets out a programme of continuous trials throughout the year. However, much of the guidance produced in the new document will also be applicable to mobile offshore drilling units (MODUs). JB

IMCA M 211

IMCA M 211 – Dynamic Positioning Station Keeping Incidents: Incidents reported for 2009 (DPSI 20) – has been published and contains 75 DP incidents. The majority of vessels reported only one incident, with a few reporting two or more, giving a rate of 1.63 incidents per vessel for the year, which is still near the average for recent years of 1.51.

Reference systems are seen as the main cause in the majority of incidents. One vessel operator had a number of incidents due to a particular model of laser-based radar and has since upgraded to the newer version. Human error features prominently and two incidents are worth highlighting: placing a logbook on the surge switch of the DP control; mistaking the DP changeover switch for the light switch. Both these show lack of attention - a cause in a number of other incidents. IMCA encourages members to report not only the incident and its causes, but

also the remedial action to





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marine

resolve it, any actions taken to prevent recurrence, and lessons learnt. IG

Lifeboat Weights

IMO has agreed to increase the assumed weight of persons for lifeboats from 75 to 82.5 kg. However, to take account of the increased average weight of personnel working offshore, a number of coastal states have been adopting different requirements for lifesaving appliances on offshore installations. In some cases, operators are having to retrofit larger lifeboats or reduce the lifeboat POB to take into account the increase in assumed weights.

These different requirements may impact on offshore vessels working under a safety case, and vessel operators should therefore ensure they are aware of the differences and have considered how to work with the different regimes.

This issue has been addressed by the offshore regulatory authorities in a number of

countries, including Australia, Canada, Norway and the UK. There will be a workshop on this issue at the IMCA annual seminar in New Orleans in November, EC

UWSH Guidance

Vessel owners and operators frequently have a need for underwater ship husbandry (UWSH) involving the repair, maintenance or survey of a vessel's hull and underwater appendages. IMCA M 210 -Guidance for the selection of diving contractors to undertake underwater ship husbandry gives guidance on good practice and ways underwater ship husbandry diving operations can be carried out safely and efficiently, advice on the selection of appropriate and suitable diving contractors, and the health and safety requirements for the management, planning, supervision and execution of work.

The guidance covers diving in support of underwater ship husbandry or classification society inspection, and survey carried out offshore, inshore or in harbour. Offshore diving operations in support of oil and gas industry activities are specifically excluded. IB

NWEA Guidelines

The North West European Guidelines for the Safe Management of Offshore Supply and Rig Move Operations (known as the NWEA Common Guidelines) are currently being updated by a group organised by the Marine Safety Forum. In addition to the steering committee there are four workgroups covering anchor handling and rig moving, competencies, base operations, and general operations and project support.

Two countries are currently looking at issuing similar guidance. Australia is referencing the NWEA Guidelines but adding region-specific requirements or guidance; in the USA the Offshore Operators Committee Marine Safety and Security Group has

established a sub-committee called the Marine Operations Risk Advisory Committee (MORAC) to look at this area. IMCA is involved in each of these and it is hoped that, when developed, the guidance for all these areas will be comprehensive and area compatible. IG

Crane Logbook

In September last year IMCA published a crane logbook, which is intended to assist vessel operators and Masters by providing a format for keeping a useful record of the operational history of cranes on vessels, especially where automatic data recording is not available or is insufficient. The logbook addresses the need to record key events in the life cycle of an offshore vessel crane, including routine and unexpected maintenance and details of any involvement or accidents. The logbook can be purchased via our website or by contacting publications@imca-int.com

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Guidelines for GNSS Positioning

Since 2009 a technical workgroup consisting of representatives from OGP, IMCA and the marine seismic survey industry has thoroughly revised the 1994 UKOOA Guidelines for the use of GPS in offshore surveying. This updated document has been jointly issued by OGP and IMCA as Report No. 373-19 and IMCA

S 015 – Guidelines for GNSS positioning in the oil and gas industry.

The document applies to the use of GNSS in survey and positioning related activities in the oil and gas industry, and in similar operations relating to renewable energy, telecommunications and engineering projects. Its seven sections include an introduction summarising the global navigation satellite systems available and the observables, the relative and absolute positioning systems and techniques, and updated coverage of the augmentation services available from service providers. Practical guidance is provided in sections dealing with installation and operation issues, geodetic considerations, and atmospheric and other environmental influences. Most importantly, these new guidelines retain the recommended measures for assessing the quality of GNSS position fixes. The section on quality assessment and statistical testing includes examples and provides a comprehensive overview of the recommended measures based on the Delft method.

Printed copies are available through the IMCA website, where PDF copies can also be downloaded free:

http://www.imca-int.com/divisions/survey/publications/ NH

Issues with GPS Jamming

IMCA has been following developments in the USA that could lead to GPS radio signals being jammed or otherwise interfered with, with potentially serious consequences for the safety and integrity of members' operations.

IMCA has published information note S 04/II about the LightSquared (www.lightsquared.com) proposal to develop a country-wide wireless broadband communications network integrated with satellite coverage, with up to 40,000 base stations built across the US. The frequencies transmitted by these base stations would be close to the frequencies used for GPS, but at a much greater amplitude, and it has been shown that many GPS receivers would experience serious interference from these transmissions. There is continuing debate regarding the proposals, including a lobbying group opposing them, and – although the biggest impact would be for land based activity – it is believed that it has potential to cause disruption 20-30 km offshore.

IMCA has also published information note S 03/11 drawing members' attention to possible vulnerabilities in the wider area of global navigation satellite systems, particularly where they are used for safety-of-life critical systems. The UK Royal Academy of Engineers has released a study of these, which can be downloaded from: www.raeng.org.uk/news/publications/list/reports/Global_Navigation_Systems.pdf NH

Offshore Survey Factsheet

The IMCA secretariat has a rolling programme of revising promotional material, and recently the factsheet for offshore survey activities underwent a revision.

The new factsheet, including updated images can be seen at www.imca-int.com/documents/factsheets/IMCA-fs-Survey.pdf NH





remote systems & rov

Subsea **Metrology Document**

Members of the Offshore Survey Division Management Committee are working on a subsea metrology document, which is currently being prepared for publication. The document will cover the main techniques used in subsea metrology today, including basic information on the use of each technique, such as their advantages and disadvantages and engineering requirements. The metrology techniques covered are: diver and digital taut wire, LBL acoustics, inertial navigation systems (INS) and photogrammetry. The document is aimed at surveyors and surveying organisations, vessel personnel, design engineers, fabricators and client organisations. It should be available for download from the IMCA website during the autumn, with printed copies also available to purchase. NH

Update of Guidance

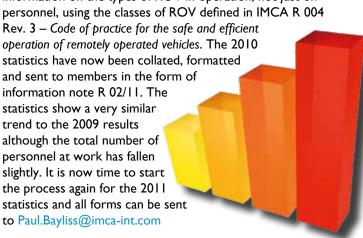
IMCA has started work on updating its guidance note on the use of ROVs during diving operations.

Since the document was originally produced the size, weight and power of workclass ROVs has increased considerably. The **ROV** Division Management Committee has agreed that the document should be updated to reflect the changes and the need for risk assessment before undertaking operations. JB

ROV Statistics for 2010

After many years collecting ROV personnel statistics for the North Sea area (Denmark, the Netherlands, Norway and the UK), IMCA took the decision two years ago to also collect information on the types of ROV in operation, not just on personnel, using the classes of ROV defined in IMCA R 004 Rev. 3 – Code of practice for the safe and efficient

information note R 02/11. The statistics show a very similar trend to the 2009 results although the total number of personnel at work has fallen slightly. It is now time to start the process again for the 2011 statistics and all forms can be sent



Consultation on Dual-Use Export Controls

The European Commission is carrying out a review of the EU dual-use regulation (Regulation 28/2009) on export control systems for dual-use products.

A number of components used in offshore survey and ROV equipment also have military uses, so under the regulation some offshore products require special export licences if they are moved between countries.

The review provides a good opportunity for the industry to raise any concerns about difficulties caused by different national approaches to export control and to suggest changes to the way products moved between countries as part of a project mobilisation, rather than being exported for re-sale, are treated.

The consultation closes at the end of October. Details have been circulated to ROV and Offshore Survey division representatives in the Europe & Africa Section and further information is available from Emily.Comyn@imca-int.com

Our recent project reference list for the supply of heavy lift slings and grommets for the installation jobs offshore, reads like a 'Who's Who' of the offshore construction Ssao Marlim P-37 Project (Brazil) Kipper Tuna Field (Australia) Montara Field (Australia) Iwaki Decommissioning Project (Japan) North Tapti Field (India) Gumasut J-Lay Tower Upgrade (Malaysia) Gorgon Barrow Island (Australia) Saudi Aramco Long Term Agreement (Saudi Arabia) With full rigging and heavy lift sling manufacturing capability including a 2,000MT test bed in Singapore and a 1,000MT test bed in Sharjah, UAE, KTL Offshore can deliver your precision made slings to your doorstep. KTL Offshore Heavy Lift Slings - Lifting You Into The Future! **Our Distinguished Partners:**





SPOTLIGHT ON JOAR GANGENES

Joar Gangenes is Diving Manager for Subsea 7 SA and serves as Chairman of IMCA's Diving Division Management Committee. In this article he discusses his 'day job' and provides a personal insight into the work his section is currently undertaking on behalf of members in his division.

Please tell us about your company and what it does

The merger of Acergy SA and Subsea 7 Inc. in January 2011 created Subsea 7 SA - a global leader in seabedto-surface engineering, construction and services. We offer clients access to a high-end, diversified fleet of 42 vessels, supported by extensive fabrication and onshore facilities that deliver the full spectrum of subsea engineering, construction and services. Subsea 7 SA is well positioned to take advantage of future growth opportunities in the global seabed-to-surface market and deliver complex offshore projects in safe and sustainable ways.

A lot of new challenges are coming to our industry.

What is your current job?

I am currently Diving Manager with Subsea 7, responsible for minimum standards for manned underwater operations world-wide. Our fleet consists of nine diving support vessels (DSVs)

that operate world-wide. The manned underwater intervention is just one of the services we offer to our clients, from deepwater diving in Brazil to the shallowest surface supplied intervention, such as support to FPSOs.

How did you get to where you are in your career today?

I started in the industry in 1983 as a diver for Stolt Nielsen Seaway, then had various positions before becoming Offshore Manager for a range of projects such as diving operations, ROV and heavy lifting. Part of my role was to oversee projects from tender to installation. which gave me a valuable insight into all parts of a job. For the past decade I have held the position of Diving Manager as Subsea 7 and it has continued to evolve. I represent the company in the IMCA Diving Division Management Committee, OLF Network for Underwater Operations and meet with oil and gas producers at the Diving Industry Workgroup.

What do you see as the key areas affecting the industry at the moment?

The key areas are the safety of personnel and the

economic ups and downs of the industry, driven by oil prices. When people are hurt in our operations it affects their family, the company and the industry as a whole. The ups and downs make it very difficult to build and keep a consistent capacity in teams on our offshore and onshore assets. It is common that the industry either all employ or all reduce personnel at the same time, depending on the oil price. Both these safety issues and the fluctuations in the economy have an effect on who is attracted into the industry.

We need to focus on our personnel to reduce the effect of changes in demand.

How can these issues be taken forward?

A safe and incident-free workplace must be the main focus. By employing robust processes and barriers, as well as encouraging a safety conscious culture and mindset, we are most

likely to keep the risk at an acceptable level. The oil price is not something which is as easy to control with all the various factors affecting it, but we need to focus on our personnel to reduce the effect of these changes in demand.

How do you think IMCA makes a difference?

IMCA makes a difference by encouraging common industry practices, based on lessons learnt from the industry as a whole and at company level. These industry practices and guidelines help to reduce risk and establish controllable boundaries. I believe that our approach for a more international view on all aspects will, over the long term, reduce incidents in the industry as a

How do you see the future?

I am optimistic about the future! A lot of new challenges are coming to our industry and new technology is being brought in to meet them. IMCA is, with its contact network in different regional and world-wide organisations, very well positioned to help to reduce incidents and attract more personnel to our industry.



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makingwaves

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Welcome to the IMCA Directory!

The following pages contain details of IMCA's recent publications, safety flashes and information notes, as well as the members of IMCA's various management committees and a list of current members

More details and links to the websites of some of our members can be found at www.imca-int.com/members

The directory is compiled in advance of Making Waves going to print and is correct as at the date stated.

NEW PUBLICATIONS

- Guidance on the use of simulators, Rev. I (IMCA C 014)
- Common Marine Inspection Document, Issue 8 (IMCA M 149)
- Guidance for developing and conducting annual DP trials programmes for DP vessels (IMCA M 190)
- Guidance for the selection of diving contractors to undertake underwater ship husbandry (IMCA M 210)
- Dynamic Positioning Station Keeping Incidents: Incidents reported for 2009 (DPSI 20) (IMCA M 211)
- Guidelines for GNSS positioning in the oil & gas industry (IMCA S 015)

SAFETY FLASHES

- Safety flash 05/11 covering six incidents: Near miss: Safety flash 05/11 – covering six incidents: Near miss: security of equipment; improper use of tools: bruising; Lack of safety awareness: crush injury during lifting operations; Anchor handling incident; Diver safety – high pressure water jetting; Failure of fall wire – fatality

 Safety flash 06/11 – covering four incidents: Person fell after safety lanyard failed; Confined space – multiple fatality; Confined space – multiple fatalities: Failed chain link – catastrophic failures in mooring system

 Safety flash 07/11 – covering six incidents: Reliance on crane limits caused crane damage and dropped objects; Galley fryer fire; Shackles in rigging assembly below required safe working load (SWL); Near miss: personnel almost caught between crane house and scaffold pipe; Injury; failure of
- between crane house and scaffold pipe; Injury: failure of subsea HP water jetting gun; Incorrect information in user manual for fixed fire-fighting system
- Safety flash 08/II covering four incidents: Hand injury while using hydraulic impact wrench; Recent near miss incidents involving potential dropped objects; Electrician received electric shock; Fatality after capsize of workboat with eight persons onboard
- Safety flash 09/11 covering one incident: Failure of fall wire - Update to safety flash 05/11

INFORMATION NOTES

COMPETENCE & TRAINING

IMCA C 08/11 Development relating to the Nautical Institute DPO certification

09/11 The Nautical Institute DPO Scheme implementation date change

SAFETY, ENVIRONMENT & LEGISLATION

IMCA SEL 07/11 Summary of 2010 safety statistics for IMCA

Safety statistics for IMCA members: Report for 2010 Implementation of the UK Bribery Act 2010 and its ernational impact

10/11 2011 safety seminar: workshop discussion and table

11/11 Permit to work systems - available resources for

12/11 Audit

DIVING DIVISION

IMCA D 05/11 World-wide diving personnel statistics for IMCA members: statistics for 2010

06/11 Kirby Morgan Dive Systems Inc product bulletins 07/11 Audit

MARINE DIVISION

IMCA M 09/11 The solar cycle maximum and its effect on DP

- station keeping Global Navigation Satellite System (GNSS) vulnerability A report from the UK Royal Academy of Engineer
- 11/11 Development relating to the Nautical Institute DPO
- 12/11 The Nautical Institute DPO Scheme implementation date
- 13/11 Audit 15/11 MAIB accident report into the incident involving the DP vessel 'SBS Typhoon'

OFFSHORE SURVEY DIVISION

IMCA S 02/11 Seabed Survey Data Model (SSDM) - Version 1 03/11 Global Navigation Satellite System (GNSS) vulnerability -A report from the UK Royal Academy of Engineers 04/11 Possible GPS interference - LightSquared

REMOTE SYSTEMS & ROV DIVISION

IMCA R 02/11 World-wide ROV personnel and vehicles statistics for 2010

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Cargotec Norway AS (Offshore) Nexans Norway AS - Energy Division Siem Offshore AS Sundan Offshore Pvt Ltd Nippon Steel Engineering Co Ltd Simon Møkster Shipping AS TGH AP Pte Ltd Chambers Oceanics Ltd Chesterfield Special Cylinders Ltd NIWA Vessel Management Ltd The Tritanium Company by NoelDive Pte Ltd) SMIT Subsea Africa Totalmat Indústria e comercio de Equipamentos Hiperbáricos Ltda Clough Oil & Gas CMC Industries Noordhoek Survey BV SMIT Subsea Asia-Pacific NorSkan Offshore Ltda SMIT Subsea Australia Pty Ltd SMIT Subsea Europe SMIT Subsea Middle East LLC Northern Marine Management Ltd Comanex SAS Converteam UK Ltd Ocean Installer Ocean Technologies Geomatics Sdn Bhd CUEL Ltd SOLL-R Deep Down Inc. Ocean Works Asia Inc. Solstad Offshore Asia Pacific Ltd Divetechnoservice Ltd Divex Asia Pacific Oceaneering International (UK) Solstad Offshore Ltda Oceaneering International Asia Pacific Solstad Shipping AS Unique Hydra Unique System (UK) Ltd Unique System FZE Oceaneering International Inc. Songa Offshore SE Divex FZE Oceaneering Marine Prod. Systems do Brasil Specialist Subsea Services Ltd Divex Ltd OceanWorks International Inc Stapem Offshore SA Dominion Gas Dominion Gas Asia Pacific Pte Ltd Stena Drilling Limited Octomar Odebrecht Oil & Gas Strukton Afzinktechnieken BV Dräger Safety Velocious Pty Ltd Odfjell Drilling Subsea 7 Singapore Contracting Pte. Ltd Drass Energy Vroon Offshore Services Ltd Eastar Offshore Pte Ltd Offshore Geo-Surveys Sdn Bhd Subsea Petroleum Services Emphor FZCO Offshore Manpower SA Subsea Robotics Services Pte Ltd Fincantieri Cantieri Navali Italiani spa Offshore Marine Management Ltd Subtech (Pty) Ltd Abermed Ltd Offshore Marine Services Pty Ltd Subtech Qatar Diving and Marine Svcs LLC Franklin Offshore International Pte Ltd Acteon Angola Limitada Offshore Oil Engineering Co. Ltd (COOEC) Supreme Hydro Engineering Pvt Ltd Fugro GRL Advanced Marine Pte Ltd SURF Subsea Inc ht I 2MIA Offshore Subsea Works Sdn Bhd Global Gases Australia Pty Ltd Air Products Singapore Pte Ltd Alfa Petroleum Services Offshore Technology Solutions Ltd Global Gases Group FZCO Svitzer Global Gases Group Singapore Pte Ltd Global Gases South Africa (Pty) Ltd Olympic Shipping AS Swiber Offshore Construction Pte Ltd Orogenic GeoExpro Sdn Bhd Swire Pacific Offshore Operations Pte Ltd Alliance Marine Services OSM Offshore AS Target Engineering Construction Co. GMC Ltd Anglo-Eastern Group Great Offshore Ltd Overseas AST Co LLC Technip Oceania Pty Ltd P&O Maritime Services Ltd Technip USA, Inc. Greatship Subsea Solutions (Australia & AP) P&O Maritime Services Pty Ltd Technocean AS Guidance Navigation Ltd Pacific Crest Pte Ltd Tecnosub Huse Engineering AS Pacific Drilling Services Inc Pacific Richfield Marine Pte Ltd Teekay Norway AS Hydrasun Tidewater Inc. IHC Hytech BV Technology Division PBJV Group Sdn Bhd Tidewater Marine North Sea Ltd Intron Plus Pearl River Offshore Limited Tideway Offshore Contractors IXSEA Blade Offshore Services Ltd Pelican Offshore Services Pte Ltd Timsah Shipbuilding Company Joint-Stock Company 'Oceanos'

Singapore Oxygen Air Liquide Pte Ltd Soil Machine Dynamics Singapore Pte Ltd Sources Workshop Equipment Co (LLC) Submarine Manufacturing & Products Ltd Trilleborg Protective Products AB

Trico Marine Group – Europe & Africa

Trim Systems Pte Ltd

TSMarine Pty Ltd Ulstein Marine System (Shanghai) Co Ltd Underwater Technology Services (S) Pte Ltd United Subsea Engineering Pvt Ltd Vanguard Offshore Pte Ltd Anglo-Eastern Group (Asia-Pacific Region) Applied Research International Pvt. Ltd ASP Rope Access Auto Dynamic Positioning Services Ltd Babcock International Group Marine & Bahrain Ship Repairing and Engineering Co Blue Water Engineering (M) Sdn Bhd **BOATLABS AS** Braemar Falconer Bruce Offshore Ltd C-MAR Group CAPE Group Pte Ltd Cescor srl

Petroleum Marine Services Company

PRONAV Ship Management GmbH & Co KG

PFCE Ocean Engineering Sdn Bhd

PT Advanced Offshore Services

Phoenix International

Prosafe Offshore Ltd

TL Geohydrographics Sdn Bhd

Topaz Marine – Azerbaijan

Topaz Marine – Kazakhstan

Total Marine Technology Pty Ltd

Topaz Marine MENA

Topaz Marine

Joint-Stock Company Tetis Pro

Kirby Morgan Dive Systems

Kongsberg Maritime AS Kongsberg Maritime Ltd

JW Automarine

Kenz Figee BV

Consortium Underwater Engineers Ltd Construction Specialists Ltd Cosalt Deep Diving Consultancy Ltd (DDC Ltd) Deep Down Inc. Delta Marine Technologies Inc Derrick Services (UK) Ltd Derrick Services (UK) Pte Ltd Divetechnoservice Ltd Diving and Offshore Works Consultancy DMC Offshore DOF UK Ltd **DRC** Dive Systems Dynamic Surveys
Echelon Claims Consultants Ltd Egyptian Company for Oil Services (ECOS) Emirates Industrial Laboratory Explorer Marine SBoSS ApS Fearnley Offshore Supply Fender & Spill Response Services Flinders EMA Pte Ltd Franklin Offshore Europe BV Franklin Offshore International Pte Ltd GL Noble Denton GL Noble Denton - Asia-Pacific GL Noble Denton - Central & NA GL Noble Denton – Middle East & India GL Noble Denton – South America Global Maritime Global Maritime Singapore GMC Ltd GW & Associates Ltd Hill International (UK) Limited Houlder Insurance Services Ltd IHC Offshore & Marine BV Imes Ltd Inchcape Shipping Services Inchcape Shipping Services – South America Independent Marine & Eng Consultants Independent Risk Solutions BV Inter Mar Technology Ltd InterMoor Marine Services Ltd Interocean Marine Services Ltd Italian Maritime Academy Technologies JSL International (Trinidad) Ltd K2 Specialist Services Pte Ltd KB Associates Pte Ltd KDU Worldwide Technical Services (FZC) Kennedy Marr Ltd Kestrel Maritime Asia Pte Ltd Lexmar Engineering Pte Ltd London Offshore Consultants Ltd M3 Marine Group Pte Ltd Marex Marine Services Ltd Marine Cybernetics Marine Q AS Marine Solutions (Pty) Ltd Maritime Assurance & Consulting Ltd Maritime Management Services Inc MatthewsDaniel MCA Electric Co Ltd MCS Free Zone Medea srl Modular Underwater Systems Ltd MOS Marine Offshore Services Pte Ltd National Hyperbaric Centre Nautronix Ltd Navigare International Inc. ODS-Petrodata Pte Ltd Offshore Commissioning Solutions Offshore Technical Management Solutions International OK Welding Marine Ltd Orwell Offshore Ltd PAE Singapore Pte Ltd PEM Offshore Ltd Perry Slingsby Systems Ltd Peterson SBS Den Helder BV Petrofac Marine Services Positioneering Ltd Primo Marine PRO Marine Solutions Pvt Ltd PT Rigspek Perkasa PT Sirius Maritimindo Services QinetiQ Reel Group Ltd

Rolls-Royce Power Engineering plc

Romona Inc Saturation Services LLC

Scanmudring

Schilling Robotics Ltd Schilling Robotics, Inc. Schulte Energy Services Ltd Seacroft Marine Consultants Ltd Seanetics Asia Works Pte Ltd Sebastian AS Sigma Offshore Ltd Skan-El AS Skuld AS Soil Machine Dynamics Ltd Solstad Offshore Ltda Southern Marine Consult AS Sparrows Offshore Services Ltd Specialist Marine Consultants Ltd Spica Marine Inspections Ltd STAT Marine SAS Sub-Tech Systems Ltd SubNet Services Ltd Subsea Vision Ltd Survey Association The Tritanium Company by Thome Offshore Management Pte Ltd Tristein AS Underwater Technology Services (S) Pte Ltd United Subsea Engineering Pvt Ltd V.Ships Ltd Veripos VideoRay LLC Viking Moorings Ltd VNSafety Ltd Vroon Offshore Services Ltd Wartsila Electrical & Automation Services Wavespec Ltd Westcon Power & Automation AS Xing Wei Pte Ltd Ace Diving Services CC

Alfa Petroleum Services Atlas Seistech Atlas Services Group Australia Pty Ltd Bibby Ship Management Group Ltd – E & A Bibby Ship Management Group Ltd - ME & I Compass Personnel Services Inc Connect Energy Services Pte Ltd Dave Oliver Hydrographic Services Ltd De Moura Shipping Ltda Hydrosub Ltd IOS (International Offshore Services) Lerus Ltd Maritech Group Naurex Resources Nautech Services Ltd Offshore Marine Services UK Ltd OilExec International Oilfield Medics UK Ltd OSM Crew Management Aberdeen Ltd Petrolis Pharos Offshore Group Ltd PR Offshore Services Ltd ROVin Marine Ltd Saturation Services LLC Seatek India Sheffield Offshore Services Pte Ltd SubNet Services Ltd. SubNet Services Ltd - Asia-Pacific SubServPro Team Trident LLC

Verret Marine Services

Total Marine Services

Underwater Engineering Ltd

LIKPS Offshore

Abyss AS AdriaMare Maritime Training Center Advanced Offshore Training Centre Pvt. Ltd Ålesund University College AMC Search Ltd ASET International Oil & Gas Training Academy Banff & Buchan College

The Underwater Centre Fremantle Pty Ltd

Bergen University College – Diver Education Bibby Ship Management Group Ltd – E & A Bibby Ship Management Group Ltd - ME & I Bonifacio Srl **BS** Divers

Centre for Marine Simulation Centre Mediterraneen de Plongee Professionnelle (CMPP) CFO - Centro Formazione Offshore Code Blue Nurses London Pty Ltd

Commercial Diving Academy Daniels Maritime Group De Moura Shipping Ltda Divers Academy International Divers Institute of Technology Divers University Esporte Aquático Ltda Diving Diseases Research Centre Ecole Nationale Supérieure Maritime Falck Nutec by First Ukrainian Maritime Institute Force Technology Fundação Homem do Mar GL Noble Denton Global Marine Systems Ltd – Subsea Training Holland College – Marine Training Centre Hydro Oil & Gas Training Hydrolab-HydroCAT i-ÚTecH IDESS Maritime Centre (Subic) Inc. Institut National de Plongée Professionnelle Interdive Services Limited ISFORM. KBA Training Centre Pte Ltd Kirby Morgan Dive Systems Marine Solutions (Pty) Ltd Maritech Group Maritime Institute Willem Barentsz Maritime State Uni. named after G.I. Nevelskoy Maritime Training & Competence Sol. Ltd MOG Industry Training Co. Ltd MSTS Asia Sdn Bhd National Hyperbaric Centre National Oceanography Centre Netherlands Diving Centre North Sea Lifting Ltd NZ School of Commercial Diver Training Occupational Training Centre Pte Ltd Offshore Marine Academy Ltd Offshore Skills Training Centre (OSTRAC) Pan Arab E-Navigation DP Training Center Perry Slingsby Systems Inc. PNI Training Centre AS Polaris Learning Ltd Power & Generation Services Professional Diving Academy Professional Diving Centre PT Barron International PT ISBI PVD Technical Training and Certification Joint Stock Company Satakunta University of Applied Sciences SBS Intl Ltd SEADOG Stord/Haugesund University College

Seahorse Services Co Ltd Seahorse Services Co. Ltd – Training Seneca College – Underwater Skills Program Ship Manoeuvring Simulator Centre AS Skilltrade BV SMTC Global Inc. Sogn og Fjordane Tech. Coll., Maritime Dep't Måløy STC-Group

STORM Ltd. SubNet Services Ltd SubNet Services Ltd – Asia-Pacific Survie Mer Formation TGH AP Pte Ltd The Dynamic Positioning Centre Ltd The Faraday Centre Ltd The Ocean Corporation

The Underwater Centre (Tasmania) Pty Ltd The Underwater Centre Fort William Ltd The Underwater Centre Fremantle Pty Ltd The Underwater Training Centre – S Aus Underwater Engineering Ltd

WA Maritime Training Centre - Fremantle YAK Diving Academy

Irish Naval Service

Salvage & Marine Operations IPT

Royal Saudi Navy Forces

ABS Europe Ltd Abu Dhabi Marine Operating Company Agip Kazakhstan North Caspian Op. Co. NV Associazione Imprese Subacquee Italiane Azerbaijan International Operating Company Bahamas Maritime Authority Bapco – The Bahrain Petroleum Company BG Americas and Global LNG – C & NA BG Americas and Global LNG – S America

BG Group BHP Billiton **BP America Production Company** BP Berau BP Exploration Operating Company Ltd Brunei Shell Petroleum Company Sdn Bhd Cairn Energy India Pty Ltd Chevron Brasil Petroleo Ltda Chevron Energy Technology Co. Subsea Chevron Nigeria/Mid-Africa Chevron Shipping Co. Chevron Thailand Exploration & Prod. Ltd CNR International UK Ltd ConocoPhillips ConocoPhillips (UK) Ltd ConocoPhillips China Dana Petroleum Netherlands BV Dana Petroleum plc Department of Labour (South Africa) Det Norske Oljeselskap ASA Det Norske Veritas Dolphin Energy Ltd DONG E&P AS Equion Energia Limited Esso Australia Pty Ltd ExxonMobil Development Company GDF Suez E&P Nederland by Germanischer Lloyd SE Gulf of Suez Petroleum Company (GUPCO) Health & Safety Authority Husky Energy IBP International Diving Schools Association Kuwait Oil Company Maersk Oil North Sea Ltd Maersk Oil Qatar AS Marathon Oil Norge AS Mobil North Sea LLC

> National Offshore Petroleum Safety Auth. Nautilus Minerals Nederlandse Aardolie Maatschappij BV Newfield Peninsular Malaysia, Inc Nexen Petroleum UK Ltd Noble Energy Offshore Operators Committee (OOC)

Murphy Sarawak Oil Co. Ltd

OGP Oil & Natural Gas Corporation Ltd Perenco UK Ltd Petrobras Premier Oil Natuna Sea

Premier Oil ONS Ltd PT Pertamina Hulu Energi ONWJ PTT Exploration & Production plc

Qatar Petroleum Ras Laffan Industrial City RasGas Company Limited Sarawak Shell Berhad Shell International Exploration & Prod. by Shell Petroleum Dev. Co. of Nigeria Ltd Shell Todd Oil Services Ltd Sonangol Pesquisa & Produção Statoil ASA Suncor Energy Inc. Talisman Energy (UK)

Total Austral (Argentina) Total E&P Indonesie Total F&P Nederland BV Total E&P UK Ltd Total Exploration & Production Wintershall Noordzee BV Woodside Energy Ltd

Talisman Malaysia Ltd

The Crown Estate

Zakum Development Company (ZADCO)



FORTHCOMING EVENTS

- 6-8 September 2011 Offshore Europe 2011 Aberdeen, UK
- 7 September 2011 Europe & Africa Section Aberdeen, UK
- 8 September 2011 Central & North America Section Houston, USA
- 8 September 2011 Competence Workshop Houston, USA
- 12 September 2011 Vessel Assurance Workshop Aberdeen, UK
- 9-20 September 2011 Marine Operations Supporting Offshore Wind Conference London, UK
- 20 September 2011 Asia-Pacific Section Kuala Lumpur, Malaysia
- 20-22 September 2011 Rio Pipeline Conference & Exposition Rio de Janeiro, Brazil
- 21 September 2011 South America Section Rio de Janeiro, Brazil
- 3-5 October 2011 Seatrade Middle East Workboats Abu Dhabi. UAE
- 4 October 2011 Middle East & India Section Abu Dhabi, UAE
- 6 October 2011 Briefing Seminar Baku, Azerbaijan
- 11-12 October 2011 Dynamic Positioning Conference Houston, USA
- 11-13 October 2011Deep Offshore Technology Int.New Orleans, USA
- 8 November 2011 Central & North America Section New Orleans, USA
- 9-10 November 2011
 The future of marine and subsea operations
 IMCA Annual Seminar
 New Orleans, USA

ANNUAL SEMINAR 2011 O IMCA -OMCA IMCA-INT.COM /EVENTS/SEMINAR NOV **OIMCA ENDORSED BY:** Committee OCIMF AMERICAN PETROLEUM INSTITUTE offshore support WWW.IMCA-INT.COM IMCA BRIEFING SEMINAR Introducing IMCA, its role, activities and membership BAKU Monday 12 September Trinity Hall, Aberdeen, UK Thursday 6 October Hyatt Hotel, Baku, Azerbaijan

For full details on all events, please visit our website: www.imca-int.com/events