

Reports from our workshops in Singapore and Aberdeen

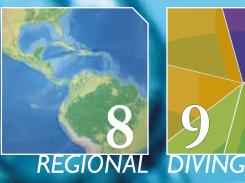
COMPETENT

# making waves issue 59 CONTENTS























# From the **President**

Andy Woolgar, Subsea 7 IMCA President 2011



IMCA is a multi-faceted trade association. It covers a wide membership of all types of companies, all around the world, dealing with all forms of marine construction. I would like to remark on some apparently disparate events and draw together a few separate threads.

Several new members have joined, and amongst them are the International Association of Oil & Gas Producers (OGP) - our second reciprocal membership with a parallel organisation - and a large international oil company that, plus one other, brings the Corresponding membership to 79. We have worked with these two companies on several matters for some time, so it is a pleasure to see they are both now in membership.

The IMCA social season is now upon us and I attended a great event on the HQS Wellington in London. A report features in this issue, as does one from the annual golf day. The midsummer ball is just around the corner, too.

IMCA is well known for its technical guidelines, but the Association has also just launched some new contracts materials: an international marine construction contract and contracting principles for general and more specific decommissioning work. I recognise that a lot of hard work goes into creating such documents by those who are prepared to debate and find elegant wording that satisfies all parties, whilst sticking to the required fundamentals.

So in three seemingly disparate events where is the common thread? IMCA aims to provide members with a common language to use where appropriate. If that language is to be understood it is important that IMCA is recognised. This in turn means we need to raise our profile in all the relevant arenas. Increased membership improves the capacity for spreading the word and visibility of IMCA, in this case through two very relevant, big, widespread, international organisations becoming members. **Providing** opportunities for members to meet is a conduit to better dialogue when members can relax and take their engineering/ commercial hats off and get to know one another on a social plane. Many's the time that I have discovered important common ground at such occasions! Lastly, the published word - in this case on contracts - provides the common language that we can share.

Through these means, IMCA endeavours to deliver some of its objectives:

- to strive for the highest possible standards with a balance of risk and cost in health and safety, technology, quality and efficiency, and environmental awareness and
- to achieve equitable contracting regimes;
- to resolve industry issues;
- to promote co-operation across the industry.

# around IMCA

## Nina Adams **Retires**

Nina was IMCA's longest serving member of staff when she retired at the end of March 2011. At one stage she was the only member of the support staff carrying out all our roles, but by the end of her time at IMCA she was one of 12 support staff and specialised in publications sales. She has served three Chief Executives since her association with AODC in lune 1991 and transfer to IMCA employment in the late 90s. Nina had spent some of her career in French speaking countries before settling back in the UK and was IMCA's linguist when French was required. IMCA and the staff clubbed together to give her a resounding send off and some gifts to start her retirement. We owe her a great debt of gratitude and wish her every happiness. Michelle Salway has since taken over Nina's role as Publications Sales Co-ordinator, HW

## **New Staff** Member



Kayleigh joined IMCA in March 2011 as our Receptionist & Office Administrator. She assists the Support Services team in various administrative tasks - in particular publications sales - as well as being the first point of contact on the telephone and for visitors. KG **NewIMCAContractsMaterials** 

IMCA has launched three new documents:

- IMCA Marine Construction Contract:
- IMCA General Contracting Principles Rev. 1;
- IMCA Decommissioning Contracting Principles.

These are available from our website:

www.imca-int.com/core/contracts

The IMCA Marine Construction Contract is a new, worldwide standard contract for use by any party as appropriate.

The revision of the IMCA General Marine Contracting Principles is an update of the existing document and adds a new principle: number 16 on Extraordinary Risk.

The IMCA Decommissioning Contracting Principles are based on the General Principles, but cover the different aspects appropriate to a decommissioning project.

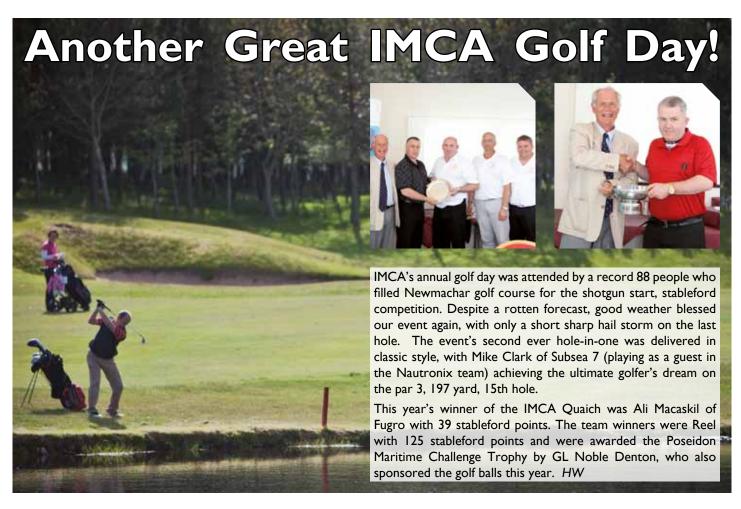
We are indebted to the hard work of members of the IMCA Contracts & Insurance Workgroup who drafted these documents. In the normal way, IMCA

does not make the use of these documents mandatory in any way, but we hope you will find them useful and, as ever, we would be pleased to receive any feedback. HW





# around IMCA



## Wellington Reception

IMCA's annual social reception on the HQS Wellington attracted a record attendance of nearly 200 people. This year the event was held on the after-deck so guests could enjoy the open air of a beautiful evening and the river views. As it followed the launch of the new contractual materials (see page 3) there were many attendees with legal and insurance backgrounds. These professions are two vital contributors to safe and efficient projects and our members interact with many such organisations in London, making this event especially relevant. HW

# **SPE Offshore** Europe 2011

IMCA is again a supporting for organisation Offshore Europe 2011 taking place at the Aberdeen Exhibition Centre, UK, from 6-8 September 2011. The conference and exhibition attract a global audience of engineers, technical specialists, industry leaders and experts to share ideas and debate the issues of the moment in the upstream industry. The event is multi-faceted and reflects the E&P community's desire for continuous learning,



# **Offshore Europe**

Oil and Gas Conference and Exhibition

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showcasing the innovation, solutions and tools required to compete in an accelerating technology race in an increasingly complex business.

IMCA will be exhibiting on stand ID64 in Hall I and we would be pleased to see members

Register for your free delegate badge at http://www.offshore-europe.co.uk/ HW

# core activities

# A Tale of Two Workshops

**Singapore** 

Encouraging Competence workshop was held on 11 May Singapore. Around 115 people attended the mixture of formal presentations and round table discussions. Andv Bolton chaired the event on behalf of IMCA's Asia-Pacific section, which included presentations on the IMCA framework, competence the use of simulators in training and competence assessment, and two on assessment verification and administration - the first on roles and responsibilities and the second on how develop suitable scheme for your company. The round table discussions focused on three main areas: how an effective competence scheme can be developed; secondly, the role

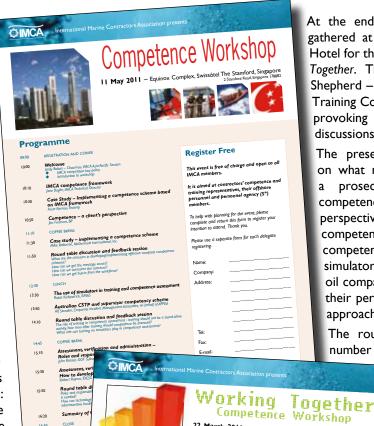
of training and simulators in competence assessment; thirdly, technology can be used in implementing competence schemes.

In summarising the day's proceedings, Andy Bolton identified the following points:

- There wasn't a one size fits all process for competence schemes, with each company needing to develop a process that suited their needs. Experience could be gained from companies who had developed schemes and from service providers;
- A number of presenters had emphasised the need to have in place adequately trained assessors and verifiers:
- There was a need to communicate properly the benefits to offshore personnel when rolling out a competence scheme and to get their buy-in.
- Time for implementation it needed to be recognised that successful implementation of a company scheme would take time to achieve. JB

14:50

Feedback – actions and way forward



22 March 2011 - Hilton Aberdeen Treetops Hotel, Aberdeen, UK **Programme** Transferability of competence David Maxey, Northern Marine Management

**Aberdeen** 

At the end of March around 100 people gathered at the Hilton Aberdeen Treetops Hotel for the competence workshop Working Together. This event, introduced by Steve Shepherd - Chairman of the Competence & Training Committee - was a mix of thoughtprovoking presentations and round table discussions.

The presentations included a legal view on what needs to be in place to defend a prosecution following an accident, competence from a personnel agency's perspective, the transferability/portability of competence, using e-portfolios to administer competence, the use of technology and simulators in competence assurance, an oil company's approach to competence of their personnel and a drilling contractor's approach to competence assurance.

The round table discussions tackled a number of topics and questions:

- ♦ How do we ensure that agency personnel are included in competence assessments?
- Do we need common approaches to competence schemes?
- The value of e-learning, technical advances in learning/ competence assessment and use of simulators;
- The value of competence - why are/aren't people buying into competence?
- What can we learn from others, what can we do differently?

The day concluded with the Chairman giving a summary of the day's proceedings and identifying actions that IMCA should take forward, which included reviewing associations'

systems, developing further materials, continuing to try to get the message across and considerations within the renewables sector. IG

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# core activities

# **New Safety Posters Safety Stats**



IMCA has recently published a series of four new posters covering behavioural aspects of safety. According to members' findings more than half of all incidents have one of four behaviours as an immediate cause. These behaviours are: not looking where you're going; getting into the line of fire; improper use of tools and equipment; and failing to keep three points of contact on ladders and stairs. Using the same

humorous style as the previous IMCA safety posters, these are easy to understand and are intended for use primarily on offshore vessels and installations. They are available to members as a free download, and include room for members to include their own corporate identity as required. The posters can also be purchased from IMCA in the usual way. NH

The report on IMCA members' safety statistics for 2010 is being finalised. IMCA has received data from 172 contractor members that, given the ongoing growth of the association, represents over half of the contractor membership. The safety statistics exercise is an important benchmarking tool providing an accurate picture of safety performance in our industry.

IMCA is grateful to all those who have contributed but encourages even greater participation in future years. Last year IMCA successfully published two information notes with safety stats. The first was a brief high impact summary of the statistics, outlining the key facts. The second was a more detailed and longer appendix with much more information. We will continue in the same way this year.

## **Prep for the STCW Amendments**

Major amendments to the International Maritime Organization (IMO) International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (the STCW Convention and Code) are due to take effect on 1 January 2012.

The changes include:

- New work hour regulations, which will apply to all STCW personnel and not just watchkeepers;
- Extra security training requirements, including new basic security training for all seafarers;
- New training and certification standards for electrotechnical officers (ETOs), which will apply to ETOs serving in the marine crew;
- Additional requirements for refresher training as part of the five year STCW revalidation;
- New guidance on the training and experience of dynamic positioning operators (DPOs).

There will be a five year transitional arrangement for existing seafarers, but the new requirements will apply for new seafarers from 1 January 2012. Companies should look into whether they need to adjust their training and competence requirements for marine personnel. EC



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# core activities

The preliminary results indicate that this year there has been a slight rise in the overall total recordable injury rate (TRIR) from 2.53 in 2009 to 2.94 last year, and a slight rise in the overall lost time injury frequency rate (LTIFR) from 0.67 in 2009 to 0.73 last year. Of the 393 lost time injuries recorded by IMCA members in 2010, 27% were caused by being 'struck by moving or falling objects', 22% by 'falls on the same level', and 12% were categorised as 'struck against'. NH

# Other SEL Initiatives

The SEL Core Committee has developed a busy work programme, and the chairman is working closely with the secretariat to facilitate the completion of important items in as timely a way as possible. Information notes being developed include one covering resources for dropped object prevention and one on permit to work. An Offshore Safety Adviser's logbook is being drafted in co-operation

with the Competence & Training Core Committee. The Committee is looking at developing guidance in a range of areas, including occupational health, safety in shipyards, and emergency response/crisis management. A DVD on confined space entry has been proposed and a workgroup will be taking this forward shortly. NH

## Step Change Safety Share Fair

IMCA will be taking part in the Step Change Safety Share Fair taking place at Pittodrie Stadium in Aberdeen on 22

June. In the past this has been a tremendous opportunity to bring IMCA safety promotional materials to a wider audience. NH

# **New Pocket Safety Cards**

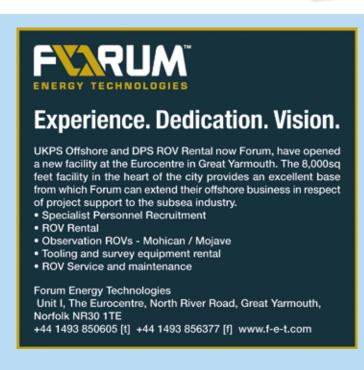
Two further pocket cards have been added to the growing collection of IMCA pocket safety cards. The eighteenth card, covering the subject of permit to work, was published earlier this year. This card provides brief information on what a permit to work is and outlines some of the scenarios in which a permit to work might be necessary. Card no. 19, which is being printed at the time of writing, covers hazard identification and hazard control. The card provides guidance on how to identify hazards and on

some of the ways to protect ourselves from them.

Both cards, like the posters, are available in electronic format for free download, and include room for members to include their own corporate identity as required. They can also be purchased in the usual way from IMCA publications.

Further pocket cards are being developed, including one covering the symptoms of fatigue and how to identify and address them, and another covering safety coaching, which are currently being prepared by the committee. NH







# regional news

## Asia-Pacific

At the recent section meeting held in Singapore, Andy Bolton announced that he was retiring and would be standing down as chairman of IMCA's Asia-Pacific section. The section was started in June 1999 when Andy took on the role of Vice-Chairman. Two years later he became section Chairman and held the position for ten years. The inaugural



meeting was attended by 16 members, and over the years the number of members attending meetings has risen considerably to a record attendance of 102 people at the latest section meeting held on 12 May in Singapore. Andy's enthusiasm, drive and energy have been fundamental in helping the section grow and attendances at the meetings are a testament to this. Our thanks go to Andy and we wish him well in his retirement.

The Asia-Pacific section meeting took place the day after the competence workshop. The meeting, attended by more than a 100 members and guests, included presentations on a mooring capstan failure incident and a new anti snap back mooring rope. The workshop on hyperbaric evacuation created discussions that will feed into the work of the newly formed HES workgroup. The points from the DPO training workshop will be fed into discussions with the Nautical Institute with regards to its DPO training scheme.

IMCA continues to follow developments at NOPSA and AMSA, including the AMSA review of its OSV regulations and the new NOSPA requirements for the lifting capacity of lifeboat systems on vessels with safety cases. The NOPSA assumption for the average weight of a person in a lifeboat is higher than the latest IMO limits, and NOPSA is urging vessel operators to mitigate this increased lifting capacity to as low as reasonably practicable (ALARP) by retrofitting larger capacity lifeboats or by reducing the number of personnel on board.

## South America

The section met in rooms beside Copacabana Beach, Rio de Janeiro, Brazil on 24 May. Training and competence are high on the local agenda – an area where IMCA can provide a variety of materials. Local dialogue is focused on recognition within Brazil of international qualifications and competence. The section is preparing a joint strategy towards hosting IMCA's safety seminar in Rio de Janeiro in early 2012, and is looking to partner with local organisations to promote the event.

#### Middle East & India

The section held its latest meeting in Jebel Ali, UAE in March, followed by a briefing session in Mumbai, India, a couple of days later. The well attended briefing seminar focused on marine and diving operations with presentations on the IMCA Common Marine Inspection Document (CMID), the CMID database and vessel assurance, annual DP trials and dive system auditing. These were followed by a lively Q&A session.

The next section meeting will take place on 13 June in Jebel Ali, UAE, followed by a briefing session in Baku, Azerbaijan on 15 June – the first time that IMCA has held a meeting there. The briefing event is open to IMCA members and invited guests, and is aimed at introducing the Association and its activities to an even wider audience of clients, contractors, suppliers and regulatory representatives – potential members and organisations who could benefit from IMCA's work.

## Europe & Africa

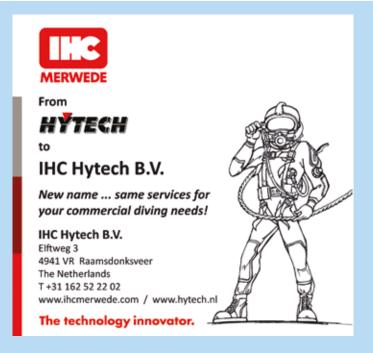
The next section meeting will take place in conjunction with SPE Offshore Europe 2011 in Aberdeen in September. The focus of a recent section meeting was on renewable energy and as a result IMCA is setting up a renewables workgroup. Draft terms of reference have been developed and anyone interested in being involved should contact Paul.Bayliss@imca-int.com

The European Commission has been conducting a review of drilling regulations in EU member states, including looking into the possibility of an EU-wide drilling safety regime. Concrete legislative proposals are expected before the first half of 2011.

#### Central & North America

The section met on 26 May at the JW Marriott Hotel, Houston. There was a presentation about the Offshore Operators Committee (OOC). The requirements of the new Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) and Safety and Environmental Management Systems (SEMS) were also discussed. Contractors will have to demonstrate that their health and safety practices support the operators' SEMS programmes, including ensuring that personnel have the skills and knowledge to perform their assigned duties. OOC is taking forward some of the post Macondo actions and IMCA will be working with them on this.





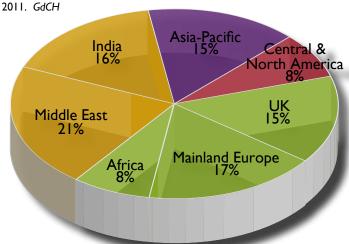
## **Certification Scheme Update**

2010 proved to be another healthy year for IMCA's Certification Scheme with some 418 applicants approved for examination.

During the year a total of 199 newly appointed IMCA personnel joined the offshore industry as follows: 98 Air Diving Supervisors, 41 Bell Diving Supervisors and 60 Life Support Technicians.

Company sponsored applications arrived from the regional sections as shown in the pie chart below.

We are currently on course to top last year's figures, with 197 applications received and 82 IMCA personnel certified between 1 January and 30 April



# Hyperbaric Evacuation

A workgroup has been set up to consider hyperbaric evacuation on a global basis, splitting the work into five main topic areas:

Assessment. The development of a risk assessment model for hyperbaric evacuation that will drive the support infrastructure,

equipment and resource requirements.

Technical. Equipment specification and performance standards.

Operations. Operational control and resources to support hyperbaric evacuation systems.

Medical. Survivability key factors, monitoring and controls.

Standards. Establishing technical interface standards for flanges etc.

# Update of AODC 049

As part of a phased review and replacement of AODC guidance documents, IMCA through the Safety, Medical, Technical and Training sub-committee of the Diving Division Management Committee has started to update the Code of practice for the use of high pressure water jetting equipment by divers (AODC 049).

The document, originally published in 1988, is likely to be expanded from its current 10 pages and will include up to date high & ultra-high pressure water jetting equipment, techniques and risk assessment.

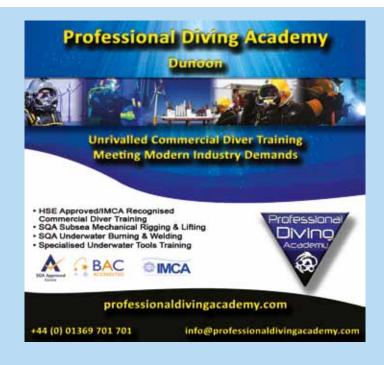
Recent worldwide safety alerts and concerns will also be studied and incorporated into the guidance as appropriate. PE

Anyone wishing to participate in the work should contact Jane.Bugler@imca-int.com. The aim is to develop proposals on how hyperbaric evacuation systems can be implemented effectively. *JB* 

## 2010 Stats

In the past IMCA, and its predecessor AODC, has published annual diving and ROV personnel statistics for the North Sea area (Denmark, the Netherlands, Norway and the UK). Although the figures only present a snapshot, they have nevertheless been highly indicative when looking at trends and other factors. For 2009 it was felt that extending the statistics to cover the entire world would be a useful indicator for trends in the offshore diving industry. This approach was repeated in the 2010 exercise and IMCA has received information from 43

diving contractor members this year, indicating that a peak of close to 3,500 diving personnel were employed offshore world-wide by IMCA members during 2010. The figures indicate that globally there was a reduction in available work, possibly due to the economic environment. Compared with last year's figures, published as IMCA D 07/10, air diving operations exceeded saturation diving by approximately 50%. With regard to regional overviews, 2010 saw a trend reversal in the Europe & Africa section, with air diving exceeding saturation diving. The Middle East & India section remained unchanged from 2009 as being the region with the highest number of air divers. Statistics from Central & South America increased in 2010 due to a larger sample, with 6 companies responding and indicating that saturation diving was favoured over air diving. KC





# marine



## All-Energy 2011 Exhibition & Conference

The 11th annual All-Energy Exhibition and Conference was held in Aberdeen at the AECC on 18-19 May. The showcase for renewable energy sectors attracted over 580 exhibitors and 8,000 visitors

As more IMCA members become involved in renewable energy projects, and following IMCA's successful workshop last year, it was decided to reform the renewable energy workgroup. The group intends to cover a range of issues involving marine construction for the renewable energy sector, including safety, legislation, technical issues and guidance. If you are interested in the workgroup or would like more details please contact Paul.Bayliss@imca-int.com

# **IMO** Update

# New lifeboat hook requirements

IMO has finally adopted new design requirements for on-load release hooks for lifeboats, which will apply to hooks fitted on ships constructed from I July 2014. Non-compliant hooks on existing vessels must be replaced or modified by I July 2019. This is an important step forward, but does not address all the shipping industry concerns. Shipping industry organisations, including IMCA, have therefore developed supplementary guidance on the selection of replacement hooks, which recommends considering hook designs that incorporate a permanent secondary safety system, such as a locking pin.

# Special Purpose Ships (SPS) Code

IMO has provisionally agreed unified interpretations on the 2008 SPS Code, which would limit the application of some of the more problematic passenger ship requirements (including the safe return

to port requirements that have been causing particular problems) to larger SPS Code vessels only. Due to timings, the interpretations will not be formally approved until May 2012, but they should help clarify the requirements.

## **Piracy**

IMO has been continuing efforts to combat piracy off the coast of Somalia. In addition to increasing pressure at the political level, IMO has, in response to industry requests, produced interim guidance on the use of privately contracted armed security personnel on board vessels in the high risk area. This is not intended to endorse the use of armed guards and ships transiting the high risk areas should always apply the best management practices and protective measures as a first resort.

#### **Enclosed spaces**

IMCA has been participating in the review of the IMO recommendations for enclosed space entry. The revised recommendations, including separate guidance on tank entry for tankers using nitrogen as an inerting

medium, have now been finalised and will be available from the IMCA secretariat on request.

# New energy efficiency rules

In July, IMO is expected to agree new energy efficiency requirements for ships, which will take effect in January 2013. The requirement for an energy efficiency design index (EEDI) will initially only apply to conventional ship types, so offshore support vessels will be excluded for the time being, but all ships will be required to carry a ship energy efficiency management plan (SEEMP) setting out ship specific measures for improving operational energy efficiency.

# New lifting appliance regulations

IMO has agreed to look into new design and construction requirements for lifting appliances and winches. This could have an impact on lifting appliances on offshore vessels, so IMCA will be keeping a close eye on the direction of this work. EC





# marine

# Revision of the CMID and Database

The CMID report, database and eCMID have recently been revised and so version eight has been launched. The revision took account of feedback from members and others and the CMID database workshops. A number of corrections, modifications and improvements have been made. Amongst these are:

Rewording or limiting options on questions where not applicable (NA) and not seen (NS) are inappropriate responses and raise the need for a comment, for example: Does the vessel have a helideck?, If the Master has been promoted within the last 12 months, did he/ she receive appropriate pre-command training? and Is there an asbestos management system or an asbestos free certificate? You will notice that the last question has also

- been changed to improve clarity;
- Photographs can now be added to the answers of certain questions in order to illustrate further;
- The section on security has been revised significantly;
- An internal quality assurance process may be carried out on a completed report enabling it to be reviewed by another person within the company;
- The crew matrix can be completed by the vessel owner/operator. For confidentiality the names column has been removed. The suggested approach is listing personnel as Master I, Master 2, Chief Engineer 1, Chief Engineer 2, etc., enabling the inspector to do a spot check;
- Finding a vessel has been improved with the owners, operators and their vessels listed alphabetically. An indication of an available CMID is also given;
- The inspecting company logo and a photograph of

the vessel may now be added to the report cover.

It is intended that IMCA will continue to review and revise the CMID annually.

The statistics for the CMID database as of early May are:

Operators	155
Operator/Clients	105
Clients	116
Inspection Companies	270
Industry Organisations	_15
Total	661
Users	1110
Vessels	40 I
CMID Reports	91

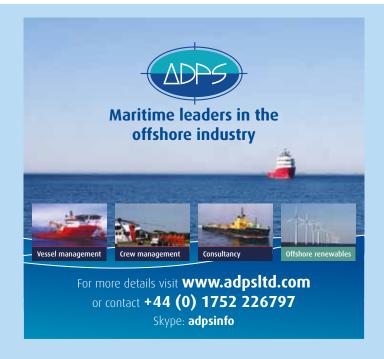
IMCA will publish guidance on completing the CMID inspection report, including the electronic version, to replace IMCA M 167 – Guidance on use of the Common Marine Inspection Document and a revised IMCA M 189 – Marine Inspection Checklist for Small Workboats which is in a CMID-style electronic format. IMCA will also be producing a newsletter for users of the CMID database.

We encourage vessel owners and operators to enter their vessels' details on the database and those commissioning CMID inspection reports to utilise the eCMID and the database.



# Underwater Ship Husbandry

IMCA's Marine Division Management Committee is finalising new guidance providing advice on the selection of appropriate diving contractors to undertake underwater ship husbandry, and on the health and safety requirements for the management, planning, supervision and execution of the work. The guidance covers diving in support of the work carried out offshore, inshore or in a harbour, criteria for the selection of the diving contractor and the roles and responsibilities of everyone involved in the work - personnel, equipment and dive planning - and emergency and contingency plans. IB





# marine

# **MLC Implications**

The International Labour Organization (ILO) Maritime Labour Convention (MLC, 2006) is likely to present a number of challenges for the offshore sector.

Some of the main issues are:

- Application to offshore project personnel. The Convention applies to anyone whose main place of work is on board, so it is likely to cover large numbers of project personnel on board offshore construction support vessels, not just the marine crew;
- **Employment** arrangements. The MLC assumes that everyone on board is employed by the shipowner, and makes them responsible for ensuring the employment conditions for all personnel on board meet the MLC standards;
- Regulation of manning agencies. The MLC also introduces new licensing requirements for crewing

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agencies, which will apply to all companies supplying personnel covered by the Convention, not just agencies providing marine crews.

An IMCA workgroup is looking into potential problems for marine contractors to try to come up with common solutions to suggest to flag states. The MLC is expected to be in force by the end of 2012, so members are encouraged to start thinking about how the MLC will impact their in-house procedures. For further information, contact

Emily.Comyn@imca-int.com

## New **Guidance**

The use of microwave radar position reference within the DP system has increased significantly in recent years. IMCA has been keeping a watch on this with a view to publishing guidance. In the meantime one manufacturer, Guidance Navigation, was asked by clients to produce guidance on their system,

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RadaScan, in conjunction with IMCA.

Guidance Navigation was able to provide comprehensive guidance on the system and IMCA has added members' operational experience. This new document, IMCA M 209 -RadaScan Microwave Radar Sensor for Dynamic Positioning Operations - has now been published.

Work has begun on the development of guidelines for the RADius system, manufactured by Kongsberg. The same process is being used, with Kongsberg providing guidance and IMCA adding members' experience. It is hoped to publish this document in the near future. IG



## **Offshore** Survey **Documents**

Mobilisation Checklist for Offshore Survey Operations

The Committee has developed a short checklist to assist members in covering mobilisations for offshore operations. The document seeks to provide a standard framework for a checklist, and the intent is that it can be used by the contractors themselves and presented to a client, or used by the client acting separately. It should act as a prompt to ensure the equipment, personnel and procedures are fit for purpose, able to do the work and ready to deliver the operation to the satisfaction of all parties. It should help to ensure that there are no unpleasant surprises, which could mean potentially costly delays in mobilisation, and help to deliver safe and efficient operations. IMCA S 016 – Mobilisation checklist for offshore survey operations is available for free download from the members-only





# offshore survey remote systems & rov

website and printed copies can be purchased in the usual way.

## Guidance on Vessel USBL Systems for Use in Offshore Survey and Positioning Operations

IMCA S 017 has now been published. Recent technical advances have led to a significant increase in the capability, performance and accuracy of USBL-based acoustic positioning solutions, resulting in an increase in their use offshore. High performance vessel USBL systems have become a critical part in meeting the demanding technical and contractual requirements in offshore operations. The objectives of this document are to discuss the issues affecting USBL system performance and those associated with the installation, configuration and documentation of systems on offshore vessels involved in subsea positioning. It is intended for use by offshore construction, survey and inspection companies when chartering third party vessels with USBL system(s) already installed, when commissioning

new USBL installations on newbuild or existing vessels, or when maintaining existing systems.

# Guidance on the Selection of Satellite Positioning Systems for Offshore Applications

Typical applications for global navigation satellite system (GNSS) technology include positioning of topside assets, fixed installations and subsea structures. This technology has been available for over twenty years and, as availability and reliability have improved, GNSS has become the preferred and primary method of surface positioning. IMCA S 018 has been prepared to provide guidance to members involved in the specification and commissioning of DGNSS. It includes information on the operational and safety aspects of GNSS selection and provides an understanding of some key criteria to be considered in the selection process - including GNSS, vessel class requirements, vessel activities, performance expectations, regional variations in atmospheric

conditions and contractual obligations.

#### **Other Documents**

Several other documents are being drafted at the moment. A document on subsea metrology, covering the main technologies in use, is being reviewed by the Committee and a workgroup has nearly completed guidance on safe management of data during offshore survey operations. During 2011 workgroups will take forward the development of documents on inertial navigation systems and also on the calibration of the various sensors used in operations. Additionally, the Committee is working on a number of information notes, including one on the safe handling and use of lithium batteries, and one revising some of the

Offshore Survey Division factsheets. *NH* 

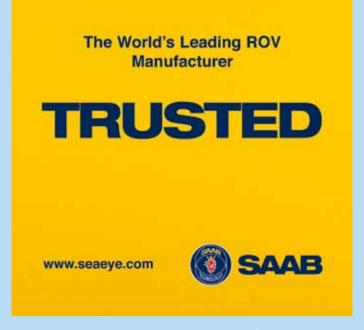
## ROV Installation Guidelines

The work on the ROV installation guidelines is well under way. A small drafting group has been put together with the task of completing the technical aspects of the document. It is intended to be a guide for installing ROV systems onto a vessel or a platform. It will be useful to all ROV contactors but will also serve as a guide to vessel/ platform designers, allowing them to consider all aspects of ROV installation. PB

## **Umbilical or Tether Problems?**

It has previously been identified by the ROV Committee that members have encountered numerous failures and problems with ROV umbilicals and tethers. As part of the ROV Committee work programme a report form is under development, which will capture failure and problem issues. The data will be used to create a historical trend of issues that can be used for corrective actions. If you have any concerns regarding the failure and problems encountered with ROV umbilicals and tethers please contact Paul.Bayliss@imca-int.com







# SPOTLIGHT ON GIORGIO MARTELLI

Giorgio Martelli is Country Manager for Brazil with Saipem and serves as Chairman of the South America Section of IMCA. 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 the region.

# Please tell us about your company and what it does

Saipem is one of the world's largest integrated contractors within the energy industry. It operates through most of the value chain: from drilling to production operation; from basic engineering to commissioning and decommissioning; from shales to renewables. It is organised under two large business units: drilling and engineering & construction, which both span onshore and offshore activities.

We are dealing with a very high level of activity.

## What is your current job?

I am the General Manager for Saipem do Brasil, and Country Manager for Brazil. Here we are currently dealing with a very high level of commercial activity in all sectors, in addition to some operational projects in the sectors of onshore drilling, FPSO operations and SURF construction.

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

It took a lot of aeroplanes!
Seriously, I have had the chance with Saipem to experience different roles on different continents and this has contributed greatly to the skills needed to work



GROUP

Saipem How de you think Mind could

in this complicated industry. I studied as a mechanical engineer and naval architect and this is where I started, moving on through project management and then commercial. Learning to work in different countries with diverse cultures is a great bonus.

It is a frantic rush to rebuild, reactivate and retrain.

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

The key issue that I believe has affected this industry from the beginning is its inconsistency; the cycles of Boom and Bust. Nowhere in the world is it more evident than here in Brazil. There was a flourishing oil (and related shipbuilding) industry in the 80s, which collapsed and took capabilities and resources with it. Now with the Pre-Salt layer it is a frantic rush to rebuild, reactivate, and retrain, which does not help efficiency and the costs to us as contractors.

How can these issues be taken forward?

As we are unable to control the price of oil, we could at least try to mitigate the effects it has on the contracting chain. With support from oil and gas producers we could make better use of long term contracts, or even encourage vertical integration of supply chains. In a similar way the Japanese car manufacturing industry builds the clientsupplier relationship on long term custom, mutual trust and continuous quality improvement. Some of these elements already exist in Brazil, although their mixture, with a dated contracting style, tends to create more friction than harmony.

We could make better use of long term contracts.

How do you think IMCA could make a difference?

There are two ways that I see IMCA making a difference in Brazil. The first is with its integrated and common approach to contracting principles. The recent issue of a set of standard terms and conditions could be a positive contribution to a dialogue with the Brazilian producers. Secondly, IMCA could help in raising the awareness and standards of indigenous contractors in their wish to work beyond national borders and Petrobras.

We will have to adapt to new economic scenarios.

## How do you see the future?

In the short term I do not see any great changes in the general picture of our industry. In the long run we all know that we will have to adapt to new local and global economic scenarios and to new sources of energy.

# GROSVENOR GARDENS **HUGH WILLIAMS** CHIEF EXECUTIVE

# **SECRETARIAT**



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TECHNICAL DIRECTOR





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MICHELLE FORWARD MEMBERSHIP CO-ORDINATOR Michelle.Forward@imca-int.com



## 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.

The below summary of recent IMCA documentation keeps all members updated on activities throughout IMCA.

If you would like a copy of any document, or for further information, please contact the secretariat.

#### **NEW PUBLICATIONS**

- **Marine Construction Contract**
- General Contracting Principles, Rev. I
- **Decommissioning Contracting Principles**
- RadaScan microwave radar sensor for dynamic positioning operations (IMCA M 209)
- Mobilisation checklist for offshore survey operations
- Guidance on vessel USBL systems for use in offshore survey and positioning operations (IMCA S 017)
- Guidance on the selection of satellite positioning systems for offshore applications (IMCA S 018)

#### SAFETY PROMOTIONAL MATERIALS

- Look where you are going (IMCA SPP 07)
- Use tools and equipment properly (IMCA SPP 08)
- Watch out for pinch points (IMCA SPP 09)
- Take care on the stairs (IMCA SPP 10)
- Hazard identification (IMCA SPC 19)

#### SAFETY FLASHES

- Safety flash 02/11 covering three incidents: Kirby Morgan SL 17C partially detached from neck dam; Serious hand injury during use of deck scale; Service
- Safety flash 03/11 covering three incidents: Failure of hydraulic fitting at pressure; Crane motion reference unit (MRU) malfunctions after overheating; Fake emergency escape breathing devices (EEBD sets)

  Safety flash 04/11 – covering three incidents: Crane
- boom dropped object; Low pressure mud hose parted; hot work conducted within the 500 metres safety zone

## **INFORMATION NOTES**

#### **COMPETENCE & TRAINING**

IMCA C&T C 05/11 Competence validity periods 06/11 The Nautical Institute dynamic positioning operator

#### SAFETY, ENVIRONMENT & LEGISLATION

IMCA SEL 05/11 Dropped object prevention www.dropsonline.org

#### **DIVING DIVISION**

IMCA D 03/11 Whip Checks 04/11 Divers' Gas Supply

## MARINE DIVISION

IMCA M 07/11 The Nautical Institute dynamic positioning operator certificates

# COMMITTEE MEMBERS

## OVERALL MANAGEMENT COMMITTEE

IMCA President and OMC Chairman

IMCA Vice-President:

Committee Chairmen and Vice-Chairmen C&T

SEL:

Diving:

Marine

Survey:

ROV:

Chairman: Vice-Chairman:

Massimo Fontolan, Saipem Steve Sheppard, Helix ESG

Andy Woolgar, Subsea 7

Roy Hay, Technip Dave Forsyth, Bibby Offshore

Jim Knight, Heerema Marine Contractors Joar Gangenes, Subsea 7

lan Mitchell, Technip Pete Somner, Technip Pete Fougere, Transocean

Will Primavesi, Specialist Subsea Services Walter Steedman, Veripos Neil Milne, Subsea 7

Espen Ingebretsen, Oceaneering International

IMCA Chief Executive: IMCA Tech. Director:

Regional Section Chairmen and Vice-Chairmen

Asia-Pacific:

Central & North America:

Europe & Africa:

Middle East & India:

South America:

Hugh Williams lane Bugler

Andy Bolton, Technip Oceania Steve MacMillan, McDermott International Inc. Alan Allred, Aker Marine Contractors Bruce Gresham, Heerema Marine Contractors Wim de Boer, Heerema Marine Contractors Jim Sommerville, Fugro

Roy Donaldson, Topaz Marine Guy Odell, Fugro Survey Giorgio Martelli, Saipem Gilles Lafaye, Subsea 7

## **COMPETENCE & TRAINING**

Steve Sheppard, Helix ESG Roy Hay, Technip

Claire Duncan, Bibby Offshore Gavin Smith, Subsea 7 Gary McKenzie, DOF UK Ltd

David Moxey, Northern Marine Management David Foster, Saipem Lynn Elder, Subsea 7 Hilary Cliffe/Julian Nelson, Fugro Survey George Robertson, Fugro

Frank Klein, Oceaneering International Paul Gleisner, Schilling Robotics Anthony Reudavey, Blue Water Engineering Tony Greenwood, Cal Dive International

Mohamed Omar, INW

Douglas Korth, Subsea 7

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Johan Vermeer, Allseas Group Pete Goodman, Global Industries Joe McWilliam, Hallin Marine Wallace Robertson, Helix ESG Sal Ruffino, Saipem Alan Forsyth, Subsea 7

Andrew Culwell, Subsea 7 John Greensmyth, Technip Asia-Pacific

Central & North America: Middle East & India: South America:

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> Nick Merdith, Clough Oil & Gas Phil Miller, Subsea 7 Darren Male, Fugro Survey Paulo Correia, Subsea 7

> > Pete Somner, Technip

Pete Fougere, Transocean

#### MARINE DIVING

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Asia-Pacific:

Central & North America:

Middle East & India:

South America:

Vice-Chairman:

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Steve Sheppard, Helix ESG Jerry Starling, Integrated Subsea Services Darren Brunton, KB Associates Hamish Petersen, KD Marine Steve MacMillan, McDermott International Inc. David Smith, National Hyperbaric Centre Hans Berkhof, Noordhoek Offshore Calum Buchanan, RBG

Maurizio Chines, Saipem Glyn Jones, Hallin Marine Asia-Pacific: Central & North America: Allan Palmer, Cal Dive International Middle East & India: Sean Brunton, McDermott International Inc. South America: José Figueiredo, Fugro Brasil Serviços Submarinos e Levantamentos Ltda Dave Munro, Subsea 7 SMTT Chairman

Chairman: Vice-Chairman:

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Willem van Woercom, Heerema Marine Contractors

Carl Annessa, Hornbeck Offshore John de Hartog, Saipem Alistair MacLeod, Subsea 7 Kjell-Egil Helgøy, Teekay Hans Nagtegaal, Van Oord

Asia-Pacific: Central & North America: Middle East & India: South America

Mike Meade, M3 Marine Mike Lawson, Transocean lan Bacon, GL Noble Denton Mons Melingen, Norskan Offshore

Neil Milne, Subsea 7

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Vice-Chairman:

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> Michiel van de Munt, Allseas Stuart Reid, Andrews Survey Edwin Danson, C&C Technologies Simon Barrett, DOF Subsea Aris Lubbes, Fugro Survey Peter Thomas, Maritech Group Sam Hanton, Nautronix Martin Day, Neptune Paul Bennion, Saipem Mike Clark, Subsea 7 Scott Winning, Subsea 7 Dave Matthews, Technip Jamie Laing, UTEC Survey

Bill Russell-Cargill, DOF Subsea Dave Ross, UTEC Survey Inc. Milind Abhyankar, McDermott International Inc. Andy Seymour, Fugro Brasil

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Vice-Chairman:

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Jim Mann, Fugro Mark Wood, Hallin Marine Gary Thomson, Helix ESG

David Rhodes, Integrated Subsea Services Ewan Emslie, Saipem

Colin Mackay, Subsea 7 John Pirie, Technip Asia-Pacific:

Central & North America: Middle East & India: South America:

Tim Hartley, Mermaid Offshore Services Jeremiah Hebert, Helix ESG Brian Stewart, Fugro Survey Wayne Betts, Oceaneering International

Espen Ingebretsen, Oceaneering International

Asia-Pacific:

# MCA MEMBERS LIST

#### IMCA WELCOMES THE FOLLOWING NEW MEMBERS

- Acteon Angola Limitada
- Alliance Seaworks Sdn Bhd
- Archirodon Group NV •
- **Bruce Offshore**

A company providing engineering, design & consultancy for offshore commercial diving and diving equipment

Web: www.bruceoffshore.co.uk

- Code Blue Nurses London Pty Ltd
- Companhia Brasileira de Offshore CBO
- Core-IRM Pte Ltd
- Derrick Services (UK) Pte Ltd Echelon Claims Consultants Ltd

A claims consultancy practice, specialising in assisting policyholders with the complex claims across the marine industries. Tel: +44 20 75 58 32 31 Web: www.echelonccl.com

- Equion Energia Ltd ExxonMobil Development Company
- Fearnley Offshore Supply AS
- **GMC Ltd**
- **Gulf Offshore Logistics LLC**
- Havila Shipping ASA
- Hill International (UK) Ltd
- Huse Engineering AS
- International Association of Oil & Gas Producers (OGP)

OGP represents oil and gas companies, associations and major upstream service companies e.g. working with governments, the IMO and ISO, and on HSSE and operations.

Web: www.ogp.org.uk

Tel: +44 20 76 33 02 72

- James Fisher and Sons plc
- Leighton Contractors Pty Ltd
- Liebherr Sunderland Works Ltd
- Marine & Diving Services Ltd
- Marine Q AS
- Maritime Assurance & Consulting Ltd

A company providing a comprehensive range of support services to the marine, construction, drilling and floating production industries. Web: www.mac-l.com Tel: +44 12 24 57 70 70

- **Molecular Products Ltd**
- **NIWA Vessel Management Ltd**
- Noble Energy NorSkan Offshore Ltda
- Offshore Marine Academy Ltd
- **P&O Maritime Services Ltd**

A company providing specialist maritime solutions to government and industry sectors.

Web: www.pomaritime.com

Tel: +61 39 254 16 00

- **Pearl River Offshore Ltd**
- **Polaris Learning Ltd**

A company providing training and competency services, developing profiles and implementing management systems.

Web: www.2polarislearning.com

Tel: +44 16 51 87 33 98

- **Primo Marine**
- **PRO Marine Solutions Pvt Ltd**
- PT Bahtera Niaga Internasional
- Romona Inc
- **RWE OLC GmbH**
- **SB Submarine Systems Ltd**

A leading solution provider for submarine cable construction in Asia, owning and operating a fleet fitted with purpose-built equipment. Web: www.sbss.com Tel: +86 21 62 70 70 21

Scaldis Salvage & Marine Contractors NV

A marine heavy lifting contractor, executing transportation and installation works.

Web: www. scaldis-scm.com

Tel: +32 35 41 69 55

- **STORM Ltd**
- Strukton Afzinktechnieken BV

A company specialising in the immersion of tunnel elements, placing caissons and marine activities.

Web: www.strukton.com

Tel: +31 30 248 69 11

Unique System (UK) Ltd

Part of the Unique Maritime Group, providing products, services and turnkey solutions to the diving and survey industries.

Web: www.uniquegroup.com

Tel: +44 12 24 85 39 99

**VN Safety** 

A PPE and consultancy company based in Vung Tau, Vietnam. Tel: +84 64 361 33 21 Web: www.vnsafety.vn

## RECENT NAME CHANGES

Aker Exploration AS is now
Det Norske Oljeselskap ASA
Danaquor Industries Ltd is now
All-Sea Deepwater Solutions Limited
Hyperbaric Technology BV is now
IHC Hytech BV
Noordhoek Offshore BV is now

Noordhoek Survey BV
Promarine Ltd is now
Petrofac Marines Services

Tristein Engineering & Survey AS is now Tristein AS Vassnes MB Consultants AS is now

Westcon Power & Automation AS

## Allseas

Global Industries

Heerema Marine Contractors Helix Energy Solutions Group McDermott International Inc.

Saipem Subsea 7 Technip

Abel

**ACSM** 

Adams Offshore WLL

Adsun Offshore Diving Contractors Pvt Ltd Advanced Energy Systems (ADES)

Ajang Shipping Sdn Bhd Aker Marine Contractors AS Aker Marine Contractors Inc.

Aker Oilfield Services Alam Subsea Pte Ltd

All-Sea Deepwater Solutions Limited Alliance Seaworks Sdn Bhd

Allied Marine & Equipment Sdn Bhd AlMansoori Production Services LLC

Andrews Survey Aqua Diving Services Arab Tanker Services

Arabian Gulf Mechanical Services & Contracting Co. Ltd

Archirodon Construction (Overseas) Co SA Arctia Shipping Ltd

Arena Sub srl

Argus Remote Systems AS

ATCO Ports Management & Marine Services Atlantic Towing Ltd

Atwood Oceanics Pacific Ltd Awaritse Nigeria Ltd

B+H Equimar Singapore Pte Ltd

BEKK Solutions Ltd Bibby Offshore BIDCO Ltd

BJ Services Co. Middle East Ltd Bluestream Offshore BV Bluewater Energy Services BV

Boskalis Offshore Bourbon

Britoil Offshore Services Pte Ltd

Brodospas dd Bumi Armada Berhad C&C Technologies C&C Technologies Inc. C&I Leasing plc Cal Dive International Inc. Cal Dive International Pte Ltd

Cal Dive International Pte Ltd – Middle East

Canship Ugland Ltd Cape Diving

Caspian Sea Oil Fleet (CSOF) CCCC International Shipping Corp CDS Subsea Pte Ltd

Celtic Africa Ltd CH Offshore Ltd Clough Oil & Gas CNS International srl

Companhia Brasileira de Offshore – CBO CCC (Underwater Engineering) SAL

Copetech-SM Coral Alliance Sdn Bhd COSL Drilling Europe AS
CS Offshore DMCCO CUEL Ltd

Dalgidj Private Company Damas Oil & Marine Services Ltd DCN Diving BV

DCN Global LLC Dockwise

Core-IRM Pte Ltd

DOF Management AS DOF Subsea (Australia & Asia Pacific)

DOF Subsea Brasil Serviços Ltda

DOF Subsea Norway AS DOF Subsea UK Ltd

DOF LIK Ltd Dolphin Drilling Ltd

Dolphin Offshore Enterprises (India) Ltd

Drexel Oilfield Equipment Dulam International Ltd

Dunnimaa Engineers & Divers Ent. Pvt Ltd

EDT Marine Construction Ltd EDT Shipmanagement Ltd

EGS (Asia) Ltd Eidesvik AS

EMAS Offshore Pte Ltd ER Offshore GmbH & Cie. KG Fairmount Marine by

Far Eastern Shipping Company Farstad Shipping ASA Five Oceans Services GmbH

Fugro Brasil Serv. Sub. e Levantamentos Ltda

Fugro Marine Services by

Fugro RUE AS

Fugro RUE AS - Asia-Pacific Fugro RUE AS - Middle East & India

Fugro SAE

Fugro Subsea Services (Australia) Pty Ltd

Fugro Subsea Services Pte Ltd Fugro Survey (India) Pvt Ltd Fugro Survey (Middle East) Ltd

Fugro Survey Ltd Fugro Survey Pte Ltd Fugro-Rovtech

GAS Geological Assistance & Services srl GEMS International NV – Abu Dhabi

GeoLab Limited Abu Dhabi GeoLab srl GEOTeam srl Global Marine Services

Global Marine Systems Ltd GO Offshore

GOGAS Gulf Oil and Gas LLC

Golden Energy Offshore Management AS Great Offshore Ltd Greatship (India) Ltd

Greatship Subsea Solutions (Australia & AP) Grup Servicii Petroliere SA

Gulf Dredging & General Contracting Co. **Gulf Marine Services** 

Gulf Offshore (North Sea) Ltd Gulf Offshore Logistics LLC Gulmar Offshore Middle East LLC HAL Offshore Ltd

Hallin Marine Hallin Marine UK Ltd Halul Offshore Services Company Harbor Star Shipping Services Inc

Havila Shipping ASA

HEISCO Horizon Survey Company (FZC) Hornbeck Offshore Operators LLC

Hull Support Services Ltd Huta Marine Works Ltd HydroDive Nigeria Ltd

HydroDive Offshore International Ltd

IDMC srl IKM Subsea AS

Impresub International LLC Inspecta International Co LLC Inspectahire Instrument Co Ltd

Integrated Subsea Engineering & Services LLC Integrated Subsea Services AP Pte Ltd Integrated Subsea Services Ltd

International Marine Works - Alexandria PT Ekanuri Indra Pratama International Naval Works – Abu Dhabi PT Lancar Rejeki Berkat Jaya IOTA-Survey PT Offshore Services Indonesia IRSHAD PT Patra Dinamika Island Offshore Management AS PT Prima Mitranata Jack-Up Barge BV PT Samudera Biru Nusantara James Fisher & Sons plc PT Wintermar Jan De Nul nv PW Group Jifmar Offshore Services Rana Diving spa Jumbo Offshore VoF KD Marine Ltd RBG Ltd Reef Subsea Khalifa A Algosaibi Diving & Marine Services REM Offshore ASA Knutsen OAS Shipping AS Rolv Berg Drive AS Kreuz Subsea Marine Pte Ltd Romona Inc Kreuz Subsea Pte Ltd ROV Service di Rocco Fabio L&T Sapura Shipping Pvt Ltd Rubicon Offshore International Pte Ltd Lamnalco Group
Lamnalco West Africa RWE OLC GmbH Sahara Petroleum Company Lauritzen Offshore Services AS SAL Shipping LD Travocean Sapura Diving Services Sdn Bhd Leighton Contractors Pty Ltd Sarku Engineering Services Sdn Bhd Leighton Offshore Pte Ltd SAROST SA LLP FSDS SB Submarine Systems Ltd Louisiana Overseas Inc SBM Offshore NV Maersk Drilling Maersk Supply Service Maridive & Oil Services SC Shark SRL Scaldis Salvage & Marine Contractors NV Sea Trucks Group – Asia-Pacific Maridive & Oil Services (SAE) Sea Trucks Group – Europe & Africa Maridive Offshore Projects Sea Trucks Group FZE Marine Consulting Seabed AS Marine Platforms Ltd Seacor Marine (International) Ltd Maritime & Underwater Security Consultants Seacor Offshore Dubai LLC Maritime Asset Security and Training Ltd Seadrill Americas Inc Master Tech Diving Services Seadrill Management AS **MENAS** Seahorse Services Co Ltd Mermaid Marine Australia Ltd Sealion Shipping Ltd Mermaid Offshore Services Ltd SEAMEC - South East Asia Marine Miclyn Express Offshore Pte Ltd Engineering & Construction MMT (Marin Mätteknik AB) Searov Offshore Mohn Drilling AS Seascape Surveys Pte Ltd Mutawa Marine Works Est Seatrans AS Namibia Subtech Diving and Marine (Pty) Ltd Seatrax Singapore Pte Ltd National Marine Dredging Co Seaway Heavy Lifting Engineering BV National Petroleum Construction Company Seaways International LLC (NPCC) Survey Seaworks Ltd NDE – Nordic Dive Enterprise Sevan Drilling Pte Ltd Shanye Marine Services Co Ltd Neptune Neptune Survey Expedition ehf Siem Offshore AS Newcruz Offshore Marine Pte Ltd Simon Møkster Shipping AS Nexans Norway AS - Energy Division SMIT Nippon Steel Engineering Co Ltd SMIT Subsea Africa NIWA Vessel Management Ltd SMIT Subsea Asia-Pacific NoelDive Pte Ltd SMIT Subsea Europe SMIT Subsea Middle East LLC Noordhoek Survey BV NOR Offshore Ltd Solstad Offshore Ltda NorSkan Offshore Ltda Solstad Shipping AS Northern Marine Management Ltd Songa Offshore SE Ocean Works Asia Inc. Specialist Subsea Services Ltd Oceaneering International (UK) Stapem Offshore SA Oceaneering International Asia Pacific Stena Drilling Limited Oceaneering International Inc. Strukton Afzinktechnieken BV Oceaneering Marine Prod. Systems do Brasil OceanWorks International Inc Subsea Petroleum Services Octomar Subsea Robotics Services Pte Ltd Odfjell Drilling Subtech (Pty) Ltd Offshore Geo-Surveys Sdn Bhd Offshore Manpower SA Supreme Hydro Engineering Pvt Ltd Offshore Marine Management Ltd

SURF Subsea Inc

Offshore Marine Services Pty Ltd Offshore Oil Engineering Co. Ltd (COOEC) Offshore Subsea Works Sdn Bhd Offshore Technology Solutions Ltd Target Engineering Construction Co. Olympic Shipping AS Technip Oceania Pty Ltd Orogenic GeoExpro Sdn Bhd Technip USA, Inc. OSM Offshore AS Technocean AS Overseas AST Co LLC Tecnosub P&O Maritime Services Ltd Teekay Norway AS Pacific Crest Pte Ltd Tidewater Inc. Pacific Drilling Services Inc Pacific Richfield Marine Pte Ltd Tidewater Marine North Sea Ltd Tideway Offshore Contractors PBJV Group Sdn Bhd Timsah Shipbuilding Company Pearl River Offshore Limited TL Geohydrographics Sdn Bhd Pelican Offshore Services Pte Ltd

Petra Resources Sdn Bhd Petroleum Marine Services Company PFCE Ocean Engineering Sdn Bhd Pride International Transocean

Phoenix International

PRONAV Ship Mgment GmbH & Co KG Prosafe Offshore Ltd PT Advanced Offshore Services PT Bahtera Niaga Internasional

PT Calmarine

Subsea 7 Singapore Contracting Pte. Ltd

Subtech Qatar Diving and Marine Svces LLC

Swiber Offshore Construction Pte Ltd Swire Pacific Offshore Operations Pte Ltd

Topaz Marine

Topaz Marine – Azerbaijan Topaz Marine – Kazakhstan Topaz Marine MENA Total Marine Technology Pty Ltd

Transoceanic Cable Ship Company Inc. Trico Marine Group – Asia-Pacific

Trico Marine Group – Central & N America Trico Marine Group – Europe & Africa

Troms Offshore AS

TSMarine Pty Ltd UMC International plc

Underwater Services Company Ltd Unicom Management Services (Cyprus) Ltd

Unidive Offshore Pte Ltd

Unimar Ltd URS nv

UTEC Survey Asia Pte Ltd

UTEC Survey Construction Services Ltd

UTEC Survey, Inc. V.Ships Ltd Van Oord Offshore BV

Varun Shipping Company Ltd Vector Offshore Ltd

Veolia Environmental Services Special Serv. Visser & Smit Marine Contracting by Vroon Offshore Services BV

VTT Maritime

Wagenborg Offshore BV

Waha Maritime

Wilhelmsen Ship Management (Norway) AS

Workships Contractors BV Zakher Marine International Zamil Offshore Services Company

ABB AS, Marine Division

ABB Ltd ABB Pte Ltd AC Plus Marine Inc. ACE Winches Advanced Marine

Air Liquide America Specialty Gases LLC

Air Liquide UK Ltd
Air Products Middle East FZE

Air Products plc Air Products Singapore Pte Ltd Analox Sensor Technology Ltd Arab Tanker Services

Arabian Industrial Gases Company Ashtead Technology (SEA) Pte Ltd Balmoral Offshore Engineering

Bridon Brunvoll AS CAPE Group Pte Ltd

Cargotec Norway AS (Offshore) Chambers Oceanics Ltd Chesterfield Special Cylinders Ltd
Clough Oil & Gas

**CMC** Industries Comanex SAS Converteam UK Ltd CUEL Ltd D&R Boats Pte Ltd Deep Down Inc. Divetechnoservice Ltd Divex Asia Pacific

Divex FZE Divex Ltd Dominion Gas

Dominion Gas Asia Pacific Pte Ltd

Dräger Safety Drass Energy Eastar Offshore Pte Ltd **Emphor FZCO** 

Fincantieri Cantieri Navali Italiani spa Franklin Offshore International Pte Ltd

Fugro GRL

Global Gases & Chemicals FZCO (Dubai) Global Gases Australia Pty Ltd

Global Gases Group Singapore Pte Ltd Global Gases South Africa (Pty) Ltd

GMC Ltd

Great Offshore Ltd

Greatship Subsea Solutions (Australia & AP)

Guidance Navigation Ltd Huse Engineering AS Hydrasun Hydratight Ltd IHC Hytech BV Intron Plus IXSEA

Joint-Stock Company 'Oceanos' Joint-Stock Company Tetis Pro JW Automarine

Kenz Figee BV Kirby Morgan Dive Systems Kongsberg Maritime AS Kongsberg Maritime Ltd KTL Offshore Pte Ltd Kystdesign AS L-3 Communications

Lexmar Engineering Pte Ltd Liebherr Sunderland Works Ltd Mako Technologies LLC Marine & Diving Services Ltd MCA Electric Co Ltd MCS Free Zone Measurement Devices Ltd Molecular Products Ltd Nautronix Ltd Navis Engineering OY NSW Technology Ltd Oceanscan Ltd

Offshore Logistics (Asia Pacific) Pte Ltd Pacific Commercial Diving Supply Pty Ltd

Pacific Crest Pte Ltd Perry Slingsby Systems Inc. Perry Slingsby Systems Ltd Pommec TDE BV Proserv Offshore

PT Advanced Oil & Gas Consulting Redaelli Tecna spa

Rolls-Royce Marine AS Rolls-Royce Oy Ab Rolv Berg Drive AS Rovsco Asia Pte Ltd RRC Robótica Submarina Ltda Saab Seaeye Ltd Samson Rope Technologies SBM Offshore NV

Schilling Robotics, Inc. Sea and Land Technologies Pte Ltd Sea Trucks Group FZE

Seaflex Ltd Sealion Shipping Ltd Seanetics Asia Works Pte Ltd

Seaswift Subsea Engineering LLC Seatools BV

Serimax Ltd Siem Offshore AS Skan-El AS

Soil Machine Dynamics Singapore Pte Ltd

Solstad Shipping AS Sonardyne Asia Pte Ltd Sonardyne International Ltd Sources Workshop Equipment Co (LLC)

SS Subsea Pte Ltd

Submarine Manufacturing & Products Ltd

SubNet Services Ltd Subsea Vision Ltd Sundan Offshore Pvt Ltd TeleMedic Systems Ltd TGH AP Pte Ltd The Tritanium Company by

Totalmat Ind. e com. de Equip. Hiperbáricos Ltda

Trelleborg 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

Unique Hydra Unique System (UK) Ltd Unique System FZE United Oil Company (Unico) Vanguard Offshore Pte Ltd Velocious Pty Ltd Vroon Offshore Services Ltd.

Abermed Ltd Acteon Angola Limitada Advanced Marine

Advanced Offshore Contractors Pvt Ltd Air Products Singapore Pte Ltd

Alfa Petroleum Services Alliance Marine Services Anglo-Eastern Group

Anglo-Eastern Group (Asia-Pacific Region) Applied Research International Pvt. Ltd

ASP Rope Access Auto Dynamic Positioning Services

Babcock Int'l Group Marine & Tech. Division Bahrain Ship Repairing and Engineering Co.

Blade Offshore Services Ltd Blue Water Engineering (M) Sdn Bhd Bluewater Energy Consultants Ltd

Braemar Falconer Bruce Offshore Ltd C-MAR Group CAPE Group Pte Ltd

Consortium Underwater Engineers Ltd Construction Specialists Ltd

Cosalt Creative Offshore Yard Pvt Ltd 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 & N America 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 **Inchcape Shipping Services** Inchcape Shipping Services – South America 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 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 MJR Controls Ltd Modular Underwater Systems Ltd MOS Marine Offshore Services Pte Ltd MS Consultants Pte Ltd National Hyperbaric Centre Nautronix Ltd Navigare International Inc. ODS-Petrodata Pte Ltd Offshore Commissioning Solutions Offshore Tech. Management Solutions Int'l 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 PRO Marine Solutions Pvt Ltd PT Advanced Oil & Gas Consulting 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. 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 Tigitrans SA Tristein AS Underwater Technology Services (S) Pte Ltd United Oil Company (Unico) V.Ships Ltd Veripos Verret Marine Services 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

Advanced Offshore Contractors Pvt Ltd 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 Flare Project Services LLC Hydrosub Ltd IOS (International Offshore Services) Lerus Ltd Maritech Group MJD (North East) Ltd 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
The Underwater Centre Fremantle Pty Ltd Tigitrans SA **Total Marine Services UKPS** Offshore Underwater Engineering Ltd

Aberdeen Skills & Enterprise Training Ltd AdriaMare Maritime Training Center Advanced Offshore Training Centre Pvt. Ltd Ålesund University College AMC Search Ltd Banff & Buchan College 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 CFO - Centro Formazione Offshore Code Blue Nurses London Pty Ltd Commercial Diving Academy

Divers Institute of Technology Divers University Esporte Aquático Ltda Diving Diseases Research Centre 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 Hydratight Ltd Hydro Oil & Gas Training Hydrolab-HydroCAT i-UTecH IDESS Maritime Centre (Subic) Inc. Institut National de Plongée Professionnelle Interdive Services Limited ISFORM KB Americas LLC 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 & Comp. Solutions Ltd Marseille Maritime Academy 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 Offshore Marine Academy Ltd Offshore Skills Training Centre (OSTRAC) Pan Arab E-Navigation DP Training Center Perry Slingsby Systems Inc. PetroVietnam Manpower Training College PNI Training Centre AS Polaris Learning Ltd Power & Generation Services Professional Diving Academy Professional Diving Centre PT Barron International PT ISBI PVD Tech. Training and Cert. Joint Stock Co. RRC Robótica Submarina Ltda Satakunta University of Applied Sciences SBS Intl Ltd SEADOG Seahorse Services Co Ltd Seneca College – Underwater Skills Program Ship Manoeuvring Simulator Centre AS Skilltrade BV SMTC Global Inc. Sogn og Fjordane Tech. College, Maritime Dept Måløy Stord/Haugesund University College STORM Ltd SubNet Services Ltd.

Daniels Maritime Group

De Moura Shipping Ltda

Divers Academy International

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 Royal Saudi Navy Forces Salvage & Marine Operations IPT

Abu Dhabi Marine Operating Company Agip Kazakhstan North Caspian Op. Co. NV Azerbaijan International Operating Company Bahamas Maritime Authority

Bapco - The Bahrain Petroleum Company

BG Americas and Global LNG – C&N Am

BG Americas and Global LNG - S America

BG Group

BHP Billiton

Chevron Nigeria/Mid-Africa Chevron Shipping Co. Chevron Thailand Exploration & Production 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 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 International Diving Schools Association Kuwait Oil Company Maersk Oil North Sea Ltd Maersk Oil Qatar AS Mobil North Sea Ltd Murphy Sarawak Oil Co. Ltd National Offshore Petroleum Safety Authority Nautilus Minerals Nederlandse Aardolie Maatschappij BV Newfield Peninsular Malaysia, Inc Nexen Petroleum UK Ltd Noble Energy Oil & Natural Gas Corporation Ltd OGP 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 Sarawak Shell Berhad Shell Int. Exploration & Production by Shell Petroleum Dev. Co. of Nigeria Ltd Shell Todd Oil Services Ltd Sonangol Pesquisa & Produção Statoil ASA Suncor Energy Inc. Talisman Energy (UK) Talisman Malaysia Ltd The Crown Estate Total Austral (Argentina) Total E&P Indonesie

Total E&P Nederland BV

Wintershall Noordzee BV

Woodside Energy Ltd

Total Exploration & Production

Zakum Development Company (ZADCO)

Total E&P UK Ltd

**BP America Production Company** 

Cairn Energy India Pty Ltd

Subsea

Chevron Brasil Petroleo Ltda

BP Exploration Operating Company Ltd Brunei Shell Petroleum Company Sdn Bhd

Chevron Energy Technology Company



## FORTHCOMING EVENTS

8-9 June 2011 European DP Conference 2011 London, UK

10 June 2011 IMCA Midsummer Charity Ball Aberdeen, UK

13 June 2011 Middle East & India Section Jebel Ali Shooting Club, UAE

15 June 2011 IMCA Briefing Seminar Baku, Azerbaijan

6-8 September 2011 Offshore Europe 2011 Aberdeen, UK

20 September 2011 Asia-Pacific Section Kuala Lumpur, Malaysia

3-5 October 2011 Seatrade Middle East Workboats Abu Dhabi, UAE

6 October 2011 IMCA Briefing Seminar TBA, India

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

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KEYNOTE PRESENTATIONS
PLENARY SESSIONS
MARINE, DIVING & OFFSHORE SURVEY/ROV SESSIONS
WORKSHOPS FOR EACH SECTOR
EXHIBITION OF SUPPLIER MEMBERS' PRODUCTS
SOCIAL EVENTS
NETWORKING OPPORTUNITIES

booking to open during July www.imca-int.com/events



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