

# MSF - DP Workgroup



**Steve Ferguson – Maersk Oil**

**All Members Meeting – Aberdeen Airport Thistle Hotel**

**Thursday 1<sup>st</sup> December 2011**

# Issues with DP Use at Offshore Installations

- ❖ The issue of DP operations was raised at an MSF Steering group meeting as being something that could perhaps be improved upon.
- ❖ There appeared to be ambiguity in the current guidelines such that different interpretations were being applied across the industry.
- ❖ It was also noted that management of DP operations offshore was not consistent.
- ❖ It was recognised that the most common users of DP currently alongside offshore installations were Offshore Support Vessels (OSV's) being very frequent visitors.
- ❖ A workgroup was formed to tackle these issues.

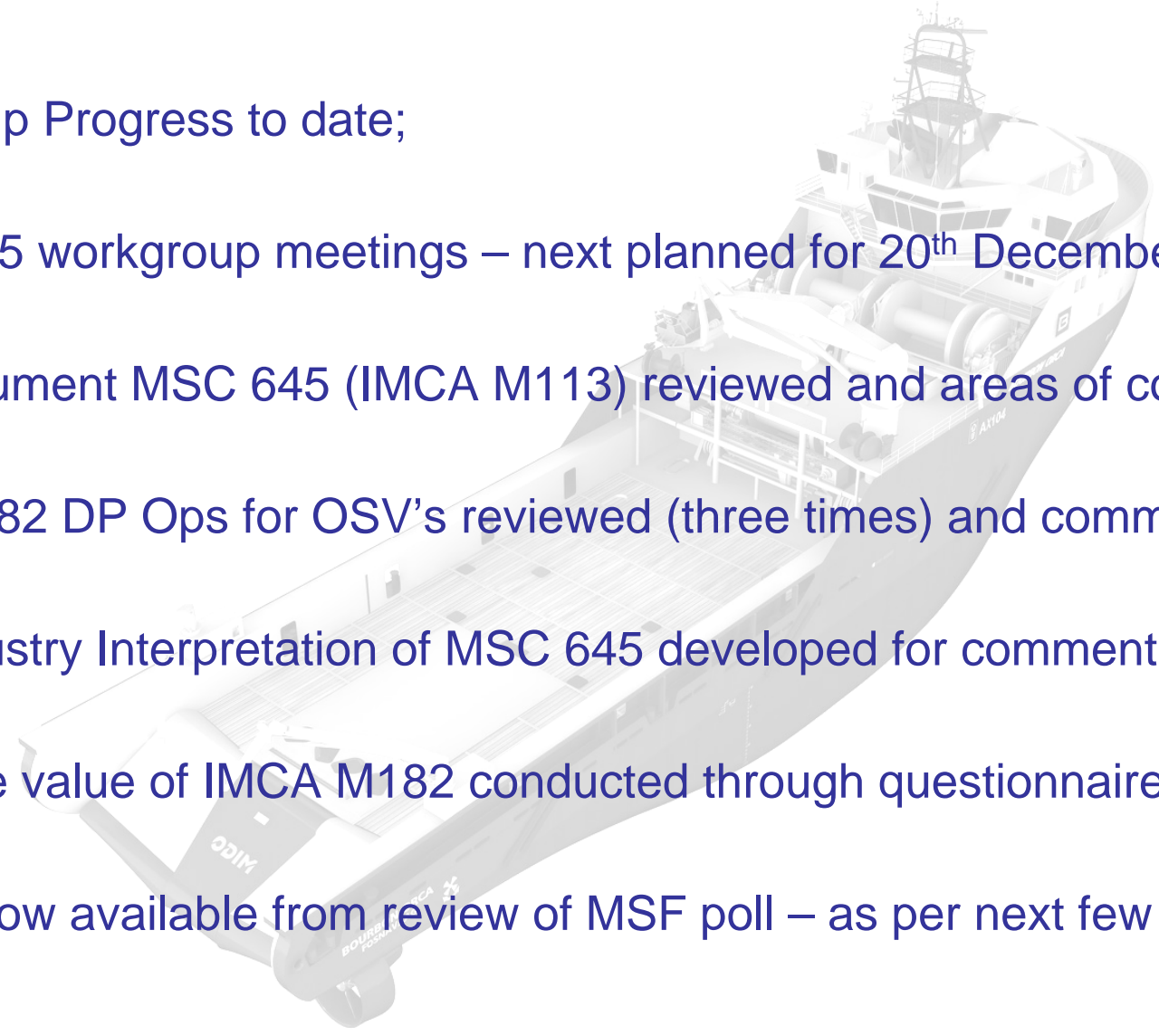


# Issues with DP Use at Offshore Installations

The workgroup comprises;

Steve Ferguson	Maersk Oil (W/G Lead)	Arvid Longva	Statoil
Jim Bradford	Chamber of Shipping	Allan Syme	Shell
Stephen Martin	Gulf Offshore North Sea	Ian Giddings	IMCA
Brian Ferguson	Farstad Shipping	George Boothby	HSE OSD
Ronald MacDonald	Helix Wellops	Richard Bounds	Shell
David Blencowe	Maersk Supply Service	Douglas Temple	MCA
Alan MacDonald	ConocoPhillips	Fergus Mack	Marathon Oil
Mike Close	NWEA Workgroup Lead	Martin Muncer	HSE OSD
Joe Hughes	GL Noble Denton	Vacancy for MTS?	
David Blair	BP		

# Issues with DP Use at Offshore Installations

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- ❖ Workgroup Progress to date;
  - ❖ Now had 5 workgroup meetings – next planned for 20<sup>th</sup> December at Maersk
  - ❖ IMO Document MSC 645 (IMCA M113) reviewed and areas of concern noted
  - ❖ IMCA M182 DP Ops for OSV's reviewed (three times) and comments noted
  - ❖ Draft Industry Interpretation of MSC 645 developed for comment by industry
  - ❖ Poll of the value of IMCA M182 conducted through questionnaire via MSF
  - ❖ Results now available from review of MSF poll – as per next few slides

# Issues with DP Use at Offshore Installations

## DP Workgroup

## IMCA M182 Questionnaire

## Marine Safety Forum

Company (Yellow Oil Company and Blue Vessel Owner/Manager)

	Chevron	Fletcher Shipping	Tidewater	Vroon Pool Express	BP Indonesia	Craig Group	EMAS Offshore	PMJ Marine Services Ltd	BP (DP Tech Authority)	ExxonMobil	Statoil	Nexen	Chevron	Chevron	IMEEI SRL (Peru)	Seaway Heavy Lifting	Fugro Marine Services	Shell Sarawak	Seacor	BG Tunisia	Transocean North Sea	E.R. Offshore	Repsoil Trinidad & Tobago	Farstad (Brazil)	Brodaspas, Croatia	Offshore Marine Services	ConocPhillips	Seajacks UK	Maersk Oil Qatar	Go Marine	Kencana Petroleum	NAM	Petrobras	Gulf Norway	Vroon Offshore	Vroon Offshore	Talisman			
The document is frequently used?	Y	N	Y	N	Y	Y	Y	N	N	Y	N	Y	Y	-	Y	N	Y	N	N	Y	-	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	N	
The document is appropriate for logistical support OSV use only?	N	Y	N	N	Y	N	N	Y	Y	Y	Y	Y	Y	-	Y	-	N	Y	Y	Y	-	-	Y	Y	Y	Y	Y	N	N	Y	N	N	Y	Y	Y	Y	Y	Y	Y	
The document needs updating?	Y	Y	-	N	N	Y	Y	Y	Y	Y	Y	N	-	-	Y	-	Y	Y	Y	Y	-	-	Y	Y	Y	Y	Y	N	Y	Y	N	Y	Y	N	Y	Y	Y	Y		
The document needs to be withdrawn?	Y	N	N	N	N	N	N	-	N	N	-	N	-	-	Y	-	N	N	N	N	-	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	-	N	N
The document is contradictory?	N	Y	N	N	N	N	N	Y	N	N	N	N	-	-	N	-	N	Y	N	N	-	-	N	N	N	Y	Y	N	-	-	N	N	N	N	N	N	N	N	Y	Y
The document is confusing?	N	Y	N	N	N	N	N	Y	N	N	N	N	-	-	N	-	N	Y	N	N	-	-	N	N	N	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	Y
The content of the document is covered elsewhere in sufficient detail?	N	N	-	N	Y	Y	Y	N	N	Y	-	N	-	-	Y	-	N	Y	N	N	-	Y	Y	Y	N	Y	Y	N	N	N	N	N	N	N	N	N	Y	N	N	

### Totals

The document is frequently used?	Yes 22	No 12
The document is appropriate for logistical support OSV use only?	Yes 22	No 10
The document needs updating?	Yes 24	No 6
The document needs to be withdrawn?	Yes 3	No 27
The document is contradictory?	Yes 7	No 22
The document is confusing?	Yes 6	No 26
The content of the document is covered elsewhere in sufficient detail?	Yes 12	No 19

Oil Companies	Yes 11	No 4
Oil Companies	Yes 11	No 4
Oil Companies	Yes 12	No 3
Oil Companies	Yes 1	No 13
Oil Companies	Yes 3	No 10
Oil Companies	Yes 3	No 12
Oil Companies	Yes 5	No 9

Ship Operators	Yes 10	No 7
Ship Operators	Yes 9	No 6
Ship Operators	Yes 10	No 3
Ship Operators	Yes 1	No 14
Ship Operators	Yes 3	No 11
Ship Operators	Yes 2	No 13
Ship Operators	Yes 6	No 9

Others	Yes 1	No 1
Others	Yes 2	No 0
Others	Yes 2	No 0
Others	Yes 1	No 0
Others	Yes 1	No 1
Others	Yes 1	No 1
Others	Yes 1	No 1

### Statistics Observations:

- 37 questionnaires returned - 4 of which were blank or deemed to be 'not applicable' so effective poll was 33 companies
- 65% of those polled, use M182 frequently
- 69% also believe the document is appropriate for OSV use
- 80% believe the document requires updating
- 90% wish to retain the document
- 76% of those polled do not believe the document to be contradictory
- 81% of those polled do not find the document confusing
- 39% Only 39% of those polled believed the content of the document was contained elsewhere.

# Issues with DP Use at Offshore Installations

I cannot say for sure whether the document is frequently used in the industry but can declare it is used periodically by myself. It is also referenced in various industry and company documents.

All documents require a periodical review and update, why should this be an exception?

Contradictory? Confusing? I am unaware of any reasons why either description should apply but as a periodical user of the document perhaps I have not encountered any text or guidance that may warrant those descriptions.

**I am unaware of any other document that is specific to DP operations on offshore supply vessels.**

**We have serious concerns regarding competence, cat B personnel should not be included, only cat A personnel should be in operation of the vessel in the 500 metre zone. Vessel position matrix is misleading and does not comply with industry best practice. OSV's with DP capability should comply with class regulations, operators should in the first instance be the Master and C/O, 2<sup>nd</sup> officers with proven driving skills can be considered, training is essential but must take into account that the DP operators must first be competent drivers, having DP must not be used to allow vessels to operate in the 500 metre zone operated by anyone other than the Master C/O or 2<sup>nd</sup> mate all must have proven driving skills.**

Mariners need to be encouraged to put the manual into frequent use.

The document has been read by all officers involved in DP, since we received our own DP licence 2/3 years ago. **The information is useful, although it is 'only' a guideline, but it helps to get a better understanding of DP operations and its risks.**

**The difference between DP1 and 2 needs to be really clear. The difficulty is that there are so many different DP systems – in my opinion it would be better to direct companies producing the equipment to provide suitable 'IMCA Approved' documentation for operation and auditing based on each type of equipment.**

**Although IMCA is referenced within client corporate documentation M182 is rarely referenced within vessel operator Safety Management Systems. Most operators refer to the NWEA guidelines.**

Other operational types are covered by other client corporate documentation requirement. The document is not suitable for operations outside of offshore supply.

**The document will benefit from a review to consider industry changes and new documentation from sources such as MTS and DNV. A number of 'issues' within the industry around interpretation require further guidance and the latest practices such as Safest Mode of Operation and Site Specific Operating Guidelines need including.**

**There is no contradiction within the document but it does not fully align with industry best practice, the latest documentation from MTS and DNV and also the Training requirements from IMCA M117.**

**Not confusing but the requirements are open to interpretation which can lead to varying levels of compliance with industry best practice.**

**Guidance is provided in a number of industry documents but they vary in detail and suitability. As a standalone document it defines a certain level of compliance for offshore supply operations (only) which must be augmented by other practices and standards, both at a vessel operator level and client level.**

If the document is covered elsewhere then no point in having it in two places. **NWEA Guidelines Section 9 only has a small section on DP Competency.**

It may be good to keep as a single document to cover PSV and ERRV DP operations and just need updating at regular intervals.

# Issues with DP Use at Offshore Installations

Agree with the update we already has done.

Statoil has mainly used rules and requirement from flag state, IMO 645 and Class. We are now in a process to look at how we are going to run DP operations in the future. One of the things we are dealing with is to find out which IMCA Document we shall use. IMCA M182 has a lot of requirements which possible could be a part of ours future requirements , but we have just started this work therefor it is too early to conclude  
We may find similar information in other documents

I am sure that Ian Giddings would just love to review and update this document. **I do like it and support it** – just every document needs review from time to time. As this is a contractor developed and owned document I like using this as a reference when I am discussions re-DP operations with supply vessel owners. It is always useful when contracting and explaining what we really expect to happen.

I am not familiar with the document so am unable to provide a questionnaire response

We don't use DP offshore supply vessels so we are not in the position to answer the questions. In general I would add to the discussion **if there is a need for a separate document for offshore supply vessels with DP. I would rather see a generic document for the safe ops of DP vessels in general whether or not it's a supply vessel.**

IMCA has the best documents covering DP. Class and IMO have limited guidance and in comparison to IMCA also limited regulations to comply with.  
It is not an easy document and some sections may require in my opinion some clarification but this is in the Offshore industry the DP guideline

**Additional provisions for DP2 fast crew boats should be investigated and examined for addition to this document** . The use of such craft is becoming more prevalent in the offshore industry.

As rig owners we don't use this document. I'm therefore not able to comment

It is co-incidental that this issue has come up at this time through the MSF as it is already a topic under discussion and review by a number of bodies (ISOA, ICS, IMCA etc). I attended the ICS Offshore Panel in London on Tuesday and David Blencowe (Its Chairman) is already heavily involved so you may find it interesting to compare notes with him. You may also wish to contact the UKCoS (Saurabh Sachdeva (Saurabh.Sachdeva@british-shipping.org)) who is also heavily involved in this issue.

**As to the issue itself, the OSV DP Guidelines are hardly used at all.** It is clear that the whole industry is moving towards an ever greater use of DP and that within 5 years it will be the dominant mode of operation. Many owners are already converting any DP1 vessel in their fleets to DP2 and we are doing the same. We are doing this because it has become increasingly clear that the future will be based on DP2 and that the IMCA DP2 guidelines will become the operating standard. **The use of the IMCA OSV DP Guidelines themselves is negligible within the industry although there is a growing concern about DPO certification (Certificate fraud, definitions etc).**

**Used often as guidelines in operational disputes with charter representatives on board**

As any other publication/guidelines will need update. technology, new regulation and common practice. **Useful tool for preparation / training of young mates for DP operator.**

Section 3.2.2 - DP OSV Capability - more detailed description of independent reference systems. We have audited various DP2 PSV's with no FMEA's and no annual trials (all Italian Flag)

# Issues with DP Use at Offshore Installations

The document needs to be brought in line with other DP documentation.  
Most of the content is covered elsewhere but needs to be in a standalone easy accessible document.

I used the document to develop a positioning for our DP2 jacks and found the content very useful.

We use this document as a guide to our SMS DP operations.  
What needs to happen is these guidelines should be incorporated into the NWEA guidelines for DP operations so all shipping and oil companies work to a similar standard.

Yes, there are duplications of information and that is what could be seen under Q: doc needs updating

Here in Brazil we used the IMCA 182 as a reference to develop our own manual following the same steps of it. However, we felt need to include some items related to specific subjects. Our Manual requires shipping companies to fulfill what IMCA 182 and IMO circulars 645 and 738. Searching the web I noticed that although much has been done collisions are still happening. Supply vessels have increased in size but the same has not happened to oil rigs. Captains have had extreme difficulties in approach closer to an offshore Platform, especially to load or unload heavy cargoes. In such situations the crane boom needs to be positioned more on vertical which shortens the lateral operational distance between the PSV and the Offshore Installation. While the Captain is concentrated on the lateral distance, the bridge and masts and antennas on top of it poses another risk of collision. There has also been a lot of DP failures in close proximity. Most of the PSV here are DP class II. Another problem here is the supply and demand of qualified seafarers.

I have not used this document much. But I tried to answer to best efforts.

P13; emphasis is put on 14 days experience in operating the dp system, what about maneuvering the vessel in manual control. due to vessels being operated in dp mode, the experience in maneuvering the vessel in manual control is lost!  
P18 §3.3.2; list of dp operational procedures: engine room set up checklist is not mentioned  
Sample for dp location setup checklist, should be same as dp watch keeping handover checklist  
Engineers; more emphasis should be put by companies in the training and experience of engineers on dp class vessels.  
Note; above experience build up outside 500mtr zone

Currently Talisman Energy UK don't allow supply vessels to operate in DP mode alongside their installations unless they operate to the same standard as DSV's, and can provide a 3<sup>rd</sup> Party FMEA, conduct annual DP trials and all the DP operators have a Mate ticket. (two on each watch).  
Our main concern is the lack of manual driving skills of the bridge team and that some owners substitute boat handling competency with DP technology.  
A couple of years ago MSF introduced a ship handling record book. Unfortunately this is not used by all vessel owners and the importance of its use should be stressed in the MSF meetings.

# Issues with DP Use at Offshore Installations

## Summary of Most Significant Comments;

- ❖ Not everyone is aware of the IMCA M182 document that perhaps should be
- ❖ Concern over DP qualifications, experience and manual driving skills of crew
- ❖ Some ambiguity within M182 and not entirely agree with other guidance
- ❖ Is seen as a good standalone summary guide to DP
- ❖ Could be applied to more classes of vessel
- ❖ Should incorporate more guidance on engineers roles and contribution
- ❖ M182 guidelines may fall short of full IMCA DP guidance for safe operations

# Issues with DP Use at Offshore Installations

Summary of suggested way forward;

Update needed of content of IMCA182 as still believed to be of use

- ❖ Make more concise and compact
- ❖ Incorporate “Agreed Industry Interpretation of MSC 645” within Document
- ❖ Remove conflict with other IMCA documents such as IMCA M117 & M103
- ❖ Change order of contents
- ❖ Ensure compatibility with MTS Guidance
- ❖ Possibly include Matrix as per MTS Guidance
- ❖ Work with MTS regarding Common Documentation ?
- ❖ Share progress with OGP Marine Safety Sub-Committee (already started)
- ❖ Cross Reference with NWEA Guideline Review Group

# Issues with DP Use at Offshore Installations

## Current Edition of IMCA M 182 – Revision 1 - Issued August 2009



Preface.....	i
<b>1 Introduction .....</b>	<b>5</b>
1.1 Terms of Reference.....	5
1.2 Basis of these Guidelines.....	5
1.3 Application.....	5
1.4 Purpose and Scope.....	5
1.4.1 Section 2.....	6
1.4.2 Section 3.....	6
1.5 Abbreviations.....	6
1.6 Terms and Definitions.....	7
<b>2 Existing Rules and Guidance.....</b>	<b>8</b>
2.1 International Rules and Guidance.....	8
2.1.1 IMO MSC Circular 645 – Guidelines for Vessels with Dynamic Positioning Systems.....	8
2.1.2 Flag State Verification and Acceptance Document.....	8
2.1.3 Classification Societies.....	8
2.2 Regional Rules and Guidance.....	9
2.2.1 Overview.....	9
2.2.2 Regional Variations.....	9
2.3 IMCA Guidance.....	10
2.3.1 List of IMCA Publications.....	10
2.4 DP System Certification and Verification.....	11
2.4.1 Introduction.....	11
2.4.2 DP Classification Society Notation.....	11
2.4.3 DP FMEA.....	11
2.4.4 Annual DP Trials.....	11
2.4.5 DP Capability Plots.....	11
2.4.6 DP Footprint Plots.....	12
2.5 Key DP Personnel Competence – Training and Certification.....	12
2.5.1 Introduction.....	12
2.5.2 Masters, Navigating Officers and Other Operating Personnel.....	12
2.5.3 Engineers, Electricians and Electronics Officers.....	14
<b>3 Guidance on Procedures.....</b>	<b>15</b>
3.1 Loss of Position.....	15
3.1.1 Overview.....	15
3.2 Vessel Positioning Matrix.....	15
3.2.1 Vessel Positioning Matrix Description.....	15
3.2.2 DP OSV Capability.....	16
3.2.3 Close Proximity Situations.....	16
3.2.4 Interfacing with Third-Party Equipment.....	18
3.3 DP Operational Procedures.....	18
3.3.1 Introduction.....	18

3.3.2 List of DP Operational Procedures.....	18
Arrival Checks.....	18
Communications.....	18
Approaching the Installation.....	18
DP Location Setup Checks.....	18
Close Proximity Time.....	18
Separation Distance.....	19
Selecting a Safe Working Location.....	19
Safe Working Heading.....	19
Escape Route.....	19
Environmental Forces Monitoring.....	19
Maintaining a Safe Working Location.....	19
DP Watchkeeping Handovers.....	19
Onboard Engineering, Electrical and Electronics Support.....	20
Critical and Allowable Vessel Excursions.....	20
Electronic Off Position Warning and Alarm Limits.....	20
Electronic Off-Heading Warning and Alarm Limits.....	20
Position and Heading Changes.....	20
Power Consumption and Thruster Output Limits.....	21
Consequence Analyser.....	21
Safe Operating Limits.....	21
Position Reference Systems.....	21
Change of Operating Control Mode.....	22
Standby Time.....	22
Vessel Thruster Efficiency at Different Drafts and Trims.....	22
DP Alert Status.....	22
3.4 DP Alert Level Responses.....	23
3.5 Operational Risk Assessment.....	23
3.5.1 Degraded Condition Risk Assessment Description.....	24
3.5.2 Hazard Identification.....	24
3.5.3 Hazard Severity.....	25
3.5.4 Hazard Likelihood.....	25
3.5.5 Associated Risk.....	26
3.6 DP Incident Reporting.....	27
<b>Appendices</b>	
<b>1 Relevant IMCA Publications.....</b>	<b>28</b>
<b>2 DP FMEA.....</b>	<b>29</b>
<b>3 Annual DP Trials.....</b>	<b>32</b>
<b>4 DP Capability Plot.....</b>	<b>33</b>
<b>5 DP Footprint Plot.....</b>	<b>36</b>
<b>6 Sample Arrival Checks Document.....</b>	<b>38</b>
<b>7 Sample DP Watchkeeping Handover Checklist.....</b>	<b>41</b>
<b>8 DP Incident Reporting.....</b>	<b>42</b>

# Issues with DP Use at Offshore Installations

## Possible Index

### Preface

### Introduction

- Pt 1 – Competence
  - Manual Ship-handling
  - DP Operations
- Pt 2 – Operational Guidance - Knowing your ship
  - Reference systems
  - Understand Single Pont Failures and Consequences
  - Maintainability of vessel position following major single point failure (Spinning Reserve)
  - Maintaining DP status whilst in Operation
  - Resources to be made available from Owners/Manufacturers
- Pt 3 – Risk Assessment
  - Weather conditions versus spinning reserve versus loss of 50% available power

### Appendices

Documentation Hierarchy

IMO MSC Circular 645 – *Industry Interpretation*

IMCA M103 / IMCA M117 / MTS Guidance

**A reminder of some previous MSF work....  
that should perhaps be re-kindled**



**Bridge Team Management and  
Ship-handling Training**

**1<sup>st</sup> November 2004**

# Introduction

- Research has demonstrated **more training and assessment is required** in this field
- A **scheme** has been devised with a large amount of input from seafarers
- The aim of the scheme is to **give more confidence to vessel Masters, vessel owning and managing companies and client companies with regards to the level of training officers are receiving in this field.**

# Elements of the Scheme

- Bridge induction for all ship-handlers
- Traffic light system for the individual who is undergoing training
- Use of onshore simulator courses
- Onboard skills assessment

# Bridge induction

- All bridge officers to receive induction and demonstrate knowledge of the operation for each vessel he/she joins or has been away from for longer than 6 months before being permitted to con the vessel.
- Induction covers 12 specific points.

# Traffic Light Scheme

- Red – individual has limited/no ship-handling skills
- Amber – individual has basic skills but not adequate to take watch-keeper role whilst alongside
- Green – individual is deemed to be competent ship-handler

# Traffic Light Scheme cont.

- Masters and Chief Officers with more than 3 years experience in ship-handling watch-keeping role would be “Green- lighted” automatically.
- Those with less than 3 years experience to have onboard skills assessment – additional training requirement may be identified for individuals.
- On joining a new vessel or having been away from a vessel for more than 6 months green lighted ship-handlers revert to amber until they have undergone induction.

# Red to Amber.

- The individual **must demonstrate**:
- **familiarity** with all aspects of the induction as per record book
- **capability to control** the vessel in manual with all systems operational
- **capability to risk assess** approach to installation
- **capability to hold the vessel in position alongside an installation in joystick**

# Amber to Green

- To be upgraded from amber to green an individual must be able to demonstrate capability with regards to all the scenarios outlined in the record book in all weather working conditions for prolonged periods.
- Individual will receive certificate from owner's/manager's office.

# Onshore Simulator Courses

- All current Amber and Red ship-handlers and those joining the industry will be required to carry out a simulator course
- It is recommended that ship-handlers do the course whilst Amber or in a timely manner having been “Green – lighted”

# Simulator Courses

The purpose of these courses would be to improve:

- Bridge Team Management
- Emergency Response
- Ship-handling skills

# Onboard Assessments

- All ship-handlers would undergo skills assessment once every 5 years.
- Assessments cover: bridge team management, emergency response and skills.
- Result may recommend additional training.

# Work to complete

- Syllabus for simulator courses
- Availability of SMART funding for courses
- Trial by Farstad.



ShiphandlerBook\_T  
emplate



BridgeSim\_Course

# Issues with DP Use at Offshore Installations



I would like to welcome....

**Suman Muddusetti**

of the

**Marine Technology Society**

Two large, light blue wavy lines are positioned at the bottom of the slide, resembling stylized waves or a ribbon. The top wave is positioned behind the text 'Marine Technology Society' and extends across the width of the slide. The bottom wave is positioned below the first wave and also extends across the width of the slide.