

6°degrees

News, Views and Reviews from the
International Dynamic Positioning Operators Association

Issue 10: Winter 2012



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WELCOME

TO 6degrees, THE E-JOURNAL FROM IDPOA



Welcome once again to the latest edition of 6degrees, the e-journal of the International Dynamic Positioning Operators Association.

We hope that 2012 is a safe and successful one for you, and remind you that IDPOA exists to work hard for our members and fellows and for the good of the Dynamic Positioning Operations profession.

Last year was another one of growth for the association, but the emphasis has really been on consolidation. We have been around for a few years now, and are looking to further cement our industry role and position. What this means is looking honestly and dispassionately at the association as we look to the successes and failures of the past, in order to ensure we maximize the return on our efforts as we progress.

So what have we done well? Well we've managed to slowly gain acceptance and representative voice, and that is what the whole IDPOA concept was initially forged upon. We have also done much to engage with disparate groups of DPOs globally and have been building useful and rewarding links between groups from Brazil, Egypt, Philippines and Australia. There is a real hunger and desire to have a professional body of which we can all be proud, and we really are getting there. So what of the disappointments? Well, we still haven't been able to get the berthing pool going, and so we are still concerned that there is no natural career path in DP. We are working hard though, and really do believe that when the industry is willing to wake up to its problems, then we will be in good shape to assist and support.

We have also been extremely pleased to see so many people reading 6degrees – and the feedback we have had has been very good. We look forward to receiving more articles from members, which is something which would really push us on. Incidentally we should also stress that whenever an individual writes in 6degrees the views expressed are on that basis – we don't necessarily support everything which is said, but we support the right to say it. We have, regrettably, "annoyed" a few people over the past year, but we hope that in the spirit of open debate that we can continue to share the genuine views of those across the industry.

Another area we are set to improve in 2012 is our engagement with corporate members – we are so pleased to have the support of a number of key players and this is set to continue as we press hard to ensure that the benefits of membership are more widely known. The latest companies to join IDPOA include Farstad, and you can read more of their new state of the art simulation centre in Perth in this issue. We are also pleased to welcome Amarcon, Marine Cybernetics, Fugro and Marine Technologies LLC.

All the best,

Steven Jones
Executive Director

IN THIS ISSUE

Yet again in this issue we look to tackle some the complex and controversial issues which affect those working with DP.

We have been amazed by some of the investment and development of the latest marine simulators, but there is a worrying divide developing between the training centres which have the very best equipment and technology, and those which, frankly, do not.

There are widely differing views on the role of technology in training. Some believe it is all about the kit, while others think it's about the lecturer. The truth, as so often in life, usually sits between the two. In this issue we look to analyze the issue further.

Next up is the ever present concern over incident reporting. It's one thing to have an accident or incident, it is something else altogether to ignore it. Are we, asks Capt. KS Sandhu really using the learning opportunities wisely and widely enough?

The Nautical Institute has made some changes to the latest rules on the training of cadets, and we cover their new stance inside.

We also focus on the formal opening of the impressive Farstad Simulation centre in Perth, Australia, which was opened by the Norwegian Prime Minister in December. The centre boasts an amazing spread of equipment, and some well known faces too.

Mark Pointon, latterly of the Nautical Institute is now heading up the DP side of the Farstad centre and he shares his views on the move from certifying to teaching. His personal story tells of the move down under.

We hope you enjoy this latest edition, and if you have any articles you would like to submit please email dpo@dpooperators.org

To find out more, to join or upgrade your membership visit www.dpooperators.org



CALL OF DUTY REALITY CHECK



We have long discussed the use of “visuals” to support DP Training, and we are not the only ones. Since the advent of the Nautical Institute (NI) scheme there have been arguments over simulation and whether the use of “an outside view”, or “visual channel” can aid training.

Some “old school” thinkers believe that good training is not just about technological enhancements, they think that it is about the lecturer and the DP kit over flashy nods to realism.

In some respects they are right....but, as with most things in life it doesn't tell the whole story. Learning about DP is an important part of the training, just look at STCW – and proper learning relies on proper teaching, which in turn, yes, relies on good lecturers. People with passion, experience, patience and a desire to share,

educate and explain. So we could perhaps be forgiven for thinking that the debate is over, you can't produce good DPOs without good lecturers, and any visual stimulus is irrelevant.

Does the use of visuals make a poor lecturer good? No. Does the use of visuals make up for poorly maintained or outmoded equipment? Once again the answer is no. Can visuals enhance the learning experience and deliver 21st Century training to 21st Century trainees? This is a resounding yes, and it seems that feedback from the military is placing even more emphasis on not just the provision of simulation, but that it should be of the highest possible standard.

The use of an outside view has never been mandatory for DP training. Basic DP

training focuses on practical operation of the DP system, position reference systems, environment sensors and ancillary equipment, and power generation systems, which do not necessarily need an outside view. However, with trainees demanding ever more realistic interpretations, is there a move from games master than ship master? Well maybe.

The use of an outside view has never been mandatory for DP training. Basic DP training focuses on practical operation of the DP system, position reference systems, environment sensors and ancillary equipment, and power generation systems, which do not necessarily need an outside view. Things are changing though, and as has been experienced by the military, when trainees are expected to immerse themselves in a simulation, then it better be up to scratch.

The UK Ministry of Defence (MoD) has been updating combat simulations to match the quality of the games consoles new recruits have been using at home as the current generation of soldiers, raised on a diet of games such as Call Of Duty: Modern Warfare and Battlefield 3, have forced improvements to combat simulation games.

When the training does not match with the experience from one's armchair, then there are problems. In fact the MoD's combat simulations have been found to be “too boring” and “unrealistic” causing troops to lose concentration, compared with the latest first person shooter (FPS) games found on many of today's consoles.

A Ministry of Defence (MoD) scientist admitted to the media that this has resulted in the British military “radically improving” some of its simulated war games to hold the attention of recruits.

Digital combat simulations are becoming an increasingly important part of training, preparing soldiers for operational duties. Which mirrors the experience in DP training, especially as more vessel owners look to reduce the sea time of the DP training scheme by means of intensive DP simulator training.

In these more advanced courses, the outside view plays an increasingly important role, but are we able to hold the attention of trainees adequately?

Many of the world's leading DP lecturers



agree that simulation is important, and that it has to be done right. According to Capt. Tonny M. Moeller, Operations Manager of Maersk Training Denmark, “The outside view makes the training much more realistic...I can't see a DP Simulator course without it, it is vital for quality training.”

While Capt. Noel Leith of Swire Marine Training Centre Singapore sees that the, “benefits of the outside view are immeasurable”. Especially as Capt. Glenn Fiander of the Marine Institute, Newfoundland reminds us, “A good DPO should always observe the outside world

to confirm what is being reported to him/her electronically (DP screens, survey screens, etc.). Without visuals, training is simply not realistic.”

Many of the maritime simulators were state of the art when first built, but now, for \$50 you can buy a commercial game that will be far more realistic than the sorts of tools the industry is using, and this is potentially cause for concern.

What do you think? Are simulators up to scratch? Or do you believe it is all down to the lecturer? Email dpo@dpooperators.org with your views.



DP INCIDENT REVIEW

The International Marine Contractors Association (IMCA) is the leading authority on global DP incidents, and their efforts led by IMCA technical advisor, Ian Giddings provide a vital view of where things go wrong in the world of DP.

As has long been recognised, the sharing of information on incidents is essential as an aid to improved safety, with each one improving the knowledge base of other organisations undertaking similar activities.

IMCA publishes an annual report on dynamic positioning (DP) station keeping incidents, and their latest report on incidents in 2009 has just been published (IMCA M 211).

According to the report on 2009, 77 reports were received from vessels operated by IMCA members and others, and of these, 75 are included in 'Dynamic Positioning Station Keeping Incidents (2009)' (IMCA M 211). The report has seen the first drop in numbers in recent years down from 111 in 2008 to 77.

Determining the reason for this reduction would be difficult, however, IMCA believes that incident free operations and incidents not being reported may be contributory factors. Seventy-five reports submitted by 46 vessels were analysed, giving an average of 1.63 reports per vessel.

As in previous years, the average remains between one and two, with 14 vessels reporting two or more incidents, and 32 reporting only one. Currently the number of members' DP vessels operating, according to data supplied by them, stands at 764, a significant increase from previous years. "If the incident rate were to be repeated throughout this fleet there should be a much higher number of reported incidents," says IMCA's Technical Director, Jane Bugler. "Although the majority of the fleet may be operating without any incidents occurring, under-reporting is still thought to be occurring."

The largest percentage for the main cause of incidents in 2009 was reference systems (23%) with many of those submitting reports commenting that reference systems



had been a cause for concern. Power (17%), propulsion (16%), human error (13%), electrical (13%) and computer (11%) were the other main causes, with environment (3%) and sensors (1%) at the bottom of the scale. There were some incidents in which it was not possible to determine the main cause, and these have been recorded as cause 'not established' (3%). All incidents analysed have been included as they provide useful feedback to the industry from which lessons may be learnt.

As in the previous year's report neither the range of vessel activity nor the DP class has been analysed as the vessel activity gave an unrepresentative view of the distribution of incidents amongst vessel types and the DP classes and could lead to incorrect assumptions being made based upon this data.

IMCA is requesting that details on any incidents in 2010 not already reported should be submitted as soon as possible. All reports are anonymised and sent for approval to the contributing company before review by the IMCA Marine Division Management Committee and eventual publication. Reporting forms can be downloaded from www.imca-int.com/core/sel/profile/incidentreports.

Lessons Learned?

As IMCA releases its latest incident figures, IDPOA Fellow and experienced DP lecturer Capt. KS Sandhu asks whether we are indeed learning lessons from these incidents, or whether we are missing some learning opportunities. Are we ready to learn, or is there a danger of the three wise monkey syndrome creeping in, where we see, hear and say nothing?

“Wise people learn from others mistakes “and “from their own”. In the world of DP this maxim is of great significance as an error by the operator can be disastrous not only for the ship, its owners but also for the charterer, oil & gas industry and the environment.

When IMCA came into existence in 1995 (previously DPVOA) it set itself very comprehensive objectives, one of which was to collect DP incident reports, analyze them and promulgate the lessons learnt (part of enhancing safety of operations). This was done with the aim of helping the industry to learn lessons and to avoid their reoccurrence. Today there are more than 800 members in 60 countries who include almost everyone who matters in DP industry. IMCA regularly provides them this vital analysis of failure incidents.

IMCA is doing a great job in diligently fulfilling its objectives in producing these analyses, but is the industry learning lessons from them or are they just being confined to the archives? I am afraid these reports are not being given the importance they deserve! The equipment manufacturer does extensive R & D to alleviate the reoccurrence of failure in their equipment which gets reported but such an “R & D” is largely missing among the operators!

DP Incident Analysis

IMCA in its report ‘Analysis of Station Keeping Incident Data’ for the ten year period 1994-2003 (IMCA M 181) has come out with very interesting and important conclusions concerning all



types of failures. The failures due to ‘FMEA’ and ‘Operator Error’ are the subject matter of this paper and IMCA’s conclusions are noteworthy.

FMEA. Failure modes effects analysis is a very important requirement for any DP system/ship. The fundamental purpose of an FMEA is to prove that the worst case failure in practice does not exceed that stated by the designers in the functional design specification. For DP, the objective is to develop a fault tolerant system that can not only hold station in the face of adverse circumstances, but also allows faults to be corrected as they occur, without jeopardizing the ongoing operation. FMEA trials are carried out at the time of commissioning, annually, complete test at intervals not exceeding five years and after a defect is discovered or an accident occurs.

IMCA analysis report of station keeping incidents for the above period has observed that out of the total 371 incidents reported only nine incidents were considered to be result of ‘new failures’. In other words 97.6% of incidents had already occurred once or more often before. As per IMCA “Some FMEAs have been found to be inadequate because they missed ‘new’

failure modes. DP incident reports, show that nearly all incidents are from well known sources of failure. Therefore an FMEA should on average be effective in documenting 97.6% of likely incident causes from just considering known failure modes. Surprisingly, there is no indication in the FMEA reports, which have been reviewed in this study, that this experience has been used”.

Operator Error. Much has been commented upon the aspect of ‘operator error’ in this ten years analysis. Following are some interesting / important conclusions made by IMCA:-

- 76 incidents were recorded during 10 years, 36 more serious and 40 less serious incidents. DP operator are the main cause, they account for 25% of the incidents on average. DPO error is evident throughout; it is much less likely for other people to trigger a DP incident.

- Number of “limits exceeded” events coupled with human factors, operator error and poor procedures specifically, accounted for over 71% (20 out of 28).

- For ‘operator error’ the DPO triggered incidents dominate, as expected, but the analysis tried to find evidence of good and bad DPO action. Some evidence of both was found.

- The normalized trend of more serious incidents shows that ‘operator error’, ‘DP computer’ and ‘references’ are consistently the leading initiating events.

- Failure of DP equipment can trigger an incident, however the action (or inaction) of a DPO can prevent a position loss. There needs to be interaction between a DP equipment fault and the DP operator error for a position loss to occur.

- Similarly the power/thruster equipment group often needs the operator to fail in some way for the fault to reach a position loss. However, in many of the incidents ‘environment

force’ was not an issue until the failure happened, which would show that safe working limits were being exceeded, leading to operator error, or failure of operator control of the equipment. Operator is also a trigger by itself without the fault or failure occurring first.

- Incorrect set-up, although not identified within the incident analysis before, appears in over half of the reported position losses. This occurrence is heavily related to the use or misuse of DGPS with 50% of total incidents reported (185 out of 371). Incorrect set-up increases the risk of position losses.

- PRSs have always been a major source of incidents over the years with their faults triggering 18% of more serious incidents and 29% of less serious incidents. This is a concern as many of these position losses could have easily been avoided by using more references, or by adopting better procedures. Data shows that the vessel was not set up in the safest way or according to present good practices.

- Majority of DP incidents had more than one secondary cause. These additional secondary causes were usually associated with human factors such that over 97% of incidents might have been reduced or eliminated by attention to these human factor related causes.

- Every incident that results in a position loss can be attributed additional causes, which are either classed as equipment issues or human factors.

- The results show that the human factors, which initially accounts for roughly 20% of all secondary causes, become a dominant issue with between 33% and 50% of all incidents compounded by human action / inaction.

- Every position loss incident involves human factors at some point, only 6 of the total 371 did not, which suggest that over 97 % of incidents might have been reduced or eliminated by attention to these human factor related causes.

- The significant point here is that good procedures are a partial cure for 54% of all incidents, likewise 40% for testing, commissioning and QA. If this logic is extended to the other human factors then the large majority of incidents could be managed better with a net reduction in the severity of position losses.

- Operators are generally good at taking the correct action when a familiar fault or problem arises but an unexpected fault from reliable equipment can easily lead an operator into compounding the problem.

IMCA in its report has also observed that repeated incidents have occurred in a vessel within the same year of reporting. This should not have happened if the incident was investigated by the crew and lessons were learnt. Obviously the corrective actions were not deduced or carried out and further incidents were recorded. Some repeats are as simple as insufficient PRSs online.

Even in later years, i.e. 2004-2008 the position loss incidents due to ‘operator error’ have been in the region of 20-26%. Though 2009 report indicates it to be 13%, I don’t know whether to term it as good omen or an aberration. IMCA has observed that there was a significant jump in the number of ‘operator error’ and ‘references’ related incidents in the year 2000. This jump in levels can be explained partly by DGPS scintillation, which caused many incidents in West Africa, Brazil and Gulf of Mexico. As per scintillation occurrence cycle, year 2013 could again see this trend and DP operators should be prepared for it. IMCA report says it all, which clearly indicates that no lessons are being learnt.

Recommendations

IMCA produces very valuable analysis of the causes and trends of DP failure incidents. If the DP fraternity does not make good use of it to learn lessons it amounts to criminal waste of effort made by IMCA. Can’t we think of how these ‘pearls of wisdom’ are better utilized? Here are few suggestions:-

- FMEA agencies should incorporate the known reasons of failures in the schedules for trials. These should be updated every time a ‘new’ failure occurs and should be simulated during trials.

- IMCA should compile a separate compendium of common failures that are caused due to ‘operator errors’. These should be covered in DP Courses by the institutes and discussed by crew onboard ships.

- IMCA should give their considered recommendations about an incident (wherever possible) as to ‘what should have been the right action by the operator in that situation’. Presently it is only giving how the operator reacted to bring the situation back to normal.

- IMCA should produce animation films of common failures, for better understanding, which should be used for training purposes onboard and in the training centres.

- Companies should organize workshops for DP crew from time to time to discuss these analyses; emphasis should be laid on common failures. This can form part of company’s routine interaction with ship’s crew.

- Masters should carry out brain storming sessions with DPOs onboard to discuss the important incidents.

- All DP incidents must be reported by ships for more meaningful trends analysis. Care should be taken to ensure that complete and accurate information is provided to IMCA about the incident.

The overall picture presented by IMCA year after year should worry the DP industry and it should take serious cognizance of the operator related failures. Implementation of above recommendations will be a step in right direction which can help in reducing the failures and down time losses for the industry.

(Edited information taken from IMCA report is quoted in italics)

IDPOA JOBS BOARD

At IDPOA we work hard to bring you the latest DP job opportunities from across the world. We actively engage directly with employers and careers agencies to find permanent vacancies and contract roles at all levels on the DP career ladder.

You can use your membership of IDPOA in order to access and apply for all the jobs we advertise, upload CV's and give recruiters direct access to their careers information in the jobs section of the IDPOA website.

We are working hard to become the only industry jobs board worth visiting. So keep watching as the jobs grow and grow.

The 'Get a Job' listing in our careers section brings you the latest vacancies we find online and is open to all. Here we give you a flavour of current vacancies, find more DP jobs at www.dpoperators.org

If you have DP positions to fill... Email us to find out more about promotional opportunities: marketing@dpoperators.org



Chief Officer / SDPO

Intership Ltd are a leading international FLOTEL contractor and now require an experienced Chief Officer for a new build DP3 Flotel which will be operating in Angolan waters.

The vessel is equipped with Kongsberg K-POS and telescopic gangway. Previous experience of either would be advantageous. As Chief Mate you will support the Master with the day to day running of the Marine department.

To Apply: <http://goo.gl/ECvsv>



2nd Mate - SDPO

Alliance Marine Services, aligned with a prestigious offshore services company, seeks applications from U.S. citizens for the position of 2nd Mate - SDPO for long term employment on Global Industries' new sophisticated DP2 pipelay/derrick vessel, the Global 1200. The vessel is Vanuatu Flag and will be working in the GOM as well as worldwide locations in the future. **To Apply:** <http://goo.gl/V8fKB>

Dynamic Positioning Operator

- * 3+ years experience as DPO
- * Working knowledge of Cegelec and Natronics DP systems
- * Advanced Electronics background in troubleshooting, repair, and maintenance
- * Must hold a Third Mates license or better
- * High school diploma or GED required
- * Must hold a certificate of Dynamic Positioning System Operator



To Apply: <http://goo.gl/Yh9TQ>

Master - Gulf of Mexico

C-MAR Group currently requires a highly experienced Master for a client's versatile 116 metre DP2 pipelay vessel equipped with state of art carousel reel system capable of operating at depths up to 10,000 feet with 400T crane capacity.

This position is available on a permanent basis; the successful candidate will undertake 6/6 week rotation and receive a day rate of £462.00 GBP door to door. All candidates must be available in order to travel to the vessel for joining in early March.

To Apply: <http://goo.gl/>



PLEASE REMEMBER:

- If you want to apply for a role advertised on our website please follow the links to the relevant recruiter website on the advert to apply.

- Please do not send applications to IDPOA as unfortunately we cannot forward these on to employers or respond to individual applications.

Centre of Excellence



In December 2011 the Norwegian Prime Minister, Jens Stoltenberg, opened the new Farstad Shipping Offshore Simulation Centre in Perth, Australia. The centre is the world's largest and most advanced offshore simulation centre for marine operations.

The opening of the centre is seen as a milestone to Farstad Shipping and indeed the offshore industry. The centre is not only a major investment in the skills and safety of the company's employees, but also proof that one of the most modern, forward thinking and innovative of maritime sectors is continuing to progress.

The offshore simulation centre in Perth is a result of the close collaboration between Aalesund University College, Farstad Shipping and the technology provider Offshore Simulator Centre (OSC) in Aalesund. Farstad Shipping aims to be a leading supplier of quality services with a considerate focus on safety, competence and technology.

The centre is seen as being crucial in achieving Farstad Shipping's goal of zero harm to people, environment and equipment. The unique training program will serve Farstad Shipping's commitment to develop and empower the employees. Team training, interaction and communication are important elements in the simulator training.

Farstad Shipping ASA is a leading provider of quality services to the international oil industry. The company has concentrated its operations on supplying large, modern offshore support vessels and has a fleet of 57 vessels and eight newbuilds. While the centre provides training for wider offshore operations, there is a dedicated Dynamic Positioning centre within the campus.

The Simulation Centre in Perth is developed through collaboration with AAUC, and expertise from Norway will be transferred to the instructors at the new centre in Perth. Different expertise from Farstad Shipping, AAUC and OSC



IDPOA is extremely pleased to welcome the Farstad Shipping Offshore Simulation Centre in Perth as a corporate supporter of IDPOA. The support they are providing for the association is testament to their appreciation that advanced technology requires human expertise. The company has 1970 employees distributed on activities on both land and sea, and they believe that the company's main resource is its people and their expertise.

The company has a long-term strategy and a strong focus on health, safety, environment and quality to meet future industry requirements and strengthen its competitiveness. Farstad Shipping invests significantly in safety improvements and developing skills of employees engaged onshore and offshore in line with the company's fundamental values.

is combined into a coherent training program to ensure a unique learning experience. All instructors and courses at the centre meet the requirements for international certification. At start-up the centre will have 8 employees.

The shipping industry faces rapid technological development and increasingly extreme operations require an active focus on safety and as a result, the safety requirements both on land and sea are becoming tougher.

The simulators therefore use advanced simulation and visualization technology and provide comprehensive training in the particularly demanding offshore operations. The simulators operate in real time, and whole crews can practice interaction in complex situations and hence get a realistic picture of the situation on deck, on the bridge and in the machine.

Captain Mark Pointon, former Nautical Institute DP Training Manager and active fellow of IDPOA heads up the DP side of the centre and we are sure that in his capable hands the Farstad centre will achieve its goal of being one of the most respected training establishments in the world.



ALL CHANGE

Nautical Institute tackles cadet training

Following the Manila Amendments to the STCW regulations and concerns expressed by training providers about the knowledge and experience of trainees, The Nautical Institute (NI) consulted the Regional Training Provider (RTP) groups to propose minimum entry requirements to the Dynamic Positioning (DP) scheme.

The initial proposal considered in 2010 was to accept only Officer of the Watch (OOW Deck) level and above but this was later amended to include Engineer qualifications; in these discussions cadets were initially accepted to undertake the DP scheme and complete all the elements, but could not obtain a DP Certificate until they hold an appropriate STCW certificate of competency.

Subsequent to a change of personnel at the NI and review of DP Training Executive Group (DPTEG) decisions, The Nautical Institute raised the following concerns about cadets undertaking the full training:

1. The minimum sea time training for cadets under STCW is one year although it is recognised that some Administrations require a longer period. Due to the number of activities and tasks the cadet/trainee has to complete during the training, it is considered that it would be very difficult for the cadets to undertake the appropriate STCW and the full DP training at the same time as both schemes require 6 months watchkeeping training. It is therefore likely that the STCW training would be compromised.

2. Furthermore, the NI considers that cadets do not have enough knowledge and experience of bridge watchkeeping and vessel operations, which would compromise their DP training.

3. There are forums on the internet that discuss the fact that many companies are using ABs as Junior DPOs onboard of their vessels to reduce costs to the operation of the ship. The ABs are supposed to be supervised by a Senior DPO or Master, but apparently, they are never allowed to touch the DP system; similar concerns would apply to the training of cadets or even use as Junior DPOs in some circumstances.

4. It was mentioned on the 2011 RTPs and DPTEG meetings that the maritime industry is short of DPOs and due to this, companies are suffering higher costs. The Nautical Institute's stance is to maintain the good practices and high standards of the DP scheme and not to reduce the requirements to fill employment gaps within industry. Nevertheless, the NI has no wish to discourage the employment and training of cadets in the offshore sector to fill these gaps appropriately in the future.

5. NI applies, on behalf of the industry, the International standards that cover the maritime DP industry taking into account as far as possible the different working environments and competencies; therefore, it would appear unreasonable to make allowances and/or reductions on the minimum entry requirements based on varying company wishes.

6. The core business of the Nautical Institute is Continuing Professional Development (CPD) and setting and maintaining appropriately high standards. By allowing DP training and STCW training to be undertaken together within the same time frame goes against the Nautical Institute principles of CPD and maintenance of high standards.

Due to the fact that there was a disagreement between industry representatives on DPTEG and the Nautical Institute, the subject was brought to attention of NI Council of 1st December 2011 and after further consultations and discussions, Council determined the following for the requirements:

- The Minimum qualification will be set at STCW Regulation II/1 - II/2 - II/3 Deck and Regulation III/1 – III /2 – III/3 Engine
- Alternative appropriate marine vocational qualifications will be considered on a case by case basis
- Prospective DPO's, who are in the process of training for an STCW certificate can start the DP scheme and complete Induction (basic) course and 30 days Familiarisation only. The Simulator (Advanced) course and watchkeeping training can only be completed after they hold an appropriate STCW certificate of competency.

Prospective DPO's, not meeting the above requirements will be able to apply for certification, if they commenced training prior to the implementation date and all elements have been completed within a 5 year period at the time of application. Following implementation of the above all existing DPO certification will be honored and will remain valid.

The implementation date for this policy will be 1st January 2012



Dynamic Positioning News



In an effort to prevent another BP-like oil spill disaster, the U.S. Coast Guard has issued "draft guidance" to its own personnel as well as the offshore drilling industry on ways in which operators, technicians and inspectors can examine some of the key components of a drilling rig -- such as blowout preventers, dynamic positioning systems and emergency disconnect systems -- more "holistically."

The Coast Guard acknowledged, in a notice it published in the Federal Register late last year that the "myriad requirements imposed by multiple oversight entities makes this exceedingly difficult."

The notice points out that the owners and operators of these "integrated systems" currently are subject to international guidelines, Coast Guard regulations, industry standards and "Flag State" requirements.

The public is invited to comment on the draft guidance letter by Jan. 30, 2012 by visiting www.regulations.gov and citing docket number USCG-2011-1106. Comments and related material must either be submitted on or before January 30, 2012 or reach the Docket Management Facility by that date. <http://cryptome.org/0006/uscg122911.htm>

The Coast Guard will hold a public meeting to discuss such comments to its proposed guidance letter at Coast Guard headquarters at 2100 2nd Street, SW, Washington, DC 20593, in room 2500, on February 9, 2012 at 1 PM.

Further information is available from Commander Joshua Reynolds, of the Coast Guard's office of design and engineering standards, at 202-372-1355 or Joshua.D.Reynolds@uscg.mil.



Aker Solutions is about to open North America's most advanced drilling equipment simulator in Houston, Texas.

The simulator will be available to rig operators with the objective of making offshore drilling operations safer and more cost effective.

Aker Solutions is investing USD 2.5 million in the new state-of-the-art drilling equipment simulator, which will be available 24/7 for North American based rig operators and oil companies. It will double the capacity of the current training centre located in Katy near Houston. The new drilling simulator is expected to be officially opened early 2012.



Capability Matters



New orders for Amarcon's DP Capability Forecast

Two new build 'Seabreeze' windmill installation vessels shall be equipped with OCTOPUS-Onboard. The vessels shall be operated by NSB (Germany) in order to install windmills in the Nordsee Ost windfarm project for RWE Innogy.

RWE Innogy pools the renewable energy expertise and power plants of the RWE Group. The company plans, builds and operates facilities generating power from renewable energies. Part of the ordered scope for the Seabreeze windmill installation vessels is the OCTOPUS-Onboard motion monitoring and forecast, crane tip monitoring and the OCTOPUS-DP Capability Forecast.

With the OCTOPUS-DP Capability forecast, windmill installation projects can be executed in a very efficient and cost saving way. The OCTOPUS-DP functionality gives windmill installation vessels the possibility to make optimum use of a safe time window during windmill installation projects at sea. A forecast is given (and shown on the bridge) if the vessel is capable of maintaining her position and heading in changing environmental and weather conditions.

Earlier this year, The Norwegian company Fred Olsen Windcarrier also ordered OCTOPUS-Onboard with the OCTOPUS-DP Capability Forecast for two new build windmill installation vessels; the Brave Tern and Bold Tern.

For more information about the OCTOPUS-DP Capability Forecast, please visit <http://www.amarcon.com/index.php?id=137>.

Taking offshore operators into the future of Dynamic Positioning: The OCTOPUS-DP Capability Forecast

**CAN YOU AFFORD
NOT TO SAIL WITH**



- A clear and complete indication of the operational windows for weather-sensitive operations at sea, days and hours ahead.
- Better and efficient preparation and execution of projects
- Less damages and stress to the vessel
- Optimal use of man and machine in a safe environment, leading to significant cost reductions.



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Poacher Turned Gamekeeper



Captain Mark Pointon on his move from the NI to Farstad Simulation

Earlier in 2011 I was presented with a job offer that has had far reaching consequences for me professionally and for my family domestically. The offer was from Farstad Shipping and the role was to be the Chief DP Instructor at the newly developed Farstad Shipping Offshore Simulation Centre (FSOSC) in Perth Western Australia.

In considering the offer, I had to look at my current role as the Nautical Institute's DP Training Manager, where I was responsible for the management of the DPO certification scheme, DP training centre accreditation and the ongoing development of the DPO training scheme as a whole in my role as Chair of the DP Training Executive Group (DPTEG) and ask myself a number of searching questions.

"Have I achieved what I set out to do when I took on the job?" and "would I be comfortable and fulfilled in reverting to a teaching role having been in a position of influence?" Some would consider going back into the classroom to be a backward step.

On paper, the facilities at FSOSC looked impressive and it was quickly apparent that it was a high quality training centre with few equals in the offshore industry. In terms of DP training, I was in the unique position

of having visited virtually all of the NI accredited DP centres in the world, so had a benchmark to judge FSOSC against.

To develop and deliver NI courses alone however, would not have fulfilled me professionally for long and the vision presented to me by Jeff Knight, General Manager proved to be a deal clincher.

It was delivered alongside the question, "What DP training provision do you feel would make us the best DP centre in the world and what resources would be needed to achieve this?" My extended reply was met with a wry smile and the answer, "Ok lets do it!"

For some time now, it has been apparent to me that the focus in DP training was in the wrong direction. The majority of the training provision is aimed at achieving a DPO certificate and apart from a few far sighted companies, the development of DPO's post certification is piecemeal at best.

Often, it is left to peers and experience, which is in itself not a bad thing, but when the principle is applied to an industry or sector as a whole this can lead to problems.

While FSOSC does deliver the NI Induction and Simulator courses, our focus is on the development of already qualified DPO's.

This training comes in many guises. For instance, our facilities allow us to offer product specific training which does not only address the operating theory and button pushing of a particular product. It more importantly allows the participants to apply lessons learnt on our dedicated full mission bridges and advanced trainers.

The feedback we have received from participants is that it is extremely valuable and that it instills a lot of confidence to utilise the product far more onboard.

The provision we are aiming for in the DP area will address the internal needs of Farstad Shipping and the needs of the offshore industry in general.

This provision will include NI courses, technical training on DP equipment, operator and technical training on a variety of position reference systems, DP competence evaluation,

DP refresher training, DP operations training and DP bridge resource management.

The above, in itself is not unique and I have seen this intent displayed on many occasions on my visits to training centres throughout the world.

What makes FSOSC different, is that this intent has been backed up by the board of Farstad Shipping in Norway with the will and resources to make it happen.

Having made the decision to leave the NI and focus on developing courses at FSOSC, I did not expect to see many changes to the DPO training scheme for some time, because having introduced many changes in recent years, now is the time to consolidate them. This proved to be an inaccurate judgement on my part.

In December, The Institute changed the rules with regards to cadets following the NI DPO training scheme. The original agreement was that it was possible for a cadet to complete the DP training scheme but not hold a DPO certificate until they held a COC. (This was promulgated in Feb 2011 for implementation in Jan 2012)

The rule change means that cadets will only be allowed to attend the induction course and complete the familiarisation period. Attendance at a Simulator course and completion of any of the 180 days supervised DP watch keeping time will not be allowed.

This presents issues on many levels and is contrary to the opinion of the major industry stakeholders. (IDPOA, IMCA, OCIMF, IADC, and the majority of the DP training centres.)

The decision to amend the rules is confusing because the original policy was a well considered decision that had been made following wide consultation.

My current employers Farstad, and others like them, have been victims of the decision. If they had known that the rules were going to be changed so late in the day, they would have started all their cadets on the scheme before December 2011.

As a result of believing the notification, they have found themselves in a position where they have cadets that now will not be fully functional OOW's on completion of their cadetships.

My personal opinion, which is shared across the offshore industry, is that the basic premise of the Institutes decision on cadets was flawed. DP training, provided in conjunction with STCW training ENHANCES the quality of the resultant OOW because DP is used extensively and routinely by bridge watchkeepers on offshore vessels.

It is an integral part of the vessels equipment and the training scheme gives participants a much wider appreciation of the "whole vessels" systems and their potential impacts on bridge watch keeping than Deck cadets on say a bulk carrier.

The fact is that this issue and others are causing the DP industry concern and it is questioning whether it wants to be dictated to by an organisation that until very recently consulted it on matters connected to DP training and certification.

In conclusion, this is not an attack on the Institute or its management, I firmly believe that the Institute IS the right body to be the "guardian" of the scheme, but only if it continues to consult fully through the DPTEG, allowed to act under it's original terms of reference.

One thing I have learnt in recent times is that life is too short, life goes on, and in my experience it improves. So while I disagree fundamentally with this development I will not lose any sleep over it and my focus will remain firmly on achieving the vision for FSOSC that was presented to me and pondering the really important decisions in life like: what are we having on the barbie today? and whether to go for a swim in the pool or go to the beach?



MAKE UP YOUR MIND

The decision making processes of us mere mortals have been the topic of hot scientific debate of late. Whether in the queue for a coffee, ice cream, or staring at the DP desk, life is increasingly about making informed decisions...fast!

Back to the ice cream parlour analogy – think of your favourite store...assume they have 50 flavours and you want 2 scoops. That is 1,225 flavour combinations. That is a lot of deciding to do.

As you are sat in the DP hot-seat there are a bewildering array of decisions laid out before any DPO. From pages to view, to buttons to press, to PRS' to select. As the options grow, the decision making process gets more complex and slows down. As humans we revel in choices, but sometimes there is a pay-off – and it seems that speed drops off and anxiety rises with an expanse of options.

As the information load increases, scientists have found activity in the “dorsolateral prefrontal cortex”, a region behind the forehead that is responsible for decision making and control of emotions gets fired up. But as more and more information is provided, then suddenly activity in the dorsolateral PFC suddenly falls away off, as if a circuit breaker had popped.

We have to be careful that in giving DPOs too many options that in moments of stress or heightened activity the brain could simply decide to focus elsewhere. The old joke about

DP being “99% boredom, 1% panic” should serve as a warning that DPOs may not be ready to cope when the pressure is applied.

Anyway, enough of the panic, there is enough of a problem with making decisions in times of calm... With too much information, people's decisions make less and less sense. With more and more sensors feeding into the DP and with so many more subtle options of control then the flow of facts and calls for action and decisions never stop.

While we all want the DP system to be as high-tech as possible and to provide all it can, we must be aware of the problems that a surfeit of information can bring. In anticipating problems we can manage them, and if DPOs are being slowed, confused or panicked, then we need to understand why.

As information finds more ways to reach us, more often, more insistently than ever before, another consequence is becoming alarmingly clear: “trying to drink from a firehose of information” has harmful cognitive effects. And nowhere are those effects clearer, and more worrying, than in our ability to make smart, creative, successful decisions.

Every bit of incoming information presents a choice: whether to pay attention, whether to reply, whether to factor it into an impending decision. But decision science has shown that people faced with a plethora of choices are apt to make no decision at all.

If, however, we manage to make a decision despite info-deluge, it often comes back to haunt us. The more information we try to assimilate, the more we tend to regret the many forgone options.

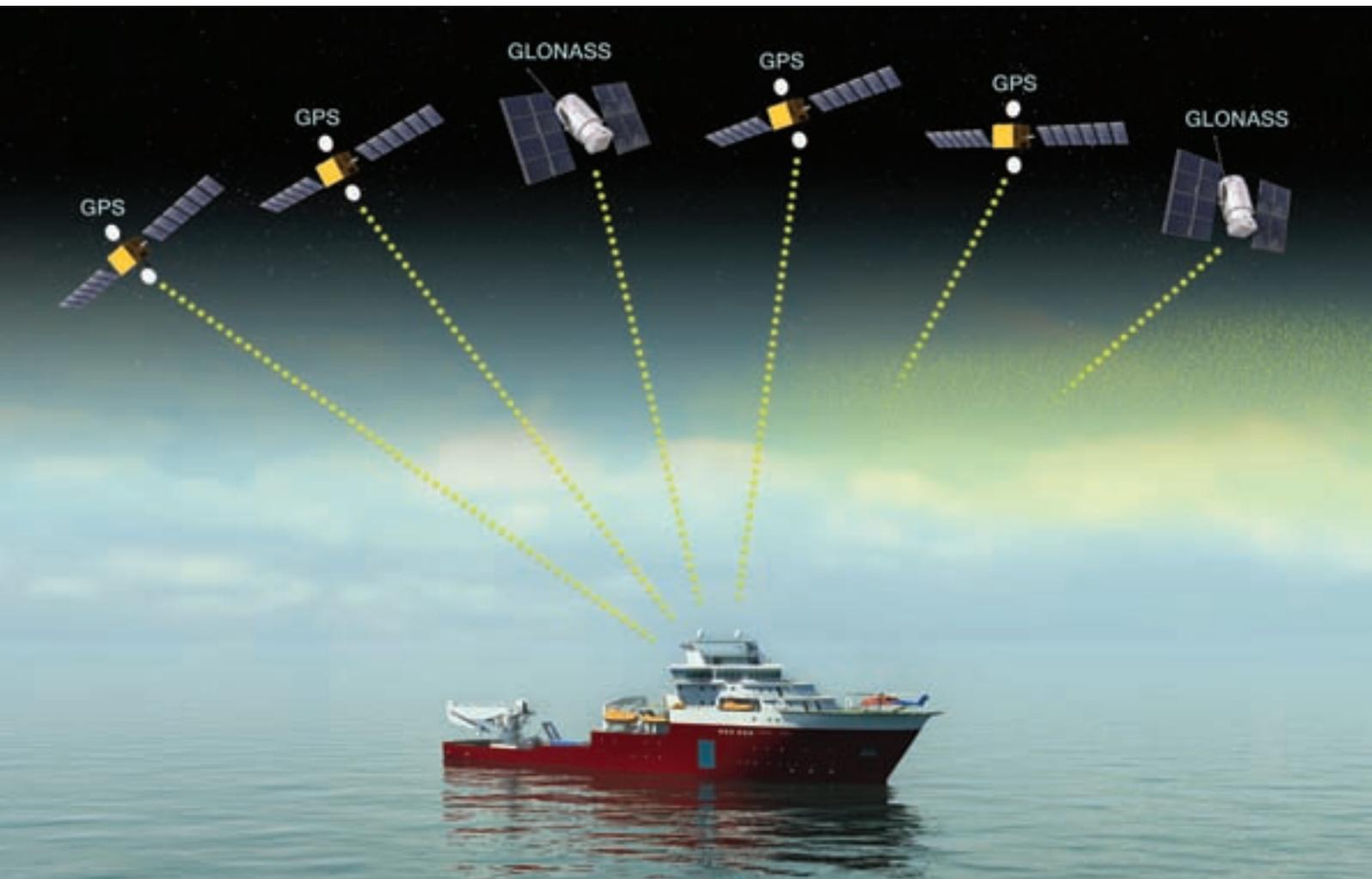
A key reason for information's diminishing or even negative returns is the limited capacity of the brain's working memory. It can hold roughly seven items (which is why seven-digit phone numbers were a great idea). Anything more must be processed into long-term memory. That takes conscious effort, the brain struggles to figure out what to keep and what to disregard. Ignoring the repetitious and the useless requires cognitive resources and vigilance, a harder task when there is so much information.

When making your mind up time arrives it seems that DPOs are governed by “Hick's Law”. This is a description of how our brains come to make decisions which was pioneered by the British psychologist William Hick. His research proved that every time the number of choices doubles, the time taken to make a decision increases by a fixed amount.

So when you are fumbling at the desk desperately trying to stop the vessel ploughing into a rig as you are bounced in a gale, at least you know that your blind panic and the ages you are taking to make a decision are very natural side-effects of psychology and mathematics. Not that you'll feel any better at the time.



WHEN POSITIONING COUNTS...



...COUNT ON SEASTAR

Clouds on the Horizon

Increased sunspot activity from Solar Cycle 24 may interfere with satellite transmissions: be prepared with dual frequency, multi constellation Global Navigation Satellite Systems from Fugro.

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SHIP to SURE



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SONY DEV-5 Recording Binoculars

Experience the best the great outdoors has to offer, it says on the blurb for these amazing new Sony binoculars.

The DEV-5 digital recording binoculars are powerful yet compact, and combine superb quality with up to 20x magnification in High Definition. You can record in 2D and 3D with GPS tagging, so you can take home more than just memories and experience each moment all over again.

So they are wonderful for recording that idiot not altering course and causing problems in the TSS or even checking out the fine ladies of Regent Quay in all their glory. See www.sony.co.uk/hub/binoculars

Apple iTV

If you are about to receive some cash to throw at your ships lounge or games room perhaps you should hold fire, as Apple is out to provide a "one-stop solution to all your entertainment needs".

At the moment the internet is awash with rumours – we know an Apple TV set (or Apple iTV?) is on it's way and it's set to revolutionise how we watch programming. Apple has been bidding on broadcasting rights, integrating Siri voice controls into a TV set and – of course – working on super high-resolution displays.

As yet there's no concrete info on a release date – but it looks like 2012 could be the year of Apple TV.

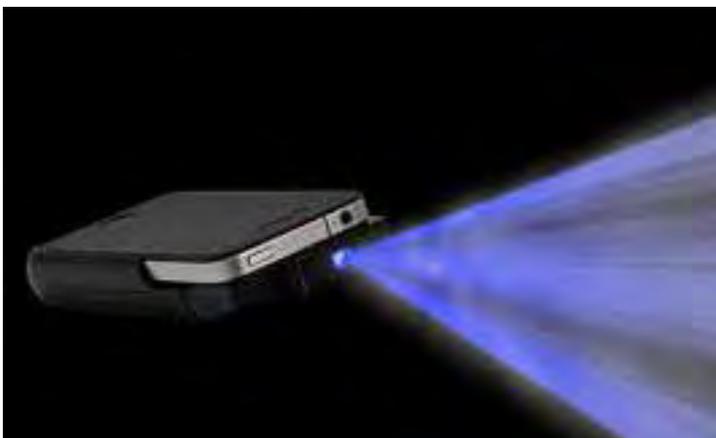


Pico Genie A100

You have an iPhone, you have loads of lovely videos from home that you would love to see in vivid colour in cinema style size on your bulkhead. But oh, how to make the magic happen?

Well look no further than the Pico Genie A100, it won't replace your home cinema anytime soon but it's easy to use and mega portable, plus the picture quality will surprise you every time.

So if you're fed up of tacky lenses and cheap cases and want to commit long-term to a worthy peripheral, the Pico Genie might just slot nicely into your iPhone accessory cabinet.



Safe software - safe operations

Marine Cybernetics tests control systems to secure safe and reliable operation of ships and offshore installations. The test method results in significant savings for yards, ship owners, contractors and oil companies compared to traditional testing of control systems. Marine Cybernetics utilizes a simulator based test technology, known as Hardware-In-the-Loop (HIL) testing to thoroughly test control systems software.

Marine Cybernetics has more than 80 references and it is bringing its test technology into several new areas in the offshore segment

Hardware-In-the-Loop (HIL) Testing

Marine Cybernetics assesses control systems using HIL testing, which is based on the company's unique and patented CyberSea Technology. HIL testing is accomplished by connecting the control system to a real-time simulator representing the ship or offshore installation. The control system cannot sense any difference between the real world and the simulated world. Functionality, performance and ability to handle failure situations are then tested under realistically simulated operating conditions. Even software functionality that is dangerous or difficult to test in real world is addressed, typically emergency functionality, shutdown functions, forbidden sectors, etc are tested using HIL. During traditional testing this is not addressed since it is too dangerous.

Independent HIL testing is an essential element in the work towards higher quality and improved safety for control systems in the marine and offshore industry. It is utilized to test each controls system individually, and to test integration between various control systems. Service agreements with Marine Cybernetics takes care of software issues during life-cycle of the ship/rig and helps you to reduce the risk associated to software updates or changes.

Marine Cybernetics offers HIL testing for the following systems:

- Dynamic positioning systems
- Power management systems
- Steering, propulsion and thruster control systems
- Drilling control systems
- Crane control systems
- BOP systems
- Emergency Shutdown systems
- ... and more

Benefits of HIL Testing

Eliminating software errors in control systems when the cost implication to correct errors are small, leads to safer and more profitable operations:

- Improved safety in operations and less risk for incident
- Reduced downtime and costs for trouble shooting in operation
- Fewer stressful situations/decisions onboard
- Reduced time for commissioning, sea trials and annual trials
- Less destructive testing due to simulator technology
- Sixty percent of findings revealed by HIL testing will never be found by traditional testing



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