

# 6°degrees

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

Issue 18: Winter 2014



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# WELCOME

TO 6degrees, THE E-JOURNAL FROM IDPOA



Welcome to a fresh edition of 6degrees, and to a new year. One which we hope provides some clarification on the rather messy issue of DP certification.

Last year it seemed we were heading towards a union between DNV GL and the Nautical Institute (NI) schemes. Alas despite pressure within the industry this marriage has not taken place. In fact we appear to be further than before from a unified scheme of training and certification.

That does not mean that things are not developing, they are. It just means that they will continue to be rather confused for a while - which does no-one any good. In some quarters there is a degree of head-in-sand, as the status quo struggles to adapt to the reality that there are now more than one DP training and certification schemes in operation.

Indeed, it is important to remember that the Norwegian flag has recognised the DNV Scheme, and DPOs are being produced through that route and process. It is important, therefore, that we ensure that the industry is aware and able to take decisions based on facts, rather than hearsay and opinion.

Elsewhere there are other schemes being developed and before long they too will be rolled out. Despite, and perhaps in spite of industry calls for unity - we are deeply concerned the whole DPO route to training and certification is splintering in quite spectacular fashion.

When the very first moves to separate schemes were mooted, IDPOA was categorical in its concerns that this was not likely to bring benefits. Indeed as DNV's new scheme was being developed we joined with other stakeholders in pressing for a combined approach. The DNV system has many positives, and we can all benefit from a scheme which harnesses the best of both worlds.

Still, these calls are going unanswered. Which is a real shame -and while pressure is still being applied, it seems increasingly likely that eventually DP will have to come under the auspices of flag States. Something which some within the industry believe could become something of a nightmare scenario.

Industry self regulation and certification is something which is only sustainable when it delivers. So until the certification bodies align themselves then there is a danger that the status quo will no longer be justified or able to continue.

We hope that you find this latest issue of interest and as ever we would love to hear your views and to engage with you. Together we can ensure that your voice is heard...so perhaps we can encourage some more of you to share your thoughts and provide vital input for the industry.

## INSIDE

Throughout 2013, the Nautical Institute embarked on a review of the DP Operator training scheme - which has now finally concluded.

The final documentation explaining the new scheme will be available from March 2014 and, while there were a number of concerns raised it is to be hoped that it reflects the input of all stakeholders and addresses some key areas of unease across the industry.

We look at one of the biggest bones of contention regarding the DP certification process, the time taken to process submitted certificate applications.

While the processes are under review we look at the online mistakes in the certification process, it seems to be a case of "Ask not what your certification body can do for you, but what you can do for your certification body".

This issue we also tackle professionalism and the attitude of DPOs - to ask whether newbies have the "right stuff" to become DPO.

Following a major new study we look at whether the nature and frequency of DP incident reports reflect the operational reality onboard DP vessels?

IDPOA has been asked to take part in a DNV GL review of the ingredients for certification regimes of Dynamic Positioning Operators (DPO). This is a process which IDPOA is pleased to support, and we need your input.

We have touched upon the issue of cyber security and DP before, but since we last assessed the threats and the ways in which they are being managed it seems the mainstream world of shipping has been rocked by rumours of cyber-attacks and threats.

As we see more and more pirate attacks in offshore fields, and in wake of the kidnap of two American crew members, it is clear that offshore shipping is a real target for piracy. We look at the issue in more depth.

Email [dpo@dpooperators.org](mailto:dpo@dpooperators.org) to discuss any issues of interest or concern.

# NAUTICAL INSTITUTE ON DP REVALIDATION



## CRITERIA TO RE-VALIDATE NAUTICAL INSTITUTE DP CERTIFICATES

Throughout 2013, the Nautical Institute embarked on a review of the DP Operator training scheme – which has now finally concluded. The final documentation explaining the new scheme will be available from March 2014 and, while there were a number of concerns raised it is to be hoped that it reflects the input of all stakeholders and addresses some key areas of unease across the industry.

One of the major issues was that of the re-validation of DP certificates, and the NI has announced that due to the delay in finalising the new scheme, they are postponing the re-validation of DP Operator certificates to January 2015.

It should be noted that in order to revalidate your DP Certificate you must have 150 days of DP sea time within the past 5 years. This time must be logged in your NI and/or IMCA logbook. A company confirmation letter will be required for time logged from January 1, 2014

The re-validation will be phased as below:

- **2015:** Re-validation of certificates issued from 1984 to 2002, 2009 and 2010
- **2016:** Revalidation of certificates issued from 2003-2004 and 2011
- **2017:** Revalidation of certificates issued from 2005-2006 and 2012
- **2018:** Revalidation of certificates issued from 2007-2008 and 2013
- **2019:** Revalidation of certificates issued in 2013 and so on

**A.** If more than 150 days DP sea service is done within a period of 5 years, then the person needs to re-send the documents to the NI to replace the certificate with a new validity date.

**B.** If the DPO has less than 150 days of DP sea service within the preceding 5 years, then the person needs to do an advanced course and a minimum of 30 days DP sea service.

**C.** If no DP sea service is obtained within the period of the last 5 years, then the person would have to undertake the advanced course and do a minimum of 60 days DP sea time on a DP vessel to have his/her license re-validated.

**D.** If the DP professional has been engaged in an occupation The Nautical Institute considers being equivalent to the sea service (i.e. DP Lecturer /instructor, DP surveyor, DP consultant, DP auditor, DP superintendent, DP supervisor), it will be required for revalidation of his/her DP certificate a minimum of 150 days in the activity claimed of the preceding 5 years.

The entries to prove the activity shall be done on NI or IMCA logbook and signed by the accredited training centre (in case of DP lecturer), vessel's operations manager (in case of DP superintendent, DP consultant, or DP supervisor) where the person has performed the work/activity or by the Nautical Institute's authorized person (in case of DP auditor).

If the person decides to apply with a mix of experience that involves criterion 'd' and criterion 'a' or 'b', then the sea time obtained during the last 5 years shall be counted towards the required cumulative 150 days. Example: 15 days as DP lecturer and 15 days DP sea service, totaling the minimum 30 days.

# DP APPLICATIONS: ERRORS, FRAUD AND STUPIDITY

According to a number of prospective certified DPOs, perhaps one of the biggest bones of contention regarding the DP certification process has been the time taken to process submitted applications.

This is an issue which the DP Training Executive Group (DPTEG) has pressed the Nautical Institute on, and as a result there has been an increase in the resources available within the administration team.

The newly enhanced and expanded DP certification team should, we all hope, be able to improve the return time on DP applications.

DPTEG members have restated that the current 3 month backlog is unacceptable as it has gone on for so long and from a Vessel Operator's point of view means that qualified DPOs cannot be deployed bringing a high cost to the industry.

We have all been working to support the NI, and wish to see innovative solutions found that can improve the process. Allied to this, the NI has stated that it will introduce weekend work shifts, further increases in personnel, and software improvements are to eliminate a backlog of applications. We will monitor the time taken to process applications, and feedback to the NI on the efficacy of their changes.

At the recent DPTEG meeting it was asked whether the three month delay was for those applications that are correct or for those applications that are incorrect or incomplete. The NI replied that the waiting period was for the applications that were processed and completed first time. It was suggested that the NI should look into having a fee in place for those who provide incorrect information i.e. saying that something is signed when it is not. The idea behind this is so that applicants would be deferred from submitting incorrect information.

The NI has explained that the majority of the problems are with the confirmation letters that come into the office with incorrect signatures because letters are required to be signed

by Operations Manager or Superintendent, the individual that knew the DP operator. The NI has instead been receiving letters signed by such individuals as the HR assistant which is unacceptable. This leads to the application being queried.

Stakeholders have suggested that the NI should look at the way the companies are set up because for some companies it is the HR that deals with these issues, and it seems that there is no "one process fits all" solution to this issue of signatures.

It has been suggested that an approved register of signatories be developed, so that all parties are clear in their roles, and the NI can quickly establish whether an approved signature has been provided.

The NI has been in talks with maritime associations regarding the current backlog of logbooks. According to the NI there are pressing issues that are causing the backlog and The NI asked Stakeholders, such as IDPOA for help with this:

- Applications are coming with mistakes. Assessing performance indicators, it was noticed that NI staff were being using from 35% to 45% of their time to reprocess document and to rectify mistakes found within applications.
- The NI asked DPTEG to speak to their members and try to correct the issues - they have requested we inform Masters and DPOs on board vessels and office personnel with companies who issue the confirmation letters.
- The NI suggested companies could do a pre-verification before applying to the NI.

Unfortunately it seems that DPOs have been deliberately circumventing the online certification system. The NI recently explained that all applications are submitted online and the system has verification check points that flashes in red and does not allow the applicant to proceed if anything is wrong.

It appears a significant number of applicants have taken to changing dates and to confirming things that they do not have, purely in order to falsely proceed with the application.

NI has given the example of an applicant completing familiarisation time where there is a question on the system that asks – "Do you have a confirmation letter for this sea-time?" With the option of 'yes' or 'no'. The problems have arisen as some applicants click 'yes' simply because they want to be able to complete the application, even though they do not possess the requisite paperwork or documentary evidence.

This is causing problems within the entire certification chain, and unfortunately innocent applicants who have correctly applied are suffering, as the limited NI resources have been taken up dealing with erroneous applications.

There is a responsibility on all parties here – the NI is trying to improve the systems in place, and despite problems it is incumbent on us all to try and avoid hampering progress.

So DPOs are urged not to try and "trick" their way through the system, as errors will be highlighted and will only delay certification for all.

Despite a small number of applicants who may believe they can circumvent the checks within the system, it is not thought that the significant number of wrongly completed applications and queries are down to fraud. According to most DPTEG stakeholders, it is the understanding that most problems are prompted by people not properly understanding a complex system.

It is felt that many issues are due to lack of knowledge, and a desire of prospective DPOs to try to cut corners, it is not considered to be a case of widespread and systematic deliberate fraud.

As such it has been stressed that the NI needs to ensure the information is promulgated to applicants by means of a step-by-step process, and that applicants must be guided as to what is required of them when sending in an application.

We support the work of the NI in seeking to assist applicants, and we hope that an industry-wide set of checks and guidance can be produced.

The current guidance to applicant completing the online process is that honesty, commonsense and a commitment to the spirit of the application will result in a faster turn-a-round in the long-term.

It may be tempting to state you have certain elements of document, even if you do not, simply to force the online system to allow you to progress. However, ultimately checks will be made by the NI administration staff and your application will be denied or delayed if you have not provided the actual information needed. By attempting to circumvent the online process applicants are simply storing up future trouble for themselves and slowing down the process for genuine candidates.



**STOP TAKING  
RISKS WITH  
ONLINE DP  
CERTIFICATION  
APPLICATIONS**



# DYNAMIC POSITIONING APPLICATION LESSONS



With responsibility for online mistakes in the certification process being firmly squared at DP applicants, it seems to be a case of, “Ask not what your certification body can do for you, but what you can do for your certification body”.

The Nautical institute (NI) is in need of help in cleaning up the numerous incorrect DP certificate applications hitting the desks within NI HQ. While many individual applicants are making mistakes, it is also clear that the signatures of companies vouching for the DPOs are also causing problems. So what are we to collectively do?

We need to work together to ensure that we do not place an unnecessary burden on the process – so please note the following plea from the NI:

When applying for your DP Certificate please carefully read the information on the website. Much of the backlog has been created by applications being received that are incomplete/incorrect. For example, on many occasions applicants tick the box to indicate that they have a confirmation letter from the company so that they can progress with the online application but in fact do not have the letter.

Another problem is that log books often arrive with no Master’s signature in Section F, though applicants have ticked the box in the online application indicating that they have the Master’s signature. Please note that Incomplete applications will be returned to the applicant.

Companies submitting applications on behalf of employees also need to be vigilant that all relevant documentation and signatures are included and correct. According to the NI, these steps would be a great help in expediting the application process.

But – in rallying to the cause and looking to assist and streamline the system, we should not forget the pain, loss and annoyance that delays to certification cause.

We are contacted on a regular basis by disgruntled DPOs whose applications further down the queue are being delayed by incorrect or incomplete applications in process.

This naturally raises the issue of applicants who have been thorough in the completion of their application but feel they are being effectively penalised by the NI as a result of those applicants who have not been as thorough.

As one applicant stressed to IDPOA recently, “I sincerely hope that my application has not been sitting in a queue for 3 months only to then, at some stage in the future, be advised that it is incomplete.”

In addition, having received confirmation from the NI that all the necessary supporting documentation had been received a number of applicants have been perplexed as to why their applications then to go into a 10-14 week queue to be processed.

While we work together to try and ensure correct applications, we should also recognise and incentivise those who have gone to great lengths to ensure that the NI process has been followed, including the submission of original documents, verification that vessels are in DP class, stamping of sea time letters by appropriate personnel etc.

It seems we need to reward positive behaviour, and so those who seek to circumvent or derail the correct process should not expect to benefit to the detriment of those who make every effort to comply fully with requirements and instructions.

We look forward to a process which sees correct applications processed as a matter of priority, while those which cause problems are rightly sidelined for a different response.

The emphasis is on companies and DPOs to submit the right documentation, but the equal emphasis needs to be on the certifying body to actively expedite those working within the system.

Please do contact us if you feel your application is taking an excessive length of time, and we will provide the NI with the information. At the moment the NI states that applications are taking in the region of 3 months, and we would be very pleased to hear from you how long your application actually took from sending all the requisite information correctly to the NI through to your certificate being issued.

Email [dpo@dpooperators.org](mailto:dpo@dpooperators.org) to share your thoughts.

# PAY ATTENTION TO COLREGS



According to leading maritime training provider Videotel. Every incident of ship collision brings the risk of costly damage to a vessel and its cargo; the prospect of environmental damage; and the danger of personnel injury or even death.

For 40 years, the International Regulations for Preventing Collisions at Sea (COLREGS) have been in force and yet still vessel collisions occur on a far too frequent basis.

Addressing this is the popular new training course from Videotel Marine International, the COLREGS & IALA Buoyage Training Course. Developed in conjunction with Steamship Mutual, the course is designed to ensure that all deck officers and crew performing lookout duties are fully conversant with the regulations designed to prevent unnecessary accidents. It deals with both COLREGS and the IALA (International Association of Marine Aids and Lighthouse Authorities) buoyage system.

“In recent years, increased ship size and high traffic density have heightened the risk of collision,” explains Nigel Cleave, CEO of Videotel. “It is an absolute requirement that the watchkeeping officer – and indeed every member of crew performing lookout duties – thoroughly understand and follow these important rules to ensure safe navigation of the ship.

“Yet still the majority of incidents are caused through negligence and the failure to fully understand the Collision Regulations. Research has also found that the understanding of and adherence to the rules is not as comprehensive as would be expected. These regulations have been put in place to help the team on the bridge ensure

the safety of the vessel, cargo and crew.” The first part of the course deals with the Collision Regulations. It clarifies the meanings of every Rule, putting them into simple easy-to-understand language and illustrating them with graphic diagrams, sound and light signals, where appropriate. It also includes the full text of the Rules and the four Annexes.

The second part of the course deals with the IALA buoyage system. Being able to recognise every buoy and knowing what each means is essential for all watchkeeping officers and each type of buoy, their top marks and lights are described and their meanings illustrated graphically. The course deals with the lateral buoyage systems in regions A and B, the cardinal marks, isolated danger marks, safe water marks, special marks and the emergency wreck marking buoy.

For maximum effect the course is delivered using interactive eLearning Computer Based Training (CBT). Voiced narration, graphics and 3D animation as well as video are used to illustrate concepts and aid understanding. As this knowledge is fundamental to bridge watchkeeping, both parts of the course end with a test comprising of extensive randomised questions and a high pass mark is required.

Over the last three months alone Videotel has produced and launched over 15 training programmes and courses, which are provided in up to 29 languages. These range from training programmes on COLREGS to others dealing with a variety of important subjects including specialist requirements for Deep Water Ship handling to the practical management and switching of marine fuels.

# DO DP REPORTS REFLECT REALITY?

***Does the nature and frequency of DP incident reports reflect the operational reality onboard DP vessels? This was the searching question posed by Tron Resnes, DP Instructor/Project Manager from Ålesund University College. Tron has long been a good friend of IDPOA, and he is pleased to be able to share his results with the association, not least because so many of you assisted his study.***

The project sought to explore factors related to incident reporting and the reporting culture within the Dynamic Position offshore vessels industry. As you will all hopefully be aware, IMCA maintains a database of DP incident reports from the past 25 years. Each year the collected reports are analysed and distributed to the IMCA membership through an annual report. The incidents are presented as an "incident tree" and all information about the vessel name and location have been anonymized.

However, the number of incident reports received by IMCA has been steadily decreasing during the last years, despite the increase in the number of vessels equipped with DP systems. Which to many observers may appear to be a seemingly curious state of affairs.

The research objectives were to:

- **Identify whether or not underreporting of DP incidents occur.**
- **Explore factors related to DP incident reporting.**
- **Explore the reporting culture amongst different types of DP vessels**
- **Establish reasons for not reporting DP incidents**

The study saw the issue of a questionnaire to DP course participants at Aalesund University College, and DP operators from seven offshore vessel companies comprising more than 95 vessels and two drilling rigs and through the International Dynamic Positioning Operators Association (IDPOA) website.

Previous studies have illustrated the connection between incidents and accidents and that they share



the same casual pathway, hence incident reports can provide a "status quo" in relation to the existing safety level within the industry in question. Reported incidents could, if administered properly, gain insight of future possible accidents and prevent such adverse events from happening.

Alas, and perhaps unsurprisingly the main findings of the study were that underreporting has an occurrence of 30% and the most cited reason for not reporting was "This is not an incident"

This seems to be a missed opportunity, as incident reports are particularly successful in the aviation industry –and the prospect to learn from others is eagerly taken. The goal of this research was to investigate whether such incident reporting factors would "fit in" in the self-regulated world of DP.

As to whether underreporting of DP incidents occurs, a total of 30.1% agreed or strongly agreed that they have experienced DP incidents which should have been reported thus it can be concluded that underreporting of DP incidents occurs. Such empirical evidence could suggest that the currently reporting culture within the DP industry could be defined as "poor"; despite this evidence however, 49.7% of the respondents disagreed or strongly disagreed to the statement.

According to the study, this would imply that means to increase the incident reporting frequencies should not only be targeted solely at the DPO's, but aim for a broader audience including the DPO's, DP training centres and the management onshore both at the vessel and oil companies offices.

The study generated eight key factors which accounted for the majority of responses:

**FACTOR 1:** On shore management safety attitude in DP operations: Management have an undisputable impact upon workers safety attitudes. Therefore, increased safety related information received on board could lead to increased safety related information being received from the DP vessel, thus a virtuous spiral of increased incident reporting frequency.

**FACTOR 2:** DPOs attitude towards incident reporting: DPOs acknowledge the use of incident reports, and the lessons learned, can lead to increased safety.

**FACTOR 3:** DPO competence: Despite DPO's being familiar with the company's safety policy (92.2%), and the majority perceived that necessary training to perform the job as DPO was provided (88.2%) only 71.9% stated that they had received the training necessary to handle critical DP situations. DPOs therefore believe the current training to be insufficient, and hopefully we can drive positive change in situational training, responses and readiness.

**FACTOR 4:** Bridge crew attitude to safety in DP operations: A positive 90.2% of respondents stated a favourable response to stopping an ongoing operation if safety was considered to be reduced – this clearly indicates that safety truly comes first in DP operations and has the highest priority.

**FACTOR 5:** DP procedures: The use of a DP checklist was assessed in the study, with responses above 86%. Only 29.4% believed that some rules and procedures do not need to be followed to get the job done safely while 53.6% believed that some DP procedures are not really practical.

**FACTOR 6:** Willingness to report: 40.6% stated that people are willing to report incidents, whilst 62.1% believed people are willing to report accidents. These figures are discomfortingly low, though it should be noted that this factor relates to a general opinion about "other" people and hence does not reflect what the individual respondent would do in an incident/accident reporting situation.

**FACTOR 7:** DP incident reporting criteria: 74.5% admitted that they know when to report DP incidents; however, only 21.6% have received training to use the DP incident form. It was felt that such training must be provided and incorporated into the training syllabus.

**FACTOR 8:** On shore management commitment to safety in DP operations: 70% admitted that the management operates an open door policy to DP safety and 64.1% "agreed or strongly agreed" that their company would stop work due to safety concerns even though this would lead to financial loss.

The project was a part of fulfilment of the requirements for the Degree of Master of Science at Cranfield University, and we are very pleased to report that Tron was successful. We congratulate him on his award and also for generating a hugely significant body of work.

## CONCLUSIONS

The overall aim of the research was to explore factors related to incident reporting within the offshore DP industry. DP operations are considered as a safety critical operation and loss of position as result of critical system failure or improper action can occur. Loss of position, in general, may have a vast impact on human lives, the environment and assets.

This study identified that underreporting of DP incidents occur and that the findings could indicate a "poor" reporting culture thus resulting in a safety climate which also could be described as "poor".

Reasons for not reporting incidents were also identified and the most cited reason was "This is not an incident", thus conclusions could be drawn that the DP Operators are not confident of the definition of an incident or the criteria for when to report a DP incident.

Therefore, in light of these results, the DP offshore industry should advocate the importance of the use of incident data to prevent accidents and encourage DP Operators to report, so that those free lessons of safety could be learned and corrected before the presence of an accident. The first step, it could seem, would be to define the term "DP incident" thereby creating a universally accepted definition within the DP vessel industry. The issue of training for DPOs to report incidents and accidents correctly was also a key concern.

It seems that we work in an industry which recognises the importance of safety, but which is not so good at rising to the challenges of safeguarding it. With the study finding a poor climate of safety and reporting we must do more to improve this worrying situation.

Perhaps the study is best summed up by the quote, "What is not reported cannot be investigated. What is not investigated cannot be changed. What is not changed cannot be improved". We need to report, investigate, change and improve – this study can play a vital part in this process.

# CREATING A REPORTING CULTURE



Thanks to Tron Resnes' study, we can now see that potential problems exist with incident reporting in our industry, but how do we set about finding a solution?

According to experts, a reporting culture can be engineered, but it is actually just one element within a range of other essential safety factors. Dr James Reason (1997) stated that a safety culture consists of five vital elements:

- **An informed culture**
- **A reporting culture**
- **A learning culture**
- **A just culture**
- **A flexible culture**

So it is not solely about the process of reporting, we need to address the other key elements too if we are to create a true culture of safety within the DP world. The Safety Management System of any DP vessel has to capture the essence of how operations are conducted, and an active safety culture must be considered as the heart that is vital to the continuing success of an SMS.

Such a culture gives the impetus needed to ensure that the system will provide a continuous cycle of improvement as intended. However, regardless of what is written on paper, this can only be developed by leadership, commitment and setting a good example.

Looking back to the incident reporting study, 25.5% believed that their company's procedures were present only to cover the management's backs and 19.6% believed that the company were more interested in the statistics than the consequences of an incident.

This suggests that we still have some way to go – but the fact that more than 50% believed that the company prioritised safety before financial revenue shows there is a cause for optimism. But what is a true "safety culture" – and how are we performing with regards to the cultural elements identified by Dr Reason?

An informed culture sees collection and analyses of relevant data, and active dissemination of safety information. We are seemingly weak in this regard.

Interestingly, a senior manager in a respected shipowner recently stated any problems with reporting are not always an issue just with the operators or operating companies. Much of the time the incidents / near misses etc are being reported to client

organisations because they are "hot compliance topics", but nothing is being reported to IMCA.

A reporting culture means cultivating an atmosphere where people have confidence to report safety concerns without fear of blame. Employees must know that confidentiality will be maintained and that the information they submit will be acted upon, otherwise they will decide that there is no benefit in their reporting. It is vital that any DPO which records an incident must be protected against reprisals, ensured confidentiality and provided feedback on reported incidents.

A learning culture means that a company and its personnel are able to learn from mistakes and make changes. It will also ensure that people understand the DP processes and safety requirements at a personal level. The training gaps highlighted in the Resnes' study calls into doubt this learning process.

In a just culture errors and unsafe acts will not be punished if the error was unintentional. However, those who act recklessly or take deliberate and unjustifiable risks will still be subject to disciplinary action. While the majority of shipping companies do indeed act justly, it is not deemed that clients may be so amenable. So incidents and accidents can have a negative effect – while a company may have a just culture, it is perhaps fair to whether the shipping industry does.

A flexible culture is one where the ship owner and personnel are capable of adapting effectively to changing demands. It would seem that both people and companies in shipping are eminently flexible – and so where there is a willingness and ability to be adaptable, then positive change can follow.

While there are some question marks over aspects of the overall safety culture it is clear that leadership is central to drive improvements. According to a mantra in the aviation industry, "The highest standards you can expect from the people you lead or seek to influence are the lowest you exhibit yourself".

By ignoring low standards we are tacitly approving them – and we begin to communicate the message that low standards are acceptable. We have clearly seen that the DP industry recognises the importance of safety, but as we operate in a poor climate of safety and reporting then urgent remedial action is needed.



# PROACTIVE PROFESSIONALISM

**As you pursue your DP career responsibility for your progression, conduct and attainment will ultimately rest with just one person. You!**

**So are you ready?**

**Oh you joined a LinkedIn Group?**



**You must be a real professional...**

You will ultimately be responsible for your own results. Whether you have been trained by seasoned DP experts or join a company with a great safety culture. At the end of the day whatever you get out of your job, heck whatever you get out of you're your life will at some point be up to you. That can be a tough reality check.

This is where the rather woolly concept of "professionalism" emerges. It goes by other names, attitude, ethics, conscientiousness, diligence, enthusiasm or some other related name - but you get the idea.

Murray Goldberg, founder and President of Marine Learning Systems ([www.marinelms.com](http://www.marinelms.com)), the creator of MarineLMS has written at length on the issue and importance on attitude in shipping. While we focus so much on certificates, it is actually "attitude" which will shape how knowledge and

A DPO may have all the required skills and knowledge, but still be a poor performer and unsafe at the desk if the attitude or ethics are poor. For masters and Senior DPOs it can be hugely concerning to see a brash newly minted DPO emerge

from training, thinking they know it all. With such arrogance and a brash, "know it all" approach comes problems – potentially very big dangerous ones. Goldberg calls into question whether someone with a bad attitude can ever really care about the job? Do they care about their fellow crewmembers? Do they even care about themselves? When they see a problem, are they the type of person to stop and report it or fix it? Or do they just keep on walking? Do they instill confidence and desire in others? Or do they breed a lack of professionalism, and therefore poor performance in those around them?

These are all salient points within a "professional body", and especially as IDPOA has been created to allow those who so chose to display their pride in their profession. To assist those around them, to guide those who know less and to learn from those who know more or better. Professionalism breeds better professionals, at all levels of the chain.

Therefore we strongly agree with the argument that we should actively assess "attitude" as we would assess any other skillset. Goldberg rightly points out that, "unprofessional attitudes can be poisonous to safety and the work environment and the more

quickly we address them, the better off the organization is likely to be as a whole."

But how can we measure such a notion? How can we capture data on how much someone cares, or whether they are enthusiastic, passionate and willing. What if someone is having a bad day, a touch of flu, or some marital problems at home. Surely a drop in attitude would occasionally be expected if bad news were filtering in from home?

But attempt to measure it we must. By measuring we can act on real data, and do so much more quickly than we otherwise might be able to.

Most good shipping companies will perform regular performance appraisals. These are typically done by a superior officer. This is a good start, but while such reviews may mention attitude and professionalism - at least if an issue is perceived it is incomplete process and there is more that can be done.

Two popular approaches are psychological testing and 360 Evaluation – but there are problems with both. Digging into people's psyche is a dangerous game even for trained professionals – for masters and Senior DPOs to come over all Freud could cause serious problems. Not least with the delicate balance of shipboard life.

However, there are some pros to the approach, especially where a system called "objective personality testing" is designed to measure attitude. Candidates perform written tests or, more play scenario-based games. The test answers or game-based reactions are studied by behavioural theory models which try to translate the reactions into measures of attitude, teamwork, work ethic, etc.

Yes, you have spotted the flaw – usually those with the worst attitudes are all too aware of what is actually required of them and would likely be able to ace the tests. So we could end up with invalid results – with the worst actually real life offenders performing the best in tests.

So we need something else...and a popular approach is the 360-degree evaluation. The 360 degree refers to the fact that the candidate is evaluated by everyone. Superiors, peers and subordinates alike all input into the results. Now of course this is a bit of a mindbender for some – especially those from traditional hierarchal cultures. Many are accustomed to being evaluated by our superiors...but what about those in your rank or below? You can feel the beads of sweat on your brow already.

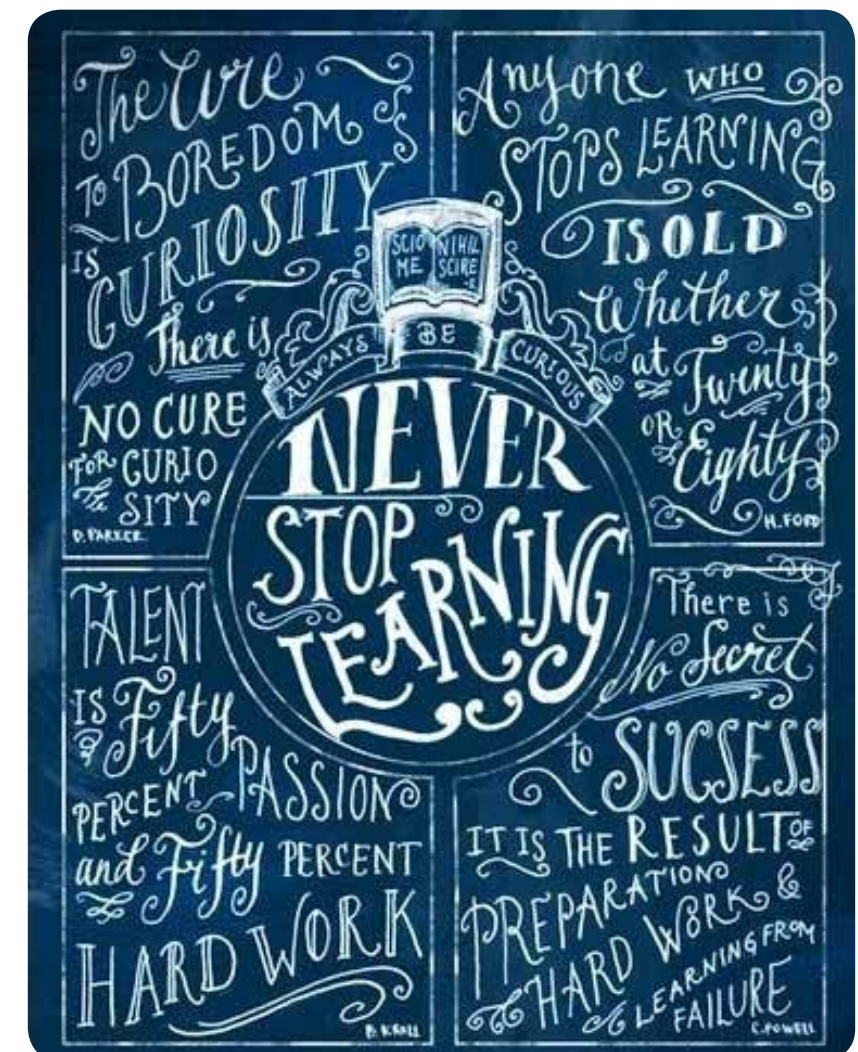
Putting aside the usual shipboard pyramid of power, it seems fairly apparent that knowledge of how peers and subordinates view performance would provide a much better idea of someone's attitude or professionalism.

Let's call it "professional attitude" – do they mess around and act the fool with their friends, are they disrespectful to those beneath them? All this information will provide a far better and clearer picture of how someone will do the job. Not just the job as it normally is, but how they will do the job when things are going wrong or when others need help, guidance and support.

It would seem that the 360 evaluation approach can deliver the real insight needed to assess professional attitude. But that said, shipping is a very conservative industry, and the balance of shipboard life and relationships can be complex and delicately balanced.

What is clear from this is that while we may be slowly edging toward onboard competency assessments of how people operate the DP system, until we also combine this with ways of assessing their professionalism, we will only be getting half a picture.

You can press "like" on all the Facebook posts, join all the LinkedIn Groups – but real professionalism is about more – doing more, helping more and being more than you are today.





# STAKEHOLDER INPUT ON DP CERTIFICATION

As requested by the wider DP and offshore industry, DNV GL initiated a workshop with industry stakeholders at the end of last year to discuss certification and to define ingredients for certification regimes of Dynamic Positioning Operators (DPO). This is a process which IDPOA is pleased to support.

The received input was translated into a draft Recommended Practice (RP) and DNV GL had provided guidance for developing, establishing or improving schemes for certification of Dynamic Positioning Operators.

The practices aim to align certification initiatives and clarify expectations towards a certification scheme run by either a certification body or flag State. Which means that the DNV GL process stands ready to either accommodate the Nautical Institute scheme or those which may emerge in the future from the likes of OSVDPA. Equally though it will be able to accommodate any moves to bring DP into under STCW, and ultimately the flags. Which many now consider to be the ultimate outcome over time.

The Recommended Practice is not a certification scheme in itself or an all-encompassing document covering all details of DPO training, certification and assessment. It is a framework describing all elements which are considered important to address by a certification body.

Of uppermost importance in the review process is the "Competence of Dynamic Positioning Operators (DPO)" Standards for Certification document which was released in 2013.

The Standards for Certification (previously Certification Notes) are publications that contain principles, acceptance criteria and practical information related to DNV GLs consideration and basis for the issue of certificates.

The DP competence standard underpins the tasks performed by a DPO on vessels equipped with a Dynamic Positioning System. While the 2009 version

of the standard focused on general DP and station-keeping. The revised 2013 standard also captures the various DP-modes used for different activities and introduces a notation-system (Autopos, Joystick, DP-Approach, Weather vane, Follow Target, Autotrack and Posmoor) and forms an ingredient of DNV's certification scheme of DPOs through approved Test Centres.

The standard aims to cover the tasks performed by a Dynamic Positioning Operator (DPO) on board vessels, using various DP-modes and systems. It intends to capture the most important competencies for DPOs for various types of vessel, trade or activity. The standard aims to provide guidance for establishing a competence foundation, to be supplemented by e.g. operational / supplier manuals and system specific details. The standard aims to identify a base set of competencies for Dynamic Positioning Operators.

The standard identifies a suggested minimum level of knowledge and skills for DPOs, responsible for maintaining the vessel's position or keeping it on track while the vessel carries out an assigned operation. Each competence requirement is derived from a task that needs to be performed at some stage in the DP operation.

DNV GL is now entering an online Hearing process. Based on IDPOAs previous contacts with DNV GL and our subject matter-expertise we have been invited to review the draft documents, and we would like any members who are interested to contact us if they would be willing to be involved in this review process.

Prior to publication of the RP DNV GL is keen to ensure that they have not overlooked any key aspects and are open to improvements.

The review process lasts until March 1, 2014 so please email [dpo@dpooperators.org](mailto:dpo@dpooperators.org) if you would like to take part and assist with this study.

After March 1 all entered comments will be considered and the draft will be finalised.

# MARINE CYBERNETICS



Marine Cybernetics (MC) has successfully completed the first ever Third Party Hardware-In-the-Loop (HIL) test of a Managed Pressure Drilling (MPD) control system. The test was conducted at MC locations in Trondheim for Statoil and AGR Enhanced Drilling. This test is a part of Statoil's technology qualification of EC-Drill. Through engaged participation in Third Party HIL testing, all parties have contributed to offshore safety.

## THE MPD SYSTEM

The system tested was EC-Drill®, developed by AGR Enhanced Drilling, which is a system designed to control bottom-hole pressure by changing the level of drilling mud in the riser. The system enables effective drilling of depleted reservoirs and narrow pressure windows. The system tested is the first version of the next generation EC-Drill® which incorporates new control system capability, and will eventually be used on the Norwegian Continental Shelf.

## CONCLUSION

The test activities were conducted over a period of 10 days, with test summary meetings held on a regular basis to discuss observations and to agree upon severity grading. Both AGR Enhanced Drilling and Statoil were present during the entire test, and the three parties worked closely together to ensure a successful result. No results can be presented due to confidentiality, but all parties were highly satisfied with the project execution and the results.

## Marine Cybernetics: Technology leads the way

### AGR ENHANCED DRILLING:

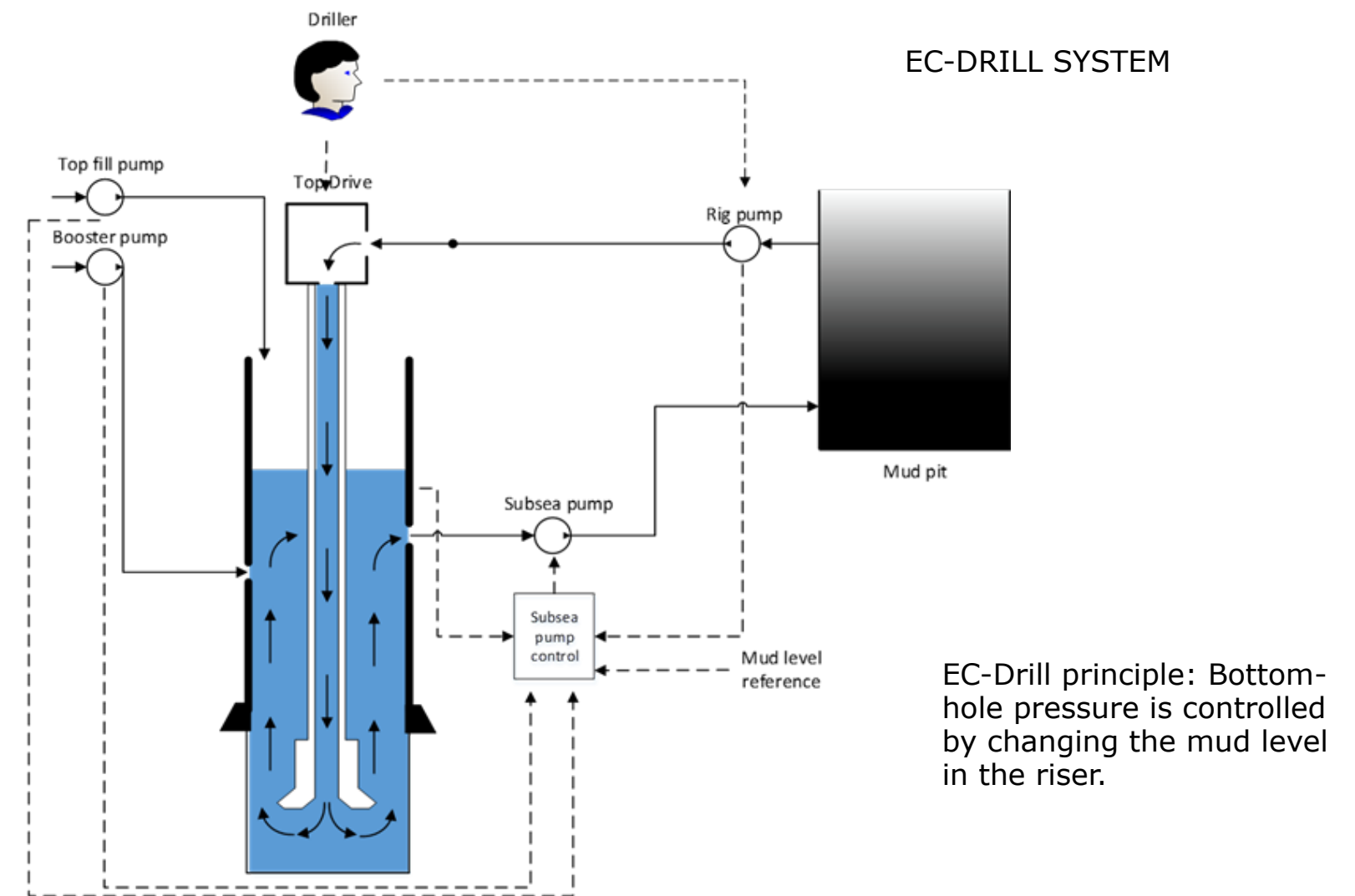
"Marine Cybernetics's HIL testing was a very valuable experience to us. The professionalism and experience of the Marine Cybernetics employees facilitated constructive discussions between the customer and us as the supplier, ultimately leading to a better and safer product."

-Erlend Mjaavatten Troll EC-Drill

### Hardware in The Loop (HIL) Testing

HIL testing enables thorough and efficient testing of control system software without risk to personnel, equipment or environment. This includes testing of safety critical software barriers that otherwise cannot be tested before they are needed. While system vendors test their own software, Third Party HIL testing by Marine Cybernetics is proven to be an efficient tool to further increase software reliability and safety.

The test included both top-side and subsea control systems from AGR while the well, riser, drilling equipment, and subsea pump were simulated by MC.

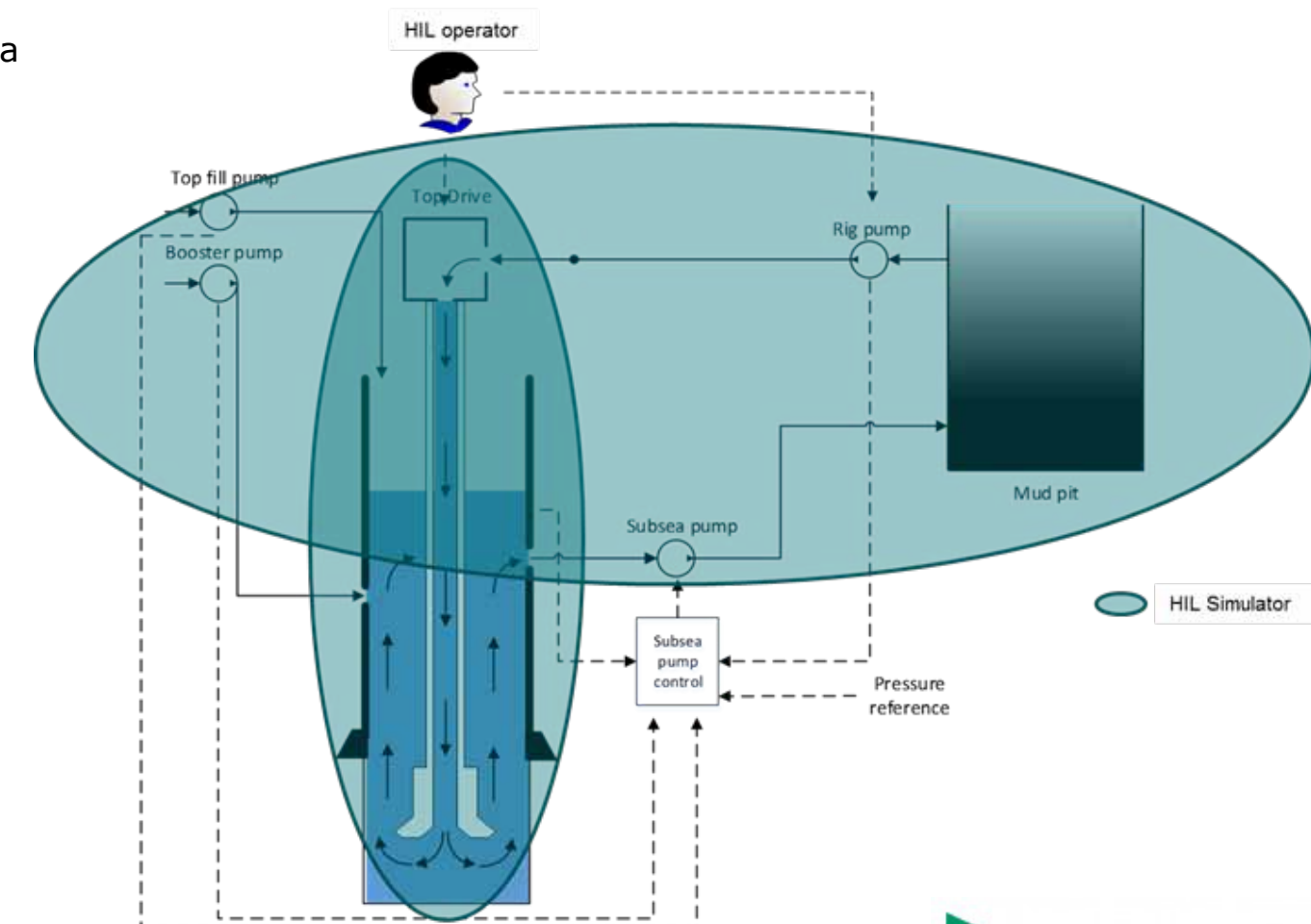


EC-Drill principle: Bottom-hole pressure is controlled by changing the mud level in the riser.

To test the EC-Drill control system, MC simulated the well, riser, drilling equipment, and subsea pump. Examples of tests covered by the test program are:

- Operational modes such as manual/automatic modes, change of pressure set points
- Drilling procedures such as startup/shut down of rig pumps, increase/decrease riser level, tripping in/out
- Influx and loss detection
- Loss of communication
- VSD failures
- Subsea pump and motor failures
- Valve failures

## HIL TEST OF EC-DRILL SYSTEM



# GETTING REAL ABOUT CYBER SECURITY



We have touched upon the issue of cyber security and DP before, but since we last assessed the threats and the ways in which they are being managed – it seems the mainstream world of shipping has been rocked by rumours of cyber-attacks and threats.

The true extent of the cyber threat is unknown, and some experts fear terrorists could use high-powered jammers to disrupt GPS reception, and they could introduce virus' into the coding of DP systems.

Technology to automatically counter the threat of GPS jamming was successfully demonstrated last year. A prototype resilient PNT (positioning, navigation and timing) system was used an alternative technology to transmit mission-critical data in the event of GPS loss or failure. The prototype system was integrated into the bridge of the vessel and monitored the performance of independent PNT sources in order to provide the 'best' available.

While jamming or deliberate tampering may pose some degree of threat for DP vessels, more concerning are the elements of remote system access, and the potential vulnerability to viruses which such contact can bring.

Retired U.S. Coast Guard Adm. Thad Allen is increasingly concerned about the effect of cyber security on shipping - particularly offshore drilling. Adm. Allen created the US Coast Guard's first cybersecurity program, and has stated that poorly defended computer systems pose huge risks to oil and gas companies.

The concerns about the dangers of online and cyber threats are the rise. According to Allen, " If you have a mobile drilling unit that has to stay in place over the top of a well, say 5,000 feet above the bottom of the ocean, [using dynamic positioning]. We have an intermix of a more complex environment, a more complex drilling operation, and automated technologies that are required to be able to drill at those depths. The combination of all of those things together kind

of creates a multiplier effect on complexity where you really need to understand risk and be able to manage it."

The threat to shipping is widespread and oil and gas companies are the potential target for online attacks. Allen believes that any endeavour that uses automation related to the Internet that has machinery that are controlled by automated systems are potentially subject to cyber-attacks. That is the bad news.

The good news is that steps can be taken to safeguard operations. Depending on the company, the type of machinery and they type of software, there are different levels of adaptation or maturity that would allow them to reduce risks. Without an international standard or regulations regarding what that standard should be, it's pretty much been left to the companies to kind of identify the risks and deal with it. Not all companies might assess risks the same way and proceed with an intervention, or the cause for action might not be the same in each company.

All of this may appear overwhelming to a ship owner or operator. After all, what is the likelihood that a terrorist will target your particular company or vessel or facility? Admittedly, the odds are low, but not zero.

Companies are therefore encouraged to make a baseline risk assessment associated with their operations, from which it is possible to make an assessment of how mature the cybersecurity model is for that particular operation. It is then possible to start to lay out what steps companies might take to improve it and reduce the risk associated with that.

Steps should be taken by members of the maritime community to enhance their cybersecurity, and DPOs should be at the vanguard of these efforts. We urge you to ensure that your vessel and company is taking steps to mitigate the risks, and that you are able to recognise the signs of cyber-attack and that you have well-rehearsed and drilled responses.

# OFFSHORE SHIPPING IN THE CROSS HAIRS: GULF OF GUINEA PIRACY



Last year when two American crew members were kidnapped by pirates after their ship was attacked off Nigeria's coast, it was clear that offshore shipping was a real target for piracy.

The U.S.-flagged oil supply vessel "C-Retriever" was targeted in the Gulf of Guinea (GoG), and the ship's captain and its chief engineer were abducted and held for ransom.

Suddenly the model of Somali piracy, which has seemed rather remote to the offshore business was becoming increasingly real. So what is the scale of the threat facing shipping in the GoG?

Well, it seems that no-one is entirely sure. It has been reported that up to sixty percent of vessels attacked in the Gulf of Guinea do not report them to the authorities. Moreover, the fact that a distress call will not elicit a rescue by a Western warship is seen to dissuade many ship owners from reporting an attack.

The piracy situation off the West Coast of Africa rapidly deteriorated throughout 2013 and as 2014 begins, there is little sign of progress.

The levels of robbery and hijackings off the Nigerian coast and elsewhere in the Gulf of Guinea are a real cause for concern. Indeed the security problems have been spiralling to such an extent that the area is becoming engulfed in what the United Nations (UN) has described as a "catastrophe" as a record number of attacks have been launched against shipping in the area.

Concern about piracy in the Gulf of Guinea has long been mounting but it wasn't until 2010 which saw a real turning point and escalation in attacks against loaded product tankers. In 2011 the UN Security Council issued Resolution 2018, "expressing its deep concern about the threat that piracy and armed robbery at sea in the Gulf of Guinea pose to international navigation, security and the economic development of states in the region".

The Security Council also called for "a comprehensive solution to the problem of piracy and armed robbery at sea in the Gulf of Guinea". Two years on, and it seems the strategy is not quite yet working. The resolution fell short of authorising other States to enter territorial waters to repress piracy and as such critics felt it to be inadequate.

Perhaps predictably West African piracy poses an incredibly dangerous biggest threat to shipping, and this does seem to suggest that a stronger tack is needed. To combat piracy off Somalia the UN Security Council called upon states and regional organisations to fight piracy with naval vessels, arms and military aircraft, but UN Resolution 2018 stopped short of such an approach. Instead it simply expressed "concern", which does not seem to be having the desired effect. Not least because the problems have seemingly taken on a worrying kidnap and ransom element.

While there is much to be concerned about with the Gulf of Guinea area, concerns of wide spread disorder do not really capture the picture, according to risk analysts, what has really happened off

West Africa is a shift in the geographic distribution of pirate attacks and a move back to maritime kidnap for ransom. Indeed, some are of the view that the kidnapping of the two American mariners does not signal the rise of a new piracy threat off Nigeria, but rather the re-emergence of an old one

This is a form of piracy that is by no means new to the area, indeed the kidnapping of foreign oil workers on land and at sea reached a peak in the Noughties during the petro-insurgency waged by the Movement for the Emancipation for the Niger Delta (MEND) and other Delta militants.

Unable to hijack and ransom entire ships in the Somali fashion, the Delta militants would most commonly seize an offshore support vessel, separate and kidnap the foreign workers, and hold them hostage in jungle camps until the oil and shipping companies paid discrete ransoms. Those types of attacks declined dramatically after a 2009 government amnesty program offered cash, jobs and schooling for militant leaders and their followers who would lay down their weapons and renounce the insurgency.

However, the kidnapping of the C-Retriever's officers did bear many of the hallmarks of a MEND-style kidnapping. The vessel was attacked while moving between the offshore Agbami oil fields and Port Harcourt; the kidnapers took only the most valuable hostages; and a MEND spokesman now claims that one of its "heavily armed auxiliary outfits" is holding the hostages.

It is premature, however, to assume that this incident and other recent kidnappings represent the resurgence of old habits or the rise of a new piracy enterprise. While some believe it possible we are seeing the remnants of the MEND insurgency turning their back on politics, but instead looking to the lucrative gains of criminality. The "junior militants" of the early part of the century have perhaps grown with as much desire for money as power, and that is a very worrying development indeed.

After a period of searching the seafarers were eventually located, and it was understood that third-party agents made contact with the hostage-takers, who have not been publicly identified, and had begun talks to free the men.

Usually such negotiations are concluded much quicker in West Africa, than they are in Somalia. So there has been optimism that this is a positive development.

Given the fact that the attack was on a US vessel with US seafarers, the incident has drawn much attention State-side. However, the U.S. government was quick to dismiss any military action to rescue the crewmen.

According to the Security Association for the Maritime Industry (SAMI), "Piracy is a real and ongoing threat across the oil fields of West Africa, and all necessary measure to safeguard and protect vessels should be implemented".

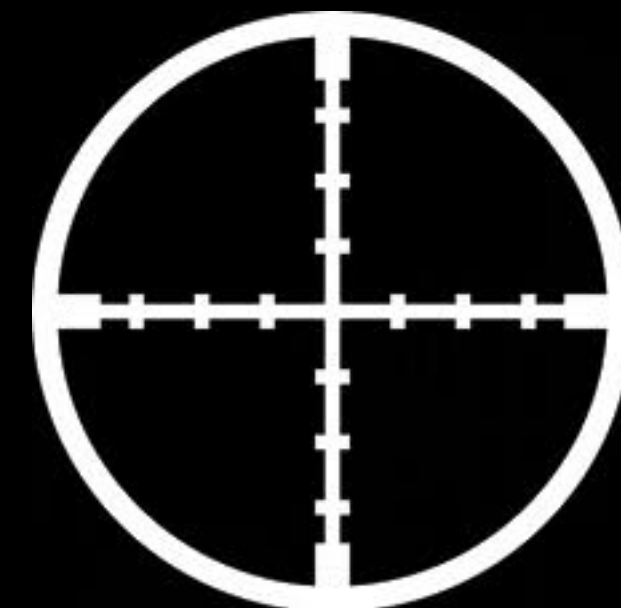
Due to significantly increased security concerns in the Gulf of Guinea region and following the number of ships seized by pirates, the Round Table of international shipping associations (BIMCO, ICS, INTERCARGO, and INTERTANKO) has developed Interim Guidelines for Owners, Operators and Masters for protection against piracy and armed robbery in the Gulf of Guinea region.

The Interim Guidelines are a result of the collaborative efforts of the four associations and also have the support and endorsement of the NATO Shipping Centre.

The Interim Guidelines are based on and should be read in conjunction with the Best Management Practices for Protection against Somalia Based Piracy (BMP4) that address the Somalia-based piracy problem.

You can download the interim guidelines for the Gulf of Guinea here <http://goo.gl/ceRJuU> these should be read on conjunction with the BMPs on Somali-based piracy which can be downloaded <http://goo.gl/aVLzRE>

Please be vigilant in piracy affected areas and ensure that you are taking all necessary precautions to safeguard yourself and vessel.



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# SHIP to SURE

**CES 2014 SPECIAL :THE FUTURE TECH YOU WON'T BE ABLE TO SAIL WITHOUT**



## **OCULUS RIFT**

For the second year in a row, the Oculus Rift was one of the coolest things at CES. The company's new prototype has unbelievable head tracking, letting you lean in and out and look at objects from multiple angles. Journalists had the same post-Oculus reaction: giddy, wide-eyed amazement. It's one of those rare products you know will change everything when it finally gets a consumer release.

Could it be the start of remote DP tech?

## **BODY MONITOR HEADPHONES**

CES was awash in wearables this year. Intel's leap into wearables is a set of body-monitoring earbuds. There's a tracker inside that syncs to both iOS and Android phones. It collects calorie, pace, distance, and time data. But more importantly, it tracks your heartbeat in real time and offers a visible history graph on your phone's screen. Plus, if you're falling below or going above your target heart rate, the system automatically plays a song to pump you up or calm you down.

Get ready for on desk DPO monitoring!!!



## **MOPHIE SPACE PACK**

Mophie has a winner with their new Space Pack, a battery pack with built-in data storage. Available in 16 and 32 GB versions for iPhones, the Space Pack looks almost exactly like the Juice Pack Air except for the button on the back, which is used to signify battery level — on this model, it's silver. This button does double duty on the Space Pack, switching on its own internal file management system. Take photos, shoot videos, and download files, and store them locally inside the case.

Clever, simple and so useful! Genius...



**5 - 6 FEBRUARY 2014**

**Subsea Vessels Brazil**

Sheraton Rio Hotel & Resort, Rio de Janeiro, Brazil  
<http://goo.gl/iTfyRr>

**10 - 12 FEBRUARY 2014**

**Oil & Gas World Expo**

Bombay Convention & Exhibition Centre, Mumbai, India  
<http://goo.gl/OdPcYY>

**18 - 20 FEBRUARY 2014**

**Annual Offshore Support Journal**

Lancaster Hotel, London, United Kingdom  
<http://goo.gl/uUQoWZ>

**19 -20 MARCH 2014**

**IMCA Safety & Environment Seminar 2014**

The Westin Houston, Memorial City, Houston, United States of America  
<http://goo.gl/i4i8W7>

**25 - 28 MARCH 2014**

**OTC Asia**

Kuala Lumpur Convention Centre, Kuala Lumpur, Malaysia  
<http://goo.gl/y5J4Ts>

**24-25 APRIL 2014**

**9th Deepwater China Convention**

Shenzhen, China  
<http://goo.gl/NKHaIn>

**05-08 MAY 2014**

**Offshore Technology Conference 2014**

Houston, Texas USA  
<http://goo.gl/FaOi5r>

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