



MTS DP WORKSHOP EUROPE
11th and 12th of APRIL 2017
ABERDEEN



FIRST MTS DP WORKSHOP IN EUROPE APRIL 2017

WORKSHOP SPONSORS – DNVGL Noble Denton marine services

DINNER FOR PARTICIPANTS on 11 APRIL 2017- SPONSORED BY MAC-ABERDEEN

WORKSHOP FACILITATOR: SUMAN MUDDUSETTI (CHAIRMAN MTS DP SUB COMMITTEE ON GUIDANCE AND STANDARDS - SHELL INTERNATIONAL EXPLORATION AND PRODUCTION)

WORKSHOP CO FACILITATOR: DR STEVEN CARGILL (MEMBER MTS DP SUB COMMITTEE ON GUIDANCE AND STANDARDS - DNVGL NDms TECHNICAL AUTHORITY FOR DP)

The premier MTS DP COMMITTEE facilitated workshop event in Europe will be conducted on **11th and 12th of April** in **ABERDEEN SCOTLAND** at the offices of **DNVGL, Cromarty House Regent Quay Aberdeen**. This workshop will follow the familiar pattern of the MTS DP conference workshops conducted in Houston on the day preceding the Annual MTS DP Conference. Workshops such as this have delivered value to the DP community. This view is reflected in the increasing number of requests to the MTS DP Committee to conduct similar workshops in other areas around the world.

This workshop will focus on enhancing awareness of DP related issues and the steps that can be taken to address these issues. It will also focus on means to enhance value and effectiveness in the management of DP operations across the Supply Chain. Additionally, the workshop will provide a venue for the participants to gain awareness of the TECHOPs published by the MTS DP COMMITTEE.

The topics for 2017 workshop were chosen by the sponsors for their significance and relevance to activities being carried out offshore Europe.

Registration: Attendance at this workshop is limited to 30 persons. Registration for this workshop will be managed by **Bolshoy Bhattacharya (bolshoy.bhattacharya@dnvgl.com)** Please register early.

Note1: MTS DP Committee offers this workshop, with no fees to the participants. This has been achieved by the generosity and sponsorships by members of the DP Community including providing the facilities, lunch and refreshments over the two days and a dinner for the participants at the end of Day 1. Participants are expected to bear any other associated costs of attendance.

a. Kindly indicate participation for the dinner during registration.

Note2: In order to facilitate participation across a diverse group of stakeholders, attendance will be limited to 2 persons per Company/Organization. Additional participants may add their names to a list that will be maintained and will be accommodated, space permitting.

Applicability: Those likely to benefit from the workshop include:

- Shipyards / DP Vessel Designers, Key DP Equipment Vendors. (Embedding the 'Design to Test Philosophy in DP Vessel Design')
- Consultant community
- Representatives from Vessel Owners / Contractors' Project Teams, Technical departments (with accountability for specifying DP Equipment, FMEAs, Operations)
- Representatives from Class responsible for approval of DP systems
- Representatives from Statutory Bodies (Flag State / Coastal State)
- Vessel's Operational Management teams (Masters, Chief Engineers, Chief Electricians & DPOs)
- Representatives from Oil Companies/Operators with accountability for assurance on DP related matters
- Representatives responsible for training personnel/stakeholders engaged in DP operations. (not limited to DPO training)



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The format of the workshop will follow the now proven and expected format, used at the MTS DP CONFERENCE IN Houston. Participants work in small groups of 6 to 8 persons per table. Coaching and mentoring will be provided to the participants to allow them to be effective and achieve the stated objectives. Results and conclusions from the workshop will be summarized and presented to the MTS DP Technical Committee and to the sponsors.

The workshop will focus on enhancing awareness of issues and steps that can be taken to address the same and means to enhance value of managing DP operations effectively across the Supply Chain. Additionally, the workshop will provide a venue for the participants to gain awareness of the Technical and Operations guidance (TECHOP's) published by the MTS DP COMMITTEE.

TOPICS AND AGENDA

DAY 1

MORNING SESSION (0800~1200): PROVING FAULT RIDE-THROUGH CAPABILITY OF DP VESSEL HV POWER PLANTS

This session will present the DP Committee's TECHOP 9 'Proving Fault Ride-Through Capability of DP vessel HV power plants'. The context for this development and the test methodology will be discussed. There will be opportunity for comments and questions. It is anticipated that Electrical Engineering personnel will be best equipped to participate in the discussion.

BACKGROUND: There is a significant history and volume of in-service power systems faults with poor outcomes. Requirements for short circuit testing originated with Germanischer Lloyd (GL Class), and some Class Societies now require fault ride through testing for certain DP Notations. At least one Regulator now recommends proving fault ride through of DP MODU through testing.

- USCG recommends proving fault ride through of DP MODUs operating on US OCS.
- DNV GL class requires short circuit testing of the power plant for vessels seeking notation DYNPOS- AUTRO (closed busties).
- ABS rules for EHS notations list short circuit testing amongst the proving trials required for DP class 3 designs.

Some vessel owners and shipyards have begun performing such tests. Those tests found significant problems that would not have been found by traditional test methods. The problems found resulted in major losses of power or thrusters exceeding the Worst Case Failure Design Intent.

Although Class has requirements to demonstrate fault ride through by testing, they do not generally provide details of the test methods that satisfy those requirement. MTS became concerned about the possible proliferation of test methods and test criteria that would make it harder for the industry to cope with test requirements, and harder for Class to verify and approve the test results. This could also lead to repetitious testing, and invalid or incomplete results. The MTS DP Committee was sponsored by ABS and DNV GL to prepare a draft test method that would assure technical integrity, assure that the test was as safe as possible, and provide a standard that Class, regulators and owners can use. The effort is embodied in the aforementioned TECHOP. This TECHOP is referenced by DNVGL's OTG 10.

LUNCH BREAK: (1200~1300)

AFTERNOON SESSION (1300~1630): FMEAS, PROVING TRIALS, ANNUAL DP TRIALS - PURPOSE OF TESTING - BEYOND TRADITION:

Leveraging trials to enhance value delivery by:

- Demonstrating basis of confidence in station keeping integrity and



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- Introducing science to tradition - Leveraging IMCA 190, M191 and MTS DP Guidance Documents

DAY 2

MORNING SESSION (0800~1200): CROSS CONNECTIONS AND EXTERNAL INTERFACES

- **CROSS CONNECTIONS AND THEIR IMPACTS:** Violating the principles of independence, segregation, autonomy, fault tolerance, fault resistance, fault ride through in DP system redundancy concepts.
- **EXTERNAL INTERFACES WITH DP CONTROL SYSTEMS INCLUDING EMERGENCY SHUT DOWN AND FIRE AND GAS SAFETY SHUT DOWN (ESD and F&G):** Potential for inadvertent and undesirable consequences, their impacts on station keeping and how they should be managed to avoid undesirable consequences. Other external interfaces reviewed include - external force compensation, pipe tension, draft sensors etc.

LUNCH BREAK: (1200~1300)

AFTERNOON SESSION (1300~1630): OVERVIEW ON ASOGs

- **BACKGROUND TO THE ASOG PROCESS**
 - Development
 - Implementation
 - Surveillance
- **LEVERAGING THE MTS DP COMMITTEE GUIDANCE DOCUMENTS TO DEVELOP ASOG's**
- **QUALITY ASOG's- THE WHY, WHAT AND HOW:-**

Note:- This session is expected to provide an overview on ASOG's. The MTS DP Committee has, upon request, delivered focused in depth workshops in different regions on Developing ASOGs (3-Day workshop).

END

References: Please follow the links below to access MTS publications.

[Dynamic Positioning Committee – Home Page](#)

[Techop 9 Fault Ride-Through](#)

[Techop 10 External Interfaces](#)

[Techop 11 Cross Connections](#)

[DP Operations Guidance \(Part 1, Part 2 App 1, Part 2 App 2, Part 2 App 3\)](#)