



**MTS DP WORKSHOP BRAZIL  
13 and 14 MARCH 2023  
RIO DE JANEIRO**



**MTS DP WORKSHOP IN RIO DE JANEIRO MARCH 13 & 14 2023**

**WORKSHOP SPONSORS – Petrobras & Shell**

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 – CHAIRMAN OF MTS DP SUB COMMITTEE FOR LEARNING FROM INCIDENTS/INSIGHTS- DNV MARINE RISK ADVISORY)

A Petrobras and Shell sponsored, MTS DP COMMITTEE facilitated workshop will be conducted in Brazil on the **13<sup>th</sup> and 14<sup>th</sup> of March at - PETROBRAS EDIFICIO SENADO – EDISEN Av. Henrique Valadares, 28 – Centro Rio de Janeiro - RJ 20231-030 Tower A, 16th floor, Room 1617.**

**Note: This workshop marks the resumption of the annual workshop in BRAZIL. (Workshop was suspended due to the COVID 19 Pandemic)**

<https://goo.gl/maps/TrNvSAJsq7q8JuEA9>

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 maintain 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 2023 workshop were chosen by the sponsors for their significance and relevance to the delivery of predictable incident free DP operations carried out offshore Brazil.

**Registration:** Please register your interest in attending by contacting Louise Engle [louiseengel@nauticalscience.com.br](mailto:louiseengel@nauticalscience.com.br) and Luciana Suman [contato@marmectreinaamentos.com.br](mailto:contato@marmectreinaamentos.com.br) (please copy both email addresses).

- MTS DP Committee offers this workshop, with no fees to the participants. This has been achieved by the generosity of the sponsors and the DP community.
- Attendance is limited to 40 persons. Early registration is recommended, preferably before the 7<sup>th</sup> of March.
- To facilitate participation across a diverse group of stakeholders, attendance is limited to two-persons per company / organization. Additional participants may add their names to a waiting list and will be accommodated, space permitting.

**Applicability:** Those likely to benefit from the workshop include:

- Shipyards / DP Vessel Designers, Key DP Equipment Vendors.
- Consultant community
- Vessel Owners / Contractors Project Teams, Technical departments (with accountability for specifying DP Equipment, FMEAs, Operations)
- Class responsible for approval of DP systems
- Statutory Bodies (Flag State / Coastal State)
- Vessel's Operational Management teams (Masters, Chief Engineers, Chief Electricians & DPOs)
- Oil Companies / Operators with accountability for assurance on DP related matters
- Those 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.

**TOPICS:** The following topics will be presented:

1. Redundancy concept philosophy document
2. Single fault tolerance
3. Intermittent faults
4. DP LFI (LFI – Learning from Incidents/Learning from Insights)

### **TOPICS AND AGENDA**

#### **DAY 1**

##### **MORNING SESSION (08:00 – 11:45): REDUNDANCY CONCEPT PHILOSOPHY DOCUMENT**

- The DP committee of the Marine Technology Society recently published draft guidance on the preparation of a Redundancy Concept Philosophy Document (RCPD). Applicable to DP vessel newbuildings, major upgrades and conversions, the processes described in this guidance document are key enablers for the development of robust, resilient, and single fault tolerant DP systems.
- Developed as a structured means to communicate the DP redundancy concept to all stakeholders (example - class, shipyard / integrators, OEMs, and project teams) it also contains a tool designed to assess the extent to which the DP redundancy concept embeds the desirable attributes of autonomy, independence and segregation.
- Workshop participants will be given a guided overview of the document followed by group discussions on essential elements of RCPD preparation.

##### **LUNCH BREAK: (11:45 to 13:00)**

##### **AFTERNOON SESSION (13:00 – 16:30): SINGLE FAULT TOLERANCE (THE FOUNDATIONAL ELEMENT)**

- Single fault tolerance has been the method by which an acceptable degree of station keeping integrity has been assured since the concept of DP Equipment Class was developed by the IMO in 1994. Long-standing debates about the relative merits of having different technical failure criteria and test regimes for DP classes 2 and 3, and the additional challenges of operating a DP vessel with closed busties, have detracted from the need to ensure that all operating configurations are single fault tolerant.
- A Joint Development Project has been proposed to create a common and comprehensive set of verification and validation requirements for equipment classes 2 and 3 which recognises that with very few exceptions, vessels of either equipment class are used for all industrial missions.

#### **DAY 2**

##### **MORNING SESSION (08:00 – 11:45): INTERMITTENT FAULTS.**

A series of high-profile DP incidents revealed a gap in contemporary verification and validation processes related to recurrent and intermittent faults. Lessons learned from these incidents show that the effects of recurrent / intermittent faults can be much more severe than hard faults of the same type. Effects can include blackout and loss of position. A draft Techop on the management of intermittent faults has been published by the MTS DP Committee and participants will be given a guided overview of the contents.

##### **LUNCH BREAK: (11:45 to 13:00)**

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**AFTERNOON SESSION (13:00 – 16:30): DP LFI's (LEARNINGS FROM INCIDENTS/INSIGHTS)**

- Publishing lessons learned from DP incidents (LFIs) is a well-established practice in the DP community. Although extremely beneficial, this practice has its limitations and is sometimes described as 'learning one blackout at a time'.
- Incidents are not the only source of learnings. Insights into the performance and failure-response of DP systems can be gained from research work and verification and validation activities. The MTS DP Committee has created new categories of **LFI** called LFI(n) and LFI(s) (**i**ncidents & **i**nsights) to allow learning from other sources to be published so that the DP community can benefit from new knowledge without having to wait for its incorporation in guidance.
- Participants will have the opportunity to learn how they and their organizations can contribute and benefit from this new information source.
- PETROBRAS will outline their vision to foster and support the Learner Mindset.

**END**