IN 1618 – ASOG – The decision support tool you need

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Information note explaining the subject of Activity Specific Operating Guidelines (ASOG) and its benefits in reducing DP Station Keeping events.

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Marine - DP (Dynamic Positioning)

Tags:

#Marine DP

1. Background

Following a review of the 2021 Annual DP Station Keeping Event Report, published by IMCA in March 2022, the IMCA Marine Division Management Committee & DP Committee agreed that an objective for 2022 was to create an information note explaining the subject of Activity Specific Operating Guidelines (ASOG) and its benefits in reducing DP Station Keeping events whether they be in the category of DP Incident, DP Undesired Event or DP Observation.

2. Why do we need decision support tools? – ASOG

MSC.1/Circ.1580 Section 4 Operational Requirements para 4.1 states:

*'Before every DP operation, the DP system should be checked according to applicable vessel specific location checklist(s) and other decision support tools such as **ASOG** in order to make sure that the DP system is functioning correctly and that the system has been set up for the appropriate mode of operation.'*

Decision support tools such as the ASOG are crucial to all DP operations. It can remove any ambiguity from DP operations and can remove the blame culture from the decision-making process. This allows the vessel key DP personnel and specifically the DPO in control of the DP Positioning system to have the confidence to independently take informed actions without any fear of recriminations. A well developed and accurate ASOG can reduce the working pressure on the operational team offshore.

The ASOG should be signed off by all stakeholders so the key DP personnel onboard the vessel can make clear decisions on vessel safety. Sign off is an indication of taking accountability and lends a more formal status to this important document.

Understanding the 'Why' will help the developers and users of the ASOG to fully embrace the process and the steps leading to status change.

There are variants of the ASOG depending on the industry sector, for example, when applied to offshore drilling units they are often referred to as Well Specific Operating Guidelines (WSOG), for shuttle tanker offtake, they are often referred to as Field Specific Operating Guidelines (FSOG).

3. Development process and who should be involved

The ASOG should define the operational, environmental and equipment performance limits for the DP vessel with respect to the specific activity that the DP vessel is undertaking. Therefore, an ASOG should be amended for each different type of activity and location where the vessel is to work and when the conditions differ. It is often the case that an ASOG is prepared for a project with multiple scopes of work, and the most stringent criteria is therefore applied. Separate ASOGs during one project are suitable if different configurations are used for different phases of the project. If a single configuration is used throughout the project, then a single ASOG is suitable.

The ASOG is generally presented in tabular form that uses a traffic light system to show status changes. Importance to the ASOG is knowing the Worst Case Failure Design Intent (WCFDI) and the known Worst Case Failure (WFC). This then allows for the various configurations to be included, particular the configurations required for Task Appropriate Mode (TAM) and Critical Activity Mode (CAM). Knowing predictable effects of failures which have been verified and validated during the FMEA Proving Trials and during subsequent Annual DP Trials, should aid the ASOGs development.

It is essential for the Master, Chief Engineer, and key DP Personnel of the vessel to take part in the ASOG development and be knowledgeable of the technical and operational considerations/limits that go into its development.

Where operating limits are associated with mission equipment (personnel gangways, pipelay, MODU, crane, etc.), input from equipment specialists should be included in the ASOG development. It is imperative that the vessel crew take ownership of the ASOG.

The vessel's operational personnel and, where applicable, the shore-based personnel, i.e., company operations, technical department, should also be knowledgeable in risk identification and risk assessment procedures and play a key role in the development of the ASOG. The charterer may wish to comment on safety critical items however, making significant changes to the layout or specific instructions should be discussed with all parties and specifically the vessel operating staff. Making large additions of charterer specific instruction may compromise the intention of a clear ASOG and lead to potential ambiguity and hesitation from the vessel operating staff during a critical moment of the operation.

The completed document should be signed by the vessel's Master/OIM, Chief Engineer, senior Watchkeeping Officers and DPOs and, where applicable, reviewed by the Company DP Authority. The sign-off requirements will depend on each company's management structure. The charterer should also indicate their agreement with the content of the ASOG as it is in the relationship between the vessel crew and the charterer that the opportunity for conflict can arise. Electronic systems can be used to manage sign-off requirements. The ASOG must be available at all control stations.

When developing the specific ASOG for a project, it is necessary to refer to information of the location, the activity, environmental conditions and, if available, from project plans, procedures, and drawings. This information is especially important for project/construction vessels since it will be used to identify the different phases and different risk levels throughout the project.

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