

Marine Safety Flash

A15-23 (15th September)



Vessel Allision

Incident Overview

At 12:00 the SDPO and JDPO commenced their 12:00 to 18:00 watch aboard a DP2 OSV. The SDPO was the officer in charge of the bridge watch and the JDPO was supporting the SDPO and cargo operations. The Duty Engineer was in the Engine Control Room with the Chief Engineer, who was responsible for hydrocarbon transfer operations. During the afternoon, the vessel conducted cargo and close standby operations on DP.

At 17:42 the vessel was positioned on the starboard side of the installation, the fuel hose was sent down, connected to the vessel and commenced transfer of hydrocarbons. At approximately 17:54 the OSV made contact with the installation's starboard centre leg sacrificial rib. There was no injury or environmental impact. Superficial damage to paint coatings on the installation was visually evident and minor steelwork damage was evident on OSV's stern port quarter.

Key Findings

- The vessel was in full auto DP with two DGPS and Cyscan reference systems selected. Radius was on standby, but was blocked due to a poor signal.
- Prior to the incident, fuel cargo operations had commenced. The JDPO was monitoring the fuel transfer checklist being completed by the Chief Engineer and the SDPO was carrying out the testing of Emergency Stops as directed by the Chief Engineer.
 - The Masters Standing Orders requires the "Conning" DPO to be 100% focused on position keeping. In this case the "Conning" DPO was distracted from this by the Emergency Stop testing.
 - The "Supporting" DPO was not providing back-up monitoring of DP and deck operation management using Bridge Resource Management principles. In this case the "Supporting" DPO was carrying out a low priority task.
- During the testing of fuel transfer pump stops, the SDPO pressed the wrong Emergency Stop, which in turn set off audible alarms and shut down non-critical systems. The activation of the incorrect Emergency Stop had no technical impact on the operation of the vessel, other than a distraction.
- Following the testing and reset of the correct Emergency Stop button, the JDPO asked a question of the SDPO relating to the tank configuration. While leaning forward to view the tank management screen, the SDPO inadvertently deselected the DP systems auto surge function built into the conning chair.
 - This required a 'double press' within a defined period.
 - There was an audible alert tone lasting several seconds which neither DPO appreciated.
 - There was a visual alert on the screen of the main Operating Stations which was not observed by the DPO's.
 - This took the DP system out of full auto position mode into DP joystick mode. The DP system maintained the vessel's Yaw and Sway position. The Surge axis was controlled by the OS1 joystick. Position alarms automatically become deactivated.
- The OS1 joystick was out of calibration. In the centred position the joystick ordered 12% astern thrust.

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- This was identified in a set of handover notes several weeks earlier, however had not been passed onto the DPO's. The vessel's creep in joystick mode was not recorded in the DP fault log or actioned. (The joystick was recalibrated onboard following OEM guidance.)

Over the space of approximately two minutes, the vessel moved undetected astern, making contact light with the installation.

Recommendations

- Ensure cargo transfer Emergency Stops in use are adequately marked and identified before cargo operations commence. All Bridge Officers shall be fully aware of bridge equipment and layout.
- Ensure Master Standing Orders identify correct BRM practices. In particular, the need for the "Conning" DPO to be 100% focused on position keeping while in DP and for the "Supporting" DPO to provide redundancy, by relieving the "Conning" DPO of potential distractions outside of the position keeping responsibility. All Bridge Officers to read and sign MSO at start of each swing.
- Ensure arrival DP checklist is updated to ensure checking calibration of joystick (ensure when centred they are reading zero demand). In the event DP joystick is not calibrated, DPO to calibrate following guidance and instruction from OEM. This same instruction is relevant for POSCON joystick as well.
- Ensure a DP fault log exists and is the primary means of recording DP related events / issues / notes. This should be reviewed by each DPO prior to taking over watch.