

Dynamic Positioning (DP)

Participants will start the exercise in Joystick mode and will be immediately required to switch the vessel to Auto Position mode. They will then be required to complete a brief checklist before moving the vessel (using Auto DP mode) to a worksite. At the worksite, the vessel will hold position (using Auto DP mode), while an object is recovered from the seabed. The participants will be required to choose the route they wish to use to get to the worksite and then the final position and heading of the vessel at the worksite. Students will have the choice of using either the Kongsberg K-Pos or the Kongsberg SDP DP system. MSV Challenger will be the vessel. At the briefing session, participants will be provided with their operations area; weather forecast; and standing orders; and will receive a briefing on DP operations and DP equipment.

Reference: DP System Manual Chapter (USB Stick) to be picked up at CMS W2104

Contact: Captain Glenn Fiander Glenn.Fiander@mi.mun.ca Office CMS W2104

Seamanship

Participants will be challenged to:

1. Encode and decode messages using the signal flags of the International Code of Signals (INTERCO). One or more team members will select the correct flags to assemble the hoist and demonstrate the proper methods of securing flags to the halyard. One or more team members will read and record the message in the hoist. Team members will be judged on speed and accuracy of communication in this timed event.
2. Tie a heaving line knot (monkey fist), attach it to a heaving line, and throw the heaving line through the centre of a life ring. Team members will be judged on aesthetics of monkey fist, method of heaving line attachment, and accuracy of throw.
3. Demonstrate various knots, bends, hitches and splices and the proper use of various mooring line stoppers. Team members will be judged on accuracy of construction, and performance in a timed six-knot challenge.
4. Assemble items for working aloft or over the ship's side; rig various purchases and discuss/demonstrate the use of this equipment. Team members will be judged on accuracy of rigging and knowledge of usage with particular emphasis on safety.
5. Identify various light and shape displays indicating a vessel's type, navigational status or operational condition, along with various elements of the IALA Maritime Buoyage System - Region 'B'. Team members will be judged on accuracy of identification in this timed event.

References:

For a list of knots and other techniques to practice see Capt. Ennis (contact below)

Seamanship Techniques, D.J. House

<http://www.seasources.net/PDF/PUB102.pdf> (INTERCO pp. 3, 6-8, 9sect.6, 22-23, Chapters 2&3) - One representative from each team can pick up a hard copy of INTERCO from Capt. Ennis.

<http://www.surreyknots.org.uk/igkt-knot-charts.htm>

<https://www.youtube.com/watch?v=O6Xc9RIL2g0>

http://maritimeaviation.sydneyinstitute.wikispaces.net/file/view/Nautical+Knoweldge_5_Ladders+%26+Stages.pdf

<http://www.animatedknots.com/index.php?Logolmage=LogoGrog.png&Website=www.animatedknots.com>

Contacts: Captain John Ennis john.ennis@mi.mun.ca

Cargo Work

Participants will be asked to complete a Stability and Marine Management Activity. One will require contestants to use the stability booklet for the cargo vessel "Marindus" to carry out stability calculations involving drafts,

trim and GM. For this activity, points will be awarded for a) correct answers, b) correct procedure, c) neat and tidy calculations, and d) teamwork. The other activity will require the use of simulation program that will test contestants' ability to manage a challenging and potential emergency situation.

Reference:

Stability Calculation & Management information will be distributed directly by Captain Victor March.

Contact: Captain Victor March Victor.March@mi.mun.ca Office W2113B (CMS)

Offshore Operations

Participants will be required to plan and execute an exercise that will start with an offshore supply vessel outside the 500 Meter zone of an offshore oil production installation. The installation and the platform will be in waters south of Greenland with an abundant of bergy bits, icebergs and some pack ice. The semi sub is in the process of leaving due to the threat of ice and is not an ice strengthened MOU. It requires the use of an offshore vessels subsea crane to remove the last mooring due to an unplanned difficulty. The participants will be required to navigate a short distance around possible bergy bits and icebergs to enter the area of the offshore field where the MOU is moored. There, the vessel will be required to hold station on manual controls, as DP will not work if ice contacts the vessel, and lower the subsea crane to release the pre-moored anchors from the semi Sub. There will be reduced visibility due to snow squalls; a vigilant lookout must be maintained at all times.

References:

Guidelines for offshore Marine operations. (GOMO)
VRYHOF guide to Anchoring
Polar Code for navigating in arctic waters.
IMCA offshore operations.
Guidelines for the safe management of offshore supply operations.
Ice Navigation in Canadian Waters

Contact: Captain Eben March Ebenezer.March@mi.mun.ca Office CMS Offshore Operations Bld Room W204

Shiphandling/Navigation

Participants will be required to navigate a ship towards the port facilities in Brevik, Norway. From the starting position the vessel will follow the track as indicted by the sector lights into Langesund Fjorden, Brevik Fjorden, under the Bridge, and up into Frier Fjorden. Weather conditions will be variable and the exercise will occur in twilight conditions with good visibility. Each team will have 45 minutes to proceed towards port avoiding any ships and targets using good Bridge Resource Management practices, while adhering to regulations. Points will be awarded for demonstrating effective planning, proper preparations, effective communications, best use of ship handling and navigation, proper watch keeping for the prevailing conditions, and professionalism.

References:

1. International Chamber of Shipping Bridge Procedures Guide
2. Danton's The theory and practice of Seamanship, sections related to ship handling and navigation
3. DJ House Seamanship Techniques, section related to ship handling ship handling and navigation
4. Collision Regulations, appropriate to navigational safety and detection or targets and action to avoid collision

Contact: Captain Chris Hearn Christopher.Hearn@mi.mun.ca Office CMS W2100