

# CMEO for Deck Officers

## 1. Course Content

The following courses comprise the MSC CMEO for Deck Officers:

- MSC Maintenance Philosophy
- Reliability Centered Maintenance (RCM)
- Root Cause Analysis (RCA)
- SAMM Introduction
  - Dashboard, VTL, Training
- SAMM Overview
  - Corrective Maintenance (Work Requests, SFWL, VRR)
  - Planned Maintenance / Workbook
  - Machinery History
  - Equipment Reports
- AVCERT (Aviation Certification)
- CargoMax
- Drydocking
- Energy Conservation (ENCON)
- ShipClip
- LogiQuest
- Engineering Status Report/Vessel Assessments/Reg Body Inspections
- Commodities (Paint/Lube/Fuel/ABS)
- Shipslog

## 2. Pre-Requisites

This course is designed for MSC Deck Officers regardless of their experience with the SAMM Program.

## 3. Administration

Course registration is online at <http://mscn7training.com>. The course is required every 5 years for all shipboard deck officers. Completion of the course requires 100% attendance as well as passing an assessment to prove competence in the following areas:

- Shipslog
- SAMM Modules
  - Planned Maintenance
  - Workbook
  - Corrective Maintenance
  - Machinery History

## 4. Schedule

The courses are conducted over a period of 4 days, starting at 8:00 on Monday and ending at 5:00 on Thursday. The maximum course size is 18 students on a first come first served basis. The courses are taught by Emprise, MSC, and Contract personnel.

The schedule is as follows:

<b>CMEO AFLOAT TRAINING – DECK</b>				
Location: EMPRISE, Chesapeake, VA				
	<b>Day 1</b>	<b>Day 2</b>	<b>Day 3</b>	<b>Day 4</b>
<b>08:00 - 09:00</b>	MSC Maintenance Philosophy & Reliability Centered Maintenance (RCM)	SAMM (w/Assessment)	LogiQuest	Commodities (Paint/Lube/Fuel/ABS) AVCERT
<b>09:00 - 10:00</b>			ShipClip	
<b>10:00 - 11:00</b>	Root Cause Analysis (RCA)		Shipslog (w/Assessment)	ENCON
<b>11:00 - 12:00</b>			AVCERT	
<i>12:00 - 1:00</i>	<b>Lunch</b>	<b>Lunch</b>	<b>Lunch</b>	<b>Lunch</b>
<b>1:00 - 2:00</b>	ESR/ Inspections & Assessments	CargoMax	Drydocking	Regulatory Body Inspections
<b>2:00 - 3:00</b>				Q&A
<b>3:00 - 4:00</b>	SAMM Intro/VTL			
<b>4:00 - 5:00</b>				

## 5. Course Descriptions:

**AVCERT:** This module covers Aviation Re-Certification requirements and the necessary preparations required to ensure the vessel is ready for its recertification inspection. This module is tailored for the preparations required by the ship's Deck officers.

**CargoMax:** The student will be shown how to use the CargoMax program for vessel stability, both in day-to-day use and future operation planning.

**Commodities (Paint/Fuel/Lube/Chemical):** This module covers the commodity contracts for paint, fuel oil, lube oil, chemicals, and services such as testing/analysis, IDIQ contracts and ABS. The student will learn the roles and responsibilities associated with various MSC codes (N7/N4/N10) and the types of processing involved with product testing and processing.

**Drydocking:** This module informs the student on the types of Drydocks, standards and technical evaluations associated with drydocking a vessel. This lesson also discusses best practices throughout the process including: Docking Plan, Inspections, the Evolution, Undocking, etc.

**ENCON:** This module provides information on the Energy Conservation Program, the regulations behind the program, and the various shipboard systems that can benefit from the application of operational and technological improvements designed to reduce energy consumption and improve reliability.

**Engineering Status Report (ESR) / Inspections & Assessments:** This module covers the Engineering Status Report (ESR), which includes PM deferrals, condition monitoring results, Water Chemistry, VRR and PMIA status, and SMART/OCI findings, amongst other metrics.

**LogiQuest:** This module instructs the user on how to identify replacement parts by National Stock Number, commercial part number, or by equipment information. This module builds upon the ShipClip module by showing how to access detailed parts information missing from other ship's databases, or when the need arises to cross reference between NSN and commercial part numbers, especially when those numbers have been changed by the OEM.

**RCA:** This module covers the need for Root Cause Analysis in sorting symptoms from causes as an effective way to address, reduce or prevent future failures. Techniques to reduce perceptual blindness and bias, with tools available to assist with determining root causes are discussed along with methods on how to gather reliable information from operators and repair contractors. Proper use of RCA techniques allow users to identify potential issues on other equipment across multiple systems, ships, and ship classes.

**RCM:** This module focuses on Reliability Centered Maintenance; the practice of doing the right maintenance at the right time to reduce costs and downtime while eliminating unnecessary or ineffective maintenance. This module, together with the one on RCA, explain how best to identify and justify the need for changes to PMs when submitting Feedback change requests.

**Reg Body Inspections:** This module summarizes the regulatory body rules (USCG, ABS, IMO, and Industry standards) and regulations, including inspection specification sheets and the repository for where the regulatory body records are kept.

**SAMM Intro / VTL:** This module covers the architecture, purpose, and use of MSC's Shipboard Automated Maintenance Management system and Virtual Technical Library. Common terminology, common features and the Navigation/Search features will be taught during this course. Included in this section is a description of each Tab in the SAMM Dashboard and how each tab applies to the overall management of the vessel's maintenance. Additionally the students will be shown the training modules as well as accessing documents in the shipboard VTL (Virtual Technical Library).

**SAMM Overview (w/assessment):** This module covers the MSC Planned Maintenance process. Students will be shown how to locate and complete any assigned maintenance item, whether scheduled in the Workbook or unscheduled. Included in the presentation is a discussion on the Planned Maintenance (PM) feedback process, showing students the flow-path of all feedback and a method to review status of any submitted feedback item. Students will also learn how to start a ship's force worklist item, edit existing ship's force worklist comments, and review status of all corrective maintenance actions. Students will also learn how to review all maintenance history (PM, Corrective, CMS, Other) and print reports for inspection and monitoring evolutions. The user will print several reports under instruction based on previous inspections and common reports requested by regulatory organizations.

**ShipClip:** This module focuses on the ship's logistical supply program; parts identification, location, ordering, and equipment specifications.

**Ship Inspection / Regulatory Bodies:** This module covers what ship's force should do to prepare for ship inspections, what regulatory bodies and other government agencies will focus on, and how to handle inspection results and findings.

**Shipslog (w/assessment):** This module provides instruction on the use of an electronic log keeping system for the Engine Department, employed throughout MSC's fleet. Special emphasis will be given on log readings required for the NEURS Monthly report.

**Vessel Assessment:** This module covers Vessel Self-Assessment (VSA), Port Engineer Vessel Inspection (PEVI), OCI and SMART inspection concepts and procedures.