Syllabus for
CMEO Ashore Part III – Program Analysis

Course Content

Section I of this course examines the rationale for implementing performance metrics for MSC engineering and maintenance management in the context of strategic planning and performance analysis processes, data considerations associated with performance analysis, and the MSC engineering and maintenance management policies and procedures that warrant performance metrics. Section II examines the engineering and maintenance management data and data reports available in SAMM, PENG, Logbook, and Shipslog to support program analysis. Section III examines current N7 initiatives to leverage data to support data-driven decision-making for MSC engineering and maintenance management functions.

This course consists of the following modules:

- Section I
  - Introduction to CMEO Ashore Part III – Program Analysis
  - Performance Management, Measurement, and Auditing
  - Data Considerations
  - Data Mining Overview
  - Data Analysis Overview
  - Data Quality
  - MSC Engineering and Maintenance Management Policies and Procedures Overview
- Section II
  - SAMM Web Data
  - SAMM Web Reports
  - PENG Web Data and Reports
  - Logbook and Shipslog Data
  - SAMM Feedback Process
- Section III
  - Material Readiness Quotient (MRQ)
  - Executive Summary
  - Engineering Status Report
  - Engineering Status Report Additional Information
    - CASREP Analysis
    - Fuel Oil and Lube Oil Inventory Report
    - PMIA Usage
    - Safety Items
    - SAMM Deferrals
    - TRANSALT Status
    - VRR Log Usage
    - Open VRR Details
    - POAM Status

        - POAM Milestone Completion History
        - POAM Usage
    - Additional Uses for SAMM Web Data and Reports
        - Researching equipment planned maintenance requirements and material history for root cause analysis
        - Maintenance effectiveness reviews
        - ABS Condition-Based Classification
        - Auditing and documenting SMS and QMS compliance
        - Better preparing for upcoming regulatory inspections and surveys
        - Condition-based approach to future MSC inspections (e.g., SMART, OCI, VSA, and PEVI)

Target Audience

The target audience for this course is MSC Type Desks (Supervisory Project Engineers), Class Engineers, Principal Port Engineers, Ship Operating Contract CORs, N73 Inspectors and Auditors, N72 Root Cause Analysis personnel, and other related N7 personnel.

Pre-Requisites

- Introduction to Military Sealift Command course
- MSC Regulatory Standards, Inspections, Maintenance Availability Overview, and Engineering Budgets course
- Government Contracting, RCA, RCM, and ENCON course
- MSC Work Item Writing Fundamentals course
- MSC Work Item Estimating Fundamentals course
- Maintenance Availability Planning and Management, Drydocking, and Logistics
- CMEO Ashore Part I – SAMM Planning course
- CMEO Ashore Part II – PENG Execution course

Administration

Enrollment is on a first come, first served basis. You can self-register for this course online at http://mscn7training.com. Successful completion of this course requires 100% attendance.

Schedule

This course is conducted over a period of three consecutive days. Classes begin at 8:00 AM and end at 5:00 PM each day. The schedule for the course modules is as follows:

Date	Time	Training Module
	0800-0830	Introduction to CMEO Ashore Part III - Program Analysis

Day One	0830-1000	Performance Management, Measurement, and Auditing
	1000-1100	Data Considerations
	1100-1200	Data Mining Overview
	1300-1400	Data Analysis Overview
	1400-1500	Data Quality
	1500-1700	MSC Engineering and Maintenance Management Policies and Procedures Overview
Day Two	0800-1030	SAMM Web Data
	1030-1400	SAMM Web Reports
	1400-1530	PENG Web Data and Reports
	1530-1600	Logbook and Shipslog Data
	1600-1700	SAMM Feedback Process
Day Three	0800-0900	Material Readiness Quotient (MRQ)
	0900-1030	Executive Summary
	1030-1200	Engineering Status Report
	1300-1500	Engineering Status Report Additional Information • CASREP Analysis • Fuel Oil and Lube Oil Inventory Report • PMIA Usage • Safety Items • SAMM Deferrals • TRANSALT Status • VRR Log Usage • Open VRR Details • POAM Status • POAM Milestone Completion History • POAM Usage

	1500-1700	Additional Uses for SAMM Web Data and Reports • Researching equipment planned maintenance requirements and material history for root cause analysis • Maintenance effectiveness reviews • ABS Condition-Based Classification • Auditing and documenting SMS and QMS compliance • Better preparing for upcoming regulatory inspections and surveys • Condition-based approach to future MSC inspections (e.g., SMART, OCI, VSA, and PEVI)

Module Descriptions:

Introduction to CMEO Ashore Part III - Program Analysis – This module provides a brief introduction to the CMEO Ashore Part III - Program Analysis course.

Performance Management, Measurement, and Auditing - The topics covered in this module include: Performance management process, performance measure development process, process-oriented performance measures, outcome-oriented performance measures, key attributes of performance measures, auditing vs performance measurement, auditing perspectives, auditing techniques, auditing basic principles, and auditing best practices.

Data Considerations - The topics covered in this module include: data context, categorical data, quantitative data, and data attributes.

Data Quality - The topics covered in this module include: importance of data quality, and importance of data collection SAMM and PENG data issues, consequences of data quality issues, data cleansing, and data quality monitoring.

Data Mining Overview- The topics covered in this module include: basic data mining considerations, how to access SAMM and PENG data queries posted in SAMM History and MSC Virtual Technical Library (VTL), and how to access ad hoc SAMM and PENG data queries available on-demand via MSC Master Maintenance Library (MML) in SAMM.

Data Analysis Overview - The topics covered in this module include: common forms of data analysis, analysis maturity, analysis reporting, analysis pitfalls, and end user pitfalls.

MSC Engineering and Maintenance Management Policies and Procedures Overview - The topics covered in this module include: MSC's life cycle management philosophy, maintenance philosophy, and maintenance management policies,

programs, and procedures. In-depth examination of MSC's policies and procedures is provided in a variety of N7 Engineering Academy courses.

SAMM Web Data - The topics covered in this module include: current and historical data available in SAMM; accessing SAMM Web; accessing SAMM History, Afloat, and Ashore modules; filtering SAMM data; data drill-down in SAMM; attachments in SAMM; recurring maintenance action drill-down; condition monitoring maintenance action drill-down; maintenance availability data drill-down; and exporting SAMM data.

SAMM Web Reports - The topics covered in this module include: types of reports available in SAMM, accessing SAMM Web, accessing SAMM reports, report content, and report filter capabilities.

PENG Web Data and Reports – The topics covered in this module include: current and historical maintenance availability data and reports available in PENG, accessing PENG data, and accessing PENG reports.

Logbook and Shipslog Data - The topics covered in this module include: accessing the ship's engineering log data available in Logbook, and accessing the ship's deck log data available in Shipslog

SAMM Feedback Process - The topics covered in this module include: Maintenance changes, SAMM Feedback process, common issues warranting feedback, feedback submission, maintenance feedback review process, feedback processing, feedback processing POA&M, and Maintenance Effectiveness Reviews (MERs).

Material Readiness Quotient (MRQ) - The topics covered in this module include how to access and interpret the monthly MRQ metric and associated readiness factors posted in the MSC Virtual Technical Library (VTL).

Executive Summary - The topics covered in this module include how to access and interpret the monthly executed summary posted in the MSC Virtual Technical Library (VTL), as well as how the information presented in the Executive Summary facilitates drill-down insights pertaining to the Material Readiness Quotient.

Engineering Status Report - The topics covered in this module include how to access and interpret the monthly Engineering Status Reports posted in the MSC Virtual Technical Library (VTL), as well as how the information presented in the Executive Summary facilitates additional drill-down insights pertaining to the Material Readiness Quotient and Executive Summary.

Engineering Status Report Additional Information - The topics covered in this module include how to access and interpret monthly and weekly engineering metrics data (i.e., CASREP Analysis, PMIA Usage, Safety Items, SAMM Deferrals, TRANSALT Status, VRR Log Usage, Open VRR Details, POAM Status, POAM

Milestone Completion History, and POAM Usage) posted in the MSC Virtual Technical Library (VTL), as well as how the data facilitates additional drill-down insights pertaining to the Material Readiness Quotient, Executive Summary, and Engineering Status Report.

Additional Uses for SAMM Web Data and Reports – The topics covered in this module include using SAMM data and reports for: researching equipment planned maintenance requirements and material history for root cause analysis; maintenance effectiveness reviews; ABS Condition-Based Classification; auditing and documenting SMS and QMS compliance; better preparing for upcoming regulatory inspections and surveys; and condition-based approach to future MSC inspections (e.g., SMART, OCI, VSA, and PEVI).

Date	Version	Description	Author
10/7/19	0.0	Initial draft	Gary Fields
11/8/19	0.1	Revised course topics and agenda to incorporate and integrate SAMM Web Data, SAMM Web Reports, and Additional Uses for SAMM Web Data and Reports modules; Revised content to reflect feedback from initial course offering	Gary Fields
11/23/19	0.2	Revised content to reflect feedback from meeting with JoEllen Rose, Rich Fremgen, and Steffen Wojeck on 14 November 2019 to discuss RITEMOV.	Gary Fields
11/25/19	0.3	Revised Administration section	Gary Fields
01/10/20	0.4	Added PENG Web Data and Reports module; Added Logbook and Shipslog module	Gary Fields