

N7 Engineer Academy – Basic Part II

Course Content

This course provides an in-depth introduction to the commercial regulatory standards, inspection regimens, aviation certification, drydocking, availability planning, availability management, work item development, and work item cost estimating philosophy, policies, and business practices used by MSC. This course consists of the following modules:

- American Bureau of Shipping Vessel Classification
- U.S. Coast Guard Vessel Inspection and Certification
- MSC SMART Inspections
- MSC Onboard Condition Inspections
- Port Engineer Vessel Inspection
- Aviation Certification
- Government Contracting Overview
- Drydocking Overview
- MSC Availability Planning Overview
- MSC Work Item Development Overview
- MSC Work Item Cost Estimating Overview
- MSC Availability Management Overview

Target Audience

The target audience for this course is new-hire Principal Port Engineers and Assistant Port Engineers. This course is also appropriate for other new-hire N7 personnel, as well as more experienced N7 personnel who have not taken this course within the last 5 years and require refresher training.

Pre-Requisites

Completion of Port Engineer Academy – Basic Part I course

Administration

The class size is limited to 25 students, and 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 4 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:

Day One	0800-1700	American Bureau of Shipping Vessel Classification
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Day Two	0800-1700	U.S. Coast Guard Vessel Inspection and Certification
Day Three	0800-0900	MSC SMART Inspections
	0900-1000	MSC Onboard Condition Inspections
	1000-1100	Port Engineer Vessel Inspection
	1100-1200	Aviation Certification
	1300-1500	Government Contracting Overview
	1500-1700	MSC Availability Planning Overview
Day Four	0800-1000	MSC Work Item Development Overview
	1000-1200	MSC Work Item Cost Estimating Overview
	1300-1500	MSC Availability Management Overview
	1500-1700	Drydocking Overview

Module Descriptions:

American Bureau of Shipping Vessel Classification - The topics covered in this module include: American Bureau of Shipping (ABS), International Association of Classification Societies, ABS Rules (structures, propulsion, electrical systems, automation, piping systems, firefighting systems, and materials and welding), classification process, vessel classification certificates, relationship between ABS and U.S. Coast Guard, ABS Type approval, ABS plan review process, surveys during construction, surveys after construction, ABS Eagle Survey Manager, and suspension or withdrawal of classification.

U.S. Coast Guard Vessel Inspection and Certification - The topics covered in this module include: U.S. Coast Guard (USCG) roles and responsibilities, Code of Federal Regulations, IMO Conventions (including SOLAS and MARPOL), USCG inspection regimen, Memorandum of Agreement Between MSC and USCG, Marine Safety Center plan approval, USCG type approval, and Alternate Compliance Program.

MSC SMART Inspections - The topics covered in this module include: statutory inspection of naval ships, statutory inspection of MSC ships, and SMART inspection of MSC ships ineligible for COI.

MSC Onboard Condition Inspections - The topics covered in this module include: MSC contract technical requirements surveillance (CTRS) program, CTRS roles and responsibilities, onboard condition inspections (OCIs), shipyard monitoring (SM), findings and observations, and sample invoice validation.

Port Engineer Vessel Inspection – The topics covered in this module include: Port Engineer responsibilities for conducting vessel inspections in connection with the MSC Readiness Improvement Through Enhanced Monitoring and Verification (RITEMOV) program, and PENG Port Engineer Vessel Inspection (PEVI) module.

Aviation Certification - The topics covered in this module include: aviation facilities, organizations, associated with aviation facilities, equipment needed to maintain or renew aviation facility certification, reporting requirements for degraded aviation facilities, aviation facility scheduled events/visits/ARQs/AVCERTs, and Deck Department responsibilities during aviation facility recertification efforts.

Government Contracting Overview - The topics covered in this module include: what is a contract, commercial and federal contracting laws and regulations, federal contracting objectives, division of roles and responsibilities for government contracting, MSC contracting authority, common MSC contract types, competition requirements for government contracts, and requirements for publicizing government contract actions. This module is intended to provide a brief overview of these topics. A more in-depth examination of these topic will be provided in one or more subsequent modules.

Drydocking Overview - The topics covered in this module include: types of dry dock facilities, MSC dry dock standards, and docking process (docking plan, docking calculations, block inspections, docking conference, docking evolution, in dock period, and undocking). This module is intended to provide a brief overview of these topics. A more in-depth examination of these topic will be provided in one or more subsequent modules.

MSC Availability Planning Overview - The topics covered in this module include: common types of MSC maintenance availabilities, availability planning, work package development, and ship's crew planning. This module is intended to provide a brief overview of these topics. A more in-depth examination of these topic will be provided in one or more subsequent modules.

MSC Work Item Development Overview - The topics covered in this module include: MSC's work item policies and practices; detailed, performance, and performance-like work items; MSC Work Item Preparation Guide; MSC standard work package index; MSC 000 work items; MSC class standard work items; Category A and B work items; and work item content considerations. This module is intended to provide a brief overview of these topics. A more in-depth examination of these topic will be provided in one or more subsequent modules.

MSC Work Item Cost Estimating Overview - The topics covered in this module include: MSC's policies and practices for developing independent government cost estimates for performance-like work items; classification of cost estimates; cost estimating terminology; cost estimating process (definition, planning, data collection, analysis, estimate formulation, third party review, and estimate documentation); and engineering approach (bottom-up cost estimating approach). This module is intended to provide a brief overview of these topics. A more in-depth examination of these topic will be provided in one or more subsequent modules.

MSC Availability Management Overview - The topics covered in this module include: Overhaul Management Team, major phases of availability management (pre-availability activities, availability activities, and post-availability activities), and availability management activities. This module is intended to provide a brief overview of these topics. A more in-depth examination of these topic will be provided in one or more subsequent modules.

Date	Version	Description	Author
4/29/19	0.0	Initial draft	Gary Fields
4/29/19	0.1	Revised agenda for days 3 and 4 to resolve instructor scheduling conflict	Gary Fields