# N7 Engineering Academy
# Syllabus for
# Government Contracting, RCA, RCM, and ENCON

## Course Content

This course provides an in-depth introduction to government contracting, reliability centered maintenance, root cause analysis, and MSC's energy conservation policies and practices. The subject matter is considered intermediate in nature. This course consists of the following modules:

- Contracting Fundamentals
- Key Contracting Roles and Responsibilities
- Types of Government Contracts
- Government Contracting Regulations
- Government Contracting Competition Requirements
- Government Acquisition Procedures
- Publicizing Government Contracting Actions
- Contract Solicitation Planning
- Contract Solicitation Process
- Contracting Source Selection Process
- MSC N10 Procurement Request Package Requirements
- Reliability Centered Maintenance (RCM)
- Root Cause Analysis (RCA)
- MSC Energy Conservation (ENCON) Program

## Target Audience

The target audience for this course is all new-hire N7 personnel. This course is also appropriate for experienced N7 personnel who want to refresh their proficiency in certain subject matter areas**.**

## Prerequisites

Completion of:

- Introduction to Military Sealift Command course
- MSC Regulatory Standards, Inspections, Maintenance Availability Overview, and Engineering Budgets 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 two 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:

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|---|---|---|
| Day One | 0800-0900 | Contracting Fundamentals |
| | 0900-1000 | Key Contracting Roles and Responsibilities |
| | 1000-1100 | Types of Government Contracts |
| | 1100-1200 | Government Contracting Regulations |
| | 1300-1400 | Government Contracting Competition Requirements |
| | 1400-1500 | Government Acquisition Procedures |
| | 1500-1600 | Publicizing Government Contracting Actions |
| | 1600-1700 | Contract Solicitation Planning |
| Day Two | 0800-0900 | Contract Solicitation Process |
| | 0900-1000 | Contracting Source Selection Process |
| | 1000-1100 | MSC N10 Procurement Request Package Requirements |
| | 1100-1200 | Reliability Centered Maintenance (RCM) |
| | 1300-1400 | Root Cause Analysis (RCA) |
| | 1400-1500 | Energy Conservation (ENCON) |

**Module Descriptions:**

**Contracting Fundamentals**: The topics covered in this module include: what is a contract, federal contracting objectives, and key differences between the regulations that govern commercial and federal government contracting.

**Key Contracting Roles and Responsibilities**: The topics covered in this module include: Requiring Officials, Contracting Officials, Contracting Officer's Representative, Technical Point of Contact, and Office of Counsel (N00L).

**Types of Government Contracts**: The topics covered in this module include: firm fixed price contracts; indefinite-delivery, indefinite-quantity contracts; and cost-reimbursement contracts.

**Government Contracting Regulations**: The topics covered in this module include: Federal Acquisition Regulations, Defense Federal Acquisition Regulations

Supplement, Navy and Marine Corps Acquisition Regulations, and Master Agreement for Repair and Alteration of Vessels (MSRA).

**Government Contracting Competition Requirements**: The topics covered in this module include: full and open competition, full and open competition after exclusion of sources, and other than full and open competition.

**Government Acquisition Procedures**: The topics covered in this module include: FAR Part 8, Required Sources of Supplies and Services; FAR Part 12, Acquisition of Commercial Items; FAR Part 13, Simplified Acquisition Procedures; and FAR Part 15, Contracting by Negotiation.

**Publicizing Government Contracting Actions**: The topics covered in this module include: what constitutes a contract action, lead time requirements for publicizing contract actions, acceptable methods for publicizing contract actions, and required amount of time between issuance of solicitation and quotation/proposal submission deadline.

**Contract Solicitation Planning**: The topics covered in this module include: acquisition strategy development, FEDBIZOPPS synopsis, RFP development, source selection plan development, and funding availability certification.

**Contract Solicitation Process**: The topics covered in this module include: RFP release, prospective bidder's shipcheck, responding to requests for clarification, RFP amendments, and RFP closing.

**Contracting Source Selection Process**: The topics covered in this module include: preliminary proposal evaluation, discussions with offerors, final proposal evaluation, and contract award.

**MSC N10 Procurement Request Package Requirements**: The topics covered in this module include: procurement request package documentation, and additional documentation requirements applicable to services procurements.

**Reliability Centered Maintenance (RCM)**: This module introduces participants to the basic concepts associated with 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 Root Cause Analysis module, explain how best to identify and justify the need for changes to preventive maintenance requirements when submitting feedback change requests.

**Root Cause Analysis (RCA)**: This module introduces participants to the basic concepts associated with Root Cause Analysis and its use in differentiating between failures and their underlying 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 allows users to identify potential issues on other equipment across multiple systems, ships, and ship classes.

**MSC Energy Conservation (ENCON) Program:** This module provides information on the MSC 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.

| Date | Version | Description | Author |
|---|---|---|---|
| 5/5/19 | 0.0 | Initial draft | Gary Fields |
| 6/23/19 | 1.0 | Revised curriculum based upon meeting with MSC (Al Ronald) on 13 June 2019 | Gary Fields |
| 8/14/19 | 1.1 | Revised course name, curriculum, module durations, and target audience per discussion with Al Ronald (MSC N7X Competency Manager) | Gary Fields |
| 11/25/19 | 1.2 | Revised Administration section | Gary Fields |