

**Seminar's Title : PROGRAM MANAGEMENT IN DEFENSE SYSTEMS**

**Purpose and Background :** Program Management is one of the most important aspects of the entire defense acquisition process. It is the application of concepts, knowledge, skills, tools and techniques to meet the program objectives and increase the probability of program success. Without effective program management, programs are often running into troubles and risking failures.

This course is designed to improve defense acquisition outcomes by strengthening the decision-making skills of program managers of defense systems . It provides participants with the knowledge of planning, organizing, budgeting, execution, control and closing processes and their benefits in effectively and efficiently managing defense programs.

**Learning Objectives :** To provide practical coverage of all basic aspects of managing defense programs to meet their objectives within the specific cost and time constraints, with minimum risks and obtain customer's satisfaction.

**Benefits for Participants :**

- To provide participants with the knowledge of program management fundamentals of defense system acquisition management and their benefits in effectively and efficiently managing defense system program
- To provide participants with practical skills, concepts and principles of program management to be adapted to defense program environment
- Lead and integrate functional and multifunctional teams to address the varied and complex problems that confront program managers in defense acquisition process.
- Apply best business practices to achieve successful defense acquisition outcomes , including effective stakeholders' relationship.
- Identify and perform the key program management processes and phases as well as their implementation to increase the probability of success of a project and meet customer's requirements and expectation.

**Outline :** The seminar is scheduled for three (3) days; each day starting from 8 :00 AM to 4 :30 PM with a half hour coffee break during each morning and afternoon section.

**DAY 1**

**Introduction**

- Defense systems mission
- Classification of defense programs
- Definition of program management in defense system

- Customer definition
- Program phases and success criteria
- Why use program management in defense system acquisition?
- Roles of program manager
- Critical Success Factors in defense program management
- Key program objective criteria
- Evolution of organizational model
- Program organization
- Matrix organization.
- Key program organizational disciplines.
- Program Office
- Defense program management activities
- Program activity lifecycle
- Engineering activities in defense program
- Responsibilities of defense program manager

### **Program Manager in Defense System Acquisition Process**

- Program manager profile
- Leadership: The centre of successful performance
- Program Manager as a Leader
- The characteristics of the Leader as Coach
- Leader versus Manager
- Program manager selection.

### **The Defense System Business Process**

- Planning process
- Business management process
- Contract types
- The proposal process
- Proposal/Bid activity
- Bid/No-Bid decision
- Marketing process
- Proposal/Bid information
- Pre-Proposal activities
- System Engineering
- Proposal development and submittal
- Organizing the proposal effort
- Red Team Review and Briefing
- The Red Team mission
- The BAFO & the Contract

### **Defense System Program Implementation**

- Most reasons why programs fail
- Symptoms of poor planning

- The planning process
  - Program Implementation Plan (PIP)
  - Customer relation guiding philosophy
  - Program implementation and execution cycle
  - Contract negotiation Technical/Schedule/Cost risk : The 3 negotiating positions
  - Risk Management
  - Budgeting process
  - Budget allocation structure
  - Program Start-Up
  - “What we won” presentation
  - Start-Up plan and team objectives
  - Start-up definition
  - Start-Up Meeting & Agenda
  - Program Organization
  - Organizational Charter
  - Functional Areas in Defense programs
  - Material/Subcontracts
  - Program Control
  - Program Baseline
  - Properties of a Baseline
- Technical program performance

## **DAY 2**

### **Quality & Services in Defense Program**

- The Right way for the Right reason
- High Quality versus Poor Quality
- Parameters of Quality
- Quality System in defense program
- Work Breakdown Structure (WBS) process
- Use of the WBS and the RAM
- RACI Chart
- WBS and the Organization Breakdown Structure (OBS)
- Earned Value Management (EVM)
- Basic elements of performance control
- Sub-functions of program control
- Technical performance
- Successful completion – Transition process
- Practices and approaches that get programs into trouble

### **Scheduling the Project Work**

- Milestone definition
- Tools of scheduling
- Basic terminology
- Basic rules of network logic
- Logic emphasis
- Definition of network terms
- The project schedule
- The Critical Path
- Using the Critical Path Method (CPM) to manage the project

### **Risk Management & Project Control**

- Definition
- Risk Management Top Level process summary
- Risk Identification
- Risk Breakdown Structure (RBS)
- Risk identification data sources & applications
- Risk Assessment
- Risk matrix
- Risk probability determination
- Risk impacts determination
- Risk filtering
- Risk Avoidance approach
- Risk Contingency approach
- Risk Tracking and Reporting
- Risk Management Organization/Responsibilities
- Risk Management implementation and control
- Risk report and review
- Critical Success Factor for Risk Management
- Project Control
- Team Member self-control
- Characteristics of a project control system
- Project Evaluation
- Project Review
- Earned Value Management (EVM)

## **DAY 3**

### **Managing the Project Team**

- Project team performance
- Leadership versus Management skills in team environment
- Team building
- Team work through planning
- Leading a team through the stages

- Developing team commitment

### **Project Closure**

- Effective project closure
- Project closure objectives
- Project closure plan
- Contract closure
- Administrative closure
- Project closure & contract closure interaction
- Lessons learned
- Post project evaluation
- Celebrate success

### **The Pursuit of Excellence in Defense Project Acquisition**

- Continuing service and support
- Maintenance, Training, Supplies & Spares
- Upgrade, Migration, Integration
- Logistics support
- The Program Manager's role in Continuing Service and Support
- The Review Process
- The Transition process from Development into Production
- Transition plan traps
- Transition plan checklist
- Design policy checklist
- Design requirement checklists
- Design review checklists
- Design release checklists
- Integrated test checklist
- Software test checklist
- Field feedback checklists
- Manufacturing plan checklists
- Quality manufacturing process checklist
- Subcontractor control checklist
- Modernization checklist
- Factory improvement checklist
- Productivity centre checklist
- Logistic Support Analysis (LSA) checklist
- Training Material and Equipment checklist
- Personnel requirement checklist
- Technical risk checklist

### **Closing Comments**

- Thoughts on major pitfalls of program management in defense systems
- Understanding & Leverage the Triple Constraints in program management

**Instructor :** **Nghi M. Nguyen, Ph.D., M.Eng, P.Eng, PMP**, is President of NDV Project Management Services Inc. He has had over 25 years of progressive experience in the field of project management on major construction and high-technology projects with leading Canadian and American corporations such as the SNC-Lavalin Group, CAE, Lockheed Martin and the Canadian Space Agency (CSA). He served as Program Control Manager for the multi-billion dollar Canadian Patrol Frigate (CPF) program, the largest and most complex shipbuilding program in Canadian history for Lockheed Martin Canada. As a consultant to engineering and construction firms, he has assisted clients with project management approaches to effectively complete projects and attain their objectives. He is a specialist in project management training, definition, development, identification of project objectives, constraints and methodologies, having provided project management trainings to engineers worldwide. He has been working as a project management consultant for the CSA on projects associated with the 16-nation International Space Station (ISS) project, the construction of the largest and most sophisticated engineering facility ever undertaken as well as for SNC-Lavalin International on China's Three Gorges Dam project, the largest on-going construction project on earth. Dr. Nghi Nguyen has written and presented numerous technical papers on project management related topics in international conventions and seminars in Canada, the U.S., Europe and Asia sponsored by professional associations such as the Project Management Institute (PMI), the American Consulting Engineering Council (ACEC), ASCE, Canadian Society of Civil Engineers (CSCE), the Performance Management Association (PMA) and the Paris-based AFITEP. He is a part-time faculty member at Montreal's Concordia University , teaching Construction & Project Management courses at both undergraduate and graduate levels and hold B.S., M.S., and Ph.D. degrees in Civil Engineering and Construction & Project Management.

**Who Should Attend :** This seminar is for those responsible for those who are working as project/program managers in defense acquisition programs. It is also helpful for others working in other defense-related fields such as System Engineering, Program Control, Financial Management, Contracting, Logistics, Configuration Management. .etc...