

## 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 program initiating, 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.

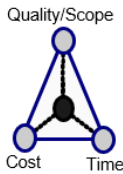
### Benefits for Participants:

- 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 knowledge, 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 defense program and meet customer's requirements and expectation.

### Who Should Attend

This seminar is for those who are working as project/program managers in defense acquisition programs and their project team members. It is also helpful for others working in other defense-related fields such as System Engineering, Equipment Engineering, Software Engineering Program Control, Financial Management, Contracting, Logistics, Configuration Management, etc. as well as those who are interested in the management of defense systems acquisitions.





## Schedule:

The seminar is scheduled for five (5) days; each day starting from 9:00 AM to 5:00 PM with a half hour coffee break during each morning and afternoon section. The schedule could be changed to suit customer's working schedule.

## OUTLINE:

### DAY 1

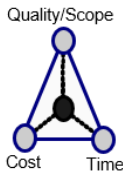
#### Introduction

- 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 systems acquisition?
- Roles of program manager
- Critical Success Factors in defense program management
- Key program objective criteria
- Evolution of management model
- Program organization
- Matrix organization.
- Key program organizational disciplines.
- Program Management Office (PMO)
- Defense program management activities
- Program activity lifecycle
- Engineering activities in defense program
- Responsibilities of defense program manager
- What program managers need to know?
- Major pitfalls of Program Management in defense systems acquisition

#### 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

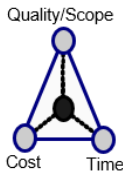
- Planning process
- Business management process
- Contract types
- The proposal process
- Proposal/Bid activity
- Bid/No-Bid decision
- Marketing process
- Proposal/Bid information
- Pre-Proposal activities
- System Engineering
- Proposal development and submittal
- Organizing the proposal effort
-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

## DAY 2

### 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 risks
- 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 Baselines
- Properties of a Baseline





## Quality & Services in Defense Programs

- 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
- Organization Breakdown Structure (OBS) process
- Use of the OBS
- The Integration of the WBS and OBS
- The Responsibility Assignment Matrix (RAM)
- RACI Chart
- 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 Program Work

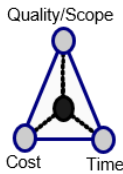
- Milestone definition
- Tools of scheduling
- Basic terminology
- Basic rules of network logic
- Logic emphasis
- Definition of network terms
- The program schedule
- The Critical Path
- Using the Critical Path Method (CPM) to manage the project

## DAY 3

### Risk Management & Program Control

- Overview
- Risk Management Top Level process summary
- Risk Identification
- Risk Breakdown Structure (RBS)
- Risk identification data sources & applications
- Risk Register
- Risk Assessment
- Risk matrix





- Risk probability determination
- Risk impacts determination
- Risk filtering
- Risk Avoidance approach
- Risk Contingency (Mitigation) approach
- Risk Tracking and Reporting
- Risk Management Organization/Responsibilities
- Risk Management Implementation and Control
- Risk report and review
- Risk Management best practices
- Critical Success Factors (CSFs) for Risk Management
- Program Control
- Team Member self-control
- Characteristics of a program control system
- Program Evaluation
- Program Reviews

### **Managing the Program Team**

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

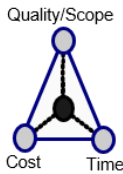
### **Program Closure**

- Management challenges
- Effective program closure
- Program closure objectives
- Key elements of program closure
- Program closure plan
- Contracts closure
- Administrative closure
- Program closure & contracts closure interaction
- Lessons learned
- Post program 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 & checklist
- Financial phasing traps & checklist
- Design policy traps & checklist
- Design requirement traps & checklist
- Design review traps & checklists
- Design release traps & checklists
- Integrated test traps & checklist
- Software test traps & checklist
- Field feedback traps & checklist
- Manufacturing plan traps & checklist
- Manufacturing strategy traps & checklist
- Quality manufacturing process traps & checklist
- Subcontractor control traps & checklist
- Modernization traps & checklist
- Factory improvement traps & checklist
- Productivity center traps & checklist
- Logistic Support Analysis (LSA) traps & checklist
- Training Material and Equipment traps & checklist
- Spares traps & checklist
- Personnel requirement traps & checklist
- Technical risk traps & checklist

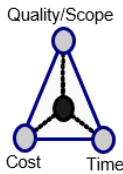
### Closing Comments

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

### Seminar's Instructor: **Dr. Nghi M. Nguyen, Ph.D., P.E., PMP (1995), M.ASCE**

Dr. Nghi M. Nguyen is President & CEO of NDV Project Management Services, Inc., one of the first recognized company members of the Project Management Institute (PMI)'s Registered Consultant Program (RCP). He has had more than 30 years of progressive, domestic and international consulting and training experience in the field of project/program/portfolio management on major construction, aerospace, defence and high-technology projects with leading Canadian and U.S. corporations such as the SNC-Lavalin Group, Gildan, CAE, the Canadian Space Agency (CSA), Lockheed Martin and NASA, among others. 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 defense history for Lockheed Martin





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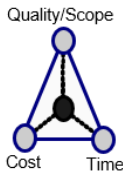
Canada (formerly U.S. based Unisys Systems and Sperry). Since 1995, he has developed and conducted numerous project management related seminars, including the PMP Exam Prep ones, for thousands of project managers all over the world.

A well-known, internationally recognized project management consultant and trainer, Dr. Nghi Nguyen has assisted clients with project management approaches to effectively and efficiently complete projects and attain their objectives. He is a specialist in project and program management training, consulting, definition, development, identification of project objectives, constraints and methodologies. He has managed and participated in projects in most industries and is leading a very active project management training and consulting practice, serving as project management consultants on projects worldwide. He has worked as a project management consultant for the Canadian Space Agency (CSA) on projects associated with the International Space Station (ISS) program, the 16-nation effort led by NASA (National Aeronautics and Space Administration) to build the permanently orbiting laboratory in space, the largest and most sophisticated international engineering project ever undertaken in the history of the world as well as for Canada's SNC-Lavalin International, one of the world's leading engineering construction companies, on China's Three Gorges Dam hydro-electric development project, the largest construction project in the world ever built to date, and was involved in a number of projects in the Information Technology (IT) and Oil and Gas sectors, among them was the construction of the \$ 5 billion Hibernia Oil Production Platform in St John, Newfoundland, Canada.

A long-time member of the American Society of Civil Engineers (ASCE) and a more-than-thirty year member of PMI, he is currently delivering project management seminars worldwide for clients in cities all over the world and has trained thousands of project managers on a variety of topics associated with global, international project management standards since 1995. He has also developed and delivered a customized project management curriculum for CAE, the Canadian-based world leader in flight simulation and pilot training, for its project managers in locations worldwide (Canada, the U.S., Australia, Germany and the U.K.).

An internationally recognized speaker, author and presenter, Dr. Nguyen has written and presented numerous technical papers on project/program management related topics in international conventions and congresses in Canada, the U.S., Europe, Asia and the Caribbean, sponsored by professional associations such as the Project Management Institute (PMI), the American Consulting Engineering Council (ACEC), the Association for the Advancement of Cost Engineering (AACE) International, American/Canadian Society of Civil Engineers (ASCE/CSCE), the Performance Management Association (PMA), the Pan-Pacific Business Association, the American Institute of Aeronautics and Astronautics (AIAA), the Caribbean Council of Engineering Association (CCEA) and the Paris-based association Francais des Ingenieurs et Techniciens d'Estimation et de Planification de Projets (AFITEP).





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Educated at McGill and Concordia Universities in Montreal, Quebec, Canada, Dr. Nghi Nguyen holds B.S., M.S. and Ph.D. degrees in Civil Engineering with specialization in Construction & Project Management and has been a Certified Project Management Professional (PMP) since 1995. He has been a part-time professor at the Faculty of Engineering and Computer Science at Montreal's Concordia University since 1996 and also taught project management topics for the Executive Institute program at Montreal's McGill University. He served as a member of the Canadian Advisory Council (CAC), set up by The Standards Council of Canada (SCC) to participate in the development of the International Organization for Standardization (ISO)'s project management standard which has been released in September 2012 as ISO 21500 for project management and served as the final draft reviewer and contributor to the PMBOK® Fifth Edition released by PMI in 2013, both considered by project management professionals worldwide as globally and internationally accepted project management standards. The PMBOK Fifth Edition is being used as the basic document upon which the current PMP Exam is based. In addition, Dr. Nghi Nguyen also served as final Draft Reviewer and Contributor to the upcoming PMBOK® Sixth Edition anticipated to be released by PMI in 2017.

