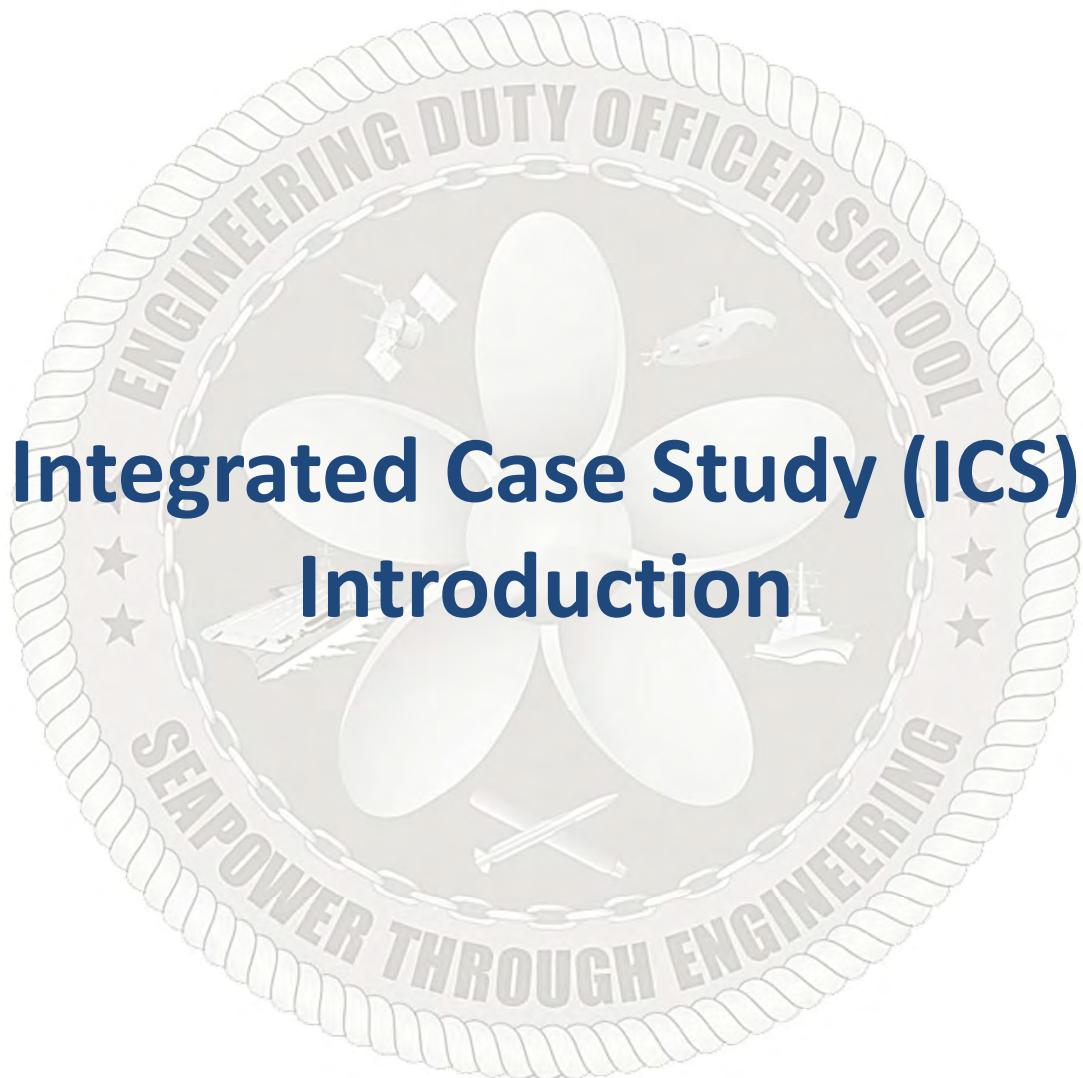




SEAPOWER THROUGH ENGINEERING



3.8.1

TOPIC LEARNING OBJECTIVES	STUDENT PREPARATION
<p>Upon successful completion of this topic, the student will be able to:</p> <ol style="list-style-type: none">1. Identify the framework and requirements of the EDO School Integrated Case Study (ICS) and Program Office team assignments.2. Identify the case study modules and presentations required throughout the course.3. Identify the ground rules used in conducting the ICS.4. Understand the basis for grading and evaluation of the ICS presentations.5. Understand the time requirements needed to complete the ICS exercise both inside and outside of the classroom.6. Understand the need for and develop a team charter.7. Apply key principles associated with establishing and maintaining effective teams including: team charters, operating agreements, team organizational roles and responsibilities, success factors and behavioral skills necessary for successfully leading and participating in Integrated Product Teams (IPTs).8. While functioning as the leader for your ICS Team, use IPT leadership concepts to overcome barriers to effective teamwork.9. Identify the program stakeholders for the ICS.10. Identify the reporting chain(s) of command for a program office.11. Apply key principles of SYSCOM/PEO organization, funding, requirements, and technical authority to the ICS.	<p>Student Support Material</p> <ol style="list-style-type: none">1. ICS Student Reference Files2. ICS Grading Rubric <p>Primary References</p> <ol style="list-style-type: none">1. DoD 5000 Series2. SECNAVINST 5000.2 Series3. ACQ 20204. ACQ 20305. PMT 2570 <p>Additional References</p> <ol style="list-style-type: none">1. None



Overview

- Framework
- Presentations
- Team Dynamics

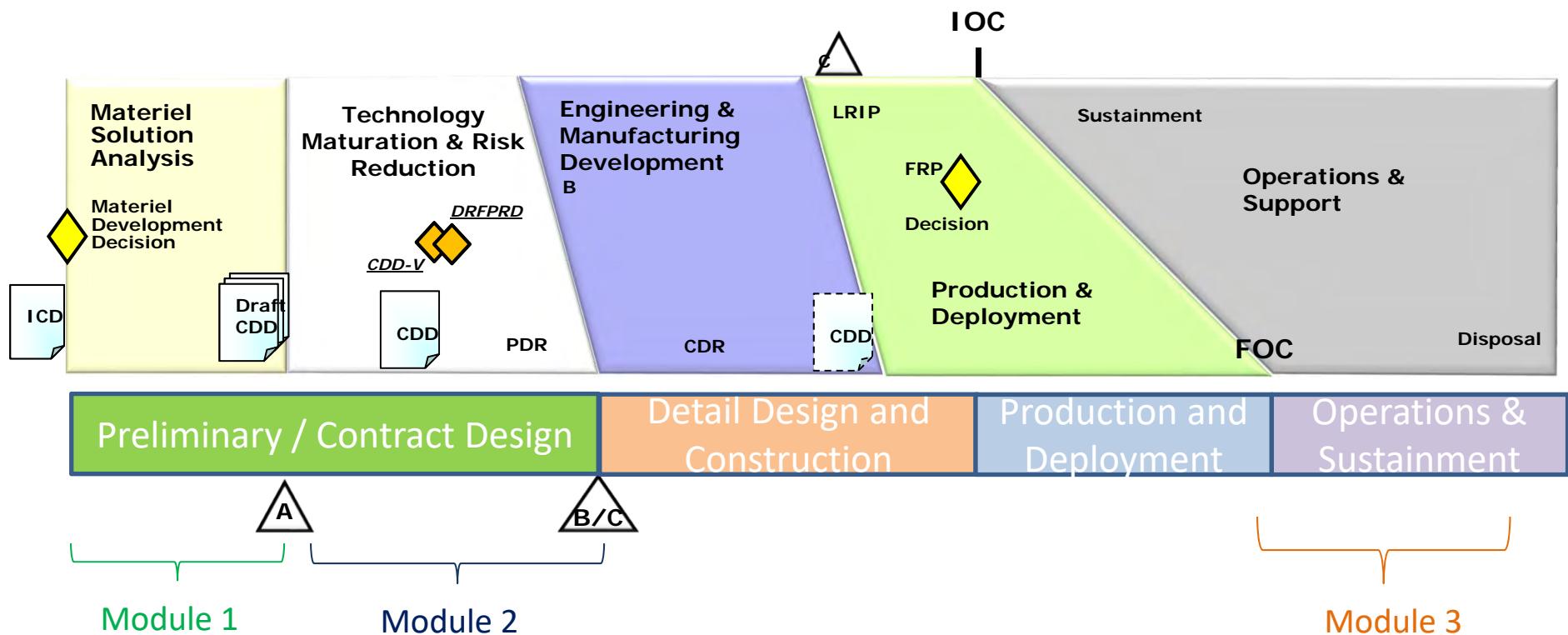


Operational Need

- CNO Directive:
 - *"Delivering a Navy ready to control the seas and project power across all domains now and into the future requires us to balance current operational demands, the urgent need for modernization, and the imperative for future readiness. Fiscal challenges are not new, however, the scale of the threat and the explosive rate of technological change we face is new and must be taken into account in all phases of the life-cycle of our platforms."*
- Current and future naval threats are expected to continue
- **A gap exists as a result of the aging Fleet and the need to maintain U.S. maritime superiority**
 - Decommissioning of FFG, MCM, and LCS classes
 - Increasing cost of DDG



Acquisition and Design Process



Small Surface Combatant Program Office (PMS-1440) has been tasked to deliver a new multi-mission surface platform



Framework

- Exercise is divided into three modules:
 - Module 1 – Preliminary and Contract Design (M/S A)
 - 20 slides or less
 - 20 minutes to brief
 - Module 2 – Detailed Design and Construction (M/S B/C)
 - 20 slides or less
 - 20 minutes to brief
 - Module 3 – Operations and Sustainment (Availability Planning)
 - 20 slides or less
 - 20 minutes to brief



ICS Modules

- Team charter required prior to starting Module 1
- Module 1 – Preliminary and Contract Design (M/S A)
 - Required artifacts:
 - Acquisition Strategy (schedule)
 - Contracting strategy
 - Test strategy
 - Logistics concept of operations
 - Risk assessment (identification & analysis)
 - Brief to MDA for entry into Preliminary Contract Design phase
 - **This is a decision brief**
- Module 2 – Detailed Design and Construction (M/S B/C)
 - Provide updated Program Plan from Module 1 with explanations for any changes
 - Refine/update Risk Assessment and Handling
 - Analyze white paper
 - Brief to MDA on C4I modernization and entry into Detailed Design and Construction
 - **This is a decision brief**



ICS Modules

- Module 3 - Operations and Sustainment Phase (Availability Planning)
 - Perform schedule analysis on CNO availability
 - Develop repair strategy for emergent repair
 - Analyze Ship Sheet and Ship Change Document (SCD)
 - Review Regional Maintenance Center (RMC) port loading chart
 - Identify courses of action (COAs) and risk
 - Brief Port Hueneme RMC CO on COAs to support Fleet
 - **This is a decision brief**



Support Material

- Modules in the Google Classroom
 - Module 1: CDD, templates
 - Module 2: White paper for C4I Modernization
 - Module 3: PHRMC Contracts Memo and enclosures, Email Chain and Schedule Analysis Tool, PHRMC Waterfront Operations BDAR Email, SSC-2 Casualty Report (CASREP), PHRMC port loading, SURFPAC Memo, Ship Change Document (SCD) 23596 I-Stalker, SSC-3 Ship Sheet
- Class notes and lectures
- Grading rubrics
- **XO and Course Directors** – Do not hesitate to ask questions



Overview

- Framework
- Presentations
- Team Dynamics



Ground Rules

- Students will be broken into teams
 - Team Roles and Responsibilities:
 - Program Manager (PM)
 - Deputy Program Manager (DPM)
 - Technical Director (TD)
 - Systems Engineer (SE)
 - Business Financial Manager (BFM)
 - Product Support Manager (PSM)
 - Test and Evaluation Engineer (T&E)
 - Teams are assigned to work on presentations with consulting assistance from EDO school teaching staff, but will operate as a real-life IPT
 - PM and DPM (Project Officer and PHRMC BFM for Module 3) will brief and field questions at the decision brief
 - PM and DPM positions will be rotated to different students for each module
 - Each of you is an integral part of the team
 - Each of you must know about the other portions of the program (not just your own)
- Modules 1 & 2**
- Module 3**
- Project Officer – SSC Availability
 - PHRMC PM
 - Contractor PM
 - Contractor DPM
 - SURFPAC Maritime Operations (TYCOM Scheduling)
 - PHRMC Administrative Contracting Officer (ACO)
 - SSC Program Manager Representative (PMR)



Ground Rules

- Module 3 Team composition will remain the same, but roles and responsibilities will be adjusted to support the scenario
- All modules culminate with a decision brief. The intent is to have:
 - Collaborative dialogue on product
 - Suggestions and feedback from staff and students
 - All students present at least one decision brief
- Fill out (and use) an IPT charter
- Some class time will be provided to work on modules, identified as Independent ICS time on your calendar
- **Expect effort outside of class including evenings and weekends**



Grading

- Each presenter will be assessed for their presentation techniques during the Review
 - **10% of your final grade** is based on how well **you** present the content
 - Each presenter is required to **brief a minimum of 5 slides (not including title slide)**
 - How the remainder of the slides is split up is up to your team
 - MDA and Staff will hold all questions to the end of the presentation, and this will not count toward presentation time – but will impact your presentation score
 - Questions related to a particular slide shall be answered by the person presenting the slide
- The content of each brief will be assessed and applied to every member of the team
 - **30% of your final grade** will be based on how well the **brief content** supports your program and the decision being presented
 - Content of each module is 10% of final grade
 - This will be assessed by comparing what's in your brief to what was presented to you during classroom instruction throughout the course

*Everyone on the IPT is impacted by content in the brief;
Each briefer is impacted by how well the information is conveyed*



Advice from Previous Classes

- Start working the problem early
- Don't over think it – stick to the grading rubric
- Practice your brief, especially slides that you did not prepare
- The charter is weirdly more important than you think. It's the first deliverable, and the way that your team approaches and handles it together (or not) sets the tone for the rest of ICS
- Ask questions of the instructors if you don't understand something



Overview

- Framework
- Presentations
- Team Dynamics



Getting Started - Team Charter

- Purpose
 - What is the team's mission?
- Goals and objectives
 - What are the team goals?
 - What are the goals of the individual team members?
- Team success factors
 - Example: Team satisfaction, increased productivity
 - How are we measuring our success?
- Membership
- Authority and boundaries
- Roles and responsibilities
 - Who are the members of the team?
 - What are they responsible for?
 - Am I empowered to speak for the team?
- Ground rules (examples)
 - No meetings w/o agendas
 - All actions closed within one week of meeting
 - Time and frequency of meetings
- Decision making procedures
 - What decisions can the group make on their own? When does the boss need to be involved?
 - Example: Schedule adjustments affecting external customers
- End products/deliverables
 - Provided as part of ICS
- Plan of Action and Milestones (POA&M)



Team Charter Examples

- Example success factors:
 - Purpose
 - Direction
 - Leadership
 - Communications
 - Empowerment
 - Awareness
 - Stakeholder relations
 - Resources
 - Self-assessment
 - Team size
 - Collocation
- Example operating agreements:
 - Consistent, success-oriented, proactive participation
 - Issues raised and resolved early
 - Reasoned disagreement
 - Open discussions with no secrets
 - Be patient with other members
 - Appreciate the other's viewpoints
 - Say what you think – politely
 - Only one should talk at a time
 - Give freely of your experience but don't dominate
 - Confine discussions to the subject matter at hand
 - Qualified, empowered team members
 - Continuous "up-the-line" communications



Team Assignment: Team Charter

- Each team will generate a team charter
 - **Charters are due on Monday at 1800 (assigned in Google Classroom)**
 - Template is in Google Classroom
- Put together a POA&M as part of team charter to include, at a minimum:
 - When will the team meet?
 - How long will the meeting last?
 - What is the goal for each meeting?
 - Who will be the PM/DPM/support roles for each module?
 - **All roles should be rotated for each module**
- Final Presentation:
 - All students will serve as the presenter for at least one module (PM/DPM/Project Officer)
 - Brief will be to the MDA and staff (minimum of 3 instructors will play the roles)



SEAPOWER THROUGH ENGINEERING



3.8.2

TOPIC LEARNING OBJECTIVES	STUDENT PREPARATION
<p>Upon successful completion of this topic, the student will be able to:</p> <ol style="list-style-type: none">1. Demonstrate effective presentation techniques in a mock briefing for a Milestone A Decision. The presentation shall convey an understanding of the interrelationships of acquisition strategy (including the timing of major activities on a schedule), contracting strategy (including contractor's financial motivations), logistics concept of operations, trade-off analysis that considers affordability manufacturing, life-cycle costs and support concepts (including environmental issues), cost estimation, and a risk assessment.2. Given a Capabilities Development Document (CDD) select an appropriate acquisition concept, from the perspective of the system developer, to meet the user's needs/requirements.3. Apply current acquisition policy and best practices to make sound acquisition management decisions.4. Apply the risk management process as a basis for making sound acquisition program decisions.5. Apply qualitative and quantitative tools to support problem solving and decision making in an acquisition environment.6. Apply the systems engineering process to transform capability needs and constraints into an operational system design for each phase.7. Determine the role of contracting in the acquisition process and the major contractual contributions toward managing program risk.8. Determine the life-cycle logistic support activities and requirements associated with design/development, fielding/deployment and post-production support of a system.	<p>Student Support Material</p> <ol style="list-style-type: none">1. ICS Student Reference Material <p>Primary References</p> <ol style="list-style-type: none">1. DoD and SECNAV 5000 Series2. ASN(RDA) website - http://www.secnav.navy.mil/rda3. Defense Acquisition Guidebook - https://www.dau.edu/tools/dag4. ACQ 20205. ACQ 20306. PMT 25707. Classroom Lectures <p>Additional References</p> <ol style="list-style-type: none">1. None

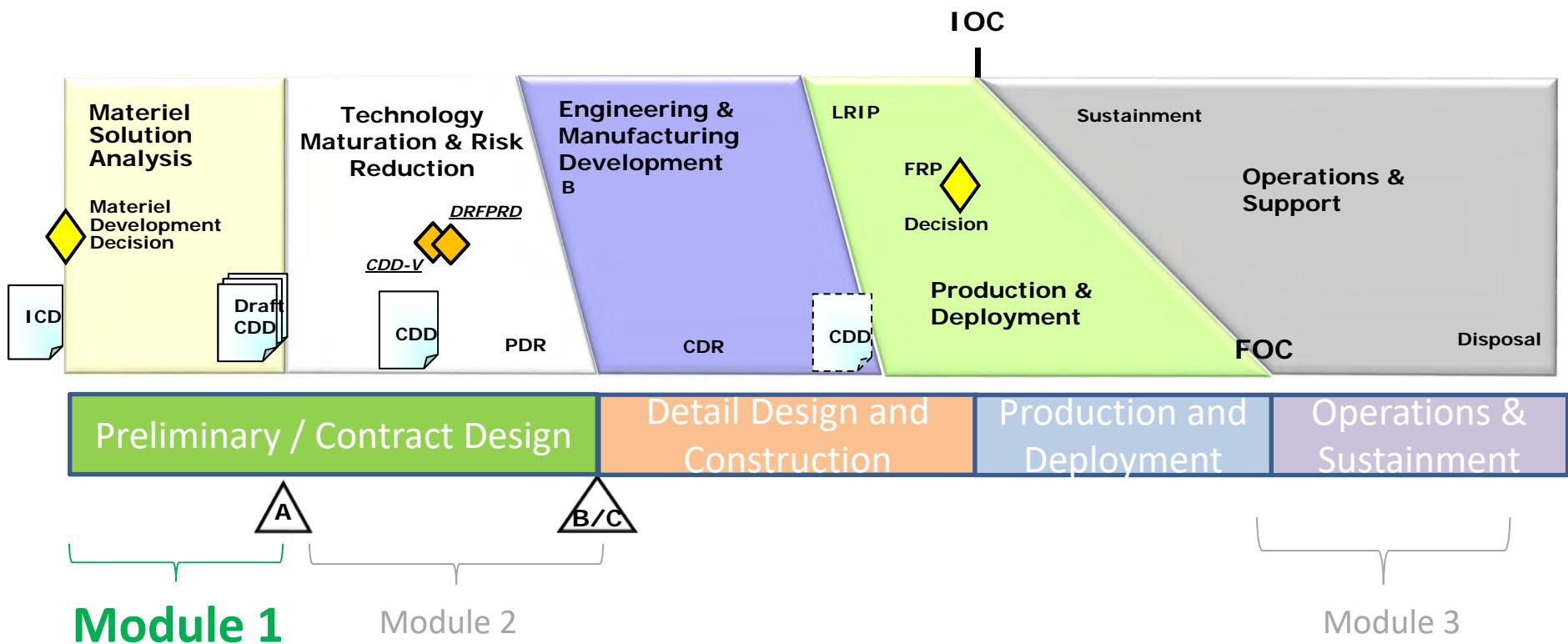


Overview

- Background
- Deliverables
- Considerations
- Expectations



Acquisition and Design Process





Framework

- Exercise is divided into three modules:
 - **Module 1 – Preliminary and Contract Design (M/S A)**
 - 20 slides or less
 - 20 minutes to brief
 - Module 2 – Detailed Design and Construction (M/S B/C)
 - 20 slides or less
 - 20 minutes to brief
 - Module 3 –Operations and Sustainment (Fleet Availability Planning)
 - 20 slides or less
 - 20 minutes to brief



Background

- The Small Ship Combatant (SSC) program is currently pre-Milestone A
- Through the JCIDS process, the draft CDD has been developed
- Your team, simulating a Program Office, is directed to prepare for a M/S A decision
 - You must draft acquisition, contracting, and testing strategies, as well as provide a recommended logistics concept of operations



Overview

- Background
- Deliverables
- Considerations
- Expectations



Module 1 Deliverables

- Program Plan
 - Acquisition Strategy (program structure/schedule)
 - Contracting strategy
 - Test strategy
 - Systems Engineering Plan
 - Logistics Concept of Operations (CONOPS)
 - Initial budget
 - Risk assessment (identification & analysis)



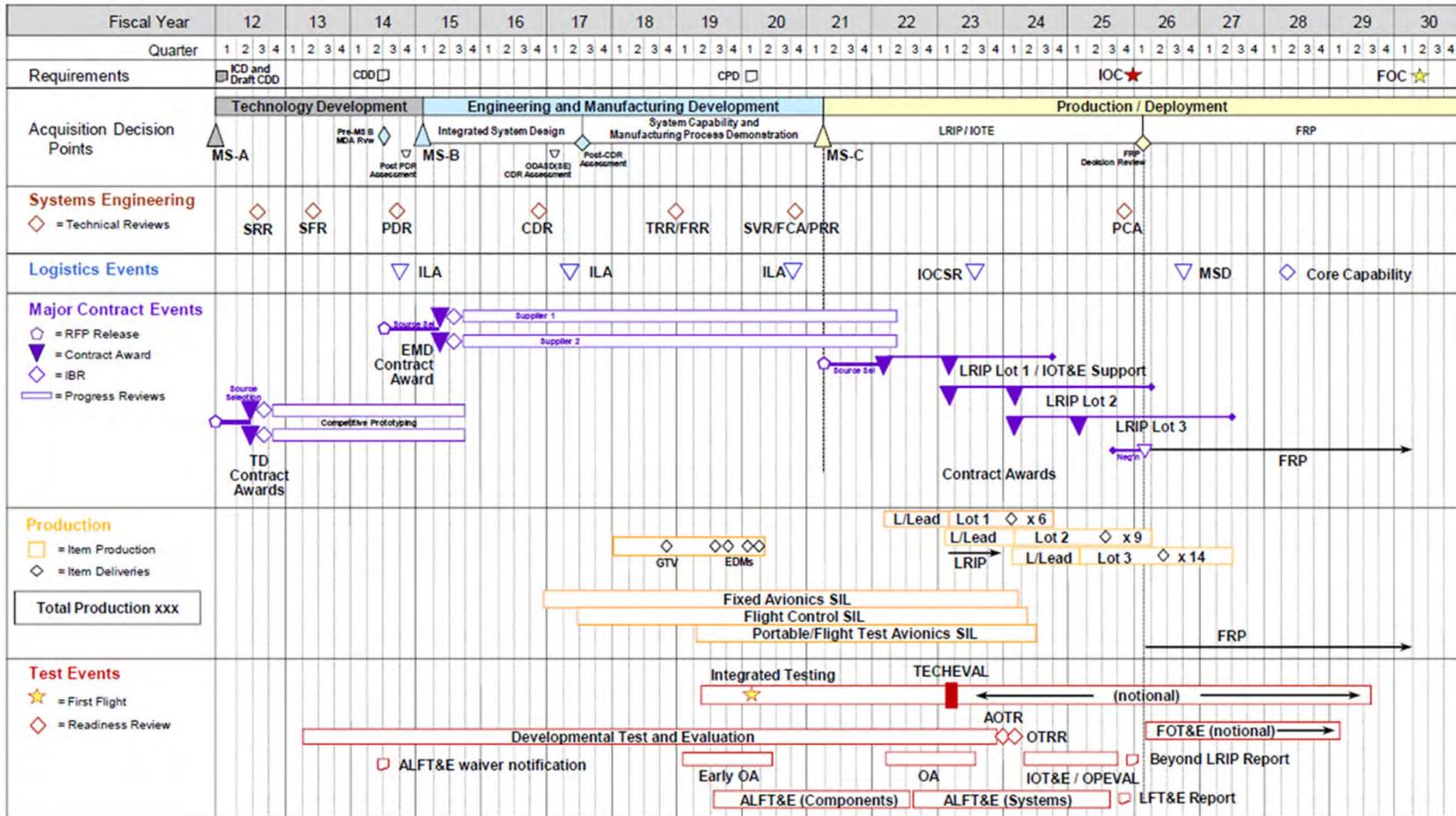
Acquisition Strategy

- Big picture plan for program
 - ☞ Use the next few slides and slides from your presentations to build your strategy
- Major program milestones
 - i.e., M/S reviews, design reviews, IOC, deliverables, etc.
- Consider decision points and fallback plans
 - Don't assume everything will work perfectly
 - Examples provided just to give you ideas. Build yours based on your team's decisions and plan
- Outline configuration baseline development and technical reviews
 - Systems Engineering process
- Mitigating program risk via contracting strategy

Outlines everything your program plans to accomplish through disposal

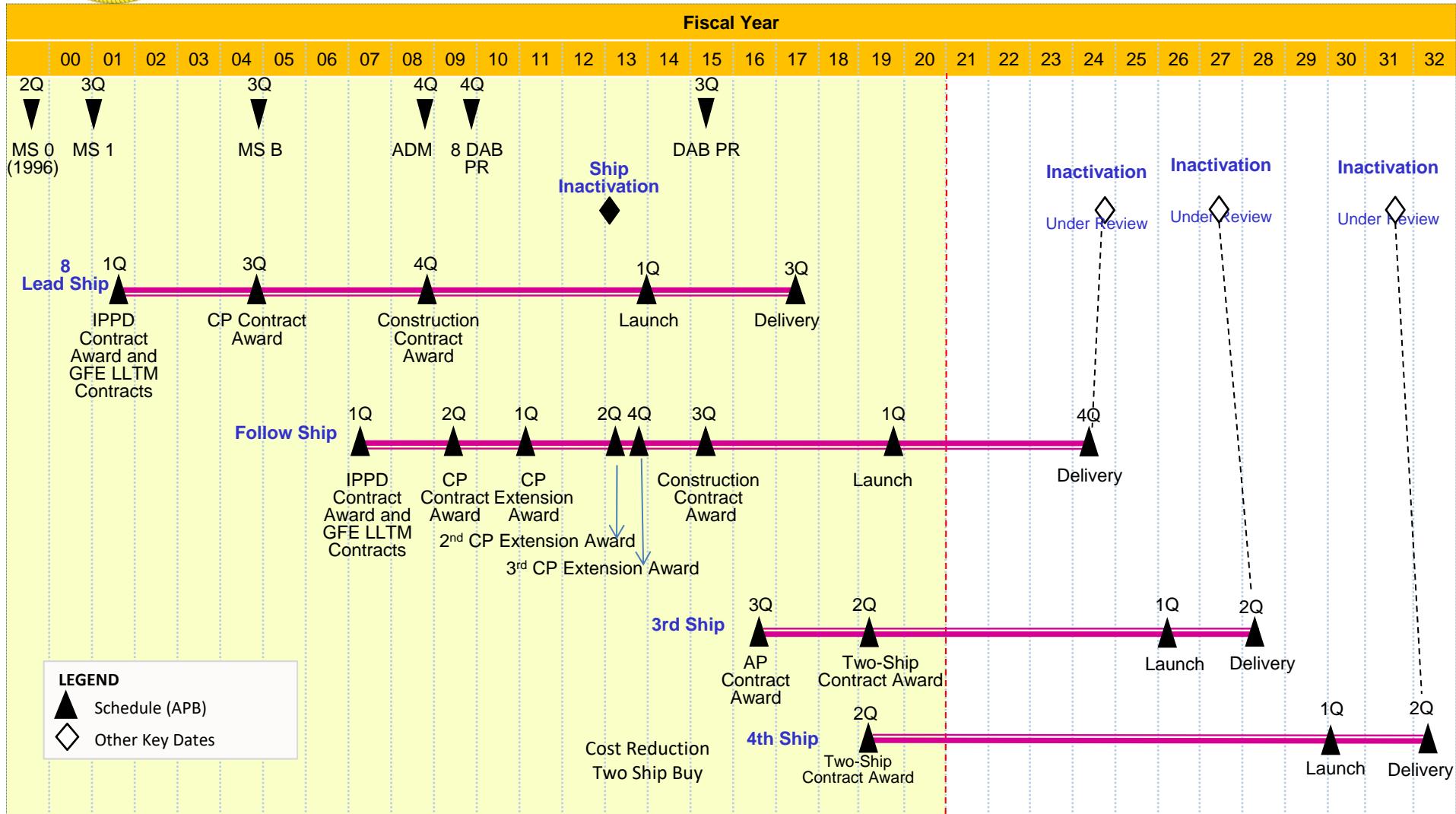


Sample Schedule for a Major Acquisition Program





Sample Ship Program Planning Schedule





Sample FFG(X) Schedule

PB 21

	FY18				FY19				FY20				FY21				FY22				FY23				FY24				FY25				FY26				FY27				FY28			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Requirements	R&B/Gate Review				R&B																																							
	CNO approves Draft CDD	CDD enters staffing	Navy Joint staff	CDD Approval																																								
Acquisition Milestones	Industry Day R/C on System Spec				Gate 4 PTR Gate 5	M5 B: 23660 Cert			Gate 6				Gate 6/CSS			Gate 6/CSS			Gate 6/CSS																									
	Design Progress Review w/ each CTR				AS signed	Design Maturity Review w/ each CTR	CCP	ILA					ICE																															
Contracting	CD Award	Conceptual Design Contract	Draft RFP Release	Proposals received and Source Selection	Contract Award																																							
	CD RFP	DD&C Contract Development			DD&C Stan																																							
Production					FFG (X) Award								Start Fab			Start Fab			Start Fab			Start Fab			Start Fab			Start Fab			Start Fab			Start Fab			Start Fab							
	FCS Updated System Specification	FCS Delta SRR			FFG (X) 2 Award								FFG (X) 3 Award			FFG (X) 4 Award			FFG (X) 5 Award			FFG (X) 6 Award			FFG (X) 7 Award			FFG (X) 8 Award			FFG (X) 9 Award			FFG (X) 10 Award										
Warfare Systems Frigate Combat System					IPR 3	IPR 4			IPR 5	IPR 6	IPR 7			IPR 8			IPR 9			IPR 10			IPR 11			FCS TRR	SQT																	
Testing	Updated GR1	Final GR1							CTT-2				Early Operational Assessment			CTT-3											TEMP Update																	
	Test and Evaluation Master Plan (ITEMP) Development	Land-based SIM/STM Testing/Early Integration Risk Reduction Test	CTT-1																																									
Integration & Test																																												

Acronyms

- AS: Acquisition Strategy
- CDR: Critical Design Review
- CD: Conceptual Design
- CDD: Capability Development Document
- DDSAR: Detailed Design Survivability Assessment Report
- CCP: Component Cost Position
- CDR: Critical Design Review
- CTT: Cyber Table Top
- DD&C: Detail Design & Construction
- FCS: Frigate Combat System
- GFI: Government Furnished Information
- ICE: Independent Cost Estimate
- ILA: Integrated Logistic Assessment
- IPR: Integrated Product Review
- MDA: Milestone Decision Authority
- M5 B: Milestone B
- RFP: Request for Proposal
- PRR: Production Readiness Review
- PTR: Program Technical Review
- SIM/STM: Simulation/STM
- SQT: Software Qualification Testing
- SW: Software
- SRR: Systems Requirements Review
- TRR: Test Readiness Review
- TSST: Total Ship Survivability Trial
- CSS: Configuration Steering Board
- IOC: Initial Operational Capability
- Q4FY29: IOC: Q4FY29

Milestones



Contracting Strategy

- Major contracting milestones
 - i.e., RFP, Award, etc.
- Things to consider:
 - Competition strategy
 - Should you compete the contract?
 - Is sole source better/faster/cheaper?
 - Do you need one contract or more?
 - Award schedules
 - Contract type(s)
 - Contractor incentives
 - Cost, schedule, performance
 - Quality (production)
 - Competition plan
 - Effect on program risk for each contract type and incentive



Test Strategy

- Major testing events
 - i.e., DT&E, OT&E, LFT&E, Construction Trials, etc.

- Things to consider:
 - What tests do you need to complete?
 - Types of testing
 - Statutes
 - Where do the tests fit in your acquisition strategy?
 - Alignment with reviews and contracting
 - Who are the test events for?
 - Why are you doing the testing when you are?
 - Are there any opportunities for combined DT/OT?
 - Risks



System Engineering Plan

- Major reviews and assessments
 - i.e., SRR, PDR, CDR, FCA

- Things to consider:
 - Key technical reviews
 - Key assessments/audits
 - Alignment of reviews/testing
 - Entrance/Exit criteria
 - Risks



Logistics Concept of Operations

- Develop and recommend a logistics CONOPS for the SSC
- Your CONOPS should consider the 12 logistical elements from topic 3.5.4
 - How and where will the ships be maintained and supported? Who will do the maintenance? Why?
 - Your presentation should include mitigation strategies for the highest risk logistical elements
 - Consider the Performance Based Logistics (PBL) strategy and any arrangements with public and/or commercial entities



Risk Assessment

- Risk Identification
 - Utilize program risks (cost, schedule, performance) to justify your recommendations from the Analysis of Alternatives
- Risk Analysis
 - Develop and present assessment criteria for high/medium/low risks in terms of cost, schedule, and performance
 - Based on technical performance data, assess risks in accordance with criteria established
- Apply Risk Handling approaches
 - Control, Accept, Avoid, Transfer (CAAT)

Present risk analysis matrix and risk criteria



ICS Risk Register

Risk ID	Name	Strategy	Risk Area	Risk Owner	Current Risk	Mitigated Risk
001	Link 16 increment 2: MIDS J BC2 Software Update in time for installation	Control	S	Link 16 APM	10.0	2.0
002	Link 16 Network: MOS HPA Switch integration	Accepted / Mitigate	C	Link 16 APM	8.0	4.0
003		Transfer	P			
004						
005						
006						
007						



ICE Risk Template

Program: Link 16 Network MIDS on Ship (MOS) High Power Amplifier (HPA) Switch

Status: Accepted/ Mitigate

Exp: 8.0 **Source:** Cost

Impact Date: Jul 31, 2023

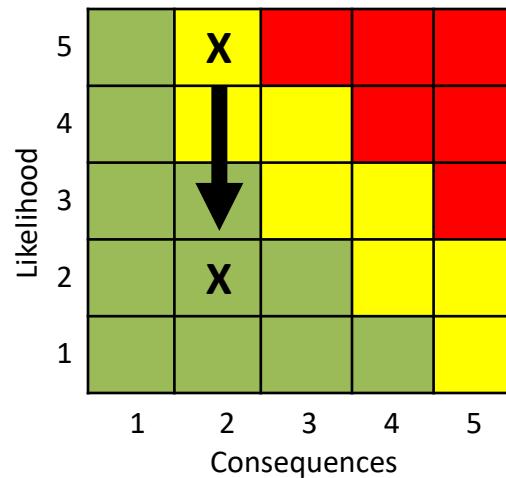
Risk owner: Link 16 APM

Description of Risk:

IF the current MOS HPA bypass switch is not successfully developed and integrated into the MOS system to bypass high power operations in Frequency Remapped mode by 31 March 2023.

THEN there will be added development required to either the High Powered Amplifier or the MIDS LVT terminal with additional cost to change the design of the current HPA switch.

Step	Mitigation	Result Exp
1	Develop and build 2 HPA switches for testing	10.0
2	Conduct Functional test of switches	10.0
3	Complete EMI/Environmental/Shock Analysis	4.0
4	Complete Business Case Analysis	4.0





Overview

- Background
- Deliverables
- Considerations
- Expectations



Considerations

- Must convince the MDA your team is ready to proceed to the next phase of the program:
 - Do not assume your MDA recalls everything about your program
 - A firm grasp of the overall program (acquisition, contracting, and logistics) plan
 - A good understanding of the risks to the program
 - Applied the Systems Engineering process considering alternate approaches based on affordability, schedule, and technical considerations



Preparations

- Expect to spend time outside normal class hours to fully develop your milestone brief
- You will need to be creative (but practical) to fill in the gaps for information that is not included with each module
 - **Clearly state your assumptions to justify your creativity**
 - Use the things you've learned in your URL time to help fill in the gaps
 - Use the information in the lectures to fill in other areas
 - Ask the Course Directors for **general guidance**
- Develop 20-slide or less presentation
 - Utilize 5.1.4 – Presentation Techniques as a guide
 - **Be clear and concise**
- **Deliverables**
 - Brief turned in (via Google Classroom) **NLT 1800 day prior** to presentation



Overview

- Background
- Deliverables
- Considerations
- Expectations



Expectations

- Your briefing time with the MDA is limited to **20 minutes**
 - The PM and Deputy PM will each need to present a **minimum of 5 slides with a time limit of 10 minutes**
 - Provide a thorough but concise review of your program!
 - **Practice, practice, practice**
 - Only the briefers can brief and field questions
 - Remember these positions will be rotated for each module
 - There are no lifelines; it is **ok** to leave the brief with look ups
- The MDA and staff will ask questions. The intent is to help the team refine your thinking, planning, and understanding of the material
 - **Don't take it personally!**



SEAPOWER THROUGH ENGINEERING



3.8.3

TOPIC LEARNING OBJECTIVES	STUDENT PREPARATION
<p>Upon successful completion of this topic, the student will be able to:</p> <ol style="list-style-type: none">1. Demonstrate effective presentation techniques in a mock briefing for a Milestone B/C Decision and program modernization plan. The presentation shall include an updated acquisition strategy, contracting strategy , logistics concept of operations, trade-off analysis that considers affordability manufacturing, life-cycle costs and support concepts (including environmental issues), cost estimation, and a risk assessment.2. Given program information and new requirements, identify impacts and select an appropriate concept, from the perspective of the system developer, to meet the user's need.3. Analyze the impact of supportability issues on system readiness/performance and other functional areas, e.g., contracts, finance, systems engineering and acquisition logistics.4. Synthesize/Evaluate several approaches to solving a program supportability issue/problem (to include any obsolescence).5. Recommend the best approach to solving a program supportability issue/problem (to include any obsolescence).	<p>Student Support Material</p> <ol style="list-style-type: none">1. ICS Student Reference Material <p>Primary References</p> <ol style="list-style-type: none">1. DoD and SECNAV 5000 Series2. ASN(RDA) website - http://www.secnav.navy.mil/rda3. Defense Acquisition Guidebook - https://www.dau.edu/tools/dag4. OPNAVINST 3000.12 (series), Operational Availability Handbook5. ACQ 20206. ACQ 20307. PMT 25708. Classroom Lectures <p>Additional References</p> <ol style="list-style-type: none">1. None

TOPIC LEARNING OBJECTIVES	STUDENT PREPARATION
<p>Upon successful completion of this topic, the student will be able to:</p> <ol style="list-style-type: none">6. Identify the proper DoD Appropriation Category to be used to budget for each of the three phases of a Product Improvement Program.7. Assess the impact of the failure to execute funds in accordance with program plans.8. Explain how configuration management impacts all functional disciplines (e.g., test, logistics, manufacturing, etc.).9. Demonstrate the interrelationship between selected functional areas, e.g., contracting, finance, systems engineering, and life-cycle logistics.10. Identify tools/best practices/techniques available in the Systems Engineering process to achieve the principal goals of supportability analyses.11. Apply performance based metrics to a program supportability problem (e.g., obsolescence).12. Apply performance or outcome based logistics principles to solving a program obsolescence issue.13. Given Contractor cost and schedule data and guidance, use cost estimating techniques (e.g., Earned Value Management (EVM)) to develop a detailed cost estimate.	<p>Student Support Material</p> <ol style="list-style-type: none">1. ICS Student Reference Material <p>Primary References</p> <ol style="list-style-type: none">1. DoD and SECNAV 5000 Series2. ASN(RDA) website - http://www.secnav.navy.mil/rda3. Defense Acquisition Guidebook - https://www.dau.edu/tools/dag4. OPNAVINST 3000.12 (series), Operational Availability Handbook5. ACQ 20206. ACQ 20307. PMT 25708. Classroom Lectures <p>Additional References</p> <ol style="list-style-type: none">1. None

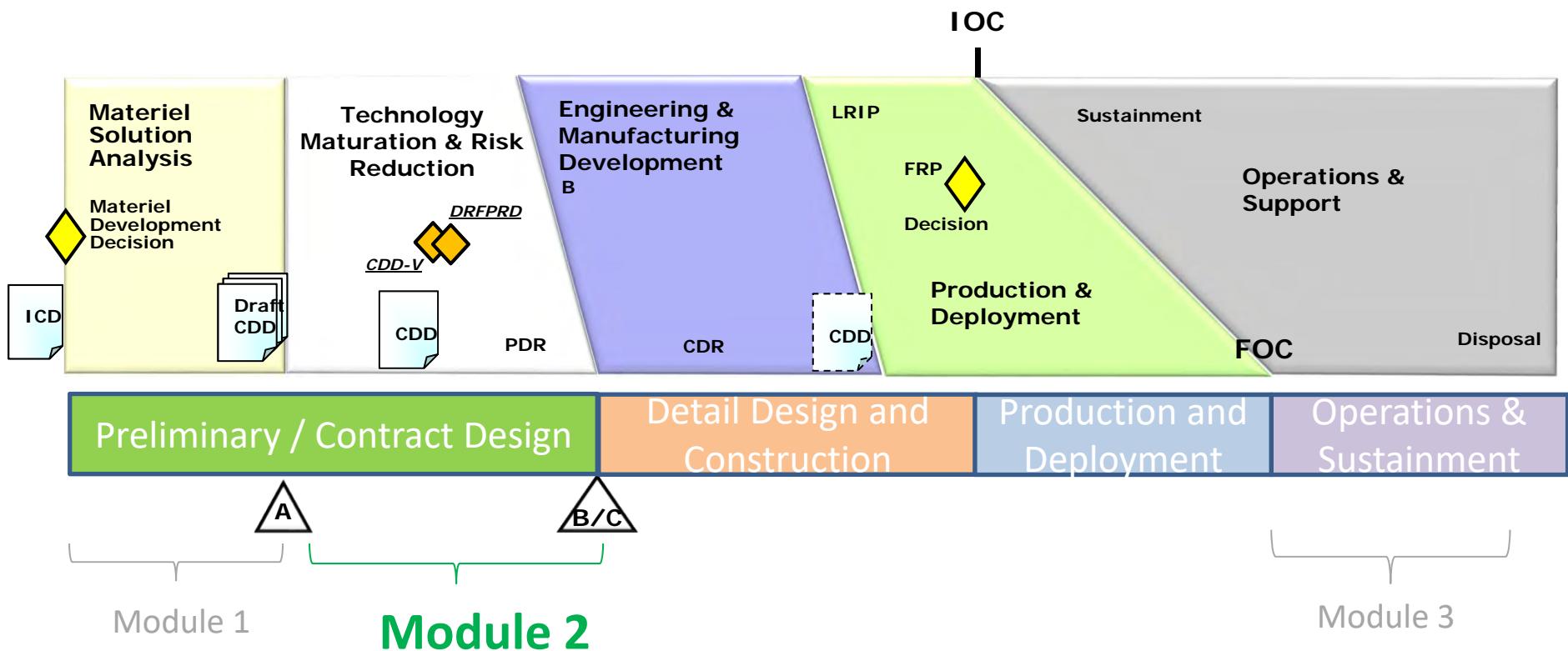


Overview

- Background
- Deliverables



Acquisition and Design Process





Framework

- Exercise is divided into three modules:
 - Module 1 – Preliminary and Contract Design (M/S A)
 - 20 slides or less
 - 20 minutes to brief
 - **Module 2 – Detailed Design and Construction (M/S B/C)**
 - **20 slides or less**
 - **20 minutes to brief**
 - Module 3 –Operations and Sustainment (Availability Planning)
 - 20 slides or less
 - 20 minutes to brief



Team Roles

- Team Roles and Responsibilities:
 - Program Manager (PM)
 - Deputy Program Manager (DPM)
 - Technical Director (TD)
 - Systems Engineer (SE)
 - Business Financial Manager (BFM)
 - Product Support Manager (PSM)
 - Test and Evaluation Engineer (T&E)



Background

- The Small Ship Combatant (SSC) program is currently post-Milestone A
- After Milestone A, the program awarded a CPIF preliminary design contract, duration 24 months, with target price \$20M
- PEO C4I has released a whitepaper outlining concerns with legacy C4I systems
- Your team is directed to prepare for a Milestone B/C decision for entrance into Detail Design and Construction (DD&C) as well as address the C4I whitepaper



Guidance

- Provide Milestone B/C Decision Brief to the MDA to include summary of program accomplishment that support moving to Detailed Design and Construction (DD&C)
 - Address the PEO C4I white paper outlining concerns with current C4I systems on the SSC
 - Identify possible alternatives
 - Provide recommended option and explain why
 - Analyze the selected alternative with respect to:
 - Funding (see Product Improvement Funding Decision Tree (3.1.3 Program Funding))
 - Contracting
 - Configuration Management
 - Test and Evaluation
 - Supportability
 - Manufacturing
 - Provide updated Program Plan from Module 1
 - Identify changes from Module 1 (including MDA interest items)
 - Refine Risk Assessment and Handling
 - Show CAAT mitigation strategy, burndown, and defend assumptions





Overview

- Background
- Deliverables



Module 2 Deliverables

- Program Plan
 - Acquisition Strategy
 - Consider decision points and fallback plans
 - Appropriate sequence of DT and OT events
 - Capture all key test events required for Full Rate Production Decision
 - Contracting strategy
 - Test strategy
 - Logistics Concept of Operations
 - Utilize cost estimating techniques (EVM) to analyze Contractor performance and provide updated cost estimate for design contract
- Updated risk matrix including burndown to include schedule of risk mitigation
- Modernization way forward
- Brief turned in (via Google Classroom) **NLT 1800 day prior** to presentation



SEAPOWER THROUGH ENGINEERING



3.8.4

TOPIC LEARNING OBJECTIVES	STUDENT PREPARATION
<p>Upon successful completion of this topic, the student will be able to:</p> <ol style="list-style-type: none">1. Demonstrate effective presentation techniques in a mock decision brief with a recommendation for modernization to be implemented in an upcoming availability. The presentation shall include analysis of the port loading, ship sheet, and any updates to the program acquisition strategy, contracting strategy, test plan, logistics concept of operations, trade-off analysis (that considers performance, reliability, manufacturing, life-cycle costs and support concepts, and cost estimation), and risk mitigation plan.2. Apply current maintenance policy and best practices to make sound management decisions.3. Apply the risk management process as a basis for making sound acquisition program decisions.4. Apply qualitative and quantitative tools to support problem solving and decision making in an acquisition environment.5. Given scenario information, prepare an issue paper to document results of issue analysis (i.e., modernization recommendation).6. Determine the role of contracting in the maintenance process and the major contractual contributions toward managing risk.7. Determine the life-cycle logistic support activities and requirements associated with design/development, fielding/deployment and post-production support of a system.8. Given a simulated Contractor's schedule and supporting documentation, analyze them to identify errors.	<p>Student Support Material</p> <ol style="list-style-type: none">1. ICS Student Reference Material <p>Primary References</p> <ol style="list-style-type: none">1. OPNAVINST 4700.72. NAVSEAINST 5450.14 - "Standard Naval Shipyard Organization Manual"3. NAVSEAINST 5450.145 – "Operation of NAVSEA Regional Maintenance Offices"4. NAVSEA SL720-AA-MAN-030, "Navy Modernization Process Management and Operations Manual (NMP MOM)"5. COMFLTFORCOMINST 4790.3 (series) (JFMM – website: https://www.submepp.csd.disa.mil/jfmm/index.htm)6. Classroom Lectures <p>Additional References</p> <ol style="list-style-type: none">1. DoD and SECNAV 5000 Series2. ASN(RDA) website - http://www.secnav.navy.mil/rda3. Defense Acquisition Guidebook - https://www.dau.edu/tools/dag

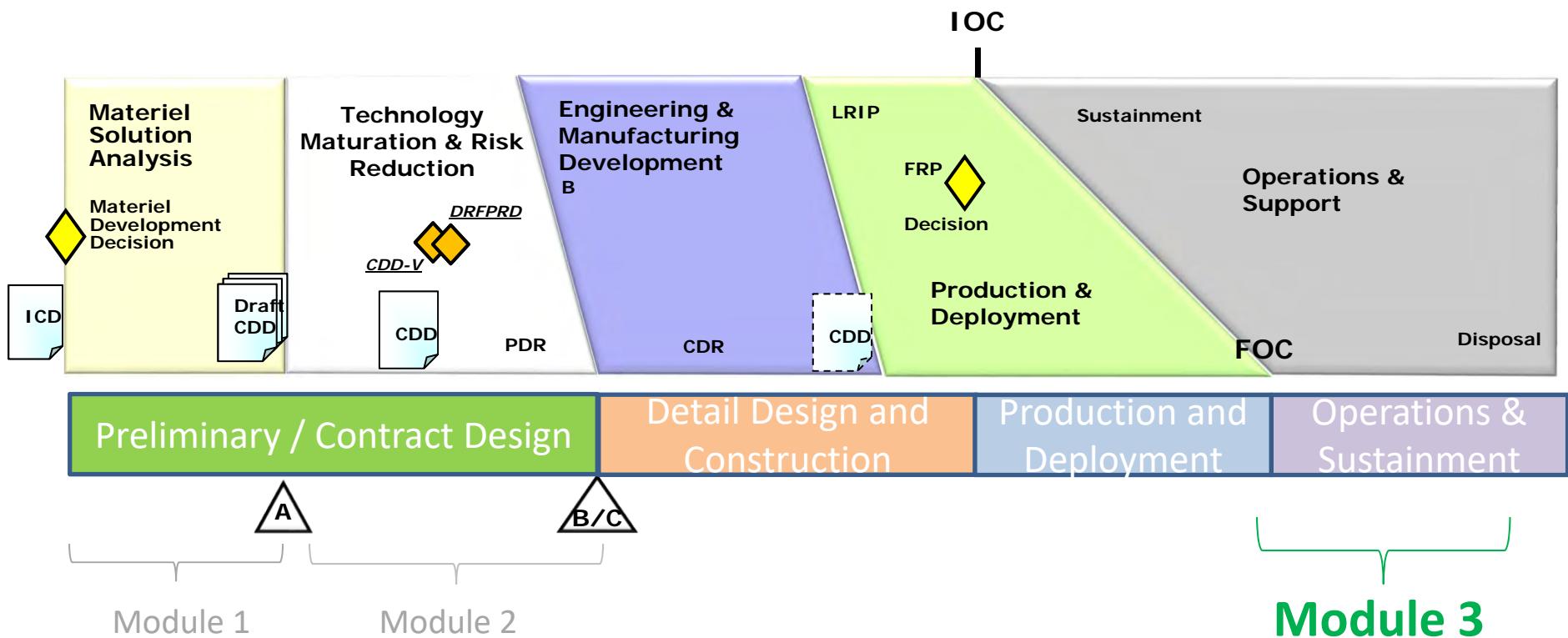


Overview

- Background
- Deliverables



Acquisition and Design Process





Framework

- Exercise is divided into three modules:
 - Module 1 – Preliminary and Contract Design (M/S A)
 - 20 slides or less
 - 20 minutes to brief
 - Module 2 – Detailed Design and Construction (M/S B/C)
 - 20 slides or less
 - 20 minutes to brief
 - **Module 3 – Operations and Sustainment (Availability Planning)**
 - **20 slides or less**
 - **20 minutes to brief**



Guidance

- You are provided:
 - SSC-1: Schedule Analysis
 - PHRMC Contracts Memo
 - Enclosure (1) Gantt Chart
 - Enclosure (2) Project Schedule
 - Enclosure (3) Schedule Notes
 - Email Chain SSC Team Lead and Engineering Branch Head Input
 - Attachment (1) Schedule Analysis Tool
 - SSC-2: Battle Damage Assessment Repair (BDA/R)
 - PHRMC Waterfront Operations BDAR Email
 - SSC-2 Casualty Report (CASREP)
 - PHRMC port loading chart
 - SSC-3: I-Stalker Late-add
 - SURFPAC Memo
 - Ship Change Document (SCD) 23596 I-Stalker
 - SSC-3 Ship Sheet



Guidance

- You are preparing a **decision brief** and **issue paper** for the Port Hueneme Regional Maintenance Center (PHRMC) Commanding Officer
 - Read the provided documents
 - Analyze and update the port loading chart for SSC-2 and SSC-3
 - Address BDAR questions for SSC-2
 - Develop a minimum of two Courses of Action (COAs) on inclusion of late-add for SSC-3
 - Identify the recommended COAs and ensure trade-off analysis or evaluation supports recommendation
- As a separate submission, provide an analysis of the draft Contractor's schedule and related documentation and identify errors or problems



IPT Roles

- Project Officer (PO)*
- PHRMC Project Manager (PM)*
- Contractor Project Manager (PM)
- Contractor Deputy Project Manager (DPM)
- SURFPAC Maritime Operations (TYCOM N3)
- PHRMC Administrative Contracting Officer (ACO)
- Program Manager Representative (PMR)

*Briefing Positions



Overview

- Background
- Deliverables



Deliverables

- Schedule Analysis
 - Analysis of Contractor's schedule identifying errors or problems for SSC-1
 - **Stand alone product, does not have to be briefed**
- ICS Brief and Issue Paper
 - Address BDAR questions for SSC-2
 - At least two COAs for SSC-3 I-Stalker late-add, each discussing or showing:
 - Adjusted port loading chart (impact to port loading, resources and readiness)
 - Alteration installation plan and logistics/supportability
 - Contracting and budget/funding challenges
 - Risk (e.g., cost, schedule, performance)
 - Identify recommended COA for SSC-3
 - Evaluation supports recommended COA
 - Risk mitigation plan for recommended COA
- All deliverables turned in (via Google Classroom) **NLT 1800 day prior** to presentation



Issue Paper Example

Issue Paper

- Provide brief (1-2 sentences) statement of what your issue is
- Provide pertinent background information about the issue
- Provide at least two potential courses of action to resolve your issue

ENR 257 Day # Problem Solving Issue Paper Instructions

Medium Light Tactical Truck (MLTT) Issue Paper

[Date Prepared]

Subj: [Main Topic of Issue Paper]

Issue Statement
Briefly state what the issue is (in other words, what has happened). Attempt to keep to one to two sentences.

Background
Provide more specific information about the issue is, for example, the impact(s) to the project, the issue's importance, and any other necessary background information. Identify the root cause(s) of the issue if known. Attempt to keep to four to eight lines (bulletized format is preferred; paragraph format is acceptable).

Alternatives
Identify at least three (but not more than five) potential alternative course of action, and provide pros and cons of each. Generally a bulletized format is best for presenting the alternatives.

- [Alternative #1]
- [Alternative #2]
- [Alternative #3]