



Acquisition Research Program: Creating Synergy for Informed Change

Satisfying Requirements While Achieving Life-Cycle Cost Goals

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Report Documentation Page

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“Satisfying Requirements While Achieving Life-Cycle Cost Goals”

- Panelists:
- Mr. Lou Kratz, Lockheed Martin Corporation
 - “Achieving Life Cycle Capability”
- Mr. William Lucyshyn, University of Maryland
 - “Acquisition of Mine-Resistant, Ambush-Protected (MRAP) Vehicles: A Case Study”
- Mr. J. David Patterson, University of Tennessee
 - Discussant



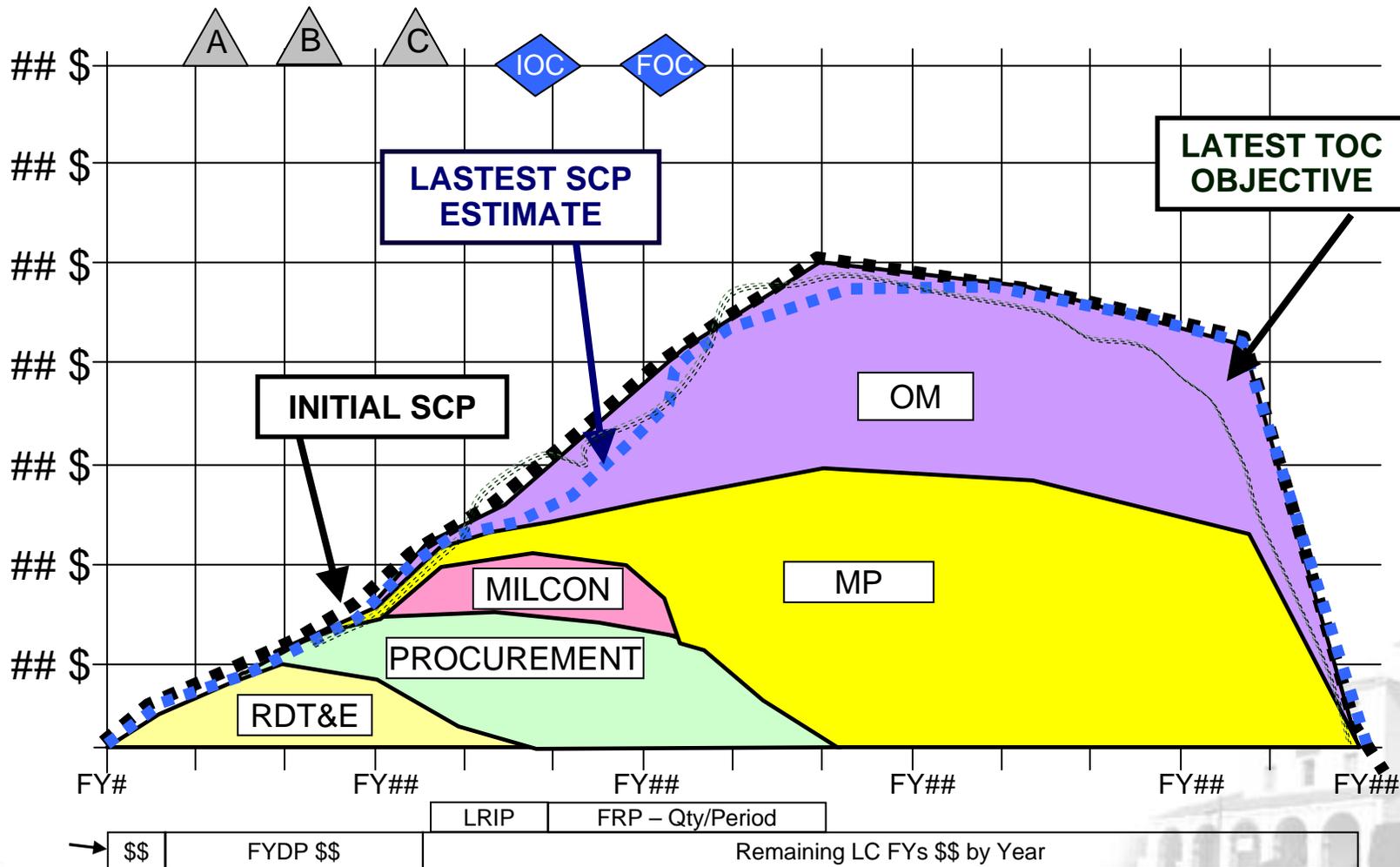
Quote

“Total ownership costs are part of my requirements and acquisition decisions. We will not buy a ship if it is unaffordable today and we will not buy it if it will be unaffordable over its lifetime.”

**Chief of Naval Operations,
Admiral Gary Roughead**



The TOC Picture



Navy's Primary TOC Challenges:

- **Life Cycle Costs are set early in an acquisition program – most set prior to Milestone B**
 - Understanding & influencing the cost drivers is essential
 - Need to increase the focus on TOC at every decision point
- **The majority of the 2020 Battle Force exists today**
 - 222 of today's 285 ships are required in 2020
 - Platforms must achieve their Expected Service Life
- **Life cycle costs of next generation systems must be more fully understood**
 - Increased fidelity of sustainment strategies is essential
 - The VA Class Submarine is representative of the future



N4 Strategy for TOC Reduction

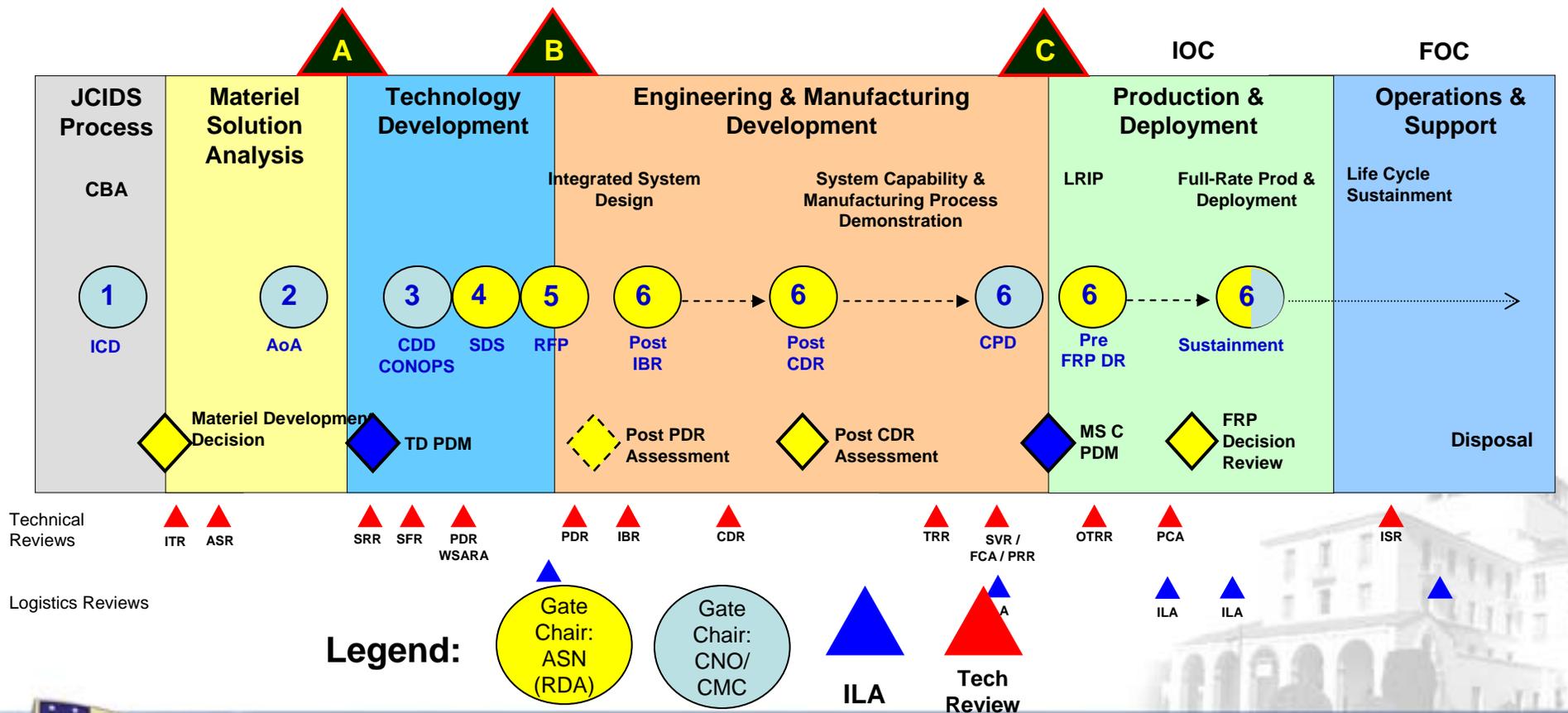
Goal - Infuse affordability considerations into the life cycle of Navy platforms and systems through:

- Navy’s TOC advocate – focused on Sustainment
- Acquisition Governance
 - SECNAVINST 5000.2E Navy Acquisition Process Instruction revision (ready for signature)
 - Affordability Metrics: Probability of Program Success (PoPS) v2.0 criteria
 - Gate Review Participation
- JCIDS and Logistics Functional Capabilities Board (LOG FCB) Engagement
- Affordability Cross Functional Teams (CFT)
- Logistics Human Capital Campaign



DON Acquisition Process Alignment SECNAVINST 5000.2E

Program Initiation at Milestone B



JCIDS & LOG FCB Process Engagement

JCIDS Process Reviews

- Review all Joint Capability Integration and Development System (JCIDS) process documents from all services as the Navy rep for logistics and sustainment (CBA, ICD, CONOPS, CDD, CPD, DCR)
- Assess for TOC and affordability implications
- Some impact Navy budget/mission, others do not

Logistics Functional Capability Board (FCB) Navy Representative

- Prepare Navy leadership for Logistics topics at the Joint Capabilities Board (JCB) and Joint Requirements Oversight Council (JROC)
- Logistics JCB is chaired by USTRANSCOM – most other JCBs chaired by Joint Staff
- Coordinate Logistics Capability Gap Assessment response
- Navy representative for Logistics Joint Urgent Operational Needs (JUONS)



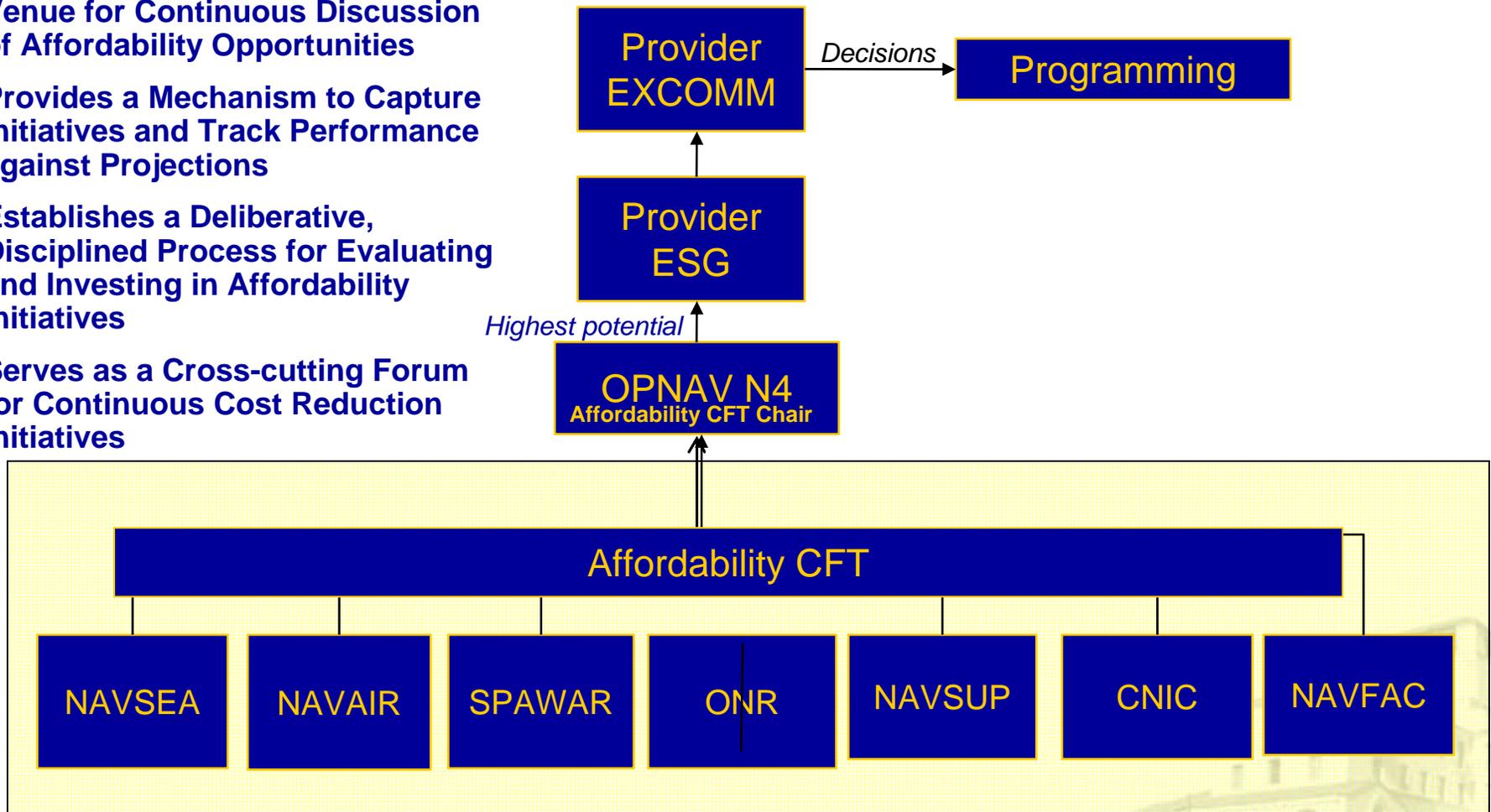
Affordability Cross Functional Team (CFT)

Venue for Continuous Discussion of Affordability Opportunities

Provides a Mechanism to Capture Initiatives and Track Performance against Projections

Establishes a Deliberative, Disciplined Process for Evaluating and Investing in Affordability Initiatives

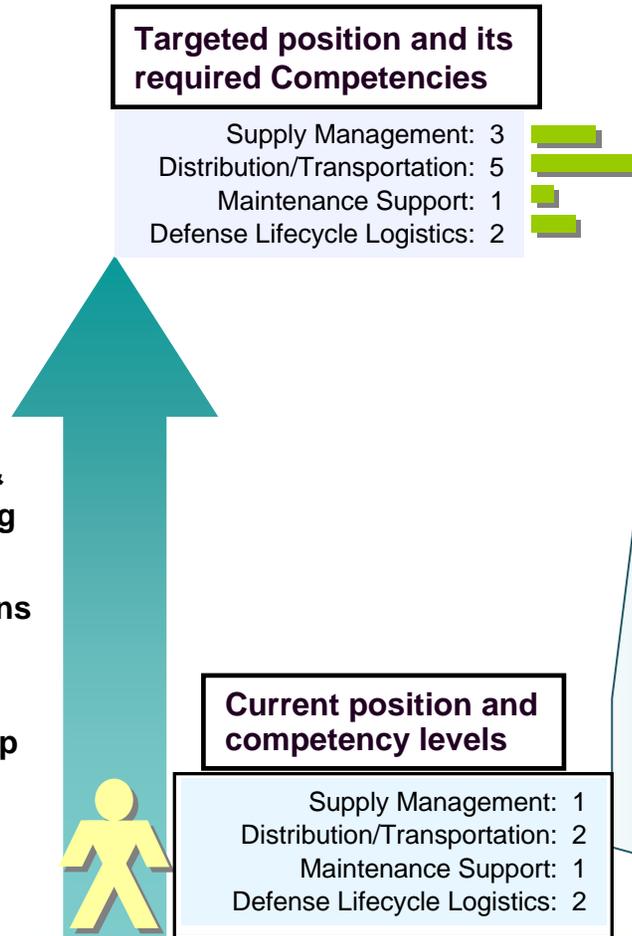
Serves as a Cross-cutting Forum for Continuous Cost Reduction Initiatives



Logistics Professional Development Framework Vision

PDF:

- Regular assessment & career progress tracking
- Consistent expectations for job requirements
- Individualized roadmap towards career goals



Name & Contact information		
Name:	John Smith	
Serial number:	2454KF91	
Manager:	Julie Jones	
Workforce Category Levels		
Supply Management	1	<div style="width: 100%; height: 15px; background-color: #ccc; position: relative;"><div style="width: 20%; background-color: #4169E1; border-radius: 50%;"></div></div>
Distribution & Transportation	2	<div style="width: 100%; height: 15px; background-color: #ccc; position: relative;"><div style="width: 40%; background-color: #4169E1; border-radius: 50%;"></div></div>
Maintenance Support	1	<div style="width: 100%; height: 15px; background-color: #ccc; position: relative;"><div style="width: 25%; background-color: #4169E1; border-radius: 50%;"></div></div>
Defense Life Cycle Logistics	2	<div style="width: 100%; height: 15px; background-color: #ccc; position: relative;"><div style="width: 35%; background-color: #4169E1; border-radius: 50%;"></div></div>
Fundamental Competencies		
Public Service Motivation	Experienced	<div style="width: 100%; height: 15px; background-color: #ccc; position: relative;"><div style="width: 80%; background-color: #4CAF50; border-radius: 50%;"></div></div>
Continual Learning	Experienced	<div style="width: 100%; height: 15px; background-color: #ccc; position: relative;"><div style="width: 80%; background-color: #4CAF50; border-radius: 50%;"></div></div>
Oral/Written Communication	Foundation	<div style="width: 100%; height: 15px; background-color: #ccc; position: relative;"><div style="width: 30%; background-color: #4CAF50; border-radius: 50%;"></div></div>
Integrity/Honesty	Experienced	<div style="width: 100%; height: 15px; background-color: #ccc; position: relative;"><div style="width: 80%; background-color: #4CAF50; border-radius: 50%;"></div></div>
Interpersonal Competencies	Advanced	<div style="width: 100%; height: 15px; background-color: #ccc; position: relative;"><div style="width: 95%; background-color: #4CAF50; border-radius: 50%;"></div></div>
Leadership & Management Competencies		
Business Acumen	Experienced	<div style="width: 100%; height: 15px; background-color: #ccc; position: relative;"><div style="width: 70%; background-color: #4CAF50; border-radius: 50%;"></div></div>
Leading People	Foundation	<div style="width: 100%; height: 15px; background-color: #ccc; position: relative;"><div style="width: 40%; background-color: #4CAF50; border-radius: 50%;"></div></div>
Leading Change	Experienced	<div style="width: 100%; height: 15px; background-color: #ccc; position: relative;"><div style="width: 75%; background-color: #4CAF50; border-radius: 50%;"></div></div>
Results Driven	Experienced	<div style="width: 100%; height: 15px; background-color: #ccc; position: relative;"><div style="width: 85%; background-color: #4CAF50; border-radius: 50%;"></div></div>
Communication	Advanced	<div style="width: 100%; height: 15px; background-color: #ccc; position: relative;"><div style="width: 90%; background-color: #4CAF50; border-radius: 50%;"></div></div>

Notional Example of a Logisticians' PDF profile



Virginia Class Submarine RTOC IPT Focus Areas

Acquisition IPT

DFA Initiatives

- Block III revisited
- Block IV new ideas
- Ideas generated in other IPTs
- ManTech

Commonality

- Open architecture payload middleware
- Common sail
- HM & E platform management system
- CCSM
- Electric Actuation

Capability Enhancement

- Bottom ocean interface
- Manned access to aft VPT
- Flexible payload sail
- SONAR (CAVES, flank arrays)

Life Cycle

- Design for Life Cycle Affordability
- Attack cost drivers identified in TOC Baseline
- Sustainment efforts
- Infrastructure/ tools/technology
- 15 Deployments Over Life of Each Ship
- Reduce Total Time for Depot Maintenance to <36 months

Support

Sparing

- PBL
- RBS Modeling
- On-Board Retail
- Wholesale
- OSISL
- Shop Stores
- Stocking Policies
- Combined Procurement

Training /Tech Data

Operational Basing & Level Requirements

- Special Requirements
- Stand Up
- Capabilities per ILevel
- Capabilities Shipyard

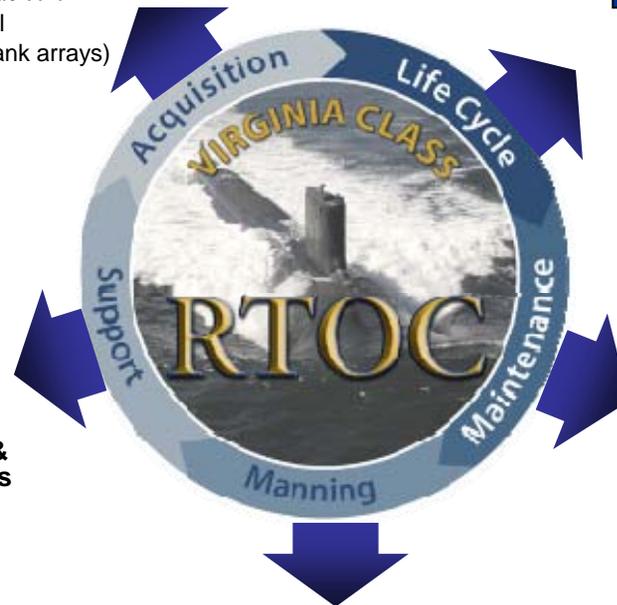
In - Service Engineering (ISE) / Modernization

Manning

- Initial NSSN manpower studies and plan
- SMMTT for APBs
- CNA Study
- Impact of new technology

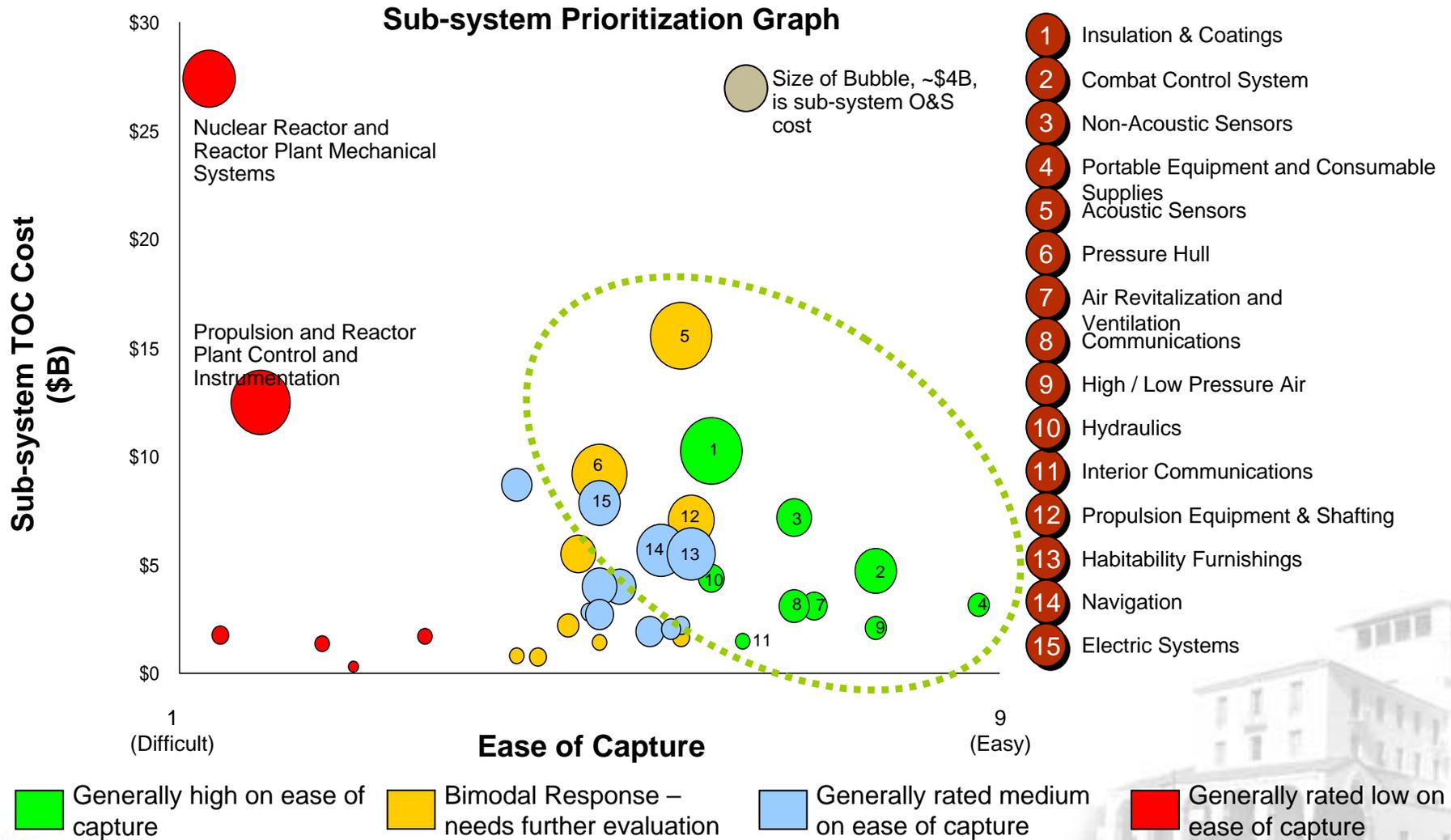
Maintenance

- Reduce EDSRA Cycle Time to 11 months or less
- Initial barrier investigations
 - Space Closeouts to Prep for SS00
 - DMD scheduling
 - Propulsor/Shafting
 - LWWAA (Maintenance, Testing, Alignment)
 - End Game
 - FBW Testing Process
 - CSO Equipment Build/Testing (Sail, VLS prior to UD00)



Virginia Class Submarine

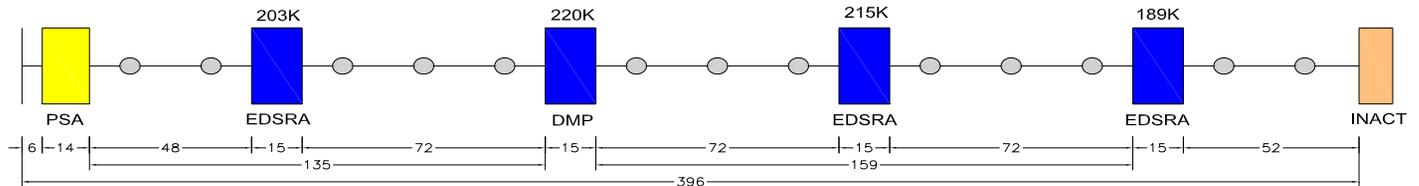
Identified 15 potential Cross Functional Team Candidates



VIRGINIA Class Maintenance Life Cycle- 15 Deployments by Block IV

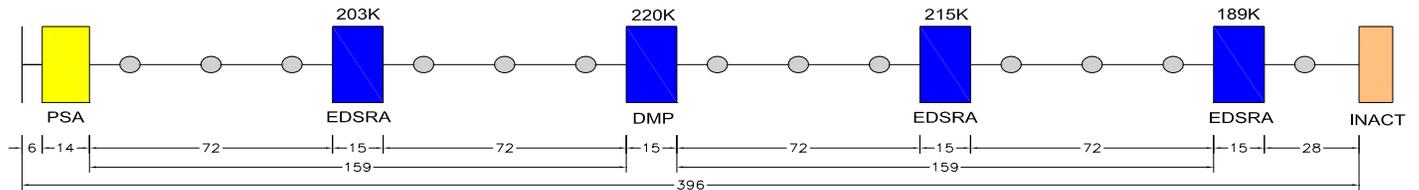
TFT Study
SSN 774 – 775

Total Man-days: 827K
Depot months: 60 (15%)
Deployments: 13



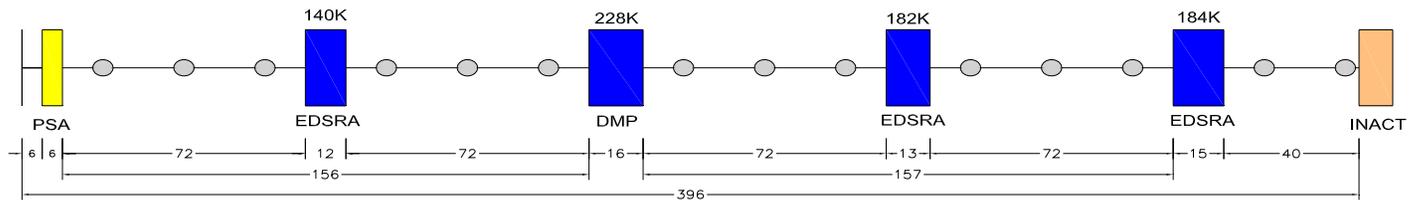
TFT Study
SSN 776 – 781

Total Man-days: 827K
Depot months: 60 (15%)
Deployments: 13



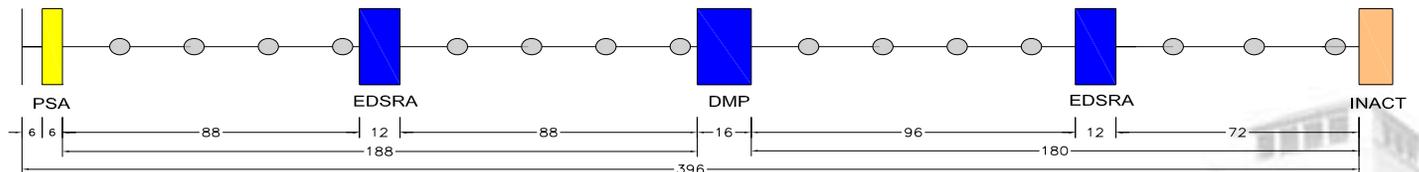
TFT Study
SSN 782 – 791

Total Man-days: 734K
Depot months: 56 (14%)
Deployments: 14



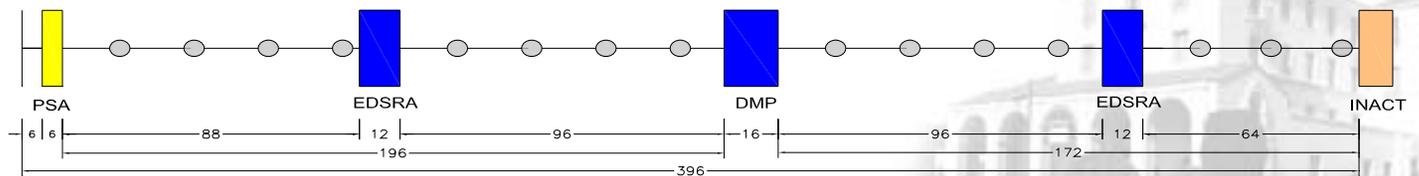
Transition to
Block IV Target

Total Man-days: TBD
Depot months: 40 (10%)
Deployments: 15



Block IV Target
SSN 792 – 803

Total Man-days: TBD
Depot months: 40 (10%)
Deployments: 15



INTRODUCTIONS



Satisfying Requirements While Achieving Life-Cycle Cost Goals

“Achieving Life Cycle Capability”

Mr. Lou Kratz, Lockheed Martin Corporation
VP of Logistics & Sustainment, Corporate
Engineering & Technology for Lockheed
Martin Corporation.



Satisfying Requirements While Achieving Life-Cycle Cost Goals

“Acquisition of Mine-Resistant, Ambush-Protected (MRAP) Vehicles: A Case Study”

Mr. William Lucyshyn, Director of Research and Senior Research Scholar at the Center for Public Policy and Private Enterprise, School of Public Policy, University of Maryland



Satisfying Requirements While Achieving Life-Cycle Cost Goals

Mr. J. David Patterson, Executive Director,
National Defense Business Institute,
University of Tennessee

