Satisfying Requirements While Achieving Life-Cycle Cost Goals

RADM Kathleen M. Dussault, US Navy

Director, Supply, Ordnance and Logistics Operations Division

"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

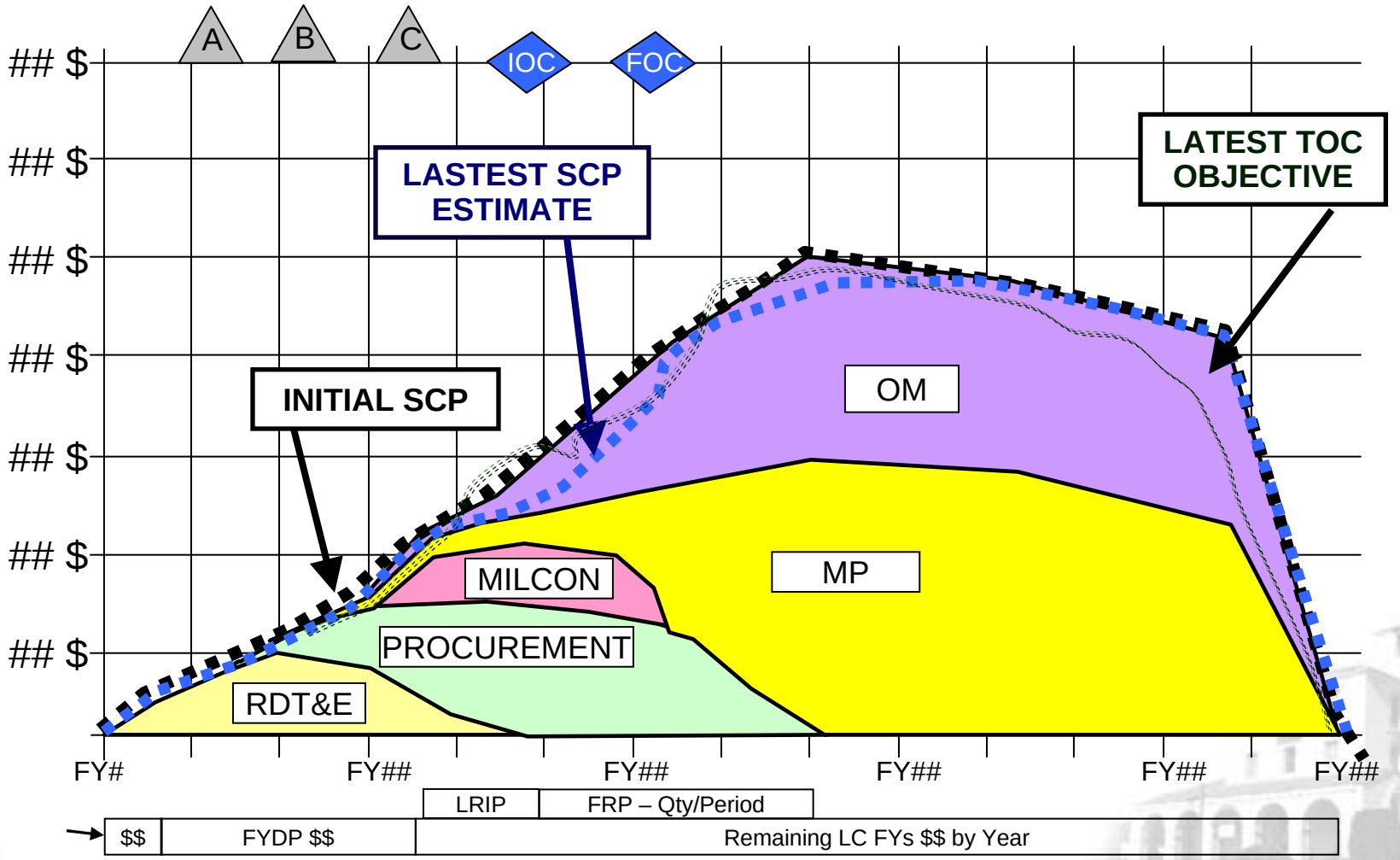
Quote

"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

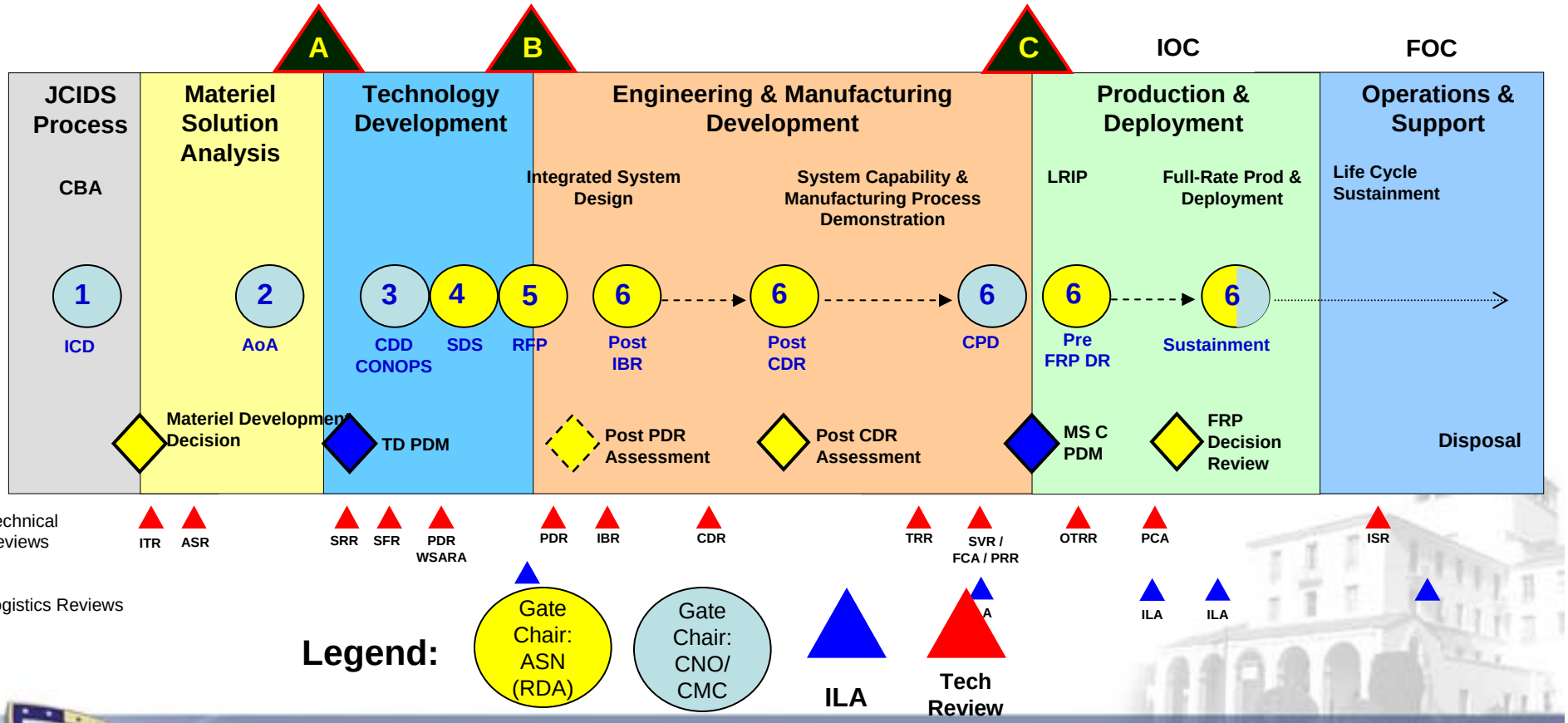
N4 Strategy for TOC Reduction

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)

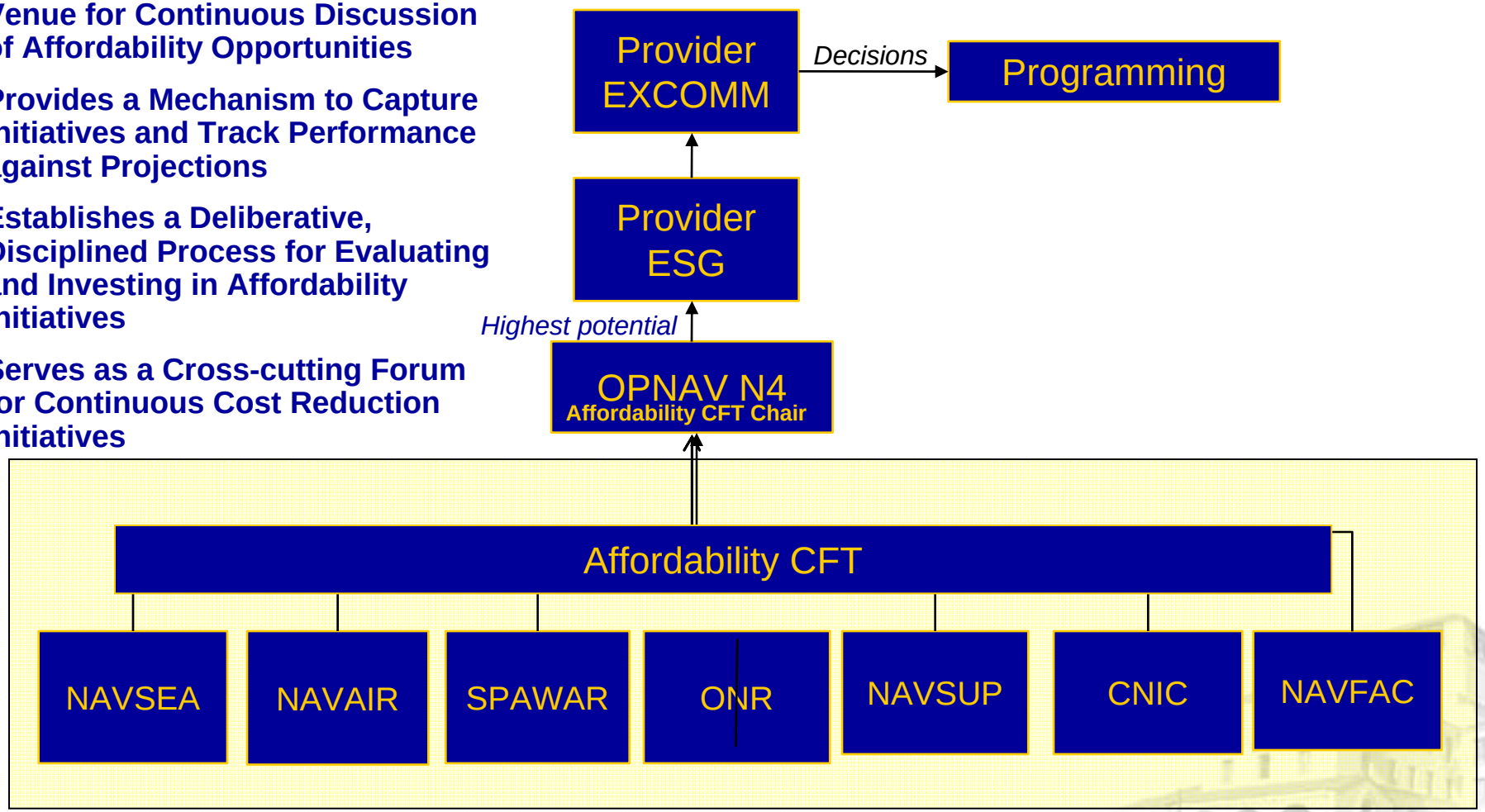
Affordability Cross Functional Team (CFT)

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**

Targeted position and its required Competencies

Supply Management: 3
Distribution/Transportation: 5
Maintenance Support: 1
Defense Lifecycle Logistics: 2

Current position and competency levels

Supply Management: 1
Distribution/Transportation: 2
Maintenance Support: 1
Defense Lifecycle Logistics: 2

Name & Contact information	
Name:	John Smith
Serial number:	2454KF91
Manager:	Julie Jones
Workforce Category Levels	
Supply Management	1
Distribution & Transportation	2
Maintenance Support	1
Defense Life Cycle Logistics	2
Fundamental Competencies	
Public Service Motivation	Experienced
Continual Learning	Experienced
Oral/Written Communication	Foundation
Integrity/Honesty	Experienced
Interpersonal Competencies	Advanced
Leadership & Management Competencies	
Business Acumen	Experienced
Leading People	Foundation
Leading Change	Experienced
Results Driven	Experienced
Communication	Advanced

Notional Example of a Logistician's 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

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

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

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

Operational Basing & I-Level Requirements
- Special Requirements
- Stand Up
- Capabilities per I-Level
- Capabilities Shipyard

In-Service Engineering (ISE) / Modernization

Training /Tech Data

Maintenance

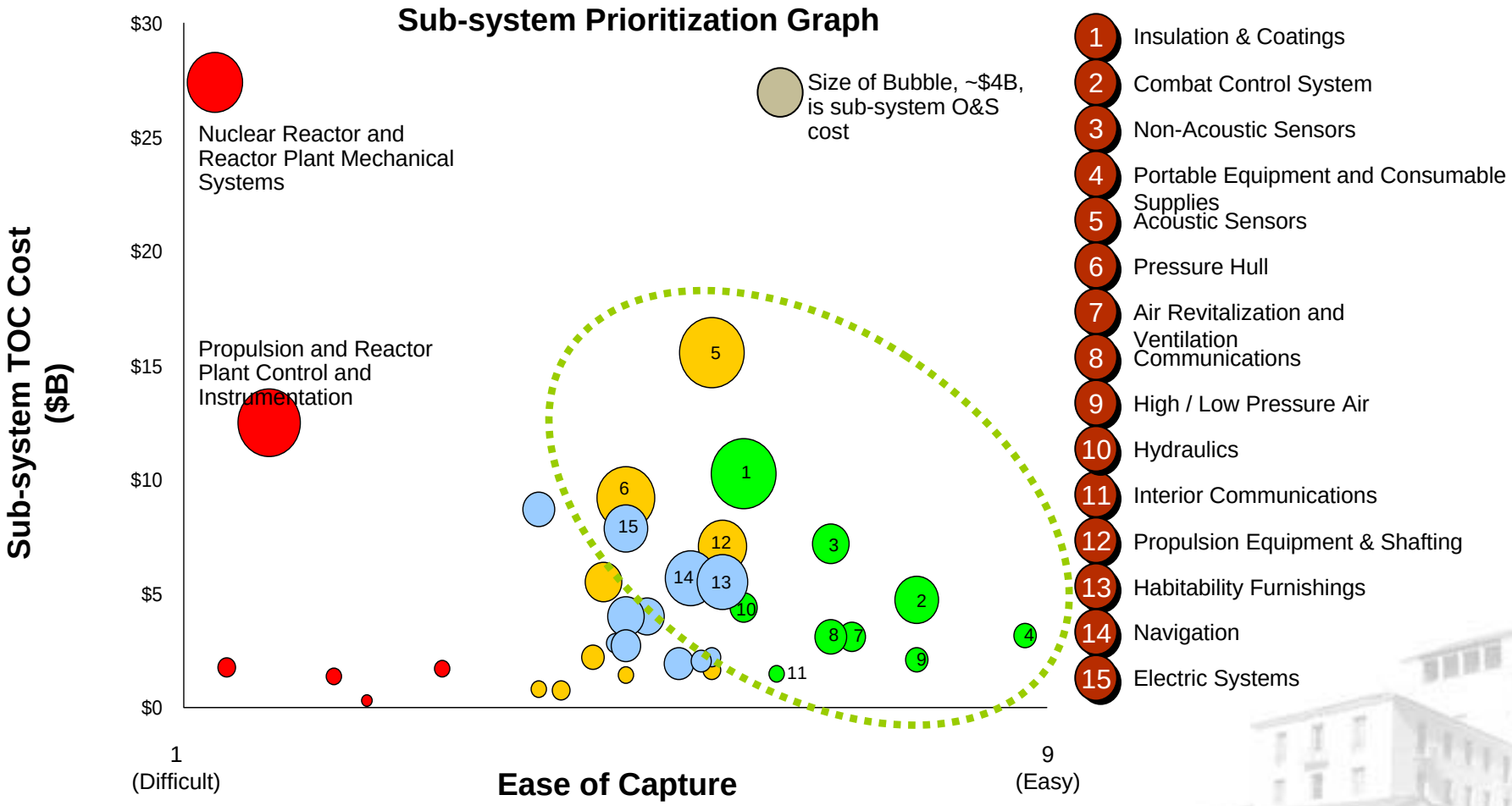
- **Reduce EDSRA Cycle Time to 11 months or less**
- **Initial barrier investigations**
  - Space Closeouts to Prep for SS00
  - DMD scheduling
  - Propulsor/Shafting
  - LWWAA (Maintenance, Testing, Alignment)
  - End Game
  - FBW Testing Process
  - CSO Equipment Build/Testing (Sail, VLS prior to UD00)

Manning

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

Virginia Class Submarine

Identified 15 potential Cross Functional Team Candidates



Generally high on ease of capture

Bimodal Response – needs further evaluation

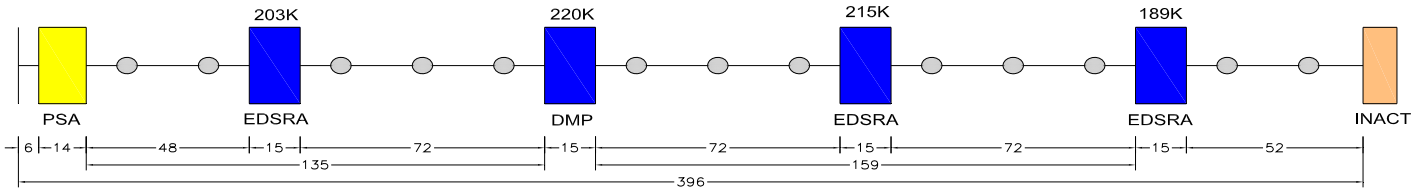
Generally rated medium on ease of capture

Generally rated low on ease of capture

VIRGINIA Class Maintenance Life Cycle- 15 Deployments by Block IV

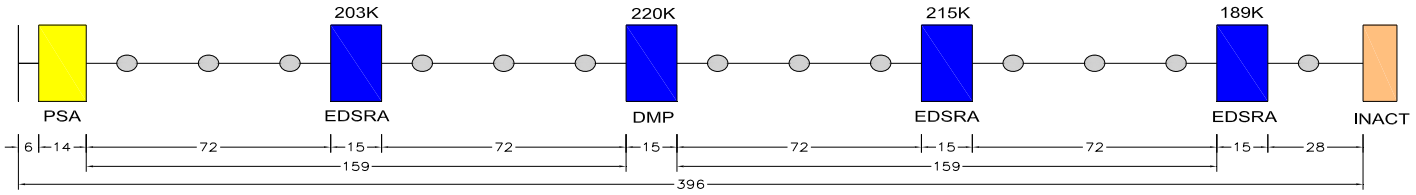
TFT Study
SSN 774 – 775

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



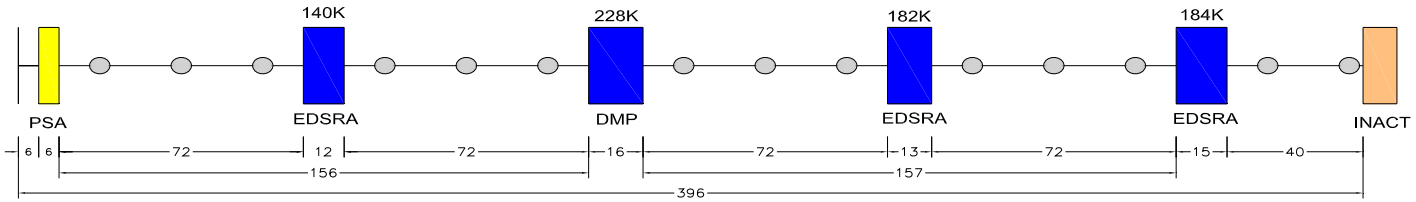
TFT Study
SSN 776 – 781

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



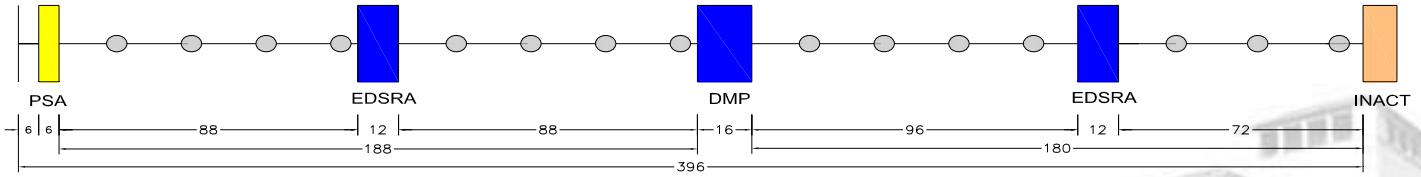
TFT Study
SSN 782 – 791

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



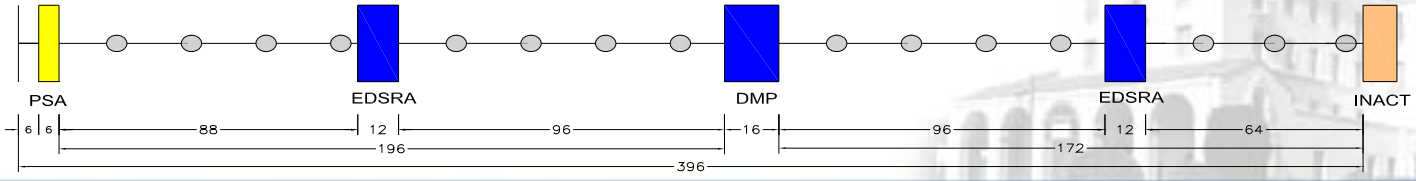
Transition to
Block IV Target

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