



2010 ONR Naval S&T Partnership Conference

Next Generation Technologies for Today's Warfighter



Revolutionary Research . . . Relevant Results

Total Ownership Cost
CAPT Tom Ryan – OPNAV N414

O F F I C E O F N A V A L R E S E A R C H

Quotes

“Increased fiscal pressures mandate that we scrupulously examine all activities and accounts and ensure that our limited resources are appropriately invested to maintain our warfighting dominance and that we sustain our force.”

**Chief of Naval Operations,
Admiral Gary Roughead
CNO Guidance 2011**



**Vice Admiral William R. Burke
Deputy Chief of Naval Operations for
Fleet Readiness and Logistics (N4)**

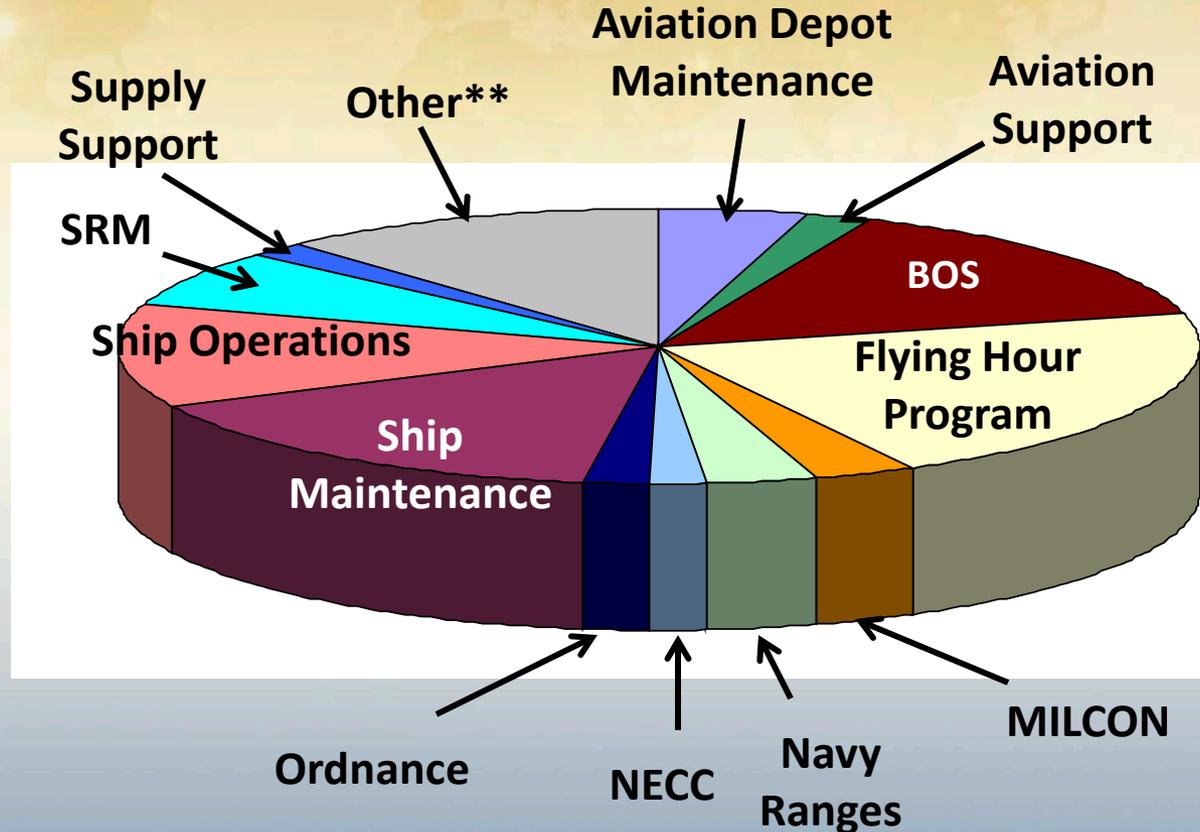
“In this fiscally constrained environment, we must continue to do all we can to provide cost effective solutions for our warfighters. I have no doubt you will deliver.”

N4 Sponsored Programs

PB11-FY11 (w/o OCO Request)

N4 TOA: \$31B

Program (TY\$B)	
Flying Hour Program	\$6.5
Ship Maintenance	\$4.9
Base Operations Support (BOS)	\$4.5
Ship Operations	\$3.8
Other	\$3.6
Sustainment, Restoration and Modernization (SRM)	\$2.0
Aviation Depot Maintenance	\$1.4
MILCON	\$1.0
Navy Ranges	\$0.9
Aviation Support	\$0.6
Supply Support	\$0.6
Ordnance Maintenance/Mgmt	\$0.6
NECC	\$0.6
Total	\$31



****Other \$3.6B:**

Aviation depot maintenance support, environmental, family housing, fleet hospital program, hospital ships, information technology, management HQ, MILCON Reserve, Task Force Energy, special mission ships, fleet training, ship operations support, shore installation management, METOC, ship maintenance support, strategic sealift/prepo.

Navy's Primary TOC Challenges

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 are set early in an acquisition program – most set prior to Milestone B

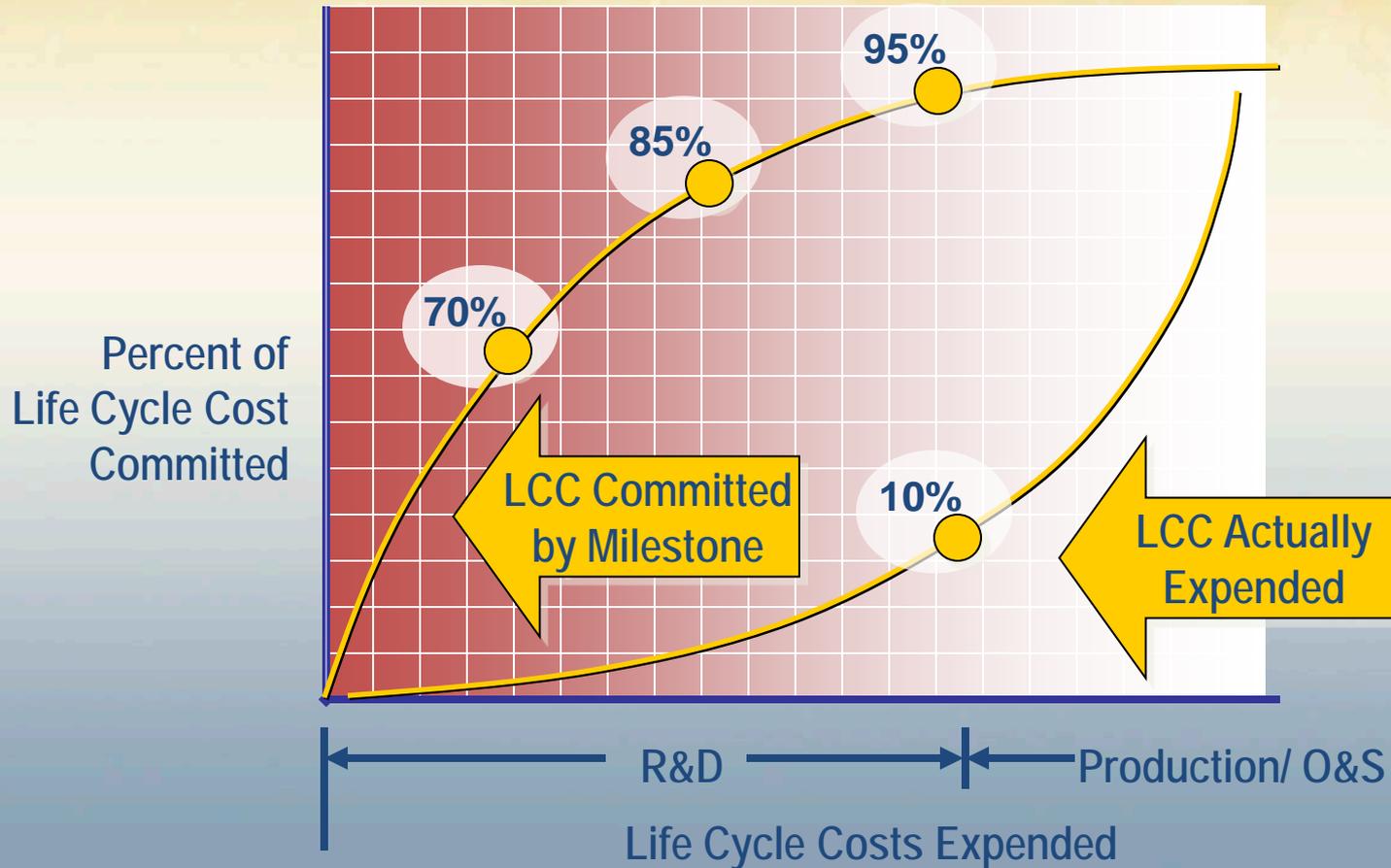
- Understanding & influencing the cost drivers is essential
- Need to increase the focus on TOC at every decision point

Life cycle costs of next generation systems must be more fully understood

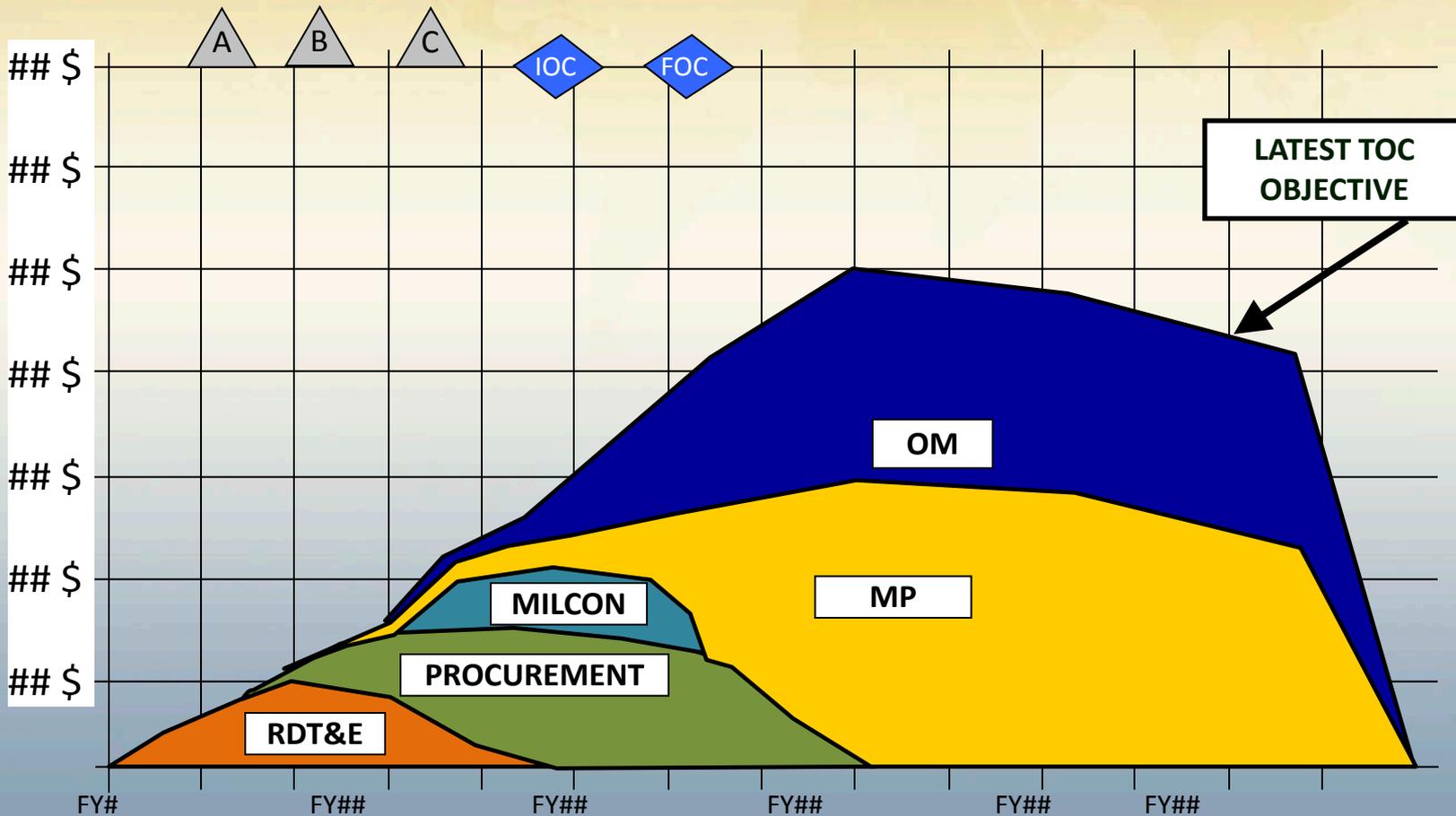
- Increased fidelity of sustainment strategies is essential
- The Virginia Class submarine is representative of the future

Typical System Life Cycle Cost

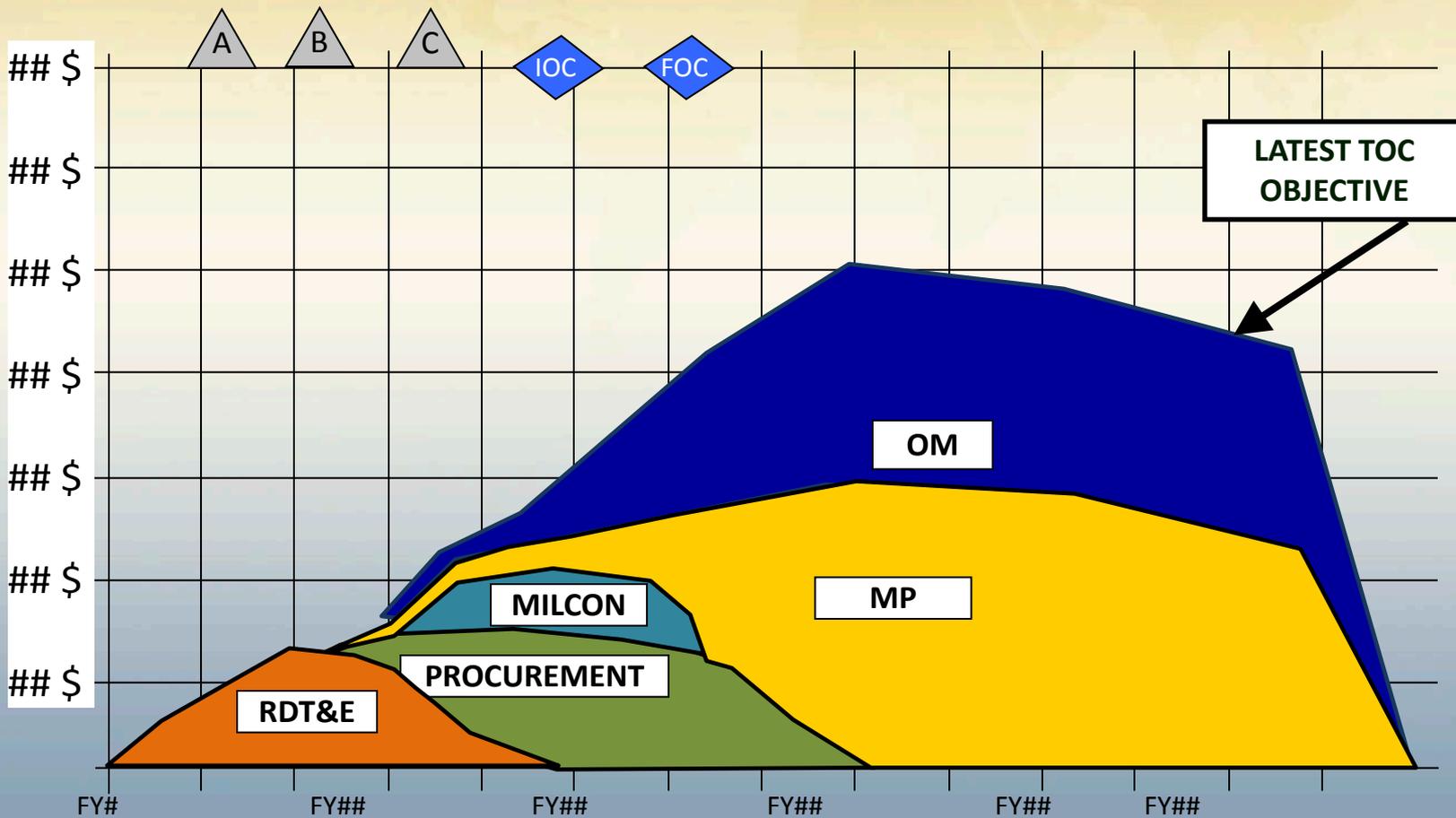
Committed vs. Actual



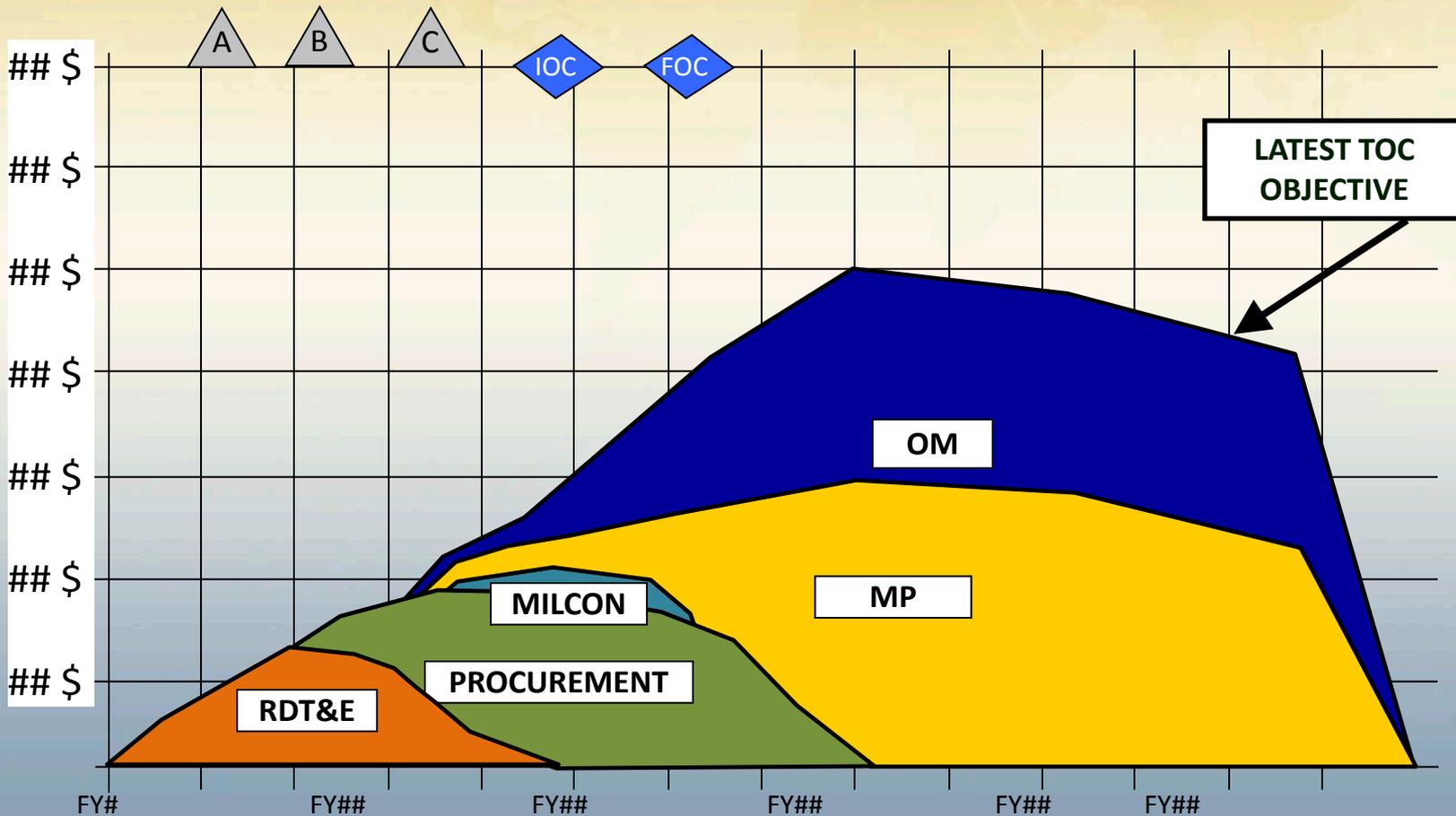
The TOC Picture



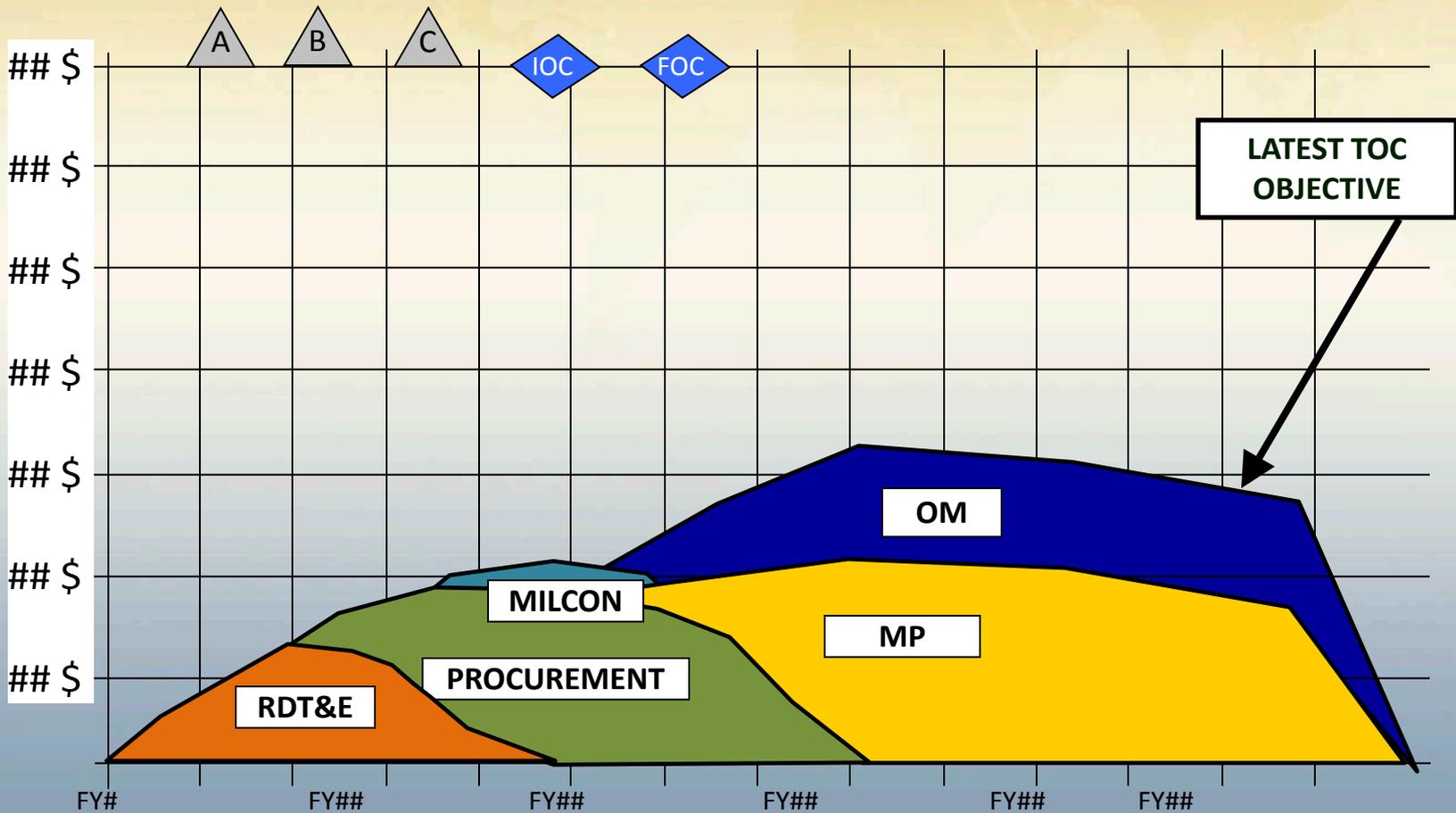
The TOC Picture



The TOC Picture



The TOC Picture



Integrating Affordability into Policy: *Program Health Process*

Improve Emphasis on Affordability, Sustainment, and TOC

In Early Program Reviews

- Emphasis on Understanding Projected Costs and Drivers
- Early Cost Containment/Cost Reduction Strategy Discussion

In Later Program Reviews

- Emphasis on Life Cycle Sustainment Strategy supported by Life Cycle Funding Profile
- Assessment of Cost Reduction Strategies against Projection
- Review Affordability in Context of Allocated Resources

Affordability Incorporated into Navy Acquisition Policy

Moving Forward

TOC Reduction through Commonality

Minimize TOC through reduced NRE, optimizing Technical Variation, and informed Sourcing

Establish a Virtual Shelf – Selection of Standard, Proven Components for all Designs

- Shelf Content Periodically Assessed to Account for New Innovations and Obsolescence
- Design Teams first Consult the Shelf to Determine Recommended Components for Systems

Cost Reduction through “Informed Sourcing”

- More Suppliers can Satisfy Same Requirement
- Leveraged Volume / Known Demand

Results in Implementation Recommendations approved by Technical Authority

Select Data Sources to Build TOC Models



Through an Iterative “Cost-Structure” Bidding Process, Identify “Should Cost” Pricing

- Multiple rounds of proposals and negotiations
- Cost evaluated several levels below purchase price
- Incorporates feedback to suppliers on several aspects beyond just price
- Seeks to expand responsive sources beyond incumbents – identifies other sources of supply or addresses barriers for new suppliers



TOC Advocacy

Lanes of Responsibility

TOC Reduction

Affordability Initiatives

Status Accounting of MDAP Cost Reduction Efforts

- Validate Approved Cost Reduction Efforts are Accurately Reflected in SPP
- Verify Performance Status of Approved Cost Reduction Efforts

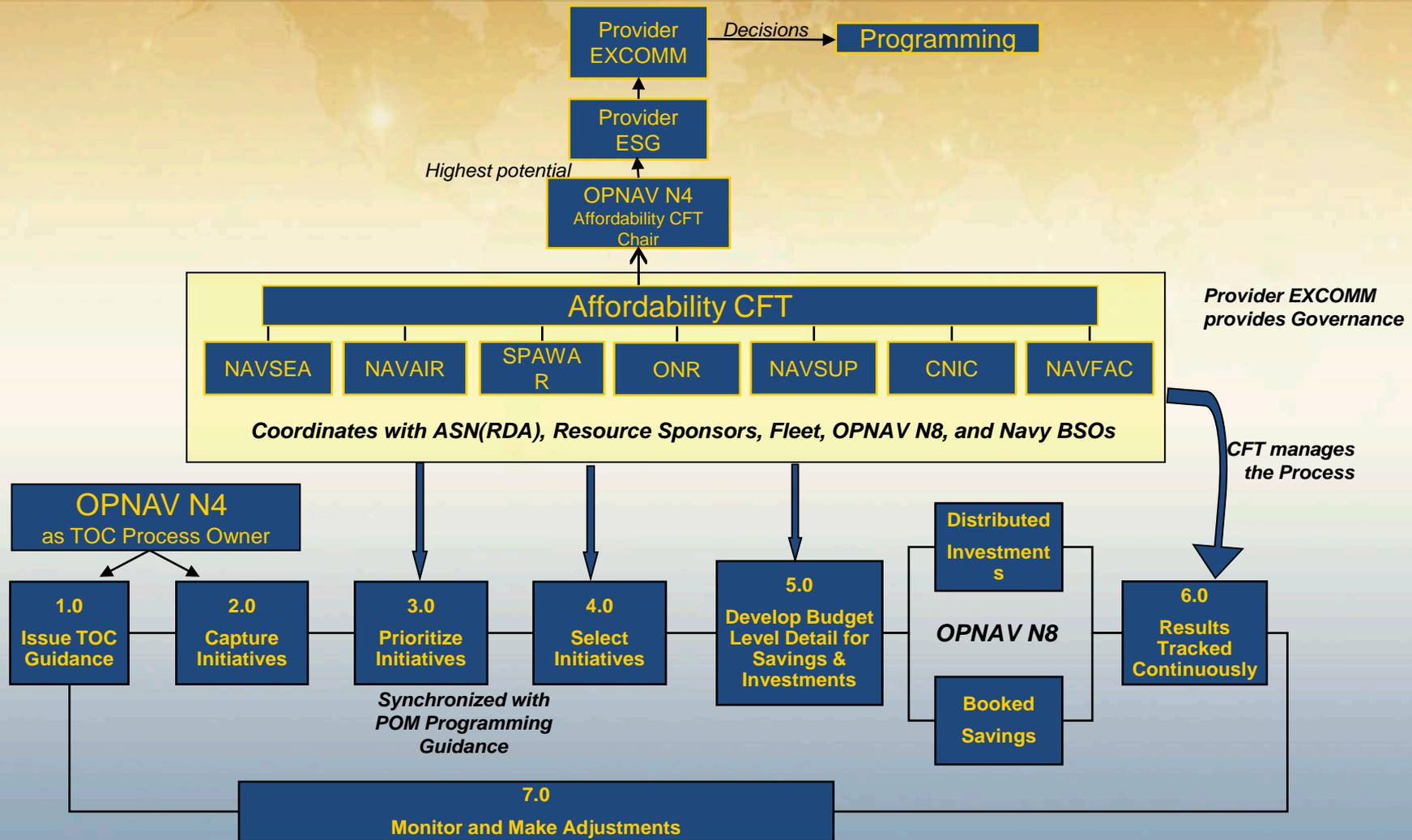
Affordability Initiatives Process Owner

- POM 12 Accepted and Deferred Affordability Initiatives
- POM 13 and Beyond
 - Deferred POM 12 Efficiencies with Refinement Plan
 - New Initiatives

Process Change / Organization Realignment Coordination

- Leverage Provider EDs for Governance
- Integrate and Synchronize Using Affordability Initiatives Process
- Cooperate across Navy Enterprise Stakeholders
- Coordinated with OPNAV N8's Programming Process

Total Ownership Cost Efficiencies & TOC Management



Continuous Process for Capturing and Measuring Efficiencies

ILA Engagement

OPNAV reviews all Independent Logistics Assessment (ILA) reports at the completion of the ILA

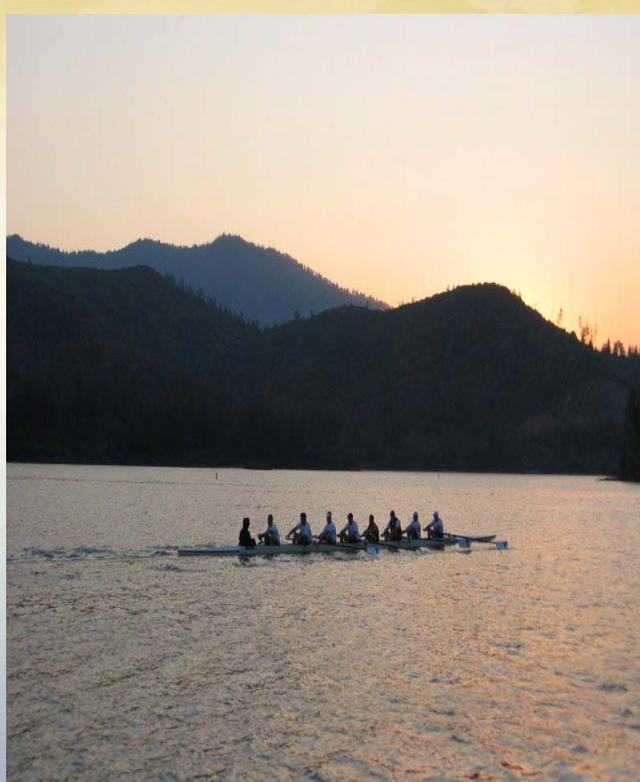
OPNAV participates as stakeholder in Major Program ILAs

OPNAV partnered with DASN to maintain and update policy

Way Ahead

How can we synchronize our efforts?

Capitalize on N4 role as Navy TOC advocate by collaborating with the Future Naval Capabilities (FNC) Technical Oversight Group (TOG) Working Group and other Acquisition enablers to facilitate Enterprise-wide solutions



Optimize OPNAV participation in the Technology Insertion for Program Savings (TIPS) Executive Review Group (ERG) Working Group to promote the flow of ideas across the Navy

“We are off to a good start, but we must continue to ask hard questions and make hard decisions that will enable us to provide ready forces today and deliver a force relevant and ready for the future.” (CNO Guidance 2011)