



Operating & Support Cost Management

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Overview

- O&S in the current environment
- O&S Management Guidebook
 - Roles and responsibilities
 - Linkage to other guidance
- Life Cycle Focus
 - Cost Categories
 - Life Cycle Phases
 - O&S Costs in Management Decisions
 - Requirements and Design Influences
 - Value vs. Cost
- The Role of O&S Cost Information
 - Will Cost Should Cost
 - Affordability
- Rosetta Stone
 - IPS Elements
 - Cost Element Structure
 - Appropriations
- Metrics
 - Sustainment KPP/KSAs
 - O&S Data Collection Systems



Findings from GAO Report-December 2008

- "29 PBLs examined (9 USA, 10 DON, 10 USAF)
 - Most of the Services have not established internal controls necessary to ensure a comprehensive assessment...many inconsistencies across the Services guidance.
 - In general, BCAs were either not done, not fully documented, or were not comprehensive or sound
 - Almost all costs were either difficult to verify/validate or trace back to sound accounting data"

Consistent theme among many previous and current GAO studies



2009 DoD Weapon System Acquisition Reform: Product Support Assessment (PSA)

Product Support Business Model:

Provide Program Managers a model template for a weapon system support strategy that drives cost-effective performance and capability for the Warfighter across the weapon system life cycle and enables most advantageous use of an integrated defense industrial base

Industrial Integration Strategy:

Align and expand the collaboration between Government & Industry that produces best value partnering practices

Supply Chain Operational Strategy:

Connect platform product support strategies to enterprise supply chain approaches that produces best value across the DoD components

Governance:

Strengthen and develop organization and mgmt processes to deliver the right sustainment information to decision-makers

Analytical Tools:

Build a toolbox of analytical approaches (including BCA)

Metrics:

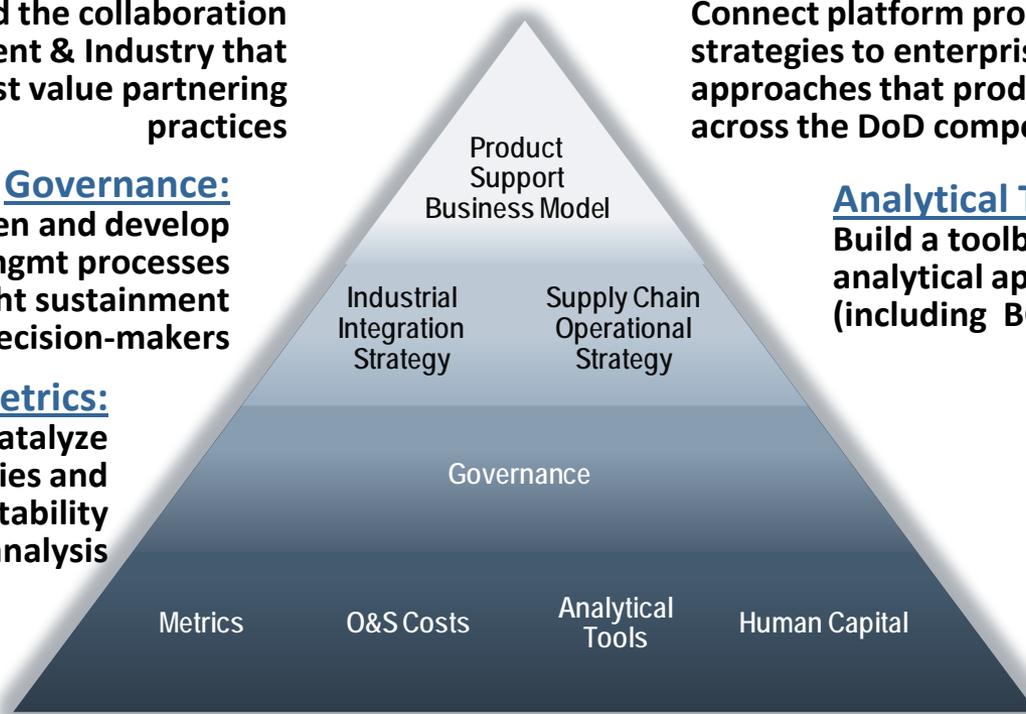
Use existing metrics to catalyze sustainment strategies and trigger continuous supportability analysis

Human Capital:

Integrate Product Support competencies across the Logistics and Acquisition workforce domain to institutionalize successful traits of an outcome-based culture

O&S Costs:

Improve O&S cost visibility and influence



Weapons System Data:

Define, collect, report, and manage the data we need to drive effective Life Cycle Product Support



O&S Influences on Product Support



- **Product Support Strategy**
 - The business model of an integrated system
 - Balance across functional areas and stakeholders
 - Evolutionary process develops the strategy
- **Congressional influences on the Strategy**
 - Required governmental position with responsibility
 - SAR reporting requirements – Improve credibility and transparency of data and decision making
 - Directive in governing frequency and supporting documentation of decision making
 - NDAA 2010 Section 805, WSARA 2009



The AT&L Operating and Support Cost Management Guidebook



Role of the PM/PSM

- Accountable for programmatic total life cycle management
- Bridges the Department Business activities with the delivered product to the Warfighter
- Coordinates and directs activities to support the development of cost, program, and technical modeling
- Conducts trade off analyses

60-70% of Weapons Systems' Life Cycle Costs are Operating and Support Costs



Other positions identified

- Cost Analysts
- Product Support Integrator/Providers (PSI/PSP)
- Industry Partners
- Resource Sponsors
- Operational Communities
- Comptroller
- CAPE



Linkage with Other Guidance

- CAPE O&S Cost Estimating Guide
- Product Support Manager Guidebook
- Product Support Business Case Analysis (BCA) Guidebook
- Logistics Assessment Guidebook
- Public Private Partnering for Sustainment Guidebook
- Integrated Product Support (IPS) Element Guidebook
- Defense Acquisition Guidebook (DAG)
- DoD Financial Management Regulation (FMR)



Cost Categories

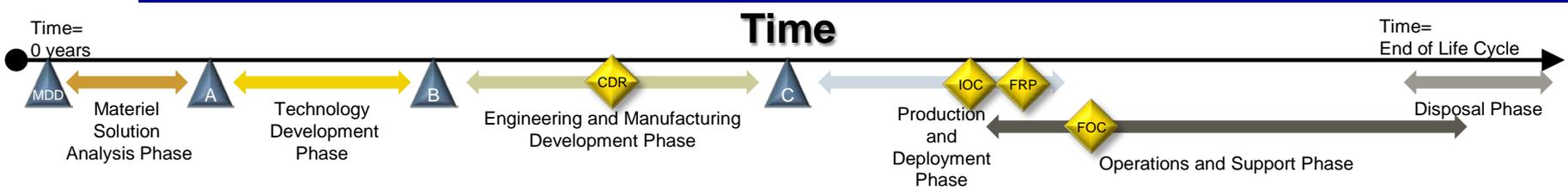
- Total Ownership Costs/ Life Cycle Costs
- Research and Development Costs
- Investment Costs
- Operating & Support Costs
- Disposal/Demilitarization Costs

Source DoD 5000,4-M



Life Cycle Phases

- Material Solution Analysis Phase
- Technology Development Phase
- Engineering and Manufacturing Development Phase
- Production and Development Phase
- Operations and Support Phase
 - Disposal and demilitarization is a subset of this phase



Documents

- ICD
- **AoA**
- SEP
- TDS(inputs to RFP)
- POM Inputs
- RFP
- CONOPS
- ADM
- TES
- **CARD**
- **Milestone Documentation**
- **Draft CDD**
- ACQ Strategy (Input to RFP)
- APB
- Allocated Systems Baseline
- **LCC**
- ADM
- **AoA**
- **Milestone Documentation**
- TEMP
- RFP
- **LCSP**
- ADM
- **AoA**
- LRIP Source Selection Initial Product Baseline
- **LCCE**
- **CPD**
- ACQ Strategy
- **BCA**
- **Milestone Documentation**
- SEP
- APB
- TEMP
- LRIP Contract
- RFP for Production Contract
- Final Production Baseline
- **CPD**
- APB
- System Fielding(W/W/S)
- FRP Contract
- ACQ Strategy
- TEMP
- **LCSP**
- **CPD**
- ACQ Strategy
- TEMP
- **LCSP**
- **LCSP**
- APB
- New Modifications/System Improvements
- New DOTMLPF Change Recommendation (DCR)

All documents influence O&S Costs in support of decisions
Bolded documents contain O&S cost information



O&S Costs in Management Decisions



- **Milestone A**

- Enhanced visibility of cost drivers
- O&S Cost estimates support trade-off studies and AOA's

- **Milestone B**

- Influence system design – logistics engineering investments
- Product Support Strategy Business Case Analyses
- Established baselines for future assessments, BCA revalidations

- **Milestone C**

- Track and assess cost drivers relative to benchmarks
 - Early use of T&E data to identify sustainability shortfalls
- Foundation for budgetary requirements for manpower and O&M



O&S Costs in Management Decisions



- **FRP DR**

- Track and assess cost drivers relative to benchmarks
 - Use of O&S Cost actuals
- Refine the Product Support Strategy and budget requirements

- **Post-IOC**

- Assess and Manage O&S Costs for legacy systems
- Identify the need for continuous improvements/modifications
- Assess funding adequacy in the PPBE process
- Collect information for use on follow on systems' development and analyses



Requirements and Design Influences

- Driven by PSM and life cycle focused leadership
- Engineering and Supportability Analyses develop sustainment requirements
- Assess impacts of costs as the program matures
- Series of potential questions
 - How do requirement changes affect design?
 - How do design changes affect IPS Elements?
 - How do design changes affect cost elements?
 - Has the cost estimate changed to reflect these changes?



Value vs. Cost

- Value – the relationship between cost and a good, service or product
- Cost – a monetary measure of resources applied to receive a benefit of a good, product or service in return



Will Cost - Should Cost Management

- Goal - drive productivity improvements into programs during contract negotiations and throughout program execution (including sustainment)
- Goal - eliminate cost overruns and deliver programs below budget baselines that are set using independent Will-Cost estimates



Affordability – Better Buying Power

- AT&L memo, Nov 2010
 - Affordability is a requirement and treated the same as a Key Performance Parameter
 - Imposed affordability constraints on new starts
- Affordability target is presented with analysis
 - Provide target assessments across a portfolio
 - Evaluate mission areas associated with the program
 - Targets are incorporated into Milestone reviews, ADMs, and APBs



Rosetta Stone

Cost Element Structure

Unit Level Manpower
Unit Operations
Maintenance
Sustaining Support
Continuing System
Improvements
Indirect Support

Integrated Product Support Elements

Product Support Management
Design Interface
Sustaining Engineering
Supply Support
Maintenance Planning &
Management
Packaging, Handling, Storage &
Transportation
Technical Data
Support Equipment
Training & Training Support
Manpower & Personnel
Facilities & Infrastructure
Computer Resources

Appropriation Categories

Military Personnel
Military Construction
Research, Development, Test &
Evaluation
Procurement
Operation & Maintenance



Metrics

- Availability KPP
 - Ownership Cost KSA is now the new O&S Cost KSA
 - Includes full CAPE O&S CES
- Data collection systems
 - Air Force AFTOC (Air Force Total Ownership Cost)
 - Navy NVAMOSC (Naval Visibility and Management of Operating and Support Costs)
 - Army OSMIS (Operating and Support Management Information System)



Final Takeaways for the O&S Cost Management Guidebook



- Provide O&S Cost transparency for decision makers on O&S activities containing cost ramifications
- Department wide standardization of O&S Cost metrics usage, nomenclature, and Life Cycle Product Support Management processes
- Bridge the gap between the cost, budget, and acquisition communities
- Improve ability of sustainment planners to use O&S costs in product support decision making



Discussion



Back Up



Will Cost - Should Cost Definitions

- Will Cost- cost analysis of a program's costs as conducted and presented by an independent cost analysis team (USD AT&L, 3 Nov 10 Memo, Implementation Directive for Better Buying Power)
- Should Cost (BBP)- 1, a bottoms-up assessment of the program's cost based on reasonable efficiency and productivity enhancements. 2, identify reductions from will cost estimates. 3, utilize competitive contracting and contract negotiations to indentify Should-Cost savings. (USD AT&L, 22 Apr 11 Memo, Implementation of Will-Cost and Should-Cost Management)
- Should Cost (FAR)- A specialized form of cost analysis that does not assume the contractor's historical costs reflect efficient and economical operations. This cost analysis evaluates the economic and efficiency of the contractor's existing workforce, methods, materials, facilities, operating systems, and management (FAR 15.407-4)



Affordability Task Force

❑ 1.1.4.1 Update Ownership Costs Key System Attribute (KSA)

- Joint Staff opened up JCIDS manual for revision in October 2010
- L&MR led O&S cost team driving O&S cost terminology and definitions into JCIDS revision
 - Concurrence received from JCIDS review board, November 10, 2010

1.1.4.2 Standardize O&S Cost estimation methods and tracking

- O&S PSAT team mapping O&S Cost management across life cycle
 - Identify gaps and redundancies across to ensure consistency of data sources
 - Vet new metrics (to include average annual O&S cost per unit)
- O&S Cost team is working with CAPE for consistency and buy-in
 - New definitions, methods, and Cost Element structure issued by CAPE (2011 update to O&S Cost Analysis Guide)
 - Historical data and estimates performed by CAPE (technical expertise)
 - O&S Cost Management Guidebook led by AT&L and the Joint Community (decision making and Life Cycle Management)

