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TEAM



Reduced Total Ownership Costs: Two Years Later

PANEL BRIEF TO:

National Defense Industry Assoc.

6 MARCH 2001

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NAVAIR-3.0A

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Outline



- **Naval Aviation's history and results with R-TOC**
- **R-TOC Execution Issues**
 - **Budgetary**
 - **Time/resources**
- **What we need from Industry**
 - **Performance Based Logistics**
 - **'Good' Business Cost Analysis**

**Reducing Total Ownership Cost (TOC)
is a Sustainment issue!**

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Total Ownership Cost (TOC) Status at NAVAIR



- **Formal TOC processes at NAVAIR**
 - **Internal Affordable Readiness and DoN Cost Reduction & Effectiveness Improvement (CR&EI) initiative processes**
 - **TOC plan requirements**

- **Implementation Guidance Issued to All Programs, including Standardized Templates**

- **DSAC Guidance -**
 - “Reduce support costs (less manpower & fuel) against FY97 baseline...”*
 - **7% by FY2000**
 - **10% by FY2001**
 - **20% by FY2005 (Stretch Target)**

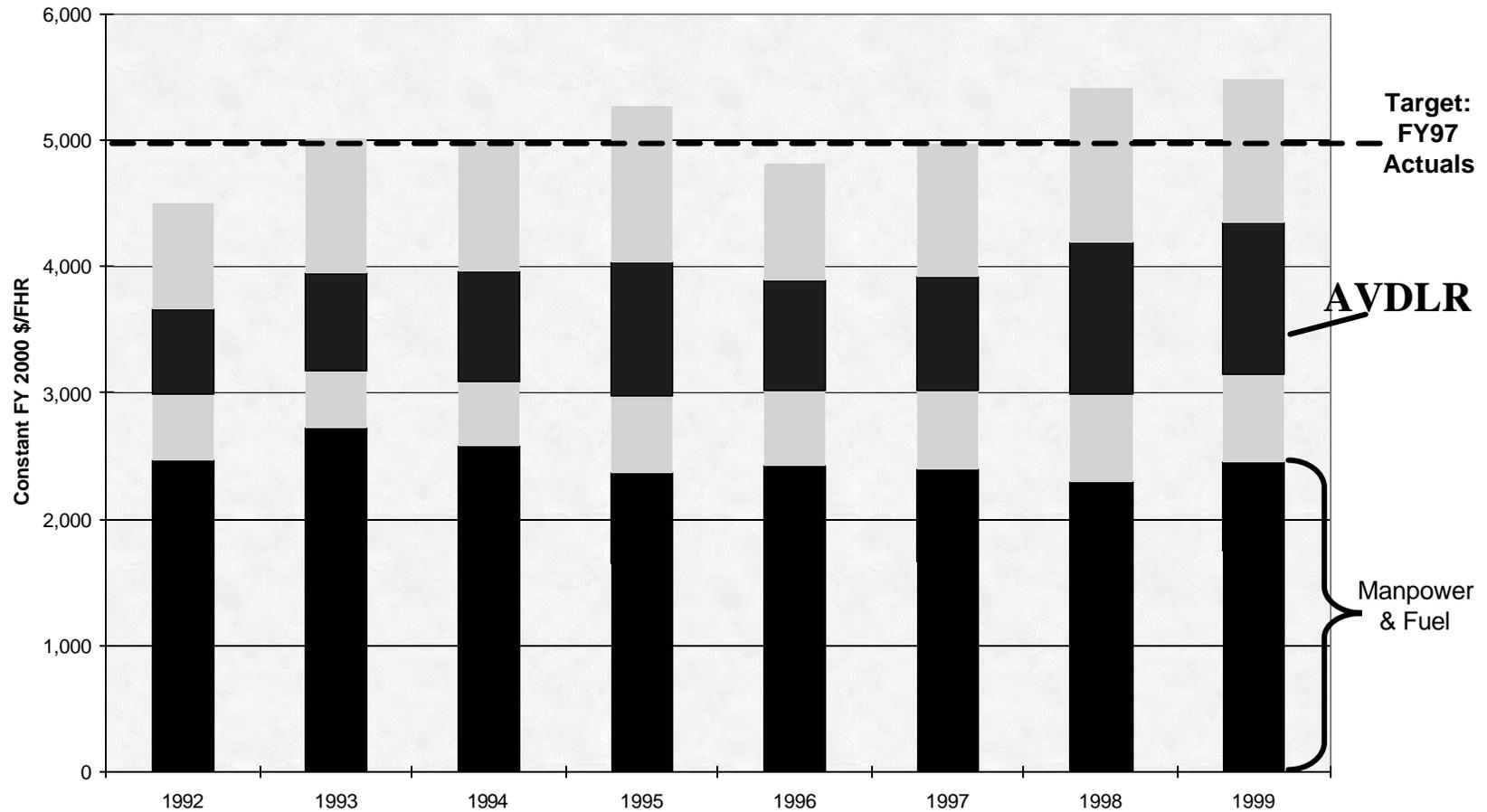
- **Naval Aviation has made TOC a principal objective of satisfying near-term readiness issues**



Support Cost Reduction Target



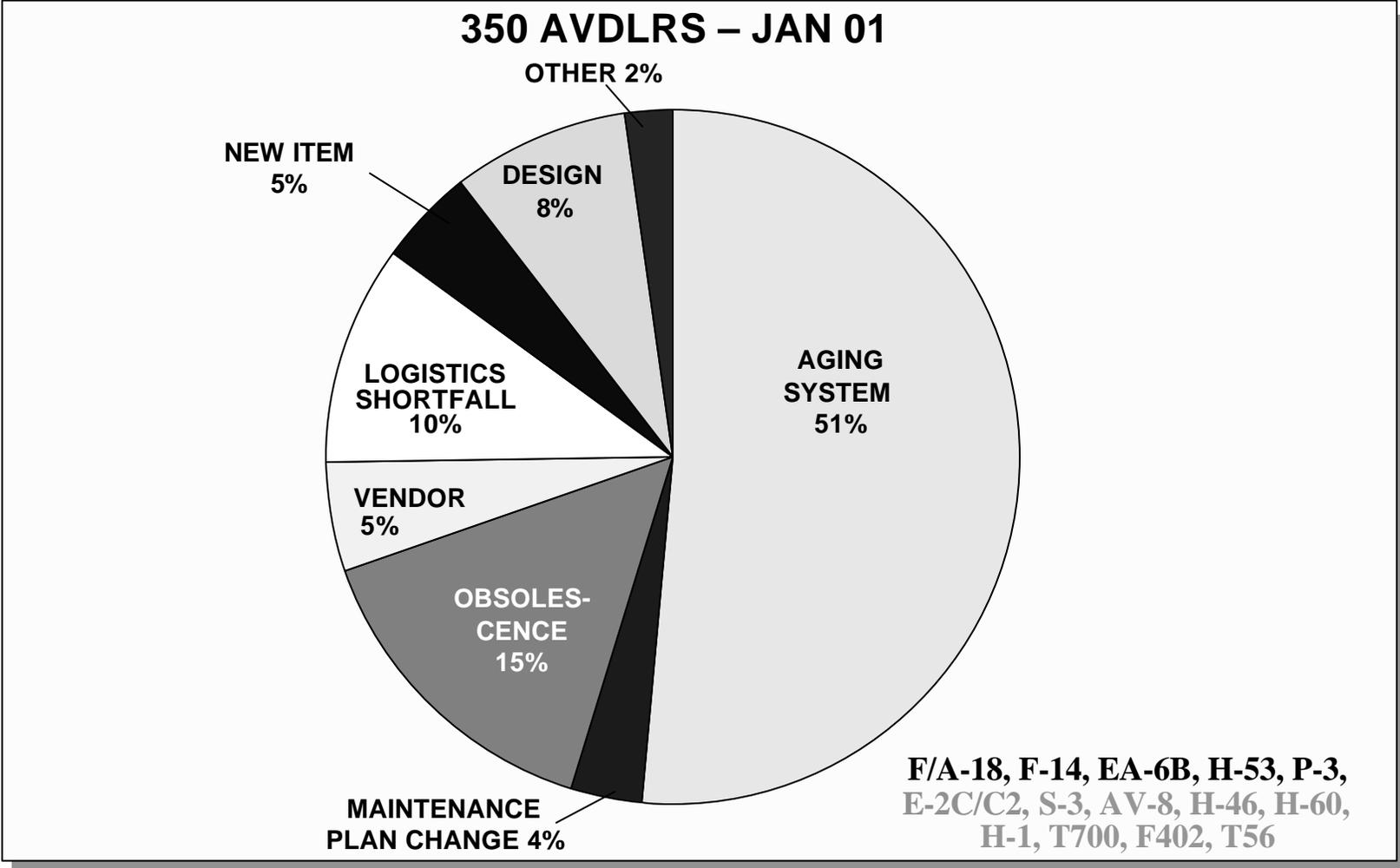
TOTAL FORCE O&S COST per FH



Source: Historical Cost Data Based Upon 2 November 00 VAMOSAT ATMSR Database Extract

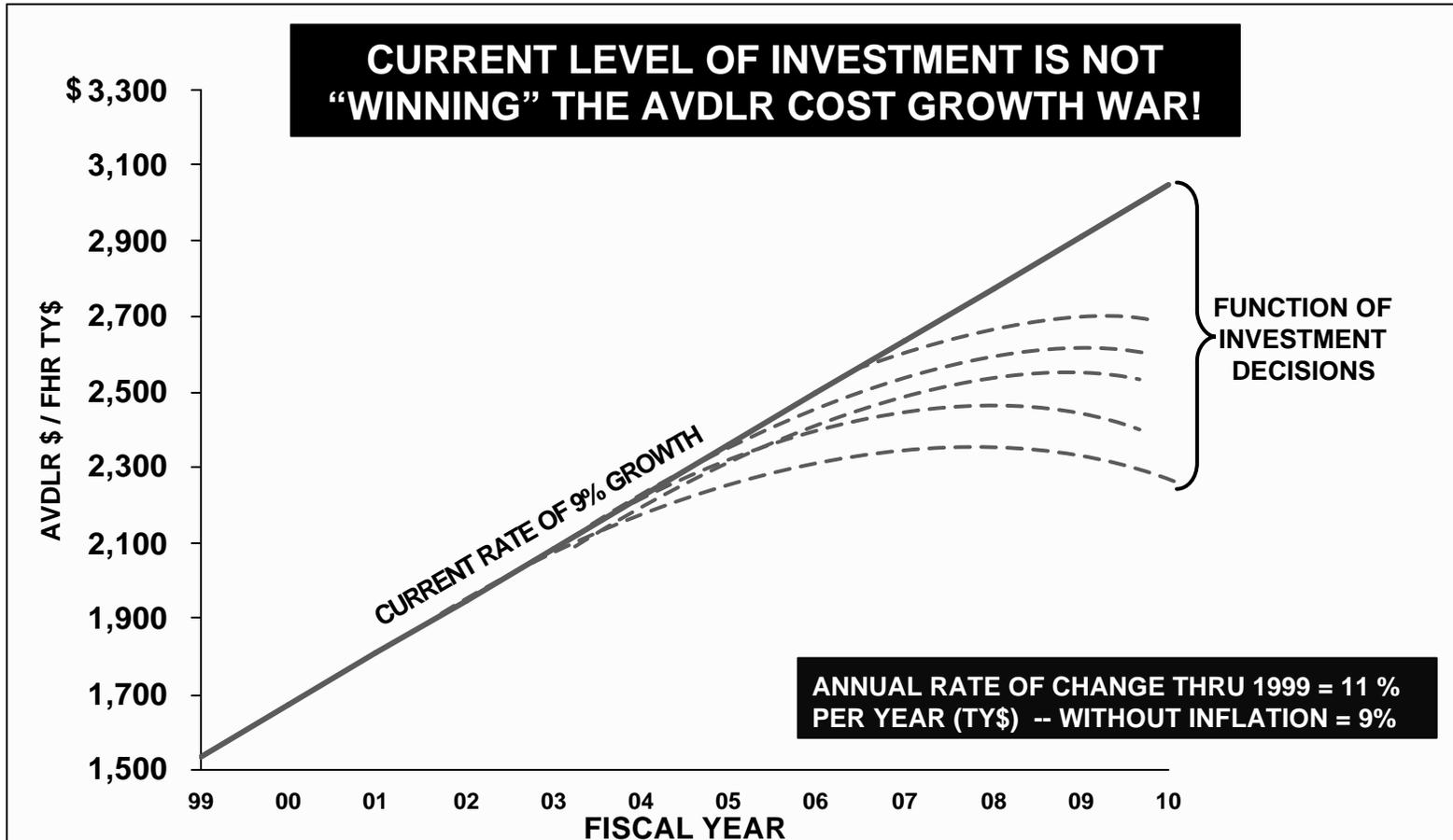


AVDLR Cost Growth Drivers





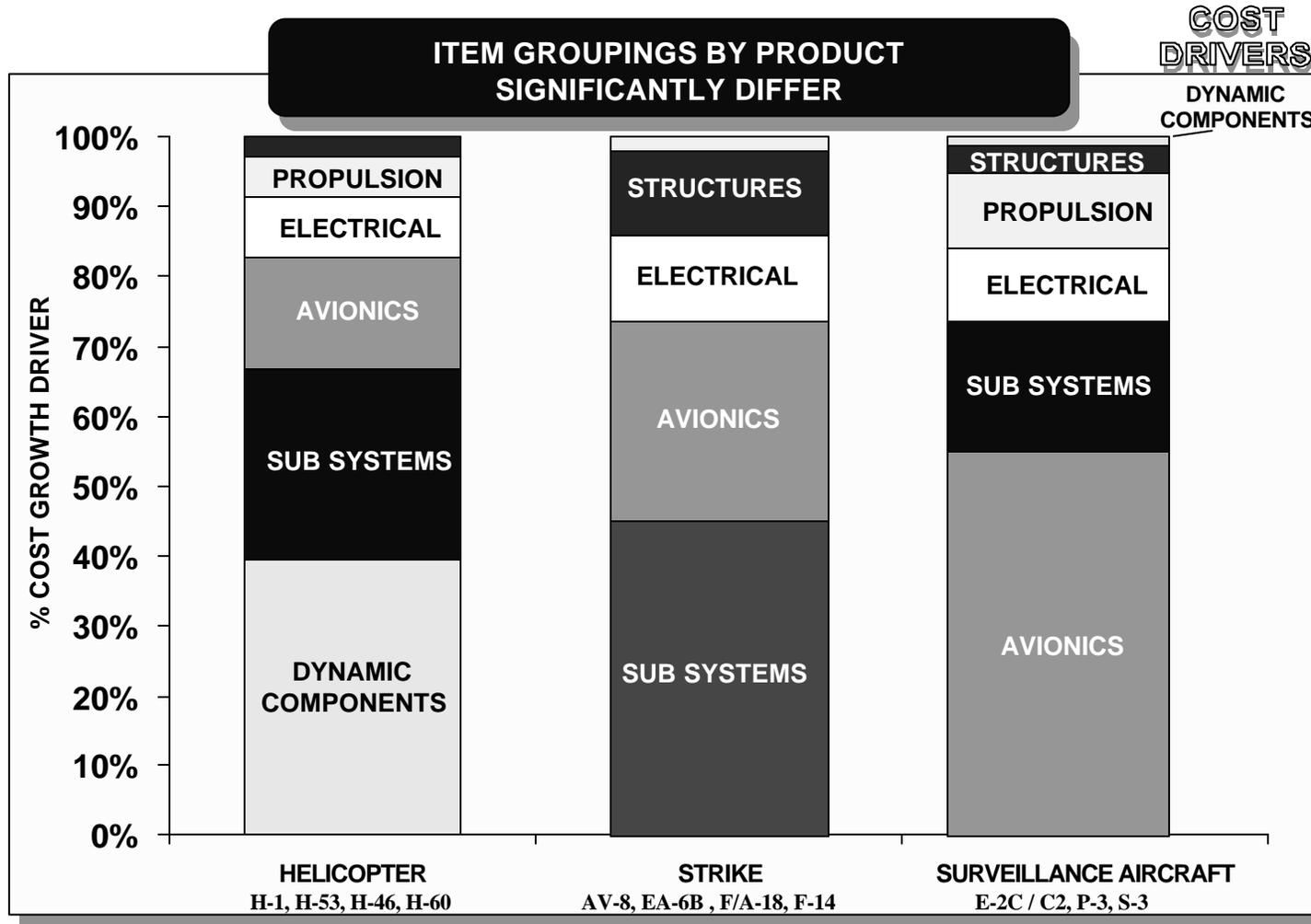
So What Can We Do? “AVDLR Cost Growth” Current Trend



* ASSUMES ROI FROM CURRENT INITIATIVES CONTINUES
NOTE: WITHOUT CNET, EUR, CMC, RUITCOM



The Devil's in the Details



NOTE: ENGINES CONSIDERED SEPARATELY (NOT SHOWN)
CHART REFLECTS NUMBER OF ITEMS NOT \$\$

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R-TOC Pilots at NAVAIR

EA-6B, H-60, SLAM-ER



- **Consensus response to R-TOC pilot program**
 - **Issues**
 - ↪ **Policy Change proposals not implemented**
 - ↪ **Additional reporting requirements levied**
 - ↪ **Waivers and/or special resources not provided**
 - **Positive**
 - ↪ **Motivated to keep baselines updated**
 - ↪ **Greater visibility to their specific cost drivers than other programs'**



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R-TOC Execution Issues



- **Major TOC implementation issues**
 - **Availability of Program Resources - ‘Money’**
 - **Access to accurate and repeatable cost data sources**
 - **Comptroller’s appetite for instant savings**

➤ **Limited support from Defense Industry**
Industry hasn’t ‘bought in’ to Reducing Gov’t TOC



Navy Initiatives Investment Sources



☐ Direct Program Funds

☐ Non-Program Investment Sources

Navy
Budget
zeroed

- **Dual Use Program (DUAP)** - Partnering with Industry for Technology Insertion
 - ↳ Commercial Operating & Support Savings Initiative (COSSI)
 - ↳ Dual Use S & T Program
- **Small Business Innovation Research (SBIR)**
 - ↳ 50% of funding in future for O&S Reduction
- **Aircraft Equipment R&M Improvement Program (AERMIP)**
 - ↳ R&D Maturity Program
- **Component Improvement Program (CIP)**
 - ↳ Engines
- **Operational Safety Improvement Program (OSIP)**
 - ↳ Aircraft Modifications
- **Reuse In Lieu Of Procurement (RILOP)** - Technology Re-utilization
 - ↳ Reuse of systems in other Aircraft in the inventory
- **Logistics Engineering Change Proposals (LECPs)**
 - ↳ A Reliability or Maintainability related ECP designed to *reduce or eliminate Support Costs* - Savings to the Stock Fund

Pulled from
Existing
budget

- **Cost Reduction & Effectiveness Improvement (CR&EI) POMing**
 - ↳ ASN(RD&A) effort to establish funding thru the budgetary process
- **NAVAIR “Corporate” O&M,N Set Aside**



Commonly Pursued Initiatives Areas



Performance Based Logistics

- Single supplier providing increased product availability, reliability, technology insertion, and obsolescence management
- Examples include APU, V-22 Engines

Reliability Improvement

- Responsible for Configuration Management, Repair, Reliability Improvement, Reducing Inventory, Cycle-Time Improvements
- Successes include ARC-210

Logistics Engineering Change Proposals (LECPs)

- A Reliability or Maintainability related ECP designed to reduce or eliminate Support Costs while maintaining or improving safety and performance
- Aviation Investment to date \$405.72M (since 1992)
 - ↪ With an average 2.6 ROI
- Investments planned at \$40M per year (*Aviation & Ship submissions*)



What we need from Industry



- **Must make a concerted effort to reduce operating & sustainment costs**
 - Realize that improvement in operability/maintainability of one component may negatively affect the performance of another
 - Need to look at the “whole pie” and not just a “piece”

- **Effective Partnering with Performance-Based Logistics (PBL) and Business Case Analysis**
 - Instead of creative marketing we need to get realistic, reasonable and implementable solutions
 - The Defense Industry needs to share a stake in the Government's O&S Cost outcome

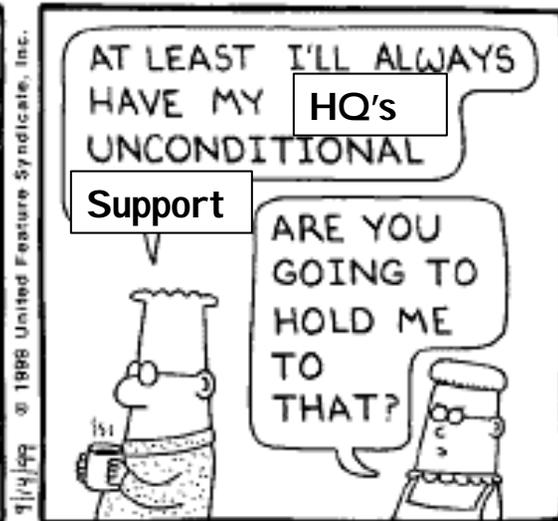
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Commercial Airlines Solutions *AirTran's Approach to Reducing TOC*



- **AirTran Airways:**
 - In 1999, began replacing it's fleet of DC-9 aircraft with Boeing 717s
 - As of December 1999, fleet consisted of 35 DC-9 aircraft, four B737s, and eight B717s
 - Has contracted the purchase of fifty B717s for delivery from 1999 to 2002
- **The initial high cost of replacing fleet has already begun to reduce the corporation's Total Ownership Costs:**
 - The engines in the new aircraft burn up to 23% less fuel per hour than the DC-9
 - Up to 60% fewer parts in the B717 environmental, avionics, and electrical systems significantly lowers maintenance and supportability costs
- **AirTran estimates savings of as much as \$65 million in annual operating costs after full transition to new fleet**



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DoD Changes to Lead to Better TOC Results



- **Current TOC approach does have significant problems**
 - Driven by “budget call” deadlines instead of by “philosophy change”
 - Perceived as process to resolve near-term funding shortfalls
 - Often based on search for “low hanging fruit” at the expense of long-term solutions
- **Necessary Changes**
 - **Senior level support to help remove constraints**
 - **Necessary resources to accompany policy changes**
 - **Industry help define relatively high cost/high payback initiatives that concentrate on high cost drivers that can be impacted**
 - **Ensure that credible business case analyses support initiatives**

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Summary



- **It's HARD!**
- **The System has inherent money barriers**
 - **Limited dollars to accomplish ANYTHING**
- **Commercial Airlines find solutions**
- **National Defense Industry MUST take a serious look at what is being done in the commercial arena**
 - **Apply/Adapt solutions for DoD**
 - **Look at the “whole” pie**

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R-TOC

R-TOC AIN'T ENOUGH!

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Backup



Cost Reduction & Effectiveness Improvement (CREI)



The Cost Reduction & Effectiveness Improvement Council (CREIC) was established in Feb. 1999 to standardize and institutionalize the Navy's efforts to identify, prioritize, and encourage funding of initiatives that reduce or avoid cost, reduce manpower requirements, reduce workload, and improve or support warfighting effectiveness.

- Incentives established for participating in the program
 - Resource Sponsors keep the savings from initiatives they fund
 - Sponsors encouraged to develop gain sharing arrangements among their claimants
 - Corporate Navy-Marine Corps keep the savings for corporately funded proposals

- Status
 - CREIC reviewed, endorsed, and prioritized proposals:
 - Capital for Labor initiatives (PB-00)
 - 9 NAVAIR initiatives/ funded through PBD 752
 - TOC reduction/CR&EI initiatives (PR-01)
 - 8 NAVAIR initiatives/funded by resource sponsor
 - TOC reduction/CR&EI initiatives (POM-02)
 - 17 NAVAIR initiatives/funded by resource sponsor (FY03 funds)

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Pilot Programs' Feedback



- **Want participation in tax process**
- **Eliminate “Color of Money” restrictions**
- **Two-year OM&N**
- **Exempt from funding sweep-up**
- **Exempt from deferral process**
- **Multi-year procurement for engines**
- **Contracts limited to 5 years**
- **Didn't receive a 4-year stability plan**
- **Give OM&N money annually rather than quarterly**

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Pilots' feedback continued...



- **Not included in O&S cost decisions**
- **Programs should retain 70% cost savings**
- **Increase beneficial suggestions to \$20K**
- **Too many O&S cost-drivers are beyond control of PMs**
- **Need more up-to-date and accurate cost data**
- **Need better support from ASN “Assist Groups”**
- **Pilot program required additional workload without providing additional funding**



Benefits of being a TOC Pilot



- **Better visibility to cost drivers than other programs'**
- **Helped program to focus on problem areas**
- **Resulted in \$26 million**



Performance Based Logistics (PBL)



Definition

A single supplier provides material to meet a customer's requirements without the intervention of, or need for organic inventory managers or intervening storage, material handling, and transportation systems while providing increased product availability, reliability, technology insertion, and obsolescence management at a lower total cost to the Fleet Customer and the Navy.

The PBL Process

- I. Candidate Selection**
- II. Exploration**
- III. Contract Negotiation**
- IV. Decision making**
- V. Implementation**
- VI. Tracking**

BCA

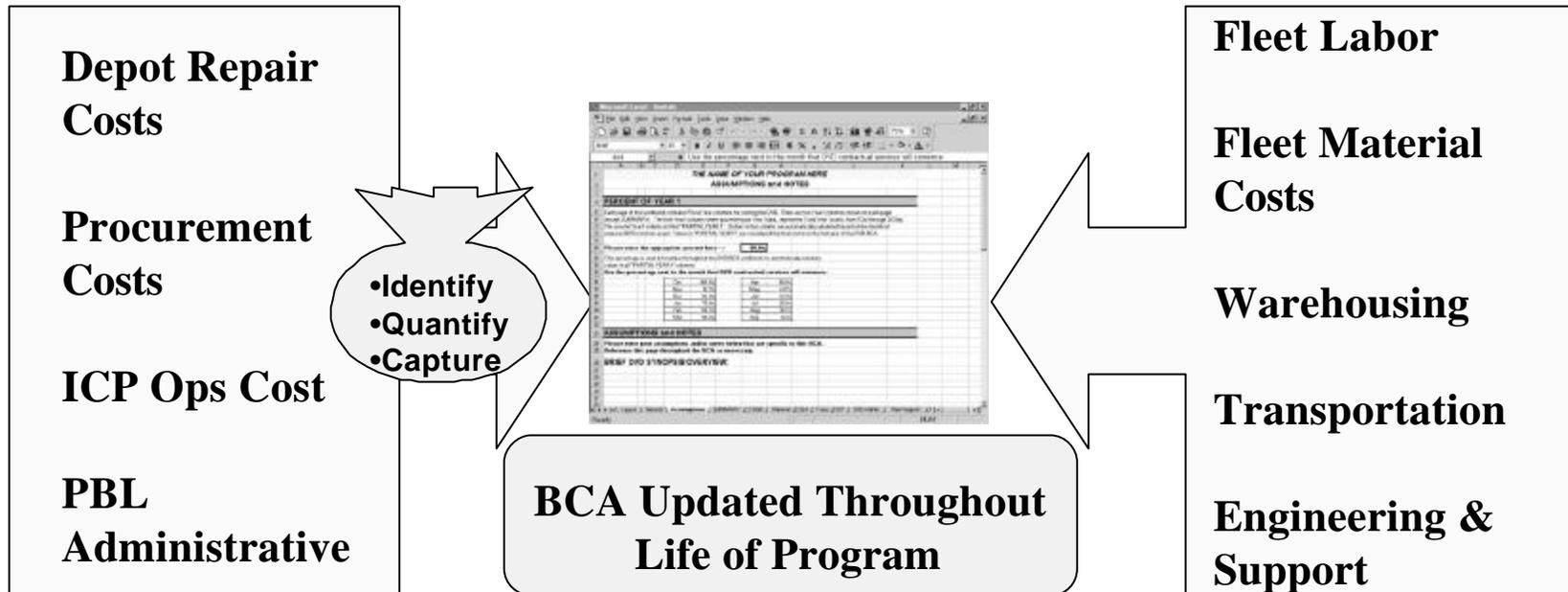


Business Case Analysis/Assessment Definition



Navy Budgetary and Decision Making Processes are Largely Built Upon Using BCA Techniques

- Logistics Engineering Change Proposals
- Modification Programs
- Affordable Readiness and Total Ownership Cost Reduction Processes
- Decisions for Alternative Logistics Support Approaches





Characteristics of “Good” BCAs



- ① Technically Feasible with Significant Payback Expressed as Equivalent or Better Performance at Equivalent or Lower Cost**
- ② Executable Given Funding Types Needed for Implementation**
- ③ Documented As a Cost Business Case Analysis to Show:**
 - Clear Identification of Baseline “Do Nothing Costs”
 - Reasonable/Executable Schedule and Time Phasing of Costs
 - Clear, Comprehensible Methodology for Defining Cost Avoidances or Changes Over Time
 - Clear Evidence that All Assumptions Are Based on Understanding of Naval Aviation Maintenance Issues
- ④ Clear, Concise “What We Are Proposing to Do” Addressing:**
 - What, How, When in Readily Understandable Manner
 - Basis for Key Technical Assumptions Clearly Stated



Things to Avoid in Business Case Analyses



Common Problem Areas

- No Basis for Estimates
 - Unrealistic Implementation Schedules
 - Limited Understanding of Potential Cost Changes Associated with New Approach Including Impact on Other Cost Areas
 - Lack of Knowledge of Naval Aviation Logistics Processes and Requirements
- ↳ Proposals For Alternative Logistics Support Solutions Largely Succeed or Fail Based on Quality of BCA -- Innovative Solutions Do Have a Strong Likelihood of Being Subject to Audits

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Problem Areas



- Business Case Analysis does not include the customer as the beneficiary
- Limited Understanding of Potential Cost Changes Associated with New Approach Including Impact on Other Cost Areas
- Industry gaming the system
- **With all of the initiatives being pursued we are still going “bankrupt”!**