



DEPARTMENT OF THE NAVY

NAVAL SEA SYSTEMS COMMAND
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ARLINGTON VA 22242-5160

7700
Ser 017/50
13 Nov 1998

MEMORANDUM FOR DISTRIBUTION

From: Chairman, NAVSEA Total Ownership Cost Working Group

Subj: TOTAL OWNERSHIP COST OBJECTIVES AND THRESHOLDS IN
ACQUISITION PROGRAM BASELINES

Encl: (1) "INTO The 21st Century" Draft Point Paper

1. ASN(RDA) Memorandum of 05 May 1998, subj.: Implementation Of Total Ownership Cost (TOC) Baselines In The Department Of The Navy, directs a revision to each program's APB to incorporate a Total Ownership Cost threshold and objective. Revised APBs shall be submitted to the appropriate Milestone Decision Authority (MDA) for ACAT I/II programs by 31 Dec 1998 and for ACAT III/IV programs by 30 Jun 1999.

2. Formulation of a program's TOC Reduction Plan requires the Program Manager (PM) to establish a TOC baseline and to identify cost reduction initiatives.

- Each program will use their current approved APB and their TOC Reduction Plan to establish a TOC threshold and objective.
- The TOC objective value should equal the TOC baseline less cumulative net cost avoidance associated with the program's active and planned TOC reduction initiatives. Enclosure (1) is the final draft of the Defense Systems Affordability Council (DSAC) strategy to revolutionize DoD's business affairs. It outlines the DSAC's cost reduction goals and is provided for guidance in developing TOC objective and threshold values.
- Unless otherwise specified, the TOC threshold value should be the TOC objective value plus 10 percent in accordance with SECNAVINST 5000.2B and DoD 5000.2-R but no larger than the TOC baseline.

The TOC threshold and objective will be a single entry in the footnote field of the cost section of the APB. The TOC threshold and objective should be expressed in the base year dollars of the APB.

3. SEA 91Y will coordinate submission of the revised APBs for NAVSEA and associated PEOs. The process for submitting revised APBs for ACAT I and II programs is:

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- In accordance with SECNAVINST 5000.2B, PMs obtain concurrence of their PEO, COMNAVSEA, or DPRM, as appropriate, with their APB revision.
 - PMs forward the concurred-with APB to SEA 91Y by **21 Dec 1998**.
 - ACAT I programs only need to submit the APB cover page and revised cost page.
 - ACAT II programs need to submit the entire APB.
 - SEA 91Y will obtain CNO or sponsor endorsement, as appropriate, and forward to ASN(RDA).
4. Since TOC includes costs not previously addressed in the APB, I recommend that the programs include a statement explaining the differences in the revised APB to the MDA.
5. These policies will remain in effect until cancelled or superseded by separate correspondence. Questions regarding this correspondence should be directed to [REDACTED] SEA 0171, 602-1308, x166. For convenience, this policy will be posted on the TOC Web site URL: <http://www.navsea.navy.mil/sea017/toc.htm>.
6. This memorandum does not apply to the systems under the responsibility of the Director, Naval Nuclear Propulsion Program (SEA 08).


P. M. TAMBURRINO, JR.

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INTO the 21st Century

ENCLOSURE (1)

A Letter signed by the entire DSAC Executive Committee

We are facing an unprecedented challenge to modernize our forces in a world which demands more for less. To meet that challenge, we need to take the next big acquisition reform step—the Revolution in Business Affairs. As articulated in the Defense Reform Initiative, the key elements of the Revolution in Business Affairs will help deliver needed, modern systems and support services to our warfighters—better, faster, and cheaper. The goal of this initiative is to provide the funds for effective warfighting capability in the next decade.

For this next phase of acquisition reform, we must further adapt the best world class business and technical practices to our needs, rationalize our infrastructure, restructure our support systems, and reduce cycle times and ownership costs. The Defense Systems Affordability Council (DSAC) is our forum for setting and monitoring top level goals, objectives, and metrics for these areas—metrics which must be mirrored in each and every DoD acquisition organization, whether it be a program office acquiring a new system or a logistics organization supporting a fielded system.

To be successful, several changes are needed in DoD's management, business, and technical practices. Many changes are underway; others are just starting. We ask you, the reader, to focus on our challenge. Think about the efficiencies and improvements the commercial sector is making and ask "How can we apply them?" We all must rededicate ourselves to more aggressive change. We will make mistakes along the way. And we may be criticized for these mistakes, but dramatic effects can only come when we take and manage risks and begin to act more as the competitive, commercial sector does.

Our workforce must have continuous acquisition and logistics education and training to meet the challenges of the new business paradigms. The old way of detailed government engineering and extensive technical oversight must be replaced by strong, technical management and greater use of effective incentives. We have already begun to achieve significant results in improving products and lowering their cost. This strategy seeks to reaffirm a close partnership across the Department to accelerate the process.

Our workforce is the principal source of the innovation to achieve our goals. We are actively soliciting your help and ideas on changes needed at all levels. (E-mail us at feedback@acq.osd.mil.) We have an open door for your ideas and will support you. All of us need to bring about a revolution in the way we do business.

Introduction

The Deputy Secretary of Defense chartered the Defense Systems Affordability Council (DSAC) to develop and guide the implementation of an integrated DoD strategy for better, faster, cheaper modernization. In this leadership role, the DSAC has enumerated three top level goals for the Department:

- Field high-quality defense products quickly; support them responsively.
- Lower the total ownership cost of defense products.
- Shift funds made available from infrastructure and support to modernization.

The DSAC is organized to achieve these goals. It is led by the Defense Acquisition Executive, and makes decisions based on a consensus of its members—the Service Acquisition Executives and other senior policy makers from the acquisition, logistics, comptroller, programming, and requirements communities. Groups associated with the DSAC focus on acquisition reform, logistics reengineering, systems engineering, science and technology, total ownership cost, and cycle time reduction. These groups support the DSAC by facilitating and institutionalizing policy and process changes to promote the top level goals. The Services and Defense Agencies, through their representatives on the DSAC and the Associated Groups, are responsible for implementation. The Associated Groups, the Services, and Defense Agencies jointly measure progress and provide feedback on the results.

These three goals interrelate in a strategic way. They seek to remove the barriers to change and improve the Department's ability to be innovative in order to maintain readiness and accelerate modernization. Goal 1 will reduce the cycle time of DoD processes for acquisition (including development) and support. Success will act as a catalyst for reducing costs across the board and improving responsiveness to changing situations. Goal 2 will reduce the total ownership costs of systems. By reducing the investment cost for new systems, the purchasing power of modernization funding will increase. By reducing the operating and support costs for fielded systems, more resources can be made available for modernization. As these costs decrease, there will be fewer demands on our infrastructure. Goal 3 will improve the efficiency of the infrastructure of bases and facilities and thereby enable additional cycle time reductions.

Process change is needed to achieve the objectives for each of these goals. Metrics and incentives are needed to drive change. Implementing change and measuring results are the combined responsibility of Office of the Secretary of Defense, the Services, the Joint Staff, the Defense Agencies, and industry. We have already begun to achieve significant results in improving the products and lowering their cost. This pamphlet seeks to reaffirm a close partnership with the DSAC to accelerate the process.

Goal #1: Field high quality defense products quickly; support them responsively

The United States commercial sector has demonstrated an ability to *develop, produce, and service* low cost, quality products in significantly *less* time than it did 10 years ago. The defense sector has not kept pace. Budget reductions and program instability are often cited as the reasons, but that explanation avoids the fact that defense industry needs to make the same productivity gains achieved by the private, commercial sector. The ability of the United States to preserve its technological advantage is at risk because our modernization, modification, and logistics support cycles are so long. Because much of this technology is available commercially, potential adversaries may field it first. When DoD fields a new weapon system today, many embedded subsystems are obsolete. We cannot continue to have 10 year weapon acquisition cycles when the underlying technology becomes obsolete in 2-5 years or less. Similarly, we can not afford logistic support cycles many times longer than the commercial counterparts. Top-level DSAC objectives are shown below.

- (1) The average systems acquisition cycle time (measured from program start to initial operating capability) for all program starts in FY 1999 and beyond will be 50% shorter than historical averages.
- (2) Reduce logistics response time from an average of 36 days (in FY 1997) to under 18 days by FY 2000, with a stretch target of 5 days by FY 2005.
- (3) Reduce the repair cycle times for end items and reparable parts by 10% by FY 2000 and by 25% by FY 2001 compared to FY 1997 baselines.

Although many initiatives affect cycle time, the following two initiatives will be major contributors to achieving these objectives:

- Establishing Accelerated Cycle Time Processes as the Norm: Improving the acquisition process to make better use of evolutionary defense acquisition, integrated product and process development, modeling and simulation, and other information system capabilities is not sufficient. Better partnerships involving users; the programming, budgeting and requirements communities; the basic and applied technology base developers; and test and evaluation communities are also vital. These partnerships are crucial, not only in changing cultures, but also for providing program stability that is essential in meeting these objectives. When funding changes occur, it is incumbent upon the program manager, in concert with the warfighter, to develop restructured program plans with an emphasis on maintaining schedule. Cycle time must be “actively managed.” It must become a planning constraint defined early in a program and enforced at all levels throughout all interacting organizations.
- Reengineering the Logistics System: We have a logistics system that costs too much and takes too long. Advanced information systems and rapid transportation are keys to lowering cost and improving performance. We also need to reform our inventory management systems and practices (to focus on suppliers, not supplies) and adapt commercial distribution systems to satisfy material requirements. Commercial products today are delivered worldwide in a few days.

Goal #2: Lower the total ownership cost of defense products

Total ownership cost of a weapon system encompasses development, production, operations, and support. The DSAC believes costs in all total ownership cost categories are too high and can be reduced substantially if we better emulate the best practices of the public and private sectors. Our approach is to set and achieve total ownership cost reduction targets in a series of pilot programs. For new starts, the pilots will establish “Cost as an Independent Variable” targets that are 20-50% below estimates derived from historical cost estimating relationships. For fielded systems, targets will encompass best estimates of direct and indirect costs. The targets will become increasingly more aggressive as lessons learned are applied across all systems. DSAC top-level objectives are shown below:

- (1) For systems in acquisition, achieve or surpass “Cost as an Independent Variable” targets for at least 50% of programs by FY 2000.
- (2) For fielded systems, reduce the logistics support cost per weapon system per year compared to FY 1997 baselines as follows: 7% by FY 2000; 10% by FY 2001; and a stretch target of 20% by FY 2005.

In addition to the cycle time reduction activities, the following important activities will contribute to achieve these objectives:

- Integrating the Commercial Military Industrial Base: The commercial sector is using processes that have improved product quality and customer acceptance while maintaining or lowering costs. To control its rising costs, DoD and the defense industry must adopt the best practices of both the private and public sectors. We will promote the best practices from both the commercial and defense industries and from the Government (e.g., the Lean Aerospace Initiative and Best Manufacturing Practices). We will move from a cost-based purchasing system to one based on price. We will make it more attractive for commercial companies to compete for DoD business, removing barriers that discourage their participation. Acquisition Reform initiatives, such as the elimination of military specifications and use of commercial practices, processes, and items, are steps in this direction. Giving total systems performance responsibility to industry has already led to improved performance at lower cost. Giving responsibility for processes to industry through such initiatives as Performance Based Business Environment, Single Process Initiative, and Open Systems has also reduced costs further. As use of these initiatives is expanded, there will be additional competition that will lead to increasing performance and declining costs.
- Giving New Authorities to Program Managers of Both New and Fielded Systems: Program managers’ accountability for life cycle issues can be improved by increasing visibility into related processes, giving them control of the resources needed to make change, expanding their authority to make tradeoffs among research and development, acquisition, operating, and support costs, and holding them responsible for the results. Continuing partnerships involving the users, developers, and the support establishment will produce the best value for the available resources. Reducing the cost of fielded systems is an especially difficult but very important challenge since this is where most of the funding is. Improving reliability and maintainability through programs such as the Commercial Operations and Support Savings Initiative will make major headway on reducing *demand* for support. Reducing demand, however, is not enough: we must also reduce the cost of *delivering* support—which means smart and aggressive support process reengineering. The key to this reengineering is

being able to optimize across functional stovepipes rather than sub-optimize within them. The program managers for fielded systems, using their new authorities, are in the best position to work with functional managers and operating commands to capitalize on the reengineering opportunity.

Goal #3: Shift funds made available from infrastructure and support to modernization

Since the DoD budget is likely to remain constant for the foreseeable future, additional funds to meet critical modernization needs cannot be anticipated. Therefore, consistent with the Department's National Performance Review commitments, the DSAC's goal is to increase the funds for modernization by almost 50 percent from recent lows (\$40 billion) by transferring funds from logistics operation and other support accounts. At the same time, we will maintain readiness levels necessary to meet the challenges of the next decade. To measure our progress in achieving this goal, the DSAC has established the following objectives:

- (1) Achieve annual defense procurements of at least \$54 billion by FY 2000 and \$60 billion by FY 2001.
- (2) Reduce the ratio of logistics support costs to Total Obligation Authority from 32% (in FY 1997) to the following: 31% by FY 2000; 30% by FY2001; and 27% by 2005. These changes correspond directly to objective 2 for total ownership costs.
- (3) Reduce the ratio of non-logistics infrastructure to Total Obligation Authority from 32% (in FY 1997) to the following: 31% by 2000; 30% by FY2001; and a stretch target of 26% by 2005.

Beyond the ownership cost initiatives, we intend to achieve these objectives principally through the following activities:

- Using People and Resources Efficiently: More of the weapon system development, production, and support functions will be "competitively sourced." The DoD has a minimum set of functions only it can perform. Those functions—combat, policy formulation, management of resources, and oversight—must be retained. All other functions should be performed organically only if DoD is more efficient and effective than the private sector. The United States private, commercial sector has proven itself to be very competitive in the world today. If we take advantage of these efficiencies, private and government costs can be reduced and funds can be shifted to modernization. There is no bias towards privatization. We want to use those resources which are most efficient and effective.
 - Reducing DoD Infrastructure: The Secretary of Defense intends to continue to reduce the DoD infrastructure by restructuring facilities. Retaining excess capacity wastes resources that can be directed to modernization. As weapon systems development, production, and support are competed, some current capacity will become excess.

Implementation

Meeting the DSAC top-level goals depends on the cooperation, support, and leadership of the Service Acquisition Executives, Deputy Chiefs of Staff for Logistics, Program Executive Officers and program managers, the supporting System and Materiel Command Commanders, the Defense Agency heads, and *every individual in our workforce*. However, the acquisition and logistics workforce cannot be successful alone—the Joint Staff and Service requirements, programming, and budgeting communities must contribute. The DSAC will provide the top-level leadership; however, it is up to every involved individual to manage and direct all of his or her activities toward these common goals and objectives. The following principal responsibilities and implementation steps are critical.

Communicate the Strategy

The DSAC will communicate this strategy to the entire acquisition and logistics workforce. The Under Secretary of Defense for Acquisition and Technology, Service Acquisition Executives, Deputy Chiefs of Staff for Logistics, Defense Agency heads, Program Executive Officers, System and Materiel Command Commanders, and program managers will incorporate the ideas laid out in this strategy in every appropriate public forum they address. Testimony and interactions with the Congress will include the DSAC strategy and the implementation results.

Industry will be incentivized to become a partner in the strategy and will be asked to endorse the message to its workers. A thorough understanding and acceptance of the related metrics by industry is a key to the success of implementation.

Organize Effectively

The Under Secretary of Defense for Acquisition and Technology will ensure that the enterprise-level goals, objectives, and metrics are established, measured, and become acquisition policy. The Service Acquisition Executives, Deputy Chiefs of Staff for Logistics, and Defense Agency heads will establish and monitor complementary goals, objectives, metrics, and necessary incentives that apply to all programs supervised by Program Executive Officers as well as Service and Agency level processes. The metrics developed in the Lean Aerospace Initiative's Lean Enterprise Model, already used by a large segment of the defense industry, made be useful for measuring progress.

The Service Acquisition Executives and Overarching Integrated Product Teams will ensure that goals and objectives are included in the plans for all programs requiring Defense Acquisition Board oversight. Overarching Integrated Product Teams preparing for sessions of Defense Acquisition Boards will ensure that the strategy is a part the acquisition plans, goals, metrics, and incentives for all programs they assist and review. The Service Acquisition Executives and Designated Acquisition Commanders will also include the goals, objectives, metrics, and incentives in all programs that do not require Defense Acquisition Board review.

The Under Secretary of Defense for Acquisition and Technology will work with the Joint Requirements Oversight Council, Commanders-in-Chiefs, operational commands, and Defense Agencies to routinely incorporate cost performance tradeoffs in their requirements documents. Targets for unit production and operations and support costs must become the norm. Both will work to improve implementation of "Cost as an Independent Variable" processes for making cost performance tradeoffs.

The DSAC Associated Groups will ensure their priorities include focusing their attention on the critical process-related initiatives that have the greatest potential impact on the enterprise-level goals. The DSAC Associated Groups will also establish time-phased goals, objectives, and metrics for these initiatives. The DSAC Associated Groups will also support both the establishment of incentives and the removal of disincentives for achieving the goals.

The Service Acquisition Executives will designate pilot programs as agents of change. These pilot programs, along with the “Cost as an Independent Variable” flagship programs, will demonstrate how initiatives contribute to the goals, objectives, and metrics.

Continuously Educate and Train the Acquisition Workforce

The Office of the Secretary of Defense will support the education and training of our workforce to ensure that these goals and objectives are achieved. The Defense Acquisition University will incorporate the rationale for the strategy, goals, and metrics into all acquisition courses and report progress to the DSAC. The Service Acquisition Executives will require System and Material Command Commanders to incorporate the rationale for the strategy, goals, and metrics into all courses under their direction. The System and Material Command Commanders will report progress to their Service Acquisition Executive. A unified (Services and Defense Acquisition University) report on education and training will be provided to the DSAC every 6 months. Industry will be encouraged to include the strategy and goals in training it provides its workers.

Monitor Progress and Update

Progress reports will be provided at DSAC meetings. The Service Acquisition Executives and Deputy Chiefs of Staff for Logistics will report how well performance measurements relate to target objectives. The program managers for pilot programs will report progress at least once a year to the DSAC and forums such as the Program Executive Officers/System Command Commanders’ Conference. The following topics will be reported as a minimum: 1) progress in achieving goals and objectives, 2) metrics and incentives, 3) lessons learned, and 4) best practices. The program managers of the pilot programs will transfer their knowledge and experiences to other DoD programs. The DSAC will be responsible for reporting or modifying top level goals, objectives, and metrics. The DSAC will provide periodic reports to all members of our workforce.