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Inspector General
United States
Department of Defense

Navy Acquisition Executive's Management Oversight and Procurement Authority for Acquisition Category I and II Programs

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Acronyms

ACAT	Acquisition Category
AoA	Analysis of Alternatives
ASN(RD&A)	Assistant Secretary of the Navy (Research, Development, and Acquisition)
ASW	Antisubmarine Warfare
CLIP	Common Link Integration Processing
FAR	Federal Acquisition Regulation
GAO	Government Accountability Office
IG	Inspector General
LRIP	Low-Rate Initial Production
NAE	Navy Acquisition Executive
ORD	Operational Requirements Document
OSCAR	Open Systems Core Avionics Requirements
PEO	Program Executive Officer
SECNAV	Secretary of the Navy
SEWIP	Surface Electronic Warfare Improvement Program
USD(AT&L)	Under Secretary of Defense for Acquisition, Technology, and Logistics

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-4704

March 9, 2007

MEMORANDUM FOR NAVAL INSPECTOR GENERAL

SUBJECT: Report on Navy Acquisition Executive's Management Oversight and Procurement Authority for Acquisition Category I and II Programs (Report No. D-2007-066)

We are providing this report for review and comment. We considered management comments on a draft of this report in preparing the final report.

DoD Directive 7650.3 requires that all recommendations be resolved promptly. As a result of management comments, we revised Recommendation A.3. and deleted Recommendation A.1.e. Recommendation B.1. remains unresolved. In addition, we added Recommendation B.2. and deleted Recommendation B.6. We renumbered B.2., B.3., and B.4. as B.3., B.4., and B.5. accordingly. We revised Recommendations B.3. and B.4. We request that the Assistant Secretary of the Navy (Research, Development, and Acquisition) provide comments on Recommendations A.3., B.1., B.2., and B.4. by April 9, 2007.

If possible, please send management comments in electronic format (Adobe Acrobat file only) to AudACM@dodig.mil. Copies of the management comments must contain the actual signature of the authorizing official. We cannot accept the / Signed / symbol in place of the actual signature. If you arrange to send classified comments electronically, they must be sent over the SECRET Internet Protocol Router Network (SIPRNET).

We appreciate the courtesies extended to the staff. Questions should be directed to Ms. Jacqueline L. Wicecarver at (703) 604-9077 (DSN 664-9077) or Mr. Sean A. Davis at (703) 604-9049 (DSN 664-9049). See Appendix I for the report distribution. The team members are listed inside the back cover.

By direction of the Deputy Inspector General for Auditing:

Richard B. Jolliffe
Assistant Inspector General
Acquisition and Contract Management

Department of Defense Office of Inspector General

March 9, 2007

Report No. D-2007-066
(Project No. D2005-D000AS-0230.000)

Navy Acquisition Executive's Management Oversight and Procurement Authority for Acquisition Category I and II Programs

Executive Summary

Who Should Read This Report and Why? Civil service and military personnel involved in the management oversight and procurement authority for Navy acquisition programs should read this report. It discusses program management oversight issues that the Navy should address to improve how acquisition officials manage and acquire weapon systems.

Background. This is the third in a series of reports that discusses the Service Acquisition Executives' management oversight and procurement authority for Acquisition Category IC and II programs. This report discusses the management oversight and procurement authority within the Navy. Two other reports discussed the management oversight and procurement authority within the Army and Air Force. We initiated this audit due to congressional and DoD interest in whether milestone decision authorities and procurement officials for the Services were complying with statutory and regulatory requirements in the DoD acquisition process. We evaluated the adequacy of the Navy Acquisition Executive (NAE) management oversight and procurement authority by reviewing 13 Acquisition Category IC and II programs with a total estimated research and development cost of $6.170 billion and a total estimated procurement cost of $28.244 billion in FY 2006 dollars. The Assistant Secretary of the Navy (Research, Development, and Acquisition) is the milestone decision authority for the development and procurement of Navy Acquisition Category IC and II programs. The Navy uses a database called Dashboard to help manage the Navy programs.

Results. In general, the Navy implemented the management controls in the DoD 5000 series of documents and the Federal Acquisition Regulation. We did not find management control problems like those identified in our earlier reviews of the Boeing KC-767A tanker aircraft and the C-130J aircraft. We also determined that the NAE internal controls were adequate. We identified no material internal control weaknesses in the management oversight and procurement authority for Acquisition Category IC and II programs. Specifically, we found no evidence that Navy milestone decision authorities used their positions to inappropriately influence the results of contractor selection and negotiations. In addition, the NAE oversight of Acquisition Category IC and II programs was generally adequate. However, management oversight of areas related to the documentation requirements in support of program milestone decision reviews, test and evaluation, and the Dashboard reporting system could be improved.

Since FY 2000, the NAE approved 10 of the 13 programs we reviewed for entry into the next phase of the acquisition process before obtaining all required or properly approved acquisition documentation. Additionally, the NAE did not require 3 of the 13 programs to have approved and updated acquisition program baseline documentation between milestone decision reviews when significant changes affected the programs. As a result, the NAE did not have all the necessary information to make fully informed milestone decisions and act appropriately between milestone decision reviews. Therefore, we recommend that the Assistant Secretary of the Navy (Research, Development, and Acquisition) comply with DoD and Secretary of the Navy policy when reviewing programs for milestone reviews; maintain decision documents as a result of milestone reviews in the acquisition decision memorandum; track deviation reports in the Navy Dashboard database; and require program managers to maintain approved documentation for the life of the acquisition program (finding A).

The NAE approved 8 of the 13 programs for either low-rate initial production or full-rate production. The NAE approved three programs for low-rate initial production before program officials conducted an operational assessment. The NAE approved one program for low-rate initial production even though operational assessment determined the system was immature and critical operational issues could not be evaluated. Further, on one program, the Navy purchased all systems prior to completing operational testing. As a result, the NAE did not determine whether programs were operationally effective and suitable prior to approving production quantities costing about $25 billion. This could result in additional development work and operational testing, cost overruns, and schedule delays.

We recommend that the NAE acquisition decision memorandums include justification for exceeding the 10-percent low-rate initial production guideline, justification for approving low-rate initial production or full-rate production when exit criteria are not met, a statement that previously approved exit criteria have been deleted or revised, and an explanation for the change to the exit criteria. In addition, the Assistant Secretary of the Navy (Research, Development, and Acquisition) should formally document the rationale for allowing programs to proceed through milestone decision reviews without the required testing and documentation (finding B).

Program managers for 2 of the 13 Navy programs did not update Dashboard information on a quarterly basis. Additionally, program managers for evolutionary acquisitions could not report each increment separately in Dashboard. This practice will result in a loss of historical data for past increments. Navy officials will not be able to distinguish between important milestone decision dates and data for each increment. This condition could result in Navy officials being unable to interpret data in the Dashboard reports. Therefore, we recommend that the Assistant Secretary of the Navy (Research, Development, and Acquisition) issue guidance mandating the use and quarterly update of Dashboard and modify Dashboard to distinguish increments for evolutionary acquisition programs (finding C).

See the Findings section for details on the audit results and recommendations.

Management Comments and Audit Response. We received comments from the Deputy Assistant Secretary of the Navy (Management and Budget), who responded on behalf of the Assistant Secretary of the Navy (Research, Development, and Acquisition). He generally concurred with our recommendations on preparing and updating program documentation. However, he nonconcurred with our recommendation that the AV-8B

Harrier II OSCAR program manager develop and prepare a tailored information support plan. The Deputy Assistant Secretary of the Navy (Management and Budget) stated that completing an information support plan when the program is 58-percent delivered would be an inefficient use of available resources with limited or no benefit to the program.

In response to management comments, we added an additional recommendation and deleted one recommendation. The added recommendation is for the Navy to update the Navy Acquisition Guidebook to conform to the requirements in DoD Instruction 5000.2. In addition, the Deputy Assistant Secretary of the Navy (Management and Budget) comments were not responsive on two of the seven recommendations on operational testing in the milestone decision process. He nonconcurred with the recommendation to approve a program office's request to exceed the 10-percent low-rate initial production limitation only with the Commander, Operational Test and Evaluation Force recommendation that the system is ready to proceed to low-rate initial production. In response to management comments, we revised the recommendation to state that the Assistant Secretary of the Navy should assess the cost and benefits of a break in production versus continuing annual buys when the program office expects to exceed the low-rate initial production quantity approved at Milestone B. Additionally, management comments were not responsive to the recommendation requiring program offices to schedule and complete an operational assessment prior to the low-rate initial production milestone decision in accordance with DoD Instruction 5000.2.

Based on management comments, we also revised the recommendation regarding documenting in the acquisition decision memorandum when quantities exceed the 10-percent low-rate initial product guideline.

The Deputy Assistant Secretary of the Navy (Management and Budget) concurred with both of our recommendations on the Dashboard database. He stated that official Dashboard guidance will be issued and that Dashboard will be modified to distinguish different increments for evolutionary programs. The comments were responsive to the recommendations.

We request that the Assistant Secretary of the Navy (Research, Development, and Acquisition) provide comments on Recommendations A.3., B.1., B.2., and B.4. by April 9, 2007. See Appendix H for a discussion of management comments on the findings. Also, see the Findings section of the report for a discussion of management comments on the recommendations and the Management Comments section of the report for the complete text of the comments.

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Background

This report is the third in a series of audit reports that discusses the Service Acquisition Executives' management oversight and procurement authority for Acquisition Category (ACAT) I and II programs. This report discusses Navy's management oversight and procurement authority. Two other reports discussed the Army and Air Force management oversight and procurement authority. We initiated this audit because of congressional and DoD interest in whether Service milestone decision authorities and procurement officials were complying with the statutory and regulatory requirements for acquisitions. Previous audits of the Boeing KC-767A tanker aircraft and the C-130J aircraft found that the program offices failed to implement management controls in accordance with the policy and guidance in the DoD 5000 series of documents and in the Federal Acquisition Regulation (FAR). See Appendix D for a comparison of conditions identified during three Boeing KC-767A and C-130J audits with the 13 Navy programs reviewed during this audit.

The DoD 5000 series of documents provides policy and guidance to the DoD Components to manage their acquisition programs. The Defense Acquisition Executive is the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD[AT&L]) who supervises the Defense Acquisition System. The USD(AT&L) designates programs as either ACAT ID or ACAT IC, depending on the required level of oversight. The USD(AT&L) is the milestone decision authority for ACAT ID programs. The head of the DoD Component or, if delegated, the DoD Component Acquisition Executive is the milestone decision authority for ACAT IC programs.

Secretary of the Navy (SECNAV) Instruction 5000.2C, "Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System," November 19, 2004, implements the DoD 5000 series of documents. SECNAV Instruction 5000.2C states that the Assistant Secretary of the Navy (Research, Development, and Acquisition) (ASN[RD&A]) is the Department of the Navy Component Acquisition Executive. The ASN(RD&A), also known as the Navy Acquisition Executive (NAE), is the milestone decision authority for ACAT IC and II programs and may delegate this responsibility as authorized by law and regulations. The NAE designates Program Executive Officers (PEO) for executive management of assigned acquisition programs and assigns program managers to execute the acquisition programs in accordance with approved cost, schedule, and performance thresholds set in the acquisition program baseline. The Secretary of the Navy, ASN(RD&A), Chief of Naval Operations, Systems Commands, PEOs, and program managers use an automated tool called Dashboard to manage the various ACAT programs with consistent data throughout the chain of command.

ACAT I (IC and ID) programs are major Defense acquisition programs with an estimated total expense for research, development, test, and evaluation of more than $365 million in FY 2000 constant dollars or, for procurement, of more than $2.190 billion in FY 2000 constant dollars. ACAT II programs are major systems with an estimated total expense for research, development, test, and evaluation of less than $365 million but more than $140 million, or for procurement, of less than $2.190 billion but more than $660 million in FY 2000 constant dollars.

We evaluated the adequacy of the NAE management oversight and procurement authority by reviewing 13 ACAT IC and II programs with a total estimated research and development cost of $6.170 billion and a total estimated procurement cost of $28.244 billion in FY 2006 dollars. Appendix E shows an overview of the programs reviewed including the individual funding for each of the programs. Of the 13 programs selected for review, 5 programs were in the system development and demonstration phase, and 8 programs were in the production phase of the acquisition process. In addition, 8 of the 13 programs were listed on the Director, Operational Test and Evaluation Oversight list. Appendix C contains a glossary of technical terms used in this report.

Objective

The overall audit objective was to evaluate whether the NAE management oversight and procurement authority for ACAT I and II programs was adequate. Specifically, the audit evaluated the adequacy of the program management and procurement decision process used by the NAE. We also reviewed management controls as they related to the audit objective. See Appendix A for a discussion of the scope and methodology and Appendix B for prior audit coverage related to the audit objectives. See Appendix F for a description of the 13 Navy acquisition programs. See Appendix G for a discussion of other matters of interest concerning Acquisition Coordination Teams and documentation of the contract negotiations.

Review of Internal Controls

The NAE internal controls over the management and procurement of ACAT IC and II programs were adequate.

A. Preparing and Updating Program Documentation

Since FY 2000, the NAE approved 10 of the 13 programs we reviewed for entry into the next phase of the acquisition process before obtaining all required or properly approved acquisition documentation. The NAE did not require 3 of the 13 programs to have approved and updated acquisition program baseline documentation between milestone decision reviews when significant changes affected the programs. These conditions occurred because the NAE did not comply with DoD and Navy acquisition policy when reviewing and approving programs for a milestone decision review and because the NAE was not tracking program deviation reports in the Navy Dashboard database. In addition, it was unclear why the NAE allowed programs to proceed through milestones without required or properly approved acquisition documentation. No formal tailored documentation agreements existed and documentation decisions associated with each milestone review were not being formally documented in document waivers, tailoring agreements, or acquisition decision memorandums. As a result, the NAE did not have all the necessary information required to make fully informed milestone decisions and to take appropriate management actions between milestone decision reviews.

DoD and Navy Policy Applicable to the Acquisition Process

DoD Instruction 5000.2, "Operation of the Defense Acquisition System," May 12, 2003, and SECNAV Instruction 5000.2C establish requirements for preparing, updating, and obtaining required program documentation. Additional policy has been issued for program documentation but has not yet been incorporated in DoD Instruction 5000.2 or SECNAV Instruction 5000.2C. The USD(AT&L) memorandum, "Policy for Systems Engineering in DoD," issued February 20, 2004, establishes the requirements for developing systems engineering plans. The *Defense Acquisition Guidebook* provides the acquisition community with a guide to best practices for Defense acquisitions. Two additional SECNAV Instructions provide guidance on Navy policy, processes, and acquisition responsibilities associated with life-cycle management.

DoD Instruction. DoD Instruction 5000.2 specifies program documents that program managers must provide at program milestone reviews. This guidance establishes a simplified and flexible management framework for translating approved mission needs and technology opportunities into stable, affordable, and well-managed acquisition programs that include weapon systems and automated information systems.

USD(AT&L) memorandum, "Policy for Systems Engineering in DoD," February 20, 2004, requires "all programs responding to a capabilities or requirements document, regardless of acquisition category, to apply a robust systems engineering approach that balances total system performance and total

ownership costs within the family-of-systems, systems-of-systems context." The memorandum requires program managers "to develop a systems engineering plan for NAE approval in conjunction with each milestone review." The systems engineering plan should also be integrated with the acquisition strategy. The systems engineering plan must describe the program's overall approach, including processes, resources, metrics, and applicable performance incentives. It must also state the timing, conduct, and success criteria of technical reviews.

Navy Instructions. SECNAV Instruction 5000.2C identifies milestone documentation requirements as the key management control for acquisition programs and the milestone decision review process as the evaluation of that control.

SECNAV Instruction 5400.15B, "Department of the Navy Research, Development, and Acquisition, and Associated Life-Cycle Management Responsibilities," December, 23, 2005, describes the relationships between the ASN(RD&A), PEOs, and the Chief of Naval Operations and associated life-cycle management responsibilities. It also documents previously established duties and responsibilities of the ASN(RD&A).

SECNAV Instruction 5420.188F, "Acquisition Category Program Decision Process," November 2, 2005, provides policy and process for making Navy ACAT program decisions and outlines managers' responsibilities for the oversight process. See the Management Oversight section for additional oversight responsibilities.

***Defense Acquisition Guidebook*.** The *Defense Acquisition Guidebook* provides the acquisition community with best practices for Defense acquisitions. The Guidebook is a practical reference that supports acquisition decision makers in effectively fulfilling their management duties. The content includes general policies and procedures that complement the statutory and regulatory requirements outlined in the DoD 5000 series of guidance. It also includes instruction on program management responsibilities, developing acquisition goals and strategies, and preparing acquisition documentation.

Management Oversight

The management oversight responsibilities for the Navy program decision process are set forth in SECNAV Instruction 5000.2C, SECNAV Instruction 5400.15B, and SECNAV Instruction 5420.188F. The levels of management oversight and responsibilities are defined below.

Milestone Decision Authority. SECNAV Instruction 5000.2C and SECNAV Instruction 5420.188F designates the ASN(RD&A) as the NAE. The NAE is responsible for all research, development, and acquisition conducted for the Department of the Navy. The NAE serves as the milestone decision authority for ACAT IC and II programs. The milestone decision authority is required to

conduct milestone reviews for all assigned Department of the Navy ACAT programs and holds a program decision meeting before milestone decisions. The program decision meeting is the NAE milestone review forum. The primary duties of the NAE include reviewing and approving all appropriate milestone documentation, reviewing the program decision briefing, chairing the program decision meeting, and signing the acquisition decision memorandum.

Deputy Assistant Secretaries of the Navy. The Deputy Assistant Secretaries of the Navy for ACAT IC and II programs are responsible for cochairing or appointing an action officer[1] to cochair the Acquisition Coordination Team. The cochair ensures that milestone documentation is complete and has been submitted to appropriate review and approval authorities prior to scheduling a program decision meeting, and prepares and obtains a signature on the acquisition decision memorandum. As of October 2006, 10 Deputy Assistant Secretaries of the Navy oversee specific functional areas within the Office of the ASN(RD&A). Each acquisition program is assigned a Deputy Assistant Secretary of the Navy based on the program type.

Program Executive Officers. PEOs exercise the authority of the NAE to directly supervise the management of assigned programs, maintaining oversight of cost, schedule, and performance. PEOs are responsible for all aspects of life-cycle management for their assigned programs. PEOs report directly to the NAE for all matters pertaining to acquisition. The PEO also establishes the Acquisition Coordination Team, ensures all program issues have been addressed, chairs the acquisition program briefings, and notifies the Deputy Assistant Secretary of the Navy to schedule the program's milestone review.

Program Managers. Program managers cochair the Acquisition Coordination Team, develop an overall approach to conduct the milestone review, prepare and present the program decision briefing, and ensure that program officials obtain appropriate reviews and approvals for acquisition documentation. Before program initiation and before the NAE approves subsequent milestone reviews, program managers must provide mandatory program documents for the milestone decision authority to review.

Submitting Required Program Documentation at Milestone Decision Reviews

We reviewed 13 Navy acquisition programs that had milestone reviews held with the NAE for entry into the system development and demonstration phase and production and deployment phase of the acquisition process. The NAE approved 10 of the 13 programs for entry into the next acquisition phase even though required acquisition documentation was not provided or was not properly approved at the time. The Deputy Assistant Secretary of the Navy assigned to the program prepares the acquisition decision memorandum and the NAE approves it. It is the formal approval of the program to enter the next acquisition phase. The

[1]Action officers are assigned to a Deputy Assistant Secretary of the Navy and work closely with program management to ensure that milestone documentation requirements are met.

following table shows whether the program managers for the 13 Navy programs could provide support that they developed 8 mandatory documents and had each document properly approved according to the guidance.

Key Documentation of the 13 Navy Programs

Programs	AoA	APB	Acquisition Strategy	C4ISP or ISP	MNS or ICD	ORD, CDD, or CPD	SEP	TEMP
Advanced Arresting Gear	Yes	Yes	Yes	N/A[1]	Yes	Yes	Yes	Yes
Advanced Deployable System	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Active Electronically Scanned Array	No	Yes	No	Yes	N/A[2]	Yes	Yes	Yes
Airborne Laser Mine Detection System	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
AN/AQS-20A	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
AN/SPY-1D(V)	No	Yes	No	N/A	Yes	Yes	N/A[3]	Yes
Common Link Integration Processing	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MH-60R	No	Yes	Yes	Yes	No[4]	Yes	Yes	No
Mode 5	No	Yes	No	No	Yes	Yes	N/A	Yes
Navy Multiband Terminal	Yes	No	Yes	Yes	No	Yes	N/A[3]	No
Open Systems Core Avionics Requirements	Yes	Yes	Yes	No	No	No	N/A[3]	Yes
Surface Electronic Warfare Improvement Program	Yes	Yes	No	N/A[5]	Yes	Yes	No	Yes
Tactical Tomahawk	No	Yes	Yes	Yes	Yes	Yes	N/A[3]	Yes

AoA	Analysis of Alternatives
APB	Acquisition Program Baseline
CDD	Capabilities Development Document
CPD	Capabilities Production Document
C4ISP	Command, Control, Communications, Computers, and Intelligence Support Plan
ISP	Information Support Plan
ICD	Initial Capabilities Document
MNS	Mission Needs Statement
ORD	Operational Requirements Document
SEP	Systems Engineering Plan
TEMP	Test and Evaluation Master Plan

[1] Program had an approved ISP waiver.
[2] Program was not required to develop a mission needs statement.
[3] Not required to develop an SEP before February 20, 2004.
[4] Program used the ORD to show mission needs.
[5] Assistant Secretary of Defense (Networks & Information Integration) deferred ISP requirement to next milestone.

Analysis of Alternatives. An analysis of alternatives (AoA) is the evaluation of the operational effectiveness, operational suitability, and estimated costs of alternative systems to meet a mission capability. The analysis assesses the advantages and disadvantages of alternative systems being considered to satisfy a validated need, including the sensitivity of each alternative to possible changes in key assumptions and variables. SECNAV Instruction 5000.2C requires an AoA be developed for both ACAT IC and II programs prior to entry into the DoD acquisition process. According to the Office of the Secretary of Defense Cost Analysis Improvement Group's "Operating and Support Cost-Estimating Guide," May 1, 1992, a cost and operational effectiveness analysis should be conducted to assess the operational effectiveness and suitability of proposed concepts at Milestones I and II.[2] The cost and operational effectiveness analysis considered the cost-effectiveness of the recommended approach and of alternative approaches. Because some of the programs were initiated when different guidance was in effect, we accepted a cost and operational effectiveness analysis in lieu of an AoA.

Of the 13 programs chosen for review, 9 had an AoA or a cost and operational effectiveness analysis prepared. Seven of the nine documents were properly approved by NAE or did not require NAE approval at the time they were created; one of the nine documents did not have the signature page; and one of the nine was approved by the PEO rather than the NAE.

Program officials for the following four programs were unable to provide an AoA or cost and operational effectiveness analysis:

- MH-60R Multi-Mission Helicopter,
- Tactical Tomahawk,
- AN/SPY-1D(V) Radar Upgrade, and
- Mark XIIA Mode 5 Identification Friend or Foe Upgrade.

As a result, we could not verify that the AoAs or cost and operational effectiveness analyses existed for those four programs.

AN/APG-79 Active Electronically Scanned Array Radar System. An AoA was provided for the AN/APG-79 Active Electronically Scanned Array Radar System; however, the signature page could not be provided. As a result, we could not verify that the AoA had been approved by the NAE.

Common Link Integration Processing. SECNAV Instruction 5000.2C requires the AoA be approved by the NAE, the Chief of Naval Operations, or the

[2] Milestone I is a legacy milestone phase in which the program, if approved, would have been established as a new acquisition program and entered into the program definition and risk reduction phase of the legacy acquisition life cycle. It is the equivalent of Milestone A under the current acquisition life cycle. Milestone II is a legacy milestone phase in which the program, if approved, would have been approved to enter the engineering and manufacturing development phase of the legacy acquisition life cycle. It is the equivalent of Milestone B under the current acquisition life cycle. This milestone did not approve low-rate initial production for the program, LRIP was approved later in the same phase as its own decision.

Commandant of the Marine Corps, but makes no mention of the PEO being approved to sign the AoA. The AoA was approved by the PEO instead of the NAE as required by the SECNAV Instruction 5000.2C. According to the program staff, the NAE advised them that the AoA could be approved by the PEO, but they could not provide supporting documentation.

Acquisition Program Baseline. The NAE approved acquisition program baselines for 12 of the 13 programs. The acquisition program baseline is prepared by the program manager and approved by the NAE prior to milestone approval. The acquisition program baseline prescribes the key cost, schedule, and performance constraints that must be achieved by the program before the next milestone decision review in the acquisition process. The constraints are documented in the objective value and threshold value for each parameter. The program manager manages the program to the objective value of each parameter. Thresholds represent the acceptable limits to the parameter values that still provide the needed capability. The failure to attain program thresholds may degrade system performance, delay the program, or make the program too costly. Program managers are responsible for executing programs in accordance with approved cost, schedule, and performance thresholds set in the acquisition program baseline.

Navy Advanced Extremely High Frequency Multiband Terminal. The Navy Advanced Extremely High Frequency Multiband Terminal program's acquisition program baseline was not approved until 6 weeks after its acquisition decision memorandum for Milestone B.[3] The NAE decided to withhold approval of the acquisition program baseline until contract award, which had been delayed to adjust contractor incentives and was dependent upon the Milestone B decision. The acquisition program baseline dates would be affected by the delay in contract award and the NAE decided to defer final signature until firm dates could be determined and the acquisition program baseline updated. The NAE approved the acquisition decision memorandum for Milestone B on October 21, 2003. The contracts were awarded on October 29, 2003. The acquisition program baseline was then updated to reflect the new dates and the NAE approved it on December 3, 2003. Regardless of the change in the contract, the acquisition program baseline should still have been approved before the acquisition decision memorandum as required by DoD Instruction 5000.2. The NAE would be unable to assess the cost, schedule, and performance parameters of the program without an accurately defined acquisition program baseline.

Acquisition Strategies. The NAE approved four acquisition decision memorandums even though two programs did not have a properly approved acquisition strategy and two programs did not have a complete acquisition strategy. An acquisition strategy is a business and technical management approach designed to achieve program objectives within the imposed resource constraints. It is the framework for planning, directing, contracting for, and managing a program. It provides a master schedule for research, development, test, production, fielding, modification, postproduction management, and other

[3]At Milestone B, a recommendation is made and approval sought for the program to leave the technology development phase and continue to the system development and demonstration phase of the acquisition lifecycle.

activities essential for program success. The acquisition strategy is required by DoD Instruction 5000.2 for each program and is prepared by the program manager and approved by the NAE. If an acquisition strategy was not ready for approval at the time the acquisition decision memorandum was approved, the program may not have been ready to proceed to the next acquisition phase and the NAE would be unable to determine the program's complete technical and management approach.

AN/APG-79 Active Electronically Scanned Array Radar System. The NAE approved the AN/APG-79 Active Electronically Scanned Array Radar System's acquisition strategy 22 days after approving the program's acquisition decision memorandum for Milestone C.[4] During the Milestone C meeting, the ASN(RD&A) made changes to the program involving a fourth LRIP. As a result of these changes, the acquisition strategy needed to be revised and resubmitted to ASN(RD&A) for signature, leading to the 22-day delay.

AN/SPY-1D(V) Radar Upgrade. The AN/SPY-1D(V) system's program manager did not develop an acquisition strategy; instead program officials provided an acquisition plan for the program. We reviewed the plan to determine whether it contained the same information required by DoD Instruction 5000.2 for acquisition strategy. We determined that the acquisition plan contained the majority of the information required of the acquisition strategy; however, the acquisition plan does not contain justification of low-rate initial production quantities exceeding 10 percent and was not approved by the NAE.

Mark XIIA Mode 5 Identification Friend or Foe Upgrade. The Mode 5 acquisition strategy was approved 6 months after the NAE approved the acquisition decision memorandum for Milestone B. The Deputy Assistant Secretary of the Navy action officer stated that during the milestone decision briefing, the NAE requested several changes be made to the program's acquisition strategy before he would approve it. The NAE approved proceeding to the next acquisition phase because he did not want to delay the Milestone B decision. It took several months for the NAE-requested changes to be re-staffed and the acquisition strategy finally approved. However, program office personnel stated that the delay in approval of the acquisition strategy was due to staff schedules at the NAE level and that the acquisition strategy never changed after it was submitted at the milestone review. After examining the acquisition strategy we determined that the NAE signature was the only one dated after the acquisition decision memorandum was approved.

Surface Electronic Warfare Improvement Program. The Surface Electronic Warfare Improvement Program (SEWIP) had an approved acquisition strategy for Block 1A; however, the strategy was incomplete because it did not include a section on human systems integration or its components as required by DoD Instruction 5000.2. DoD Instruction 5000.2 requires the program manager to have a comprehensive plan for human systems integration in place early in the acquisition process to optimize total system performance, minimize total

[4] At Milestone C, a recommendation is made and approval sought for the program to leave the system development and demonstration phase and continue into the production and deployment phase of the acquisition life cycle. This milestone also authorizes low-rate initial production for the program.

ownership costs, and ensure that the system is built to accommodate the characteristics of the user population that will operate, maintain, and support the system. A SEWIP program official provided a separate human systems integration plan for the program; however, it was developed after both spirals of Block 1A were approved for Milestone C. The Deputy Assistant Secretary of the Navy action officer stated that only spiral 2 of Block 1A required human systems integration planning. The action officer stated that instead of including the plan in the acquisition strategy for Block 1A, the program staff created a separate plan as an independent document for the program and that the plan was completed or near completion when the NAE approved the Milestone C acquisition decision memorandum for spiral 2 of Block 1A. Because human systems integration was not developed early in the acquisition process, the program's system performance and total ownership costs may be affected, along with optimized total system performance.

Information Support Plan. Two programs did not have an information support plan when the NAE approved their acquisition decision memorandums. The information support plan (formerly known as the command, control, communications, computers, and intelligence support plan) identifies and documents information needs, infrastructure support, information technology, and National Security Systems interface requirements and dependencies. The information support plan focuses on net-centricity, interoperability, supportability, and sufficiency concerns. Without the information support plan, the NAE did not have all the required information to determine the program's information needs, infrastructure support, information technology, and interface requirements and dependencies.

Mark XIIA Mode 5 Identification Friend or Foe Upgrade. The Mode 5 program did not have an information support plan when the NAE approved its acquisition decision memorandum for the system development and demonstration phase on August 7, 2003. The program manager did not complete or obtain approval for an information support plan because he did not believe that the document was a requirement even though the program's operational requirements document (ORD) identifies system interoperability requirements as a key performance parameter. On June 28, 2006, the Deputy Assistant Secretary of the Navy assigned to the Mode 5 program approved a waiver for the required information support plan. However, the determination that the program did not require an information support plan should have been made before the milestone decision. The NAE should have required the program to either develop an information support plan or obtain a waiver prior to approving the next milestone.

AV-8B Harrier II Open Systems Core Avionics Requirements. Program officials for AV-8B Harrier II Open Systems Core Avionics Requirements (OSCAR) obtained a command, control, communications, computers, and intelligence support plan waiver from Deputy Assistant Secretary of the Navy Command, Control, Communications, Computers, and Intelligence and Space; however, the waiver was not properly approved. DoD Regulation 5000.2-R, "Mandatory Procedures for Major Defense Acquisition Programs and Major Automated Information System Acquisition Programs," June 10, 2001, states that an NAE, with the advice from the appropriate Chief Information Officer, may waive command, control, communications, computers, and intelligence support plan preparation if the Requirements Authority has

previously waived the requirement for an interoperability key performance parameter in the ORD. The Deputy Assistant Secretary of the Navy Command, Control, Communications, Computers, and Intelligence and Space approved a waiver for the program's command, control, communications, computers, and intelligence support plan. The waiver was granted because the program did not have an interoperability key performance parameter in the AV-8B Radar and Night Attack ORDs. OSCAR program officials currently consider these two ORDs as their operational requirements documents. However, as noted in the ORD section of this finding, we determined that OSCAR should have developed a program-specific ORD. In addition, the waiver was not approved by the NAE as required by DoD Regulation 5000.2-R. As a result, the reason for approving and the approval authority for the waiver were invalid; the program should have developed a command, control, communications, computers, and intelligence support plan.

Mission Needs Statement. Nine of the 13 Navy programs we reviewed had a mission needs statement. The mission needs statement documents the required operational capabilities of a system. The mission needs statement must be prepared in accordance with Chairman of the Joint Chiefs of Staff Instruction 3170.01, "Requirements Generation System," August 10, 1999, and validated prior to the beginning of the program. The mission needs statement is a legacy document and has been replaced by the initial capabilities document.

MH-60R Multi-Mission Helicopter. Program officials for MH-60R Multi-Mission Helicopter did not believe that there was a mission needs statement developed for the program. Instead, the need for the system was documented in an ORD. The ORD, dated October 28, 2004, stated that ". . . there is a mission need for an interdependent ship/air weapons system to extend and increase Surface Warfare, Undersea Warfare, sea control and power projection capabilities of surface forces in the conduct of offensive and defensive missions that support national interests."

Navy Advanced Extremely High Frequency Multiband Terminal. The need for Navy Advanced Extremely High Frequency Multiband Terminal is described in the following mission needs statements:

- April 23, 1996, Follow-on Military Satellite Communications Mission Needs Statement (United States Space Command Mission Needs Statement 002-94);
- April 23, 1996, Follow-on Military Satellite Communications Mission Needs Statement (United States Space Command Mission Needs Statement 002-95); and
- August 3, 1998, Global Broadcast Service Mission Needs Statement.

On a number of occasions, we tried to obtain a copy of the mission needs statements but program officials were not responsive. Without reviewing these documents, we cannot verify whether the mission needs statements were developed or that they support the need for the Navy Advanced Extremely High Frequency Multiband Terminal.

Open Systems Core Avionics Requirements. The OSCAR program office did not develop a mission needs statement. Instead, the program officials stated that the OSCAR program was started as a demonstration program designated by the Secretary of Defense.

Operational Requirements Document. Twelve of the 13 Navy programs we reviewed had an ORD. The ORD is a legacy document that contains operational performance requirements and parameters for the proposed concept or system. DoD Regulation 5000.2-R, March 15, 1996, requires that an ORD be developed for all acquisition programs. The program sponsor develops the ORD, the Chief of Naval Operations or Commandant of the Marine Corps approves it, and the Joint Requirements Oversight Council validates it.

Open Systems Core Avionics Requirements. The program sponsor did not develop an ORD for the OSCAR program; however, the NAE approved the program to proceed through all milestone decisions, including full-rate production, without requiring the program manager to develop an ORD. As a result, we were unable to determine the warfighter requirement for the OSCAR acquisition program or identify the capability gap that the OSCAR acquisition program was intended to fill. In addition, without an approved ORD, the NAE was unable to determine the operational performance requirements and parameters for the proposed system. As of August 2004, the program officials did not intend to issue an OSCAR-specific ORD.

Systems Engineering Plan. Two programs did not have a properly approved systems engineering plan prior to milestone approval. The systems engineering plan describes the program's overall approach, including processes, resources, metrics, and applicable performance incentives. The plan also details the timing, conduct, and success criteria of technical reviews. Systems engineering focuses on defining user needs and required functionality early in the development cycle, documenting requirements, then proceeding with design synthesis and system validation to achieve the total capability.

AN/AES-1 Airborne Laser Mine Detection System. Program officials for the AN/AES-1 Airborne Laser Mine Detection System provided the program's system engineering management plan instead of a systems engineering plan. The system engineering management plan contained the same elements as required of the systems engineering plan. However, the system engineering management plan was not approved by the NAE as required by the February 20, 2004, USD(AT&L) memorandum. The memorandum was issued approximately 1 year and 4 months prior to the program's Milestone C approval, which should have provided the program ample time to get NAE approval of the document. As a result, the program did not have a valid systems engineering plan when the NAE issued an acquisition decision memorandum for Milestone C.

Surface Electronic Warfare Improvement Program. The SEWIP program provided the SEWIP system engineering management plan instead of a systems engineering plan. The system engineering management plan is a legacy document that has been replaced by the systems engineering plan. Both documents contain the same elements. However, SEWIP system engineering management plan was not approved by the NAE as required by the USD(AT&L) memorandum, "Policy for Systems Engineering in DoD," February 20, 2004.

The memorandum requires that all programs develop a systems engineering plan for milestone decision authority approval in conjunction with each milestone review. The memorandum was issued approximately 1 year before Block 1A spiral 1 was approved for Milestone C and 1 year and 9 months before Block 1A spiral 2 was approved for Milestone C, which should have provided the program office ample time to get NAE approval of the document. However, the program did not have an approved systems engineering plan when the NAE issued the acquisition decision memorandum for Milestone C.

Test and Evaluation Master Plan. The NAE approved acquisition decision memorandums for two programs that had test and evaluation master plans that the Director, Operational Test and Evaluation had not yet approved. The test and evaluation master plan documents the overall structure and objectives of the test and evaluation program. The program manager submits it at Milestone B and C, and at the full-rate production decision review. The Director, Operational Test and Evaluation must approve the plan for ACAT IC programs and for programs on the Office of the Secretary of Defense Test and Evaluation oversight list. The NAE approves the test and evaluation master plan for ACAT II programs. The test and evaluation master plan describes planned developmental, operational, and live-fire testing. It includes measures to evaluate the performance of the system during these test periods, an integrated test schedule, and the resources requirements to accomplish the planned testing.

MH-60R Multi-Mission Helicopter. Even though the Director, Operational Test and Evaluation had not approved the MH-60R test and evaluation master plan Revision C, the NAE approved full-rate production on March 31, 2006. Revision C of the test and evaluation master plan addresses follow-on operational test and evaluation activities for the MH-60R upgrades and enhancements in the form of planned product improvements. The program manager must submit the approved test and evaluation master plan as part of the full-rate production decision review. Commander, Operational Test and Evaluation Force conducts follow-on operational test and evaluation during the operations and support phase. Therefore, the test and evaluation master plan Revision C should have been approved prior to full-rate production approval. Because the Director, Operational Test and Evaluation had not approved the test and evaluation master plan Revision C, the NAE could not be assured that planned follow-on operational test and evaluation were appropriate or adequate.

Navy Advanced Extremely High Frequency Multiband Terminal. The Navy Advanced Extremely High Frequency Multiband Terminal program's test and evaluation master plan was not approved by Director, Operational Test and Evaluation until almost 2 years after the NAE approved the acquisition decision memorandum for Milestone B. The program was approved for Milestone B because the NAE decided that a Navy-approved test and evaluation master plan was adequate even though the program was listed on the Director, Operational Test and Evaluation oversight list. After the milestone review, the program manager continued to experience delays in getting the test and evaluation master plan approved by the Director, Operational Test and Evaluation. Program officials revised the plan several times as a result of unanticipated delays in finalizing the source selection process for the Navy Advanced Extremely High Frequency Multiband Terminal. The contract for the system development and demonstration phase was awarded on October 29, 2003, eight days after the NAE

approved the acquisition decision memorandum. The Director, Operational Test and Evaluation approved the test and evaluation master plan on September 8, 2005. Because the Director, Operational Test and Evaluation had not approved the plan before the NAE approved the acquisition decision memorandum, the NAE could not be assured that the overall structure and objectives of the test and evaluation program for the Navy Advanced Extremely High Frequency Multiband Terminal were appropriate or adequate.

Milestone Documentation Agreements

The programs were allowed to proceed without approval of required acquisition documentation and the decision was not formally noted in a waiver, tailored acquisition agreement, or acquisition decision memorandum. After meeting with Deputy Assistant Secretary of the Navy action officers, we learned that when a required document is not provided or properly approved at a milestone decision, as required by DoD Instruction 5000.2, the NAE will typically approve a waiver for the document or add a provision in the acquisition decision memorandum that requires the program manager to complete and submit it for approval before the program can advance further through the acquisition process. In addition, SECNAV Instruction 5000.2C states that the NAE may tailor documentation and milestone requirements. The NAE is required to approve the streamlined, tailored documentation approach during program initiation and prior to all other milestones. Only 2 out of the 10 programs with missing or improperly approved documents had formal tailoring agreements. However, even those programs were missing or had improperly approved documents. In addition, we were unable to locate properly approved waivers or provisions in the acquisition decision memorandums for the programs with missing or improperly approved documents.

Results of Milestone Review Process

When asked why the programs were allowed to proceed to the next milestone without key documents or approval of key documents, the responses varied from program office staff and representatives from the Deputy Assistant Secretary of the Navy level. In one instance, program officials could not offer an explanation. In general, key acquisition documents were either not provided for milestone reviews or were not properly approved at milestone reviews because DoD and Navy policies outlining the acquisition process and documentation requirements were misinterpreted at the program level or not followed by the NAE. In addition, it was unclear why the NAE allowed programs to proceed through milestones without proper documentation because formal tailored documentation agreements did not exist, waivers for missing documents were not done or were not properly approved, and documentation decisions associated with each milestone review were not being documented in acquisition decision memorandums. As a result, the NAE did not have all the necessary information required to make fully informed milestone decisions.

Updating Program Documentation Between Milestone Reviews

Of the 13 programs reviewed, 7 had identified deviations in performance, schedule, or cost thresholds between milestone reviews. We found that one of the seven program managers had not submitted a formal deviation report as required by SECNAV Instruction 5000.2C. For three of the seven programs, either the program manager did not provide the NAE with updated acquisition program baselines between milestone decision reviews or the NAE did not approve the updated acquisition program baselines in a timely manner.

Acquisition Program Baselines. The acquisition program baseline prescribes the key cost, schedule, and performance constraints that must be achieved by the program before the next milestone decision review in the acquisition process. The constraints are documented in the objective and threshold values for each parameter, and the program manager manages the program to the objective value of each parameter. Thresholds represent the acceptable limits to the parameter values that still provide the needed capability. The failure to attain program thresholds may degrade system performance, delay the program, or make the program too costly. The failure to attain program thresholds places the overall affordability of the program and the capability provided by the system into question. The program manager revises the acquisition program baseline for each milestone review. The program manager also revises the acquisition program baseline if the program is restructured or has an unrecoverable deviation.

Program Deviations. The *Defense Acquisition Guidebook* states that a program deviation occurs

> when the program manager believes that the current estimate for the program indicates that a performance, schedule, or cost threshold value will not be achieved. Within 30 days of the program deviation, the program manager should notify the NAE of the reason for the program deviation and the actions that will bring the program back within the baseline parameters. Within 90 days of the program deviation, one of the following should have occurred: the program is back within acquisition program baseline parameters; a new acquisition program baseline, changing only those parameters that were breached, has been approved; or an Overarching Integrated Product Team level program review has been conducted to review the program manager's proposed baseline revisions and make recommendations to the milestone decision authority for preparing, submitting, and updating required program documentation.

SECNAV Instruction 5000.2C states that the program manager must provide a deviation report to the NAE immediately upon program deviation.

Navy Advanced Extremely High Frequency Multiband Terminal. The program manager issued four deviation reports to the ASN(RD&A) for the Navy Advanced Extremely High Frequency Multiband Terminal program. The first report was issued on June 29, 2004, and stated that an updated acquisition program baseline would be submitted within 90 days. A second deviation report, issued on October 19, 2004, updated the initial deviation report and stated that the

revised acquisition program baseline would be submitted within 270 days. A third deviation report, issued on February 22, 2005, updated the initial deviation report and stated that a revised acquisition program baseline would be submitted in June 2005. A fourth deviation report, issued on May 18, 2005, updated the initial deviation report and reiterated that a revised acquisition program baseline would be submitted in June 2005. The *Defense Acquisition Guidebook* recommends that an acquisition program baseline be updated and approved within 90 days of a program deviation or that an Overarching Integrated Product Team conduct a baseline review. The program's Deputy Assistant Secretary of the Navy action officer stated that after a June 9, 2006, briefing to the NAE by the program manager, the NAE approved the acquisition program baseline. As of October 2006, the acquisition program baseline was not yet approved. As a result, we were unable to verify that an updated acquisition program baseline was developed and approved for the program. Even if the program had an updated and approved acquisition program baseline, the program was still outside acquisition program baseline parameters for 2 years. In addition, an Overarching Integrated Product Team still has not properly conducted a baseline review.

Open Systems Core Avionics Requirements. The OSCAR program manager issued a program deviation report on April 7, 2003. The program manager signed an updated acquisition program baseline on July 14, 2003; the PEO concurred July 16, 2003; and the NAE approved it on November 24, 2003, 130 days after the PEO concurred. Based on these dates, the program manager did not have an updated and approved acquisition program baseline within 90 days as specified in the *Defense Acquisition Guidebook*.

AN/AES-1 Airborne Laser Mine Detection System. In April 2004, the AN/AES-1 Airborne Laser Mine Detection System program deviated from the approved acquisition program baseline. Although the program manager developed a deviation report memorandum, it was never forwarded to the NAE. Instead, the program manager informed the NAE of the deviation through a series of status reviews that took place from June 2004 through March 2005. Those reviews identified the acquisition program baseline deviation and proposed strategy changes that would affect the program's cost and schedule. The strategy changes were identical to those proposed in the deviation report memorandum that the program manager did not submit to the NAE. Instead of routing the deviation report memorandum to the NAE, the program manager focused on routing and obtaining signatures on the updated acquisition program baseline because he felt the briefings appropriately notified the NAE of the program's deviations. However, the June 2004 presentation recommended the development of a deviation memorandum, and a September 2004 presentation updated the status of the deviation memorandum as being signed by the program manager and en route to the PEO. SECNAV Instruction 5000.2C allows the program manager to choose the deviation report's presentation medium. Every program deviation report we reviewed was provided in the form a memorandum. Had the program manager intended the presentations to serve as the deviation report, the program manager would not have developed a deviation report memorandum. A deviation report should have been provided to the NAE immediately upon program deviation as required by DoD Instruction 5000.2 and SECNAV Instruction 5000.2C. An updated acquisition program baseline was approved June 14, 2005, when the program had a Milestone C decision, approximately 1 year after the NAE was first informed of the deviation in program briefings.

Tracking Program Deviations in Dashboard

The NAE does not track program deviations or their causes, effects, and mitigations in the Navy Dashboard database. We reviewed the Navy Dashboard database to determine the status of the deviation reports for each program; however, we discovered that program officials do not track deviation reports and mitigation strategies in the Navy Dashboard database. In the Dashboard database, anytime the program manager's current estimate exceeds the threshold value, the cause of the breach is required to be entered in a field contained in the database. This does not replace the requirement for the program manager to immediately notify the NAE of the breach to the acquisition program baseline. Other than the input in the Dashboard database, the NAE had no way to track the deviation report and its mitigation strategy for bringing the program back within acquisition program baseline parameters.

Monitoring Programs Between Milestones

The NAE was unable to determine whether the programs met cost, schedule, and performance constraints between milestone reviews because the objective and threshold parameters within the acquisition program baselines were no longer current for the programs. Without an updated acquisition program baseline, the program manager had no cost, schedule, and performance constraints to manage the program between milestone reviews.

Management Comments on the Finding and Audit Response

Summaries of management comments on the finding and our audit response are in Appendix H.

Recommendations, Management Comments, and Audit Response

Revised and Deleted Recommendations. The Deputy Assistant Secretary of the Navy (Management and Budget) provided management comments on behalf of the ASN(RD&A). As a result of management comments, we revised draft Recommendation A.3. and Recommendation A.5. to clarify the intent of the recommendations. Additionally, we deleted Recommendation A.1.e. because it duplicated Recommendation A.1.c.

A.1. We recommend that the Assistant Secretary of the Navy (Research, Development, and Acquisition):

a. Comply with Under Secretary of Defense Acquisition, Technology, and Logistics memorandum, "Policy for Systems Engineering in DoD,"

February 20, 2004; DoD Instruction 5000.2; and Secretary of the Navy Instruction 5000.2C when reviewing and approving systems engineering plans as part of a program's milestone review.

Management Comments. The Deputy Assistant Secretary of the Navy (Management and Budget), responding for the ASN(RD&A), concurred. He stated that in June 2005, the ASN(RD&A) issued Department of the Navy memorandum, "Policy for Department of the Navy Systems Engineering Plan Review and Approval," to implement the requirements of the USD(AT&L) memorandum. In April 2006, the ASN(RD&A) consolidated responsibility for systems engineering plan development and approval with memorandum, "Revised Policy for Department of Navy Systems Engineering Plan Review and Approval." In accordance with the memorandum, the ASN(RD&A) Chief Engineer has been delegated the responsibility for approval of all ACAT IC and II systems engineering plans. The responsibilities of the PEOs and Systems Commanders to ensure timely development and implementation of quality systems engineering plans were emphasized, and the Chief Engineer has the primary responsibility for their approval. In addition, the SECNAV Instruction 5000.2D has been updated accordingly.

Audit Response. The comments were responsive to the recommendation.

b. Review, sign, date, and maintain decision documents in the program files as a result of milestone reviews in the acquisition decision memorandum, waiver, or tailored documentation agreement.

Management Comments. The Deputy Assistant Secretary of the Navy (Management and Budget), responding for the ASN(RD&A), concurred. He stated that the ASN(RD&A) will formally document decisions regarding tailoring or waiver of documentation in future acquisition decision memorandums, tailoring agreements, or waiver approvals. The Deputy Assistant Secretary of the Navy (Management and Budget) also stated that these documents will be maintained in the program files for future reference.

Audit Response. The comments were responsive to the recommendation.

c. Comply with the *Defense Acquisition Guidebook* recommendations to update and approve acquisition program baselines for programs between milestone decision reviews within 90 days.

Management Comments. The Deputy Assistant Secretary of the Navy (Management and Budget), responding for the ASN(RD&A), partially concurred. The Deputy Assistant Secretary of the Navy (Management and Budget) stated that although the milestone decision authority's approval of the revised acquisition program baseline is desired within 90 days of the deviation, it is not always feasible. He further stated that given the number of ACAT programs, the volatility of these efforts, the normal time required to develop an independent cost estimate, and all other administrative issues associated with acquisition program baseline revisions, approval by the milestone decision authority is not always feasible within 90 days. The Deputy Assistant Secretary of the Navy (Management and Budget) stated that the *Defense Acquisition Guidebook* is considered guidance and is not regulatory or required. He stated that the

Department of the Navy strives to obtain approval of revised acquisition program baselines as expediently as possible.

Audit Response. The comments were responsive to the recommendation. We understand that it is not always feasible to have the milestone decision authority's approval within 90 days. We also understand that the *Defense Acquisition Guidebook* is considered guidance and not regulatory or required. However, the *Defense Acquisition Guidebook* does provide alternative actions if the milestone decision authority is unable to approve the acquisition program baseline within 90 days. The Defense Acquisition Guidebook states that within 90 days of the program deviation, one of the following should have occurred: the program is back within acquisition program baseline parameters; a new acquisition program baseline, changing only those parameters that were breached, has been approved; or an Overarching Integrated Product Team level program review has been conducted to review the program manger's proposed baseline revisions and make recommendations to the milestone decision authority.

d. Track deviation reports in the Navy Dashboard database to include the date, cause, effect, and mitigation.

Management Comments. The Deputy Assistant Secretary of the Navy (Management and Budget), responding for the ASN(RD&A), concurred. He stated that the ASN(RD&A) will make the necessary changes to the Navy Dashboard database and start tracking deviation reports and baseline breaches. In a follow-up conversation regarding management comments, an ASN(RD&A) representative indicated that Dashboard should be modified to track deviation reports by the end of June 2007.

Audit Response. The comments were responsive to the recommendation.

A.2. We recommend that program managers maintain approved documentation for the life of the acquisition program.

Management Comments. The Deputy Assistant Secretary of the Navy (Management and Budget), responding for the ASN(RD&A), concurred. He stated that program offices are expected to maintain appropriate repositories of program documentation for the life cycle of the acquisition program. The Deputy Assistant Secretary of the Navy (Management and Budget) also stated that the ASN(RD&A) will issue additional guidance to the various program offices to reinforce this requirement.

Audit Response. The comments were responsive to the recommendation.

A.3. We recommend that the AV-8B Harrier II Open Systems Core Avionics Requirements program manager develop and prepare a tailored Information Support Plan as required by DoD Instruction 5000.2 or obtain a properly approved waiver.

Management Comments. The Deputy Assistant Secretary of the Navy (Management and Budget), responding for the ASN(RD&A), nonconcurred. He stated that at the time of OSCAR's development, there were no specific interoperability requirements for the OSCAR system beyond the legacy system it

replaced. For these reasons, a command, control, communications, computers, and intelligence support plan waiver was granted on August 25, 2003. The NAE was aware of the waiver and agreed with it. The Navy believes that the original waiver was properly processed and approved. The rationale for the original waiver request was valid and remains valid. The OSCAR program is currently 58-percent delivered to the Fleet. Retroactively completing an information support plan at this point in the program's life cycle would be an inefficient use of available resources with limited or no benefit to the program.

Audit Response. The comments were not responsive to the recommendation. We request that the Navy reconsider its position and provide comments on the final report. The OSCAR program should either develop a tailored information support plan or obtain a properly approved waiver.

Although program officials for OSCAR obtained a command, control, communications, computers, and intelligence support plan waiver from the Deputy Assistant Secretary of the Navy (Command, Control, Communications, Computers, and Intelligence and Space), the waiver did not have the correct approval authority and the waiver was based on inappropriate ORDs. DoD Regulation 5000.2-R, "Mandatory Procedures for Major Defense Acquisition Programs and Major Automated Information System Acquisition Programs," June 10, 2001, states that the NAE, with the advice from the appropriate chief information officer, may waive command, control, communications, computers, and intelligence support plan preparation if the requirements authority has previously waived the requirement for an interoperability key performance parameter in the ORD. The waiver was not approved by the NAE as required by DoD Regulation 5000.2-R. As a result, the approval authority for the waiver was invalid.

In addition, the approval of the waiver was not based on all of the ORDs being used for OSCAR. In a Department of the Navy memorandum, March 26, 2003, the Office for Chief of Naval Operations supported waiving the requirement for an OSCAR command, control, communications, computers, and intelligence support plan for the following reasons.

- The AV-8B Radar and Night Attack ORDs, which govern the OSCAR program, do not include an interoperability key performance parameter.

- The AV-8B Radar and Night Attack ORDs do not include an external information exchange requirements.

- Of the two major components that make up the OSCAR program, the mission computer already has a command, control, communication, computer and intelligence support plan waiver, and the weapons computer has no connection to the communications and information infrastructure.

However, in our review of the test and evaluation master plan, we found that the OSCAR program is testing requirements found in additional ORDs that are not listed in the memorandum. Those additional requirements are:

- Joint Direct Attack Munition ORD,

- ARC-210 ORD, and
- AV-8B Targeting Pod Requirements Letter.

Therefore, because the waiver was not properly approved by the NAE and the memorandum asking for approval does not contain all the requirements for the OSCAR system, we feel the waiver is not valid. In addition to this audit, DoD IG Report No. D-2004-109, "Implementation of the DoD Management Control Program for Navy Acquisition Category II and III Programs," August 17, 2004, found that the program sponsor did not develop an ORD for the OSCAR program as required by DoD Instruction 5000.2.

A.4. We recommend that the Surface Electronic Warfare Improvement Program and the AN/AES-1 Airborne Laser Mine Detection System program managers submit their systems engineering plans for Navy Acquisition Executive approval as required by Under Secretary of Defense (Acquisition, Technology, and Logistics) memorandum, "Policy for Systems Engineering in DoD," February 20, 2004.

Management Comments. The Deputy Assistant Secretary of the Navy (Management and Budget), responding for the ASN(RD&A), concurred. He stated that the SEWIP systems engineering plan was approved on October 22, 2006. In addition, and in order to maintain the relevancy and effectiveness of the SEWIP systems engineering plan, the ASN(RD&A) Chief Engineer has tasked the SEWIP program manager to update the systems engineering plan to reflect program changes that occurred during its approval process.

The Deputy Assistant Secretary of the Navy (Management and Budget) also stated that the Airborne Laser Mine Detection System program manager has concurred and agreed to develop a systems engineering plan by March 2007. This systems engineering plan will be an annex to a Global Organic Airborne Mine Counter Measures systems engineering plan. This approach has been planned with and approved by the ASN(RD&A) Chief Engineer.

Audit Response. The comments were responsive to the recommendation.

A.5. We recommend that the Navy Advanced Extremely High Frequency Multiband Terminal program manager submit an updated acquisition program baseline to the Navy Acquisition Executive within 90 days of the issuance of this report.

Management Comments. The Deputy Assistant Secretary of the Navy (Management and Budget), responding for the ASN(RD&A), stated that the requirement for a new Navy Advanced Extremely High Frequency Multiband Terminal acquisition program baseline was due to the increase in the scope and cost of the program to a new, higher ACAT level (from an ACAT II to an ACAT IC). The program office reported an acquisition program baseline deviation and continued to resubmit program deviation reports to update the status. Development and approval time of the acquisition program baseline was unusually extensive. The new corrected revision of the acquisition program baseline has been forwarded to the ASN(RD&A) for approval.

In addition, the Deputy Assistant Secretary of the Navy (Management and Budget) noted that the following statement from the draft report was incorrect: "However, after the program was designated as an ACAT IC, the approval of the acquisition program baseline was withdrawn." He proposed this statement be changed to: "After designation of the program as an ACAT IC, the acquisition program baseline revision was approved. However, after the approval it was noted that inadvertently there were some changes to the performance section in error that required the acquisition program baseline to be corrected and resigned. The new corrected revision of the APB has been forwarded to ASN(RD&A) for approval."

Audit Response. The comments were responsive to the recommendation. We removed the statement in question.

B. Operational Testing in the Milestone Decision Process

The NAE approved 8 of the 13 programs we reviewed for either low-rate initial production (LRIP) or full-rate production. The NAE approved five of the eight programs for LRIP or full-rate production even though operational assessment problems were evident. Three programs were approved for production without an operational assessment being conducted. In addition, one program was approved for LRIP even though operational assessment determined the system was immature and critical operational issues could not be evaluated, and officials from one other program purchased all systems prior to completing operational testing. These conditions occurred for the following reasons.

- Program officials believed an operational assessment was not required by the acquisition decision memorandum and the system's readiness to deploy could be demonstrated during developmental testing.
- The NAE delegated the LRIP decision authority to the PEO who eliminated the operational assessment due to schedule delays and the low risk from eliminating the operational assessment.
- Program officials did not comply with the acquisition decision memorandum to complete an operational assessment prior to the LRIP decision.
- Program officials believed the procurement was necessary to permit an orderly transition to full-rate production.
- The NAE approved the purchase of all systems prior to the completion of operational test and evaluation to realize potential cost savings and to stabilize the production line.

As a result, the NAE did not determine whether programs were operationally effective and suitable prior to approving production quantities costing about $25 billion. Without that information, the Navy could incur additional development work and operational testing that would lead to cost overruns and schedule delays.

DoD and Navy Policy

DoD Instruction 5000.2, "Operation of the Defense Acquisition System," May 12, 2003, and SECNAV Instruction 5000.2C, "Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System," November 19, 2004, establish requirements for operational test and evaluation and require LRIP quantities greater than

10 percent to be documented in the acquisition decision memorandum. The *Defense Acquisition University Test and Evaluation Management Guide* assists the acquisition community in obtaining a better understanding of who the decision makers are and determining how and when to plan test and evaluation events.

DoD Instruction. DoD Instruction 5000.2 states that operational test and evaluation will determine the effectiveness and suitability of the system. The milestone decision authority decides whether to commit DoD to production at Milestone C. Milestone C authorizes a program's entry into the production and deployment phase. For major Defense acquisition programs and other Director, Operational Test and Evaluation oversight programs, production and deployment includes LRIP and a full-rate production decision review. The purpose of the production and deployment phase is to achieve an operational capability that satisfies the mission needs. Entrance into this phase depends on acceptable performance in development, test, and evaluation; operational assessment; mature software capability; and acceptable operational supportability.

DoD Instruction 5000.2 further states that LRIP quantities should be minimized. The milestone decision authority determines the LRIP quantities for major Defense acquisition programs and major systems at Milestone B. The milestone decision authority must approve any increase in LRIP quantity after the initial determination. The acquisition strategy must document the rationale for quantities exceeding 10 percent of total production.

Navy Instruction. SECNAV Instruction 5000.2C states that LRIP quantities greater than 10 percent of a program's inventory objective must be justified in the acquisition decision memorandum and acquisition strategy. SECNAV Instruction 5000.2C also states that once a program has expended greater than 90 percent of the total program cost, the program manager should request that the NAE remove the program from the acquisition category listing.

***Defense Acquisition University Test and Evaluation Management Guide*.** The *Defense Acquisition University Test and Evaluation Management Guide* states that an operational assessment is an evaluation of the operational effectiveness and operational suitability made by an independent operational test activity, with user support on other than production systems. An operational assessment identifies significant trends noted in the development effort, risk areas, adequacy of requirements, and the ability of the program to support adequate operational testing. An operational assessment may be conducted at any time using technology demonstrators, prototypes, engineering development models, or simulations, but will not substitute for initial operational test and evaluation necessary to support full-rate production decisions.

Operational Test and Evaluation Overview

Developmental Test and Evaluation. SECNAV Instruction 5000.2C states that developmental test and evaluation is conducted to support risk management, provide data on the progress of system development, and determine readiness for operational test and evaluation.

Operational Test and Evaluation. According to the *Defense Acquisition University Test and Evaluation Management Guide*, operational test and evaluation includes operational assessment, initial operational test and evaluation (referred to as operational evaluation by the Navy), and follow-on operational test and evaluation. DoD Instruction 5000.2 states that for major Defense acquisition programs and other Director, Operational Test and Evaluation programs, production and deployment has two major efforts: LRIP and full-rate production. Entrance into this phase depends upon acceptable performance in development, test and evaluation, and operational assessment. In addition, the Instruction states, "Operational Test Agency shall conduct an independent, dedicated phase of initial operational test and evaluation before full-rate production to evaluate operational effectiveness and suitability."

Operational Assessment. The *Defense Acquisition University Test and Evaluation Management Guide* states that operational assessments are part of operational test and evaluation and are conducted to determine risk areas, adequacy of requirements, and the ability of the program to support operational testing. An operational assessment is normally conducted prior to Milestone C to provide an early assessment of the potential operational effectiveness and suitability for decision makers at decision points. These assessments attempt to project the system's potential to meet user requirements.

Approval of Production Without Operational Assessment

The NAE approved production decisions for 3 of the 13 programs reviewed without having an operational assessment as required by the DoD Instruction 5000.2. Therefore, the NAE did not have documentation to determine whether the systems were operationally effective and suitable to meet user requirements. DoD Instruction 5000.2 states that the purpose of the production and deployment phase is to achieve an operational capability that satisfies the mission needs. Entrance into this phase depends, in part, on acceptable performance in development, test, and evaluation; operational assessment; mature software capability; no significant manufacturing risks; acceptable interoperability; and acceptable operational supportability.

AN/AES-1 Airborne Laser Mine Detection System. Program officials for the AN/AES-1 Airborne Laser Mine Detection System did not conduct an operational assessment prior to the NAE approval of the LRIP acquisition decision memorandum on June 14, 2005. Program officials eliminated the program's operational assessment because the acquisition decision memorandum did not require it and program officials could demonstrate the system's readiness to deploy during developmental testing. A developmental test report was issued in April 2005. It stated that the target depth and false contact density performance parameters were waived for Milestone C. In addition, the target depth key performance parameter threshold was reduced to 60 percent of the threshold depth for the LRIP decision. In an acquisition decision memorandum dated June 14, 2005, the NAE approved Milestone C LRIP although the system had shortfalls in three performance parameters, based on acceptance of the shortfalls by the Fleet and Resource Sponsor. Further, the NAE approved the program for LRIP

quantities greater than the 10-percent threshold without an explanation in the acquisition decision memorandum as required by SECNAV Instruction 5000.2C.

Open Systems Core Avionics Requirements. Program officials did not conduct an operational assessment prior to the Program Executive Officer Air Antisubmarine Warfare (ASW), Assault, and Special Mission Programs approval of LRIP I on April 12, 2002. The NAE delegated the LRIP I decision authority to the PEO Air ASW, Assault and Special Mission Programs on March 20, 2000. Program officials eliminated the operational assessment from the OSCAR test schedule to avoid test schedule delays that would occur because the AV-8B aircraft was not available for testing. The program manager provided the PEO with a program deviation report dated May 2, 2001. It stated that a developmental/operational test period had been included in the OSCAR schedule so that an early look at the risky portions of the software functionality could be conducted. However, program officials felt that the software functionality risk was low and the developmental/operational test period was no longer necessary. This software functionality would be tested during operational evaluation testing. In addition, the program manager provided the PEO Air ASW, Assault and Special Mission Programs with a program deviation report dated April 4, 2003. It stated that the OSCAR program deviated from its approved baseline dated February 7, 2002, to correct anomalies discovered during OSCAR operational evaluation testing. This resulted in a 1-year delay in the completion of operational evaluation testing from July 2003 to July 2004. Had program officials conducted an operational assessment, these anomalies could have been detected prior to entering into operational evaluation testing.

In a report dated July 20, 2004, the Commander, Operational Test and Evaluation Force found the OSCAR program to be operationally effective but not operationally suitable. On August 16, 2004, the NAE issued an acquisition decision memorandum approving full-rate production. In the memorandum, the NAE stipulated all suitability issues in the operational test report must be corrected and that the Commander, Operational Test and Evaluation Force must verify the corrections prior to fleet introduction and initial operational capability. Program office and NAE staff did not have documentation to show that the corrections were made to OSCAR and that the corrections were verified by the Commander, Operational Test and Evaluation Force. As a result, we were unable to determine whether the corrections were made to OSCAR or that the corrections were verified by the Commander Operational Test and Evaluation Force. A former member of the OSCAR Overarching Integrated Product Team advised us that OSCAR was released to the fleet without any evidence the corrections were made.

MH-60R Multi-Mission Helicopter. Program officials for the MH-60R did not complete an operational assessment prior to LRIP II approval. The program changed its acquisition strategy from a remanufacture approach to a new-built approach starting with LRIP II, in an acquisition decision memorandum dated March 14, 2002. In addition, the acquisition decision memorandum required completion of an operational assessment with a conclusion that the MH-60R was potentially operationally effective and suitable prior to the approval of LRIP II. The Commander, Operational Test and Evaluation Force conducted an operational assessment of the MH-60R from June 2, 2003, through September 3, 2003. However, prior to completion of the operational assessment,

the program office terminated the testing due to poor performance of the radar, electronic support measures, and acoustic subsystems. The NAE approved the program for LRIP II on December 15, 2003, even though an operational assessment was not completed, as required by DoD Instruction 5000.2 and the acquisition decision memorandum March 14, 2002. In addition, no justification was included in the acquisition decision memorandum for proceeding with LRIP without the required operational assessment.

Further, a second operational assessment was conducted from October through December 2004. The operational assessment report, dated March 18, 2005, stated that the system did not meet all threshold values for operational effectiveness and operational suitability. Although the report included a listing of recommendations that, if not addressed, could result in the failure of operational evaluation testing, the Commander, Operational Test and Evaluation Force recommended continued program development. In addition, the NAE approved LRIP III, in an acquisition decision memorandum April 5, 2005.

Approval of Low-Rate Initial Production With Known Deficiencies

AN/APG-79 Active Electronically Scanned Array Radar System. Despite risks and deficiencies identified in operational assessment, the NAE approved acquisition decision memorandums for the procurement of 84 AN/APG-79 Active Electronically Scanned Array Radar Systems from July 2003 through February 2006. Additionally, these procurements represented 20 percent of the total number of systems to be purchased. However, the February 2006 acquisition decision memorandums did not contain justification to exceed the 10-percent LRIP guideline as required by SECNAV Instruction 5000.2C. The Commander, Operational Test and Evaluation Force issued an Operational Assessment Test Report for the AN/APG-79 Active Electronically Scanned Array Radar System on April 4, 2006. The report stated that the system did not meet or exceed threshold values. The Commander, Operational Test and Evaluation Force recommended the continued development of the system and an additional developmental test-assist period once deficiencies noted in the report have been corrected. However, the NAE approved LRIP even though operational assessments disclosed that the system was not mature, all critical operational issues could not be evaluated, and the system did not meet or exceed threshold values.

Procuring All Systems Prior to Operational Evaluation

AN/SPY-1D(V) Radar Upgrade. The NAE approved procurement of all 22 AN/SPY-1D(V) systems from January 1997 through December 2003, while the program was in LRIP. The NAE stated that because the AN/SPY-1D(V) system was an integral part of the DDG-51 ship structure, it was essential that its acquisition strategy support the DDG-51 multiyear ship construction schedule. The NAE decided that the advantages of the LRIP approach, which included the opportunity to realize cost savings and stabilize essential elements of the

production base, outweighed the low risks associated with the decision to proceed.

DoD Instruction 5000.2 and SECNAV Instruction 5000.2C require that an independent operational test and evaluation (referred to by the Navy as operational evaluation) be conducted prior to the full-rate production decision. The Commander, Operational Test and Evaluation Force conducted an operational evaluation of the AN/SPY-1D(V) system in March, October, and November 2005 and issued an Operational Evaluation Test Report on April 5, 2006. The test was conducted and the report was issued after approval was given to procure all 22 AN/SPY-1D(V) systems. The test report stated that the system did not meet all suitability threshold values. However, the Commander, Operational Test and Evaluation Force recommended continued fleet introduction of the AN/SPY-1D(V) system with priority given to the correction and verification of the suitability issues noted in the report. According to the program manager, correction and verification of the suitability issues discussed in the Operational Evaluation Test Report is ongoing. The AN/SPY-1D(V) system was scheduled for a Milestone C full-rate production decision review between July 2006 and January 2007. The program office staff anticipates requesting that the NAE remove the program from the acquisition category listing and close out the program without a Milestone C full-rate production decision meeting. At the time of our review, program office staff stated they are working on the closeout.

In approving the procurement of all 22 AN/SPY-1D(V) systems in LRIP, the NAE made a full-rate production decision without conducting an operational evaluation of the AN/SPY-1D(V) system to ensure the system was operationally effective and suitable and met the users needs.

Related Audit Coverage

The DoD Inspector General (IG) issued Report No. D-2006-001, "Audit of the Common Submarine Radio Room," October 3, 2005, which stated that the program manager did not schedule an operational assessment of the Common Submarine Radio Room prior to the June 2005 LRIP decision program review. The DoD IG recommended that the program manager delay the review of LRIP until he obtains an operational assessment that states the Common Submarine Radio Room is operationally effective and suitable. The Navy nonconcurred with the recommendation; however, during mediation the Commander, Operational Test and Evaluation Force agreed to prepare an operational assessment report which satisfies the requirements of DoD Instruction 5000.2. In addition, the Navy agreed to provide the final operational assessment report to the milestone decision authority prior to the FY 2006 program review of the Common Submarine Radio Room.

Conclusion

Operational assessments are conducted early in the program to provide insight into potential operational problems and progress toward meeting desired

operational effectiveness and suitability capabilities. Programs should not be approved to enter the production and deployment phase of the acquisition process until the system has demonstrated during operational testing that the system is potentially operationally effective and suitable and will meet the users' needs. Approving systems to enter LRIP and full-rate production before the system has demonstrated that it is potentially operationally effective and suitable could result in systems being produced that will not meet the users' needs and require additional funds to retrofit the systems that have already been produced. In addition, milestone decisions related to deviations from LRIP or full-rate production buys, operational assessment, and initial operational test and evaluation requirements should be documented in the acquisition decision memorandum to document approval of the actions taken.

Management Comments on the Finding and Audit Response

Summaries of management comments on the finding and our audit responses are in Appendix H.

Recommendations, Management Comments, and Audit Response

Revised, Added, Deleted, and Renumbered Recommendations. The Deputy Assistant Secretary of the Navy (Management and Budget) provided management comments on behalf of the ASN(RD&A). We added Recommendation B.2. and deleted B.6. We renumbered B.2., B.3., and B.4. as B.3., B.4., and B.5. accordingly. We revised Recommendation B.3. to clarify the intent of the recommendation and Recommendation B.4. to correspond to DoD Instruction 5000.2 requirements regarding LRIP.

B. We recommend that the Assistant Secretary of the Navy (Research, Development, and Acquisition):

1. Require program offices to schedule and complete an operational assessment prior to the low-rate initial production milestone decision in accordance with DoD Instruction 5000.2.

Management Comments. The Deputy Assistant Secretary of the Navy (Management and Budget), responding for the ASN(RD&A), nonconcurred. The Deputy Assistant Secretary of the Navy (Management and Budget) believes SECNAV Instruction 5000.2C guidance regarding operational assessment activities prior to the LRIP is consistent with the DoD Instruction 5000.2. He discussed four references within the SECNAV Instruction 5000.2C regarding waivers and deferrals. Additionally, the Department of the Navy Acquisition and Capabilities Guidebook states that the milestone decision authority should determine whether operational test and evaluation is required prior to LRIP for non-Office of the Secretary of Defense Test and Evaluation oversight programs. The Deputy Assistant Secretary of the Navy (Management and Budget) believes

that this guidance gives the milestone decision authority the discretion to determine whether developmental or integrated test data and reports are adequate to make an LRIP decision or if additional operational assessment is needed. In addition, he stated that forcing such programs to include an operational assessment in the test and evaluation strategy, when program risk can be adequately managed without the use of an operational assessment, is inefficient and negates the Chief of Naval Operation's challenge to the Navy to streamline test and evaluation. The Navy guidance allows the necessary flexibility to achieve cost, schedule, and performance. The Deputy Assistant Secretary of the Navy (Management and Budget) believes that the current guidance is adequate and should not be changed.

Audit Response. The comments were not responsive to the recommendation. We request that the Navy reconsider its position and provide comments in response to the final report.

Allowing the milestone decision authority to determine whether operational test and evaluation is required prior to LRIP for certain programs is not in compliance with requirements in DoD Directive 5000.1 and DoD Instruction 5000.2. DoD Directive 5000.1 requires that test and evaluation be structured to provide essential information to decision makers to determine whether systems are operationally effective, suitable, survivable, and safe for the intended use. It also states that the policies in this Directive apply to all acquisition programs. DoD Instruction 5000.2 implements policies in DoD Directive 5000.1. It establishes the requirement that before systems enter into LRIP, the system must demonstrate acceptable performance in development, test, and evaluation and undergo an operational assessment.

The four references from the SECNAV 5000.2C discussed in the management comments do not address the requirement for program offices to schedule and complete an operational assessment prior to LRIP. Rather, the references discuss waiver and deferral requirements. In fact, the reference to deferrals states that deferrals will not normally be granted for an operational assessment prior to initial operational test and evaluation. The reference to waivers states that waivers do not change or delay any testing or evaluation of a system.

One of the programs that did not complete an operational assessment before the LRIP decision, the MH-60R Multi-Mission Helicopter, was an Office of the Secretary of Defense Test and Evaluation oversight program. In the March 14, 2002, acquisition decision memorandum, the milestone decision authority required completion of an operational assessment with a conclusion that the MH-60R was potentially operationally effective and suitable before the decision review to approve LRIP II. Regardless, the milestone decision authority approved LRIP II even though the program office had not conducted an operational assessment.

Further, two other programs which did not undergo an operational assessment before the LRIP decision subsequently experienced program delays and shortfalls in demonstrating the ability to satisfy key performance parameters.

- On the OSCAR program, program officials canceled the requirement to include a developmental and operational test period to look at the

risk associated with the software functionality which would help resolve the breach from the approved baseline. The program officials felt that software risk was low and could be tested during operational evaluation testing. Subsequent to the LRIP decision, the program again deviated from its approved baseline to correct anomalies discovered during operational evaluation testing, which resulted in a 1-year delay for the completion of operational evaluation testing.

- Program officials for the AN/AES-1 Airborne Laser Mine Detection System eliminated the operational assessment because the acquisition decision memorandum did not require an operational assessment. Program officials believed they could demonstrate the system's readiness to deploy during developmental testing. Subsequent to the LRIP decision, the ASN(RD&A) had to waive two key performance parameters. Another key performance parameter was reduced to 60 percent of the threshold because the Fleet and Resource Sponsor accepted the current performance limitations and the proposed strategy to bring the program to full performance for developmental testing. This decision resulted in an approved LRIP with shortfalls in these three key performance parameters.

Conducting operational assessments as required before the LRIP decision would have provided the milestone decision authority with better information concerning program risks. Program officials could have avoided costs associated with retrofitting LRIP units already produced.

Because the Navy Acquisition Guidebook is not in compliance with requirements in DoD Directive 5000.1 and DoD Instruction 5000.2, we added Recommendation B.2. to update the Navy Acquisition Guidebook.

2. Update the Navy Acquisition Guidebook to conform to the requirements in DoD Instruction 5000.2. Specifically, the Navy Acquisition Guidebook should require that before acquisition programs enter low-rate initial production, the system must demonstrate acceptable performance in development test and evaluation and undergo an operational assessment.

3. Document in the acquisition decision memorandum quantities exceeding the 10-percent low-rate initial production guideline.

Management Comments. The Deputy Assistant Secretary of the Navy (Management and Budget), responding for the ASN(RD&A), concurred with comment. He stated that the ASN(RD&A) will document in the acquisition decision memorandum justification for exceeding the 10-percent LRIP guideline. The Deputy Assistant Secretary of the Navy (Management and Budget) stated that this justification has been reflected in recent acquisition decision memorandums and the statutorily required Selected Acquisition Reports. The Deputy Assistant Secretary of the Navy (Management and Budget) also stated that the LRIP statute (section 2400(a), title 10, United States Code) does not set 10 percent as an LRIP limitation. Rather, 10 percent is a guideline and a threshold for which further explanation and documentation in the Selected Acquisition Report is required for ACAT I programs.

Audit Response. In response to management comments, we revised Recommendation B.3. to indicate that 10 percent is an LRIP guideline rather than a limitation. The Deputy Assistant Secretary of the Navy (Management and Budget) comments are responsive.

4. Assess the cost and benefits of a break in production versus continuing annual buys when the program office expects to exceed the low-rate initial production quantity approved at Milestone B.

Management Comments. The Deputy Assistant Secretary of the Navy (Management and Budget), responding for the ASN(RD&A), nonconcurred. He stated that the LRIP statute (section 2400(a), title 10, United States Code) does not set 10 percent as an LRIP limitation. Rather, 10 percent is a guideline and a threshold for which further explanation and documentation in the Selected Acquisition Report is required for ACAT I programs. The Deputy Assistant Secretary of the Navy (Management and Budget) also stated that the LRIP statute requires the milestone decision authority to establish the LRIP quantity at Milestone B and the Secretary of Defense to report on the LRIP quantity in the first system assessment for ACAT I programs. The Deputy Assistant Secretary of the Navy (Management and Budget) further stated that both of these events typically occur before the system is ready to proceed to LRIP.

Additionally, the Deputy Assistant Secretary of the Navy (Management and Budget) stated that the Commander, Operational Test and Evaluation Force's evaluation of a system is restricted to whether or not the system under test satisfies the requirements of the capabilities documents. Test and evaluation is only one consideration by the milestone decision authority in support of a production decision. The Deputy Assistant Secretary of the Navy (Management and Budget) further stated that the Commander, Operational Test and Evaluation Force has neither connection to, nor understanding of, all acquisition considerations. Therefore, the Commander is unable to render a complete and informed recommendation to the milestone decision authority concerning LRIP and should limit its reporting to system performance, leaving acquisition officials to resolve production decisions.

Audit Response. We revised Recommendation B.4. to correspond to the requirement of DoD Instruction 5000.2 regarding LRIP.

DoD Instruction 5000.2 states that LRIP is to result in completion of manufacturing development to ensure adequate and efficient manufacturing capability. LRIP also produces the minimum quantity necessary to provide production articles for initial operational test and evaluation. In addition, DoD Instruction 5000.2 states, "when approved LRIP quantities are expected to be exceeded because the program has not yet demonstrated readiness to proceed to full-rate production, the milestone decision authority shall assess the cost and benefits of a break in production versus continuing annual buys." We request that the Navy provide comments to the revised recommendation in response to the final report.

5. Instruct the program manager for AV-8B Harrier II Open Systems Core Avionics Requirements to provide documentation that the suitability issues in the Operational Test Report for the AV-8B Harrier II Open

Systems Core Avionics Requirements were corrected and that the corrections were verified by the Commander, Operational Test and Evaluation Force.

Management Comments. The Deputy Assistant Secretary of the Navy (Management and Budget), responding for the ASN(RD&A), concurred. He stated that the deficiencies cited in the operational test report for the AV-8B Harrier II Open Systems Core Avionics Requirements were reevaluated during subsequent operational testing of another program. The Commander, Operational Test and Evaluation Force stated that the four major deficiencies in AV-8B Harrier II Open Systems Core Avionics Requirements were corrected.

Audit Response. The comments were responsive to the recommendation. We reviewed a copy of the report, Commander, Operational Test and Evaluation Force 3980 (S0195-08-OT-IIIA-SCS-H2.0) Ser 573/S001, January 9, 2006. We determined that the deficiencies cited in the operational test report were corrected.

6. Require the program manager for the AN/APG-79 Active Electronically Scanned Array Radar System to obtain a determination from the Commander, Operational Test and Evaluation Force that the AN/APG-79 Active Electronically Scanned Array Radar System is potentially operationally effective and suitable before approving any further production buys.

Management Comments. The Deputy Assistant Secretary of the Navy (Management and Budget), responding for the ASN(RD&A), nonconcurred. He stated that the AN/APG-79 Active Electronically Scanned Array Radar System operational evaluation test was completed in November 2006, and the report will be published in February 2007. He further stated that the beyond LRIP report will be issued in March 2007, with the full-rate production decision planned for April 2007. Additionally, the Deputy Assistant Secretary of the Navy (Management and Budget) stated that the acquisition decision memorandum for a fourth LRIP provides exit criteria requiring the system to be operationally effective and suitable.

Audit Response. Although the Deputy Assistant Secretary of the Navy (Management and Budget) nonconcurred, the comments were responsive to the recommendation. We agree that completion of the AN/APG-79 Active Electronically Scanned Array Radar operational evaluation testing and the establishment of exit criteria for requiring an operationally effective and suitable system prior to the full-rate production decision meets the intent of our recommendation.

7. Instruct the program manager for the AN/SPY-1D(V) Radar Upgrade System to provide documentation that the suitability issues in the Operational Test Report for the AN/SPY-1D(V) Radar Upgrade System were corrected and that the corrections were verified by the Commander, Operational Test and Evaluation Force. In addition, we recommend that closeout of the program not be approved until the requested documentation is provided.

Management Comments. The Deputy Assistant Secretary of the Navy (Management and Budget), responding for the ASN(RD&A), concurred. He stated that the program office is implementing a plan to resolve outstanding suitability deficiencies identified in the operational evaluation report prior to the Milestone III full-rate production decision review.

Audit Response. The comments were responsive to the recommendation.

C. Reporting in Dashboard

Program managers for 2 of the 13 Navy programs reviewed did not update program information in the Dashboard database on a quarterly basis. Additionally, program managers for evolutionary acquisition programs could not report each increment separately in Dashboard. These conditions existed because the NAE had not issued policy mandating the use of Dashboard, and Dashboard did not provide program managers with the capability to separately report program information for each increment of evolutionary acquisition programs. To be an effective program management tool, Dashboard should allow Navy officials to interpret current program status and distinguish program information for each increment of evolutionary acquisition programs.

Navy Program Management Database

Dashboard. The NAE has developed a Web-based database called Dashboard. Dashboard is a repository of data that documents and supports the completion of all acquisition program statutory and regulatory reporting requirements. The purpose of Dashboard is to provide Secretary of the Navy, ASN(RD&A), Chief of Naval Operations, Systems Commands, PEOs, and the program manager an automated tool that helps manage Navy programs. Specifically, Dashboard is intended to enable Navy officials to monitor program progress between milestone decisions. Dashboard was originally developed for Navy ACAT I and II programs in December 2003. The database has evolved to include ACAT III programs with the plan of adding ACAT IV program data. According to Navy officials, USD(AT&L) has directed that Dashboard information feed into another information system managed by USD(AT&L), entitled Defense Acquisition Management Information Retrieval. In the future, USD(AT&L) plans to replace the Defense Acquisition Executive Summary reports with the Defense Acquisition Management Information Retrieval system.

Dashboard Input User Manual

According to the NAE *Dashboard Input User Manual*, program managers are required to input original program information into the database every quarter. However, the *Dashboard Input User Manual* is not formally signed guidance. As a result, it is not mandatory or enforceable. Before official submission to the NAE, the program-assigned PEOs review and approve the data. Each Navy program reported in Dashboard is assigned a quarterly reporting schedule. The quarterly schedules for ACAT I programs are based on the reporting requirement in the Defense Acquisition Executive Summary.

Program information reported in Dashboard includes:

- 10 program assessment areas;[5]
- milestone and acquisition decision memorandum information;
- cost, funding, and contracting information;
- key performance parameters;
- joint capability areas;
- PEO and program manager comments; and
- regulatory and statutory document status.

Dashboard Updates

During the audit, we were given access to the Dashboard system and reviewed Dashboard program information for the 13 Navy programs. Program officials for 2 of the 13 programs did not update Dashboard according to their quarterly schedules. However, quarterly Dashboard reporting applies to all ACAT programs we reviewed.

Quarterly Reporting. During our review of the Dashboard system, we discovered that the Dashboard reports for the AN/AES-1 Airborne Laser Mine Detection System and OSCAR program were not current. At that time, program officials had not updated Dashboard information for the AN/AES-1 Airborne Laser Mine Detection System in 7 months. Dashboard was not updated quarterly even though an overall program status report indicated that some event, action, or delay was impairing progress on major program objectives. Dashboard color coding guidelines encourage early reporting for programs with this status. Similarly, during our review of the Dashboard report for the OSCAR program, Dashboard had not been updated in over 6 months.

Reporting Reliability. Regardless of ACAT level, if a program is not reporting quarterly, NAE staff contacts program-assigned Deputy Assistant Secretaries of the Navy, PEOs, and program managers to encourage them to report on time. However, NAE staff stated that the Navy has no formal written policy mandating the use of Dashboard with quarterly updates for all ACAT programs. Without a written policy, the Secretary of the Navy, NAE, Chief of Naval Operations, Systems Commands, PEOs, and the program managers cannot be assured that the information in Dashboard accurately reflects the status of the programs. As a result, the Navy is not using Dashboard to its fullest potential as a tool for monitoring program progress. Additionally, because USD(AT&L) plans to extract information from Dashboard to populate the Defense Acquisition

[5] Performance characteristics, test and evaluation, logistic requirements and readiness objectives, cost, funding, schedule, contracts, production, management structure, and interoperability.

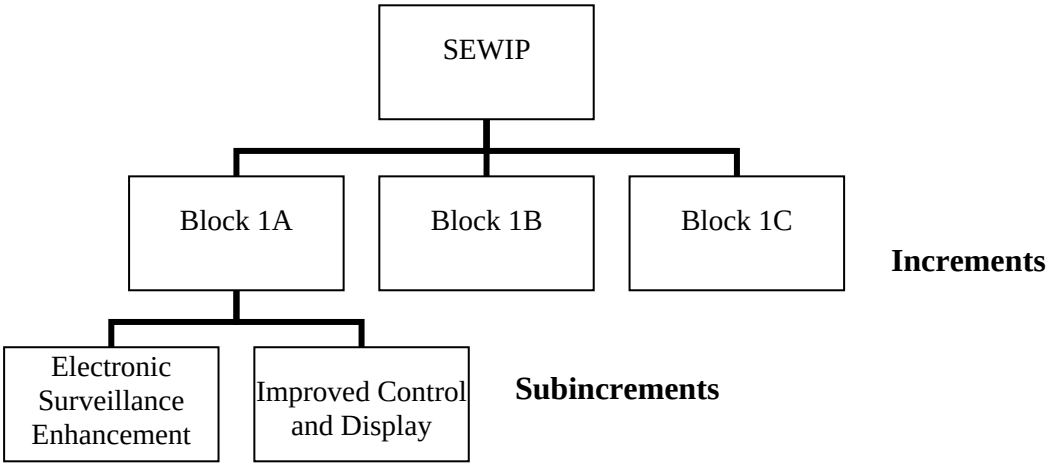
Management Information Retrieval system, it is important that the information be current.

Defense Acquisition Executive Summary Reports. Defense Acquisition Executive Summary reports are required for ACAT I programs and are submitted to the NAE no later than the 15th day of the program's designated quarterly reporting month. The Defense Acquisition Executive Summary is a multipart document that reports program information and assessments; NAE, PEO, and program manager comments; and funding data. The Defense Acquisition Executive Summary provides an early-warning report to the USD(AT&L), and describes actual program problems, warns of potential program problems, and describes mitigating actions taken or planned. Because Dashboard is to provide program data to the Defense Acquisition Management Information Retrieval system, which will replace the need for Defense Acquisition Executive Summary reports in the future, it is critical that program information be updated on a quarterly basis. Under the current process, outdated information could be provided to the USD(AT&L), which would inhibit effective oversight for ACAT I programs. The Navy should issue policy that mandates all program offices update Dashboard on a quarterly basis.

Evolutionary Acquisition Programs

Of the 13 Navy programs reviewed, 2 (SEWIP and Common Link Integration Processing [CLIP]) were evolutionary acquisition programs. Although Dashboard allows the program manager for programs to enter data that tracks milestone information, Dashboard does not specifically distinguish information about documents for each increment. As a result, program managers must overwrite existing program data to update Dashboard when future blocks approach milestone decisions. This process makes it difficult for Navy officials to distinguish data for each increment of an evolutionary acquisition program, which affects how the NAE interprets Dashboard reports and manages the programs.

According to DoD Instruction 5000.2, DoD prefers to procure weapon systems using an evolutionary acquisition strategy. An evolutionary approach delivers the capability in increments, which allows the Navy to field a system sooner. A Navy program can be separately developed in several increments, such as increments A, B, and C, and further broken down into subincrements, such as subincrements 1 and 2. The figure demonstrates how SEWIP uses the evolutionary acquisition approach to structure its program. Each increment and subincrement will have separate milestone decisions and program documentation.



Structure of the SEWIP Program

Surface Electronic Warfare Improvement Program. The Dashboard report for SEWIP includes data for two of its subincrements: Electronic Surveillance Enhancement and Improved Control and Display. Both of these subincrements have been approved for Milestone C and the information for both subincrements has been reported to Dashboard. However, the Dashboard design did not allow the program manager for SEWIP to report information on the two subincrements in the appropriate areas. The Dashboard report shows the Electronic Surveillance Enhancement acquisition strategy date under a column for Milestone C information. However, because Dashboard does not provide a place to report the Improved Control and Display Milestone C information, the acquisition strategy date is reported in a section for the full-rate production information. This case illustrates the need for the NAE to modify Dashboard to separate data for each increment.

Common Link Integration Processing. The Navy is also procuring the CLIP program using an evolutionary acquisition approach. Because the Dashboard design does not provide separate areas to enter information for each increment, the program manager for CLIP tried to clarify by labeling each entry as increment 1 or increment 2 data. However, when increment 2 progresses to Milestone C, the program manager will have to overwrite the increment 1 data for Milestone C. In other words, the program manager will have to overwrite existing information with new data to update Dashboard.

Dashboard Modification

To help Navy officials manage Navy programs, the NAE needs to reconsider the current design of Dashboard and the implications on evolutionary acquisition programs. As demonstrated by SEWIP and CLIP, the current design will cause a loss of historical data for past increments. Additionally, Navy officials will not be able to distinguish between important milestone decision dates and data for

each increment. Combining data for different increments prevents Navy officials from having full knowledge of the program historical data. If the NAE modifies Dashboard to distinguish program data for different increments, the Navy will preserve historical and current program information in Dashboard and allow evolutionary acquisition programs to clearly report information for different program increments.

Recommendations, Management Comments, and Audit Response

C. We recommend that the Assistant Secretary of the Navy (Research, Development, and Acquisition):

1. Issue official guidance to Deputy Assistant Secretaries of the Navy, program executive officers, and program managers mandating the use of Dashboard with quarterly updates for all ACAT programs.

Management Comments. The Deputy Assistant Secretary of the Navy (Management and Budget), responding for the ASN(RD&A), concurred. He stated that the ASN(RD&A) will issue official guidance to the Deputy Assistant Secretaries of the Navy, PEOs, and program managers mandating the use of Dashboard and requiring updates for all ACAT programs. In a follow-up conversation regarding management comments, an ASN(RD&A) representative indicated that official Dashboard guidance is expected to be issued by February 2007.

Audit Response. The comments were responsive to the recommendation. However, during the audit follow-up we will verify that the ASN(RD&A) issued official guidance to the Deputy Assistant Secretaries of the Navy, PEOs, and program managers mandating the use of Dashboard and requiring updates for all ACAT programs.

2. Modify Dashboard to distinguish different increments for evolutionary acquisition programs.

Management Comments. The Deputy Assistant Secretary of the Navy (Management and Budget), responding for the ASN(RD&A), concurred. He stated that the ASN(RD&A) will develop the needed modifications to Dashboard to allow the different increments of evolutionary acquisition programs to be distinguished and reported. In a follow-up conversation regarding management comments, an ASN(RD&A) representative indicated that Dashboard should be modified to distinguish different increments for evolutionary acquisition programs by the end of September 2007.

Audit Response. The comments were responsive to the recommendation.

Appendix A. Scope and Methodology

We evaluated whether the NAE management oversight and procurement authority for ACAT IC and II programs was adequate. To accomplish this objective, we determined the effectiveness of the milestone decision authority's oversight and whether program managers provided the milestone decision authority with required program documentation in support of program milestone reviews. We also evaluated the adequacy of the procurement process used by the Navy contracting officers to solicit, negotiate, award, and administer contracts.

To evaluate the adequacy of the Navy milestone decision authority's oversight we judgmentally selected 13 ACAT IC and II programs for review from a list of programs provided by the NAE. The NAE was the milestone decision authority for the 13 ACAT IC and II programs selected for review.

We performed this audit from July 2005 through October 2006, in accordance with generally accepted government auditing standards. We reviewed documentation dated from November 1988 through October 2006. We interviewed NAE staff. We interviewed the different System Commands, including Naval Sea Systems Command, Washington Navy Yard, Washington, D.C.; Naval Air Systems Command, Patuxent River, Maryland; and Space and Naval Warfare Command, San Diego, California. In addition, we interviewed and obtained documentation from the PEOs for: Command, Control, Communications, Computers, and Intelligence and Space; Littoral and Mine Warfare; Integrated Warfare Systems; Air Antisubmarine Warfare, Assault, and Special Mission Programs; Tactical Aircraft Programs; and Strike Weapons and Unmanned Aviation. We interviewed and obtained documentation from the program managers and contracting officers of the 13 programs selected for review.

We reviewed documentation in support of milestone decision reviews that include: initial capabilities document; mission needs statements; operational requirements documents; capability development documents; capability production documents; AoAs; acquisition strategies; systems engineering plans; information support plans; command, control, communications, computers, and intelligence support plans; acquisition plans; test and evaluation master plans; affordability assessments; acquisition program baselines; acquisition decision memorandums; program deviation reports; live-fire test and evaluation reports; operational evaluation reports; independent cost estimates; beyond low-rate initial production report; and milestone decision review briefs.

To accomplish the audit objectives, we:

- reviewed DoD Directive 5000.1, "The Defense Acquisition System," May 12, 2003, as well as previous applicable DoD acquisition guidance, to determine DoD policy applicable to all acquisition programs;

- reviewed DoD Instruction 5000.2, "Operation of the Defense Acquisition System," May 12, 2003, as well as previous applicable DoD acquisition guidance, to determine whether Navy acquisition programs were assigned

the appropriate ACAT and program managers were complying with statutory, regulatory, and contract reporting information and milestone requirements;

- reviewed SECNAV Instruction 5000.2C, "Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System," November 19, 2004, to determine whether the NAE implemented the procedures in DoD Directive 5000.1 and DoD Instruction 5000.2;

- reviewed Federal Acquisition Regulation Part 15, "Contracting by Negotiation," March 2005, to determine contracting officer requirements for supporting contract price reasonableness determinations in their price negotiation memorandums;

- determined whether the conditions identified during the audits of the Boeing KC-767A tanker aircraft (DoD IG Report Nos. D-2003-129, "Assessment of DoD Leasing Actions," August 29, 2003; and D-2004-064, "Acquisition of the Boeing KC-767A Tanker Aircraft," March 29, 2004) and the C-130J Aircraft (DoD IG Report No. D-2004-102, "Contracting for and Performance of the C-130J Aircraft," July 23, 2004) occurred in the execution of Navy acquisition programs; and

- reviewed the Navy Dashboard Reporting System for the 13 Navy acquisition programs selected for review to determine whether the required information was entered into the Dashboard Reporting System and whether the Dashboard database was being updated timely.

Program Selection and Limitations. We reviewed 13 Navy programs that were major weapon systems. As shown in the following table, we limited our review to five ACAT IC programs and eight ACAT II programs managed by ASN(RD&A). We further limited our review by selecting programs that had a recent milestone decision date, were subject to DoD 5000 series of guidance, and were either in the system development and demonstration phase or production and deployment phase of the acquisition process. We excluded all space programs because they may not be subject to the procurement policies in the DoD 5000 series of guidance. In addition, we excluded the following: PEO Submarines because there were no ACAT IC or II programs; PEO Carriers because they had only one ACAT IC program, which did not have a recent milestone decision; and PEO Ships because the only program that met our criteria had been previously managed by USD(AT&L), who made all milestone decisions. We also excluded programs for the U.S. Marine Corps. Finally, we did not visit Defense Contract Management Agency Offices at the contractor locations to review documentation for acceptance and delivery of the systems from the contractors.

Program Selection Process

Navy Systems Commands/PEOs	ACAT IC Programs	ACAT IC Reviewed	ACAT IC Percentage	ACAT II Programs	ACAT II Reviewed	ACAT II Percentage
SPAWAR	**2**	**1**	**50**	**7**	**1**	**14**
PEO C4I and Space	2	1	50	7	1	14
NAVSEA	**6**	**1**	**17**	**13**	**4**	**31**
PEO IWS	1	0	0	6	2	33
PEO LMW	1	1	100	7	2	29
PEO Ships	2	0	0	0	0	N/A
Other*	2	0	0	0	0	N/A
NAVAIR	**11**	**3**	**27**	**16**	**3**	**19**
Air 1.0	0	0	N/A	4	1	25
PEO A	3	1	33	2	1	50
PEO T	3	1	33	5	1	20
PEO W	5	1	20	5	0	0
Total:	**19**	**5**	**26**	**36**	**8**	**22**

SPAWAR Space and Naval Warfare Systems Command
NAVSEA Naval Sea Systems Command
PEO C4I Program Executive Officer Command, Control, Communications, Computers, and Intelligence
PEO IWS Program Executive Officer Integrated Warfare Systems
PEO LMW Program Executive Officer Littoral and Mine Warfare

* Includes two programs managed by Program Executive Office Carriers and Strategic Systems Programs.

We also limited our review to 13 Navy programs that met certain criteria, such as programs that were managed by ASN(RD&A) and subject to DoD 5000 series guidance. In addition, the scope of the audit was limited in that we did not review the management control program.

Use of Computer-Processed Data. We did not use computer-processed data to perform this audit.

Use of Technical Assistance. The Deputy Inspector General for Policy and Oversight, Quantitative Methods Division developed the criteria for selecting the appropriate judgmental sample size of Navy ACAT IC and II programs to be reviewed.

Government Accountability Office High-Risk Area. The Government Accountability Office (GAO) has identified several high-risk areas in DoD. This report provides coverage of the DoD Weapon Systems Acquisition high-risk area.

Appendix B. Prior Coverage

During the last 5 years, GAO, DoD IG, and Naval Audit Service issued 12 reports that discussed material management control weaknesses associated with the acquisition of weapon systems. Unrestricted GAO, DoD IG, and Naval Audit Service reports can be accessed at http://www.gao.gov, http://www.dodig.mil/audit/reports, and http://www.hq.navy.mil/navalaudit, respectively.

GAO

GAO Report No. GAO-05-301, "Defense Acquisitions: Assessments of Selected Major Weapon Programs," March 2005

GAO Report No. GAO-04-393, "Defense Acquisitions: Stronger Management Practices Are Needed to Improve DoD's Software-Intensive Weapon Acquisitions," March 2004

GAO Report No. GAO-04-53, "Defense Acquisitions: DoD's Revised Policy Emphasizes Best Practices, but More Controls Are Needed," November 2003

DoD IG

DoD IG Report No. D-2006-001, "Audit of the Common Submarine Radio Room," October 3, 2005

DoD IG Report No. D-2005-033. "Implementation of Interoperability and Information Assurance Policies for Acquisition of Navy Systems," February 2, 2005

DoD IG Report No. D-2004-109, "Implementation of the DoD Management Control Program for Navy Acquisition Category II and III Programs," August 17, 2004

DoD IG Report No. D-2004-108, "Implementation of the DoD Management Control Program for Air Force Acquisition Category II and III Programs," August 16, 2004

DoD IG Report No. D-2004-102, "Contracting for and Performance of the C-130J Aircraft," July 23, 2004

DoD IG Report No. D-2004-064, "Acquisition of the Boeing KC-767A Tanker Aircraft," March 29, 2004

DoD IG Report No. D-2004-047, "Implementation of the DoD Management Control Program for Army Acquisition Category II and III Programs," January, 23, 2004

DoD IG Report No. D-2003-004, “Acquisition of the Advanced Deployable System,” October 3, 2002

Naval Audit Service

Naval Audit Service Report No. N2004-0051, “The AN/SPY-1D(V) Upgrade Program,” May 19, 2004

Appendix C. Glossary

Acquisition Category. An acquisition category is established to facilitate decentralized decision making and execution and compliance with statutory requirements. The categories determine the level of review, decision authority, and applicable procedures.

Acquisition Coordination Team. The Acquisition Coordination Team is a team of stakeholders from the acquisition community who represent the principal advisors to the milestone decision authority. A team must be established for each Department of the Navy ACAT IC and II program. The teams are cochaired by the cognizant Deputy Assistant Secretary of the Navy or Deputy Assistant Secretary of the Navy action officer and the program manager.

Acquisition Decision Memorandum. The acquisition decision memorandum is a memorandum signed by the milestone decision authority. It documents decisions made as the result of a milestone decision review or decision review.

Acquisition Executive. Acquisition executives are the individuals charged with the overall acquisition management responsibilities within their respective organization.

Acquisition Program Baseline. The acquisition program baseline prescribes the key cost, schedule, and performance constraints that the program must achieve before the next milestone decision review in the acquisition process.

Acquisition Strategy. An acquisition strategy is a business and technical management approach designed to achieve program objectives within the resource constraints. It is the framework for planning, directing, contracting for, and managing a program. It provides a master schedule for research, development, testing, production, fielding, modification, postproduction management, and other activities essential for program success.

Analysis of Alternatives. An analysis of alternatives is the evaluation of the operational effectiveness, operational suitability, and estimated costs of alternative systems to meet a mission capability. The analysis assesses the advantages and disadvantages of alternative systems being considered to satisfy a validated need, including the sensitivity of each alternative to possible changes in key assumptions or variables.

Capability Development Document. A capability development document captures the information necessary to develop a proposed program, normally using an evolutionary acquisition strategy. The document outlines an affordable increment of militarily useful, logistically supportable, and technically mature capability. It supports a system development and demonstration program decision review.

Capability Production Document. A capability production document addresses the production elements specific to a single increment of an acquisition program. The Deputy Chief of Naval Operations (Resources, Requirements, and

Assessments) must validate and approve the document before a production and deployment decision review. The refinement of performance attributes and key performance parameters is the most significant difference between the capability development document and the capability production document.

Command, Control, Communications, Computers, and Intelligence Support Plan. The command, control, communications, computers, and intelligence support plan is a required document for all acquisition programs that connect in any way to the communications and information infrastructure, and includes both information technology systems and National Security System programs. The plan identifies command, control, communications, computers, intelligence, surveillance, and reconnaissance needs, dependencies, and interfaces. It focuses on interoperability, supportability, and sufficiency concerns throughout a program's life cycle.

Commander, Operational Test and Evaluation Force. The Office of Commander, Operational Test and Evaluation Force is the designated Operational Test Agency for the United States Navy and Marine Corps aviation programs assigned to Chief of Naval Operations sponsorship. The Commander, Operational Test and Evaluation Force plans, conducts, evaluates, and reports the operational test and evaluation of ACAT I and II programs.

Developmental Test and Evaluation. Developmental test and evaluation is any engineering test used to verify status of weapon systems technical progress, verify that design risks are minimized, substantiate achievement of contract technical performance, and certify readiness for initial operational testing. Development tests generally require instrumentation and measurements and are accomplished by engineers, technicians, or soldier operator-maintainer test personnel in a controlled environment to facilitate analysis of failures.

Director Test and Evaluation Oversight List. The annual Office of the Secretary of Defense Test and Evaluation Oversight List identifies those Department of the Navy programs subject to Office of the Secretary of Defense Test and Evaluation oversight. ACAT I, ACAT II, and programs requiring live-fire test and evaluation are generally included in oversight.

Engineering Development Model. An engineering development model is a production representative system acquired during the system development and demonstration phase of the acquisition process. Engineering development models may be used to demonstrate maturing performance via an operational assessment or operational testing.

Evolutionary Acquisition Programs. Evolutionary acquisition is the preferred DoD strategy for rapid acquisition of mature technology for the user. An evolutionary approach delivers capability in increments, recognizing, up front, the need for future capability improvements. The objective is to balance needs and available capability with resources and to put capability into the hands of the user quickly.

Full-Rate Production. Full-rate production represents contracting for economic production quantities following stabilization of the system design and validation of the production process.

Information Support Plan. The information support plan (formerly known as the command, control, communications, computers, and intelligence support plan) identifies and documents information technology and national security system needs, objectives, and interface requirements in sufficient detail to enable testing and verification of requirements. The information support plan also contains interface descriptions, infrastructure and support requirements, standards profiles, measures of performance, and interoperability shortfalls.

Inventory Objective. Inventory objective is the quantity of an item of material that will satisfy the military requirement under specified mobilization conditions.

Key Performance Parameter. Key performance parameters are those minimum attributes or characteristics considered most essential for an effective military capability. For capabilities documents, key performance parameters are validated by the Joint Requirements Oversight Council for joint requirements documents, by the Functional Capabilities Board for requirements documents that jointly affect Services, and by the DoD Component for requirements documents that are prepared independently by a Service.

Low-Rate Initial Production. Low-rate initial production is the first segment of the production and deployment phase. Its purpose is to establish an initial production base for the system, permit an orderly ramp-up sufficient to lead to a smooth transition to full-rate production, and to provide production-representative articles for initial operational test and evaluation and live-fire testing. For major Defense acquisition programs, low-rate initial production quantities in excess of 10 percent of the acquisition objective must be reported in the Selected Acquisition Report.

Milestone Decision Authority. The milestone decision authority is the designated individual with overall responsibility for a program. The milestone decision authority approves program initiation and entry of an acquisition program into the next phase of the acquisition process. The milestone decision authority is accountable for cost, schedule, and performance reporting to higher authority, including congressional reporting.

Operational Effectiveness. Operational effectiveness is a measure of the overall ability of a system to accomplish a mission when used by representative personnel in the environment planned or expected for operational employment of the system.

Operational Requirements Document. The operational requirements document is a legacy document that contains performance parameters for the proposed concept or system. Operational requirements documents were accepted for Joint Staff review until late December 2003. Capability development documents and

capability production documents developed in accordance with Chairman of the Joint Chiefs of Staff Instruction 3170.01C, "Joint Capabilities Integration and Development System," June 24, 2003, replaced the operational requirements document. The instruction allowed a validated and approved operational requirements document to be used to support program initiation and the low-rate initial production decision until late June 2005.

Operational Suitability. Operational suitability is the degree to which a system can be placed and sustained satisfactorily in field use.

Operational Test and Evaluation. Operational test and evaluation is the field test, under realistic conditions, of any item (or key component) of weapons, equipment, or munitions to determine its effectiveness and suitability for use in combat by typical military users.

Program Executive Officer. A program executive officer is a military or civilian official who has the responsibility for directing several major Defense acquisition programs and for directing major and nonmajor system acquisition programs. A program executive officer has no other command or staff responsibilities within the Component, and reports to and receives guidance and direction from only the DoD Component Acquisition Executive.

Program Manager. The program manager is a designated individual with responsibility for and authority to accomplish program objectives for development, production, and sustainment to meet the users' operational needs. The program manager is accountable for cost, schedule, and performance reporting to the milestone decision authority.

Research, Development, Test, and Evaluation. Research, development, test, and evaluation are activities for developing a new system or expanding the performance of fielded systems.

System Development and Demonstration. The system development and demonstration phase (Milestone B) is the third phase of the DoD system acquisition process and consists of system integration and system demonstration. This phase also contains a design readiness review at the conclusion of the system integration.

Systems Engineering Plan. The systems engineering plan describes the program's overall technical approach, including processes, resources, metrics, and applicable performance incentives. It also states the timing, conduct, and success criteria of technical reviews.

Test and Evaluation Master Plan. The test and evaluation master plan documents the overall structure and objectives of the test and evaluation program. It provides a framework for generating detailed test and evaluation plans and for documenting schedule and resource implications associated with the test and evaluation program. The test and evaluation master plan identifies the necessary developmental test and evaluation, operational test and evaluation, and live-fire test and evaluation activities.

Test Report. A test report formally documents the results, conclusions, and recommendations that result from each phase of developmental testing and operational testing.

Threshold. A threshold is a minimum acceptable operational value below which the utility of the system becomes questionable.

Appendix D. Comparison of Conditions Identified on Audits of Boeing KC-767A and C-130J Aircraft

As a result of audits of the Boeing KC-767A tanker aircraft (DoD IG Report Nos. D-2003-129, "Assessment of DoD Leasing Actions," August 29, 2003; and D-2004-064, "Acquisition of the Boeing KC-767A Tanker Aircraft," March 29, 2004) and the C-130J aircraft (DoD IG Report No. D-2004-102, "Contracting for and Performance of the C-130J Aircraft," July 23, 2004), the DoD IG initiated the series of audits of the Service Acquisition Executives to determine whether management oversight problems identified in the referenced reports were more widely occurring across the Military Departments. At the April 14, 2005, hearing on management and oversight of Air Force acquisition programs, the Senate Armed Services Subcommittee also expressed interest in the results of the DoD IG audits concerning whether similar conditions were occurring within the other Services. The results of the review of 13 Navy ACAT IC and II programs as related to the 15 conditions identified in the earlier audits of the two Air Force acquisition programs follows.

1. Condition: The former Deputy Assistant Secretary of the Air Force (Acquisition) used her position as the milestone decision authority and head of Air Force contracting to conduct and inappropriately influence the results of the contract negotiations with Boeing to acquire Boeing KC-767A tanker aircraft.

Question: Did the NAEs use their positions as milestone decision authorities to conduct and inappropriately influence the results of contractor selection and negotiations for the 13 programs selected for review?

Results: For the 13 programs reviewed, we did not find evidence that the NAEs used their positions to inappropriately influence the results of contractor selection and negotiations.

2. Condition: On both the Boeing KC-767A tanker aircraft and the C-130J programs, Air Force contracting officers did not properly justify the use of a commercial item acquisition strategy. The Federal Acquisition Regulation (FAR) states that a commercial item is any item, other than real property, that is used customarily by the general public or by nongovernmental entities for purposes other than governmental purposes. Further, commercial items are those that have been sold, leased, or licensed to the general public; or have been offered for sale, lease, or license to the general public.

Question: Did Navy contracting officers use and properly justify the use of a commercial item acquisition strategy for the 13 programs selected for review?

Results: For the 13 programs reviewed, Navy contracting officers did not use a commercial item acquisition strategy. Navy contracting officers included FAR Subpart 15, "Contracting by Negotiation," as part of their acquisition planning.

3. Condition: On the C-130J program, the Air Force conditionally accepted the delivery of C-130J aircraft that did not meet commercial contract specifications or operational requirements.

Question: Did the Navy acquisition officials conditionally accept delivery of items before the items met contract specifications and operational requirements for the 13 programs selected for review?

Results: As mentioned in Appendix A, we did not visit Defense Contract Management Agency offices at the contractor locations or otherwise determine whether the systems for the 13 programs reviewed had been accepted before meeting contract specifications or operational requirements.

4. Condition: On the C-130J program, the Air Force contracting officer did not adequately manage the financing of the contract. This inadequate management resulted in the Air Force paying the contractor 85 percent of the price of the aircraft before aircraft acceptance inspection and 99 percent of the price of the aircraft on conditional acceptance and delivery of noncompliant aircraft.

Question: Did Navy contracting officers properly manage the financing of deliverable items on contracts for the 13 programs selected for review?

Results: On 5 of 11 production contracts, the Navy contracting officers included FAR Clause 52.232-16, "Progress Payments," or Defense Federal Acquisition Regulation Supplement Clause 252.232-7004, "DoD Progress Payment Rates," which limited the contractor financing to 80 percent or less of the contract price before acceptance of the deliverable items. The remaining six programs did not include either clause for progress payments, and we did not determine the manner in which financing occurred.

5. Condition: On the Boeing KC-767A tanker aircraft program, the Air Force contracting officer negotiated a prohibited cost-plus-a-percentage-of-cost contract. Cost-plus-a-percentage-of-cost contracts are prohibited by Section 2306(a), title 10, United States Code. A cost-plus-a-percentage-of-cost contract is a cost reimbursement contract that provides a contractor a fee based as a specified percentage of the contractor's actual cost of performing the work. According to GAO, a cost-plus-a-percentage-of-cost contract occurs when contracting officers award a contract for which:

- payment for profit is based on a predetermined percentage rate,
- a predetermined percentage rate applies to the actual cost of work performed,
- contractor entitlement is uncertain at the time of contracting,
- contractor entitlement increases commensurately with increased performance costs, and
- Government audit rights are excluded.

Question: Did Navy contracting officers use a prohibited cost-plus-a-percentage-of-cost system of contracting through the use of limitation of earnings clauses and the exclusion of Government audit rights on the 13 programs selected for review?

Results: We did not identify any instances where the Navy contracting officers structured and awarded a cost-plus-a-percentage-of-cost contract. We reviewed the basic contract clauses and the business clearance memorandums for the 13 Navy programs. None of the 13 acquisition programs in our review used a cost-plus-a-percentage-of-cost contract. All 13 contracts we reviewed included the Government audit rights clause as part of contract.

6. Condition: On the Boeing KC-767A tanker aircraft program, the proposed lease did not meet all of the criteria requirements for an operating lease. Further, the proposed lease would have cost the Air Force more than purchasing the aircraft. Office of Management and Budget Circular A-11, "Preparation, Submission, and Execution of the Budget," June 2006, states that an operating lease must meet the following six requirements:

- The asset is a general-purpose asset rather than being for a special purpose of the Government and is not built to unique specification of the Government as a lessee.
- There is a private-sector market for the asset.
- The present value of the minimum lease payments over the life of the lease does not exceed 90 percent of the fair market value of the asset at the beginning of the lease term.
- The lease does not contain a bargain-price purchase option.
- Ownership of the asset remains with the lessor during the term of the lease and is not transferred to the Government at or shortly after the end of the lease term.
- The lease term does not exceed 75 percent of the estimated economic life of the asset.

Question: Did Navy contracting officers use and properly justify the use of leases in accordance with Office of Management and Budget Circular A-11 on the 13 programs selected for review?

Results: The Navy contracting officers did not use leases for the 13 programs reviewed.

7. Condition: On the Boeing KC-767A tanker aircraft program, the Air Force contracting officer did not require Boeing to submit cost and pricing data related to prior commercial sales to enable the Air Force contracting officer to determine price reasonableness.

Question: Did Navy contracting officers require contractors to submit cost or pricing data to enable the contracting officers to determine price reasonableness for the 13 programs selected for review?

Results: As indicated in price negotiation memorandums for 8 of 13 programs reviewed, Navy contracting officers required and relied on cost or pricing data to negotiate the contract price and support a price reasonableness determination. Three of the 13 were exempt from using cost or pricing data and 1 program did not require cost and pricing data due to having significant historical cost and pricing data. The remaining program planned to use cost or pricing data when the contract was definitized.

8. Condition: The Assessment of Leasing Actions report stated that the Air Force took full advantage of Section 8159 of the DoD Appropriations Act for FY 2002 that authorized the Air Force to lease not more than 100 general purpose Boeing KC-767A aircraft. With this authority, the Air Force did not prepare a formal analysis of alternatives to determine the best possible system solution to fulfill its need for a tanker aircraft replacement. DoD Instruction 5000.2 requires that an analysis of alternatives be completed and approved by the Director, Program Analysis and Evaluation for major Defense acquisition programs. The analysis of alternatives is an evaluation of the system's operational effectiveness, operational suitability, and estimated costs of alternative systems to meet a mission capability. The analysis assesses the advantages and disadvantages of alternatives being considered to satisfy capabilities, including the sensitivity of each alternative to possible changes in key assumptions or variables.

Question: Did the Navy prepare an analysis of alternatives to support the acquisition of the 13 programs selected for review?

Results: Of the 13 programs reviewed, 7 had completed an analysis of alternatives or cost and operational effectiveness analysis in accordance with DoD Instruction 5000.2 and Secretary of the Navy Instruction 5000.2C. Of the remaining six programs, one program had an analysis of alternatives or cost and operational effectiveness analysis but did not have signature pages to substantiate that the documents had been approved by the NAE. One program had an analysis of alternatives but it was not properly approved. Program officials for four programs were unable to provide their analyses of alternatives or cost and operational effectiveness analyses.

9. Condition: On the Boeing KC-767A tanker aircraft program, the KC-767A System Program Office did not establish a disciplined acquisition strategy to ensure that the warfighters' operational requirements were being satisfied. The Office of Management and Budget Circular A-109, "Major System Acquisitions," April 5, 1976, states that Federal agencies should tailor an acquisition strategy for each major system to ensure that each major system fulfills a mission need and operates effectively in its intended environment. DoD Instruction 5000.2 requires the program manager to prepare and the milestone decision authority to approve an acquisition strategy by the system development and demonstration phase of the acquisition process.

Question: Did Navy program managers prepare acquisition strategies in accordance with requirements in Office of Management and Budget Circular A-109 and DoD Instruction 5000.2 for the 13 programs selected for review?

Results: Of the 13 programs reviewed, 9 had completed acquisition strategies in accordance with DoD Instruction 5000.2. As discussed in finding A, program managers for the other four programs either did not fulfill the requirements for the acquisition strategy as listed in DoD Instruction 5000.2 or did not provide the auditors with their program's acquisition strategy.

10. Condition: On the Boeing KC-767A tanker aircraft program, the program manager did not plan to complete an information support plan (formerly referred to as a command, control, communications, computers, and intelligence support plan) before the milestone decision to acquire the first 100 tanker aircraft. An information support plan is needed to identify, plan, and manage command, control, communications, computers, and intelligence supportability needs; dependencies between systems; and interface and interoperability requirements. DoD Instruction 5000.2 requires program managers to prepare an information support plan before the decision reviews for entering into the system development and demonstration and the production and deployment phases of the acquisition process.

Question: Did the Navy milestone decision authority require program managers to prepare and obtain approval for information support plans before the system development and demonstration and production and deployment phases of the acquisition process for the 13 programs selected for review?

Results: Program officials for 8 of the 13 programs had completed an information support plan or a command, control, communications, computers, and intelligence support plan and obtained approval before the system development and demonstration or production and deployment phases of the acquisition process. For three of the remaining programs, one received a waiver to the development of the information support plan, and two followed the guidance provided to them by the Office of the Assistant Secretary of Defense (Networks and Information Integration)/Chief Information Officer. As discussed in finding A, the remaining two programs did not fulfill the requirements for preparing an information support plan or command, control, communications, computers, and intelligence support plan.

11. Condition: The operational requirements document developed by the Air Force did not require that the first 100 Boeing KC-767A tanker aircraft acquired meet warfighter requirements for interoperability. As a result, the aircraft acquired would not have fully met the key performance parameter for interoperability.

Question: Did the NAE require program managers to meet a net-ready (formerly interoperability) key performance parameter in the capability development documents and capability production documents?

Results: Of the 13 programs reviewed, 12 met the requirement to have key performance parameters for net-readiness or interoperability in the capability development documents and capability production documents. One of the 13 programs did not have key performance parameters for net-readiness or interoperability because the program did not have a requirements document (see finding A).

12. Condition: The Air Force did not ensure that warfighter operational requirements were adequately established in the contract specifications for the Boeing KC-767A tanker program. The Air Force also accepted C-130J aircraft that did not meet contract specifications and therefore could not perform its operation mission.

Question: Did Navy program managers ensure that contracting officers included the requirements identified in the operational requirements or capabilities development documents in contract specification before awarding development contracts for the five Navy weapon systems reviewed in the system development and demonstration phase of the acquisition process?

Results: For four of the five Navy programs that were in the system development and demonstration phase of the acquisition process, program managers had verified that contracting officers included requirements identified in operational requirements documents or capabilities development documents in system contract specifications. However, for the Navy Advanced Extremely High Frequency Multiband Terminal, we were unable to verify whether the contractors included the requirements identified in the operational requirements documents in the system contract specifications because the program officials did not respond to our requests for information.

13. Condition: The Air Force did not comply with statutory provisions for determining the operational effectiveness, suitability, and survivability of the Boeing KC-767A tanker aircraft before proceeding beyond low-rate initial production and committing to the subsequent production of all 100 KC-767A tanker aircraft. Section 2399, title 10, United States Code states that a major Defense acquisition program may not proceed beyond low-rate initial production until initial operational test and evaluation of the program is completed. Further, section 2366, title 10, United States Code states that a covered system (a system under the oversight of the Director, Operational Test and Evaluation) may not proceed beyond low-rate initial production until realistic survivability testing of the system has been completed.

Question: Did the Navy milestone decision authorities ensure that initial operational test and evaluation was completed before they approved the four Navy acquisition programs for full-rate production? Also, did the milestone decision authority ensure that survivability testing was planned and conducted for the two covered acquisition programs?

Results: The Navy milestone decision authorities ensured that program managers for the four acquisition programs in production completed initial operation test and evaluation before approving the programs for full-rate production. Further, Navy milestone decision authorities ensured that program managers completed survivability testing for two of four systems before approving the acquisition programs for full-rate production. Two of the four systems were not covered; therefore, the Director, Operational Test and Evaluation did not require program officials to conduct survivability testing.

14. Condition: Costly contract modifications to convert the commercial aircraft to the KC-767A military configuration would occur because the KC-767A System Program Office did not fully develop systems engineering requirements.

Question: Did Navy program managers prepare systems engineering plans for the 13 Navy programs reviewed?

Results: According to the Under Secretary of Defense (Acquisition, Technology, and Logistics) memorandum, "Policy for Systems Engineering in DoD," February 20, 2004, 8 of the 13 programs should have developed a systems engineering plan. Six of eight programs had a systems engineering plan in accordance with the memorandum while two of the eight programs did not have properly approved systems engineering plans. The memorandum did not apply to the remaining five programs because these programs had not had a milestone decision review since the memorandum was issued or were already in low-rate initial production or beyond when the memorandum was issued.

15. Condition: On the Boeing KC-767A tanker aircraft and the C-130J programs, the Assistant Secretary of the Air Force (Acquisition) did not hold program managers accountable for completing statutory and regulatory requirements. The DoD IG Report No. D-2004-064, "Acquisition of the Boeing KC-767A Tanker Aircraft," March 29, 2004, cited requirements in the areas of commercial items; two statutory testing requirements; cost-plus-a-percentage-of-cost system of contracting; leases; and acquisition documentation, such as the acquisition strategy and requirements documents. DoD IG Report No. D-2004-102, "Contracting for and Performance of the C-130J Aircraft," July 23, 2004, cited requirements in the areas of commercial items, multiyear contract award, and testing.

Question: Did the Navy milestone decision authority hold program managers accountable for completing statutory and regulatory document requirements before milestone decisions and program reviews for the 13 programs selected for review?

Results: Three of 13 programs reviewed had completed statutory and regulatory documentation requirements in accordance with DoD Instruction 5000.2. As discussed in finding A, 10 of the 13 programs reviewed either did not fulfill the requirements for the documentation as listed in DoD Instruction 5000.2 or could not provide the auditors with the programs' relevant documentation.

Appendix E. Overview of the 13 Navy Programs

Program Name	Phase	Last Milestone Decision	ACAT	RDT&E (in millions)	Procurement (in millions)	Total Cost (in millions)	GWOT Funding (in millions)	DOT&E Oversight	Urgent Need
Advanced Deployable System	SD&D	December 22, 2005	IC	$788.33	$667.29	$1,455.62	0	Yes	No
AN/APG-79 Active Electronically Scanned Array Radar System	P&D/LRIP IV	Jan. 29, 2004/Feb. 28, 2006	IC	641.34	2,057.75	2,699.09	0	Yes	No
MH-60R Multi-Mission Helicopter	P&D/FRP	March 31, 2006	IC	1,670.9	10,018.8	11,689.70	0	Yes	No
Navy Advanced Extremely High Frequency Multiband Terminal	SD&D	October 21, 2003	IC	407.15	1166.2	1,573.35	0	Yes	No
Tactical Tomahawk	P&D/FRP	August 3, 2004	IC	756.8	4,151.78	4,908.58	$75.9	Yes	No
Advanced Arresting Gear	SD&D	February 10, 2005	II	196.56	601.5	798.06	0	No	No
AN/AES-1 Airborne Laser Mine Detection System	P&D/LRIP	June 14, 2005	II	115.58	327.61	443.19	0	No	No
AN/AQS-20A Sonar Mine Detecting Set	P&D/LRIP	May 10, 2005	II	210.32	1612.36	1,822.68	0	No	No
AN/SPY-1D(V) Radar Upgrade	LRIP II[1]	Sept. 29, 1993/Dec. 21, 2001	II	290.24	5983.15	6,273.39	0	Yes	No
AV-8B Harrier II Open Systems Core Avionics Requirements	P&D/FRP	August 16, 2004	II	351.65	262.28	613.93	0	No	No
Common Link Integration Processing	SD&D[2]	June 1, 2005	II	330.58	0	330.58	0	No	No
Mark XIIA Mode 5 Identification Friend or Foe Upgrade	SD&D	August 7, 2003	II	253.20	628.31	881.51	0	Yes	No
Surface Electronic Warfare Improvement Program	P&D/LRIP[3]	December 23, 2005	II	156.83	766.94	923.77	0	Yes	No
				$6,169.5	**$28,244.0**	**$34,413.5**	**$75.9**		

DOT&E Director, Operational Test and Evaluation
FRP Full-Rate Production
GWOT Global War on Terrorism
LRIP Low-Rate Initial Production
P&D Production and Deployment
RDT&E Research, Development, Test, and Evaluation
SD&D System Development and Demonstration Phase

Note: All funding figures converted to FY 2006 dollars based on program's base year amounts

[1] At the time of the last milestone for the AN/SPY-1 Radar Upgrade program, September 29, 1993, LRIP was not yet considered a P&D phase.

[2] Common Link Integration Processing program is an evolutionary acquisition program. Increment 1 is currently in the SD&D phase.

[3] Surface Electronic Warfare Improvement Program is an evolutionary acquisition program. The two subincrements of Block 1A are currently in the P&D/LRIP phase.

Appendix F. Description of the 13 Navy Programs

Acquisition Category IC Programs

Advanced Deployable System. The Advanced Deployable System program is under the PEO for Littoral and Mine Warfare. It is a rapidly deployable passive acoustic undersea surveillance system designed to detect and track modern diesel-electric submarines and surface craft in the shallow waters of the littoral regions of the world. The NAE approved the program for system development and demonstration on December 22, 2005.

AN/APG-79 Active Electronically Scanned Array Radar System. The AN/APG-79 Active Electronically Scanned Array Radar System program is under the PEO for Tactical Aircraft Programs. It is the primary search, track, and weapons control radar for the F/A-18E/F aircraft. The system's antenna is an electronically scanned antenna composed of many active transmitting and receiving elements. A computer controls the antenna elements individually, or in groups, to electronically steer a radar beam for various tactical purposes. The NAE approved the program low-rate initial production phase on July 21, 2003. The system was approved for a fourth low-rate initial production on February 28, 2006.

MH-60R Multi-Mission Helicopter. The MH-60R program is under the PEO for Air Antisubmarine Warfare, Assault, and Special Mission Programs. The program is an upgrade that provides critical improvements to an existing aircraft. The SH-60B and SH-60F aircraft will be replaced with a new air vehicle and upgraded mission avionics in a configuration designated as the MH-60R Weapon System. The NAE approved the program for full-rate production phase on March 31, 2006.

Navy Advanced Extremely High Frequency Multiband Terminal. The Navy Advanced Extremely High Frequency Multiband Terminal program is under the PEO for Command, Control, Communications, Computers, and Intelligence and Space. The program is the next generation Navy Extremely High Frequency terminal. It will provide deployed Naval commanders with secure command and control capability via Advanced Extremely High Frequency satellites, as well as other military and commercial satellites from anywhere in the world. The NAE approved the program for system development and demonstration on October 21, 2003.

Tactical Tomahawk. The Tactical Tomahawk program is under the PEO for Strike Weapons and Unmanned Aviation. The Tactical Tomahawk program replaces the Tomahawk Baseline Improvement Program by providing a more responsive, flexible, and lower cost missile to meet the evolving tactical scenarios of the future. Block IV provides significantly improved navigational accuracy in the Global Positioning System jamming environment, unique in-flight retargeting capability, and the transmission of battle damage indication imagery through a

two-way satellite data link. The NAE approved the program for full-rate production on August 3, 2004.

Acquisition Category II Programs

Advanced Arresting Gear. The Advanced Arresting Gear program is under the Assistant Commander for Acquisition, Air 1.0. The program is a new aircraft carrier arresting gear system to replace the MK 7 Mod 3 arresting gear. It will provide new operational capabilities, including the ability to safely and efficiently recover both heavier and faster aircraft as well as lighter-weight unmanned air vehicles that may enter the Fleet in the coming years. The NAE approved the program for system development and demonstration on February 10, 2005.

AN/AES-1 Airborne Laser Mine Detection System. The AN/AES-1 Airborne Laser Mine Detection System program is under the PEO for Littoral and Mine Warfare. The system detects, classifies, and localizes floating and near-surface moored sea mines. The system is deployed from the MH-60S helicopter and will provide organic airborne mine defense to the battle force. The NAE approved the program for low-rate initial production on June 14, 2005.

AN/AQS-20A Sonar Mine Detecting Set. The AN/AQS-20A Sonar Mine Detecting Set is under the PEO for Littoral and Mine Warfare. It is an upgrade to the AN/AQS-20 program. It can detect, localize, and classify bottom, close-tethered, and volume mines. The AN/AQS-20A Sonar Mine Detecting Set supports the carrier strike group and the expeditionary strike group. The NAE approved the program for low-rate initial production on May 10, 2005.

AN/SPY-1D(V) Radar Upgrade. The AN/SPY-1D(V) system reports through the PEO for Integrated Warfare Systems. The NAE approved the system for low-rate initial production on January 24, 1997. The AN/SPY-1D(V) system was approved for a second low-rate initial production on December 21, 2001. The system is an upgrade to the AN/SPY-1D to improve performance in adverse natural environments and in electronic countermeasures. The AN/SPY-1D(V) system is a component of the Aegis weapon system.

AV-8B Harrier Open Systems Core Avionics Requirement. The OSCAR program is under the PEO for Air Antisubmarine Warfare, Assault, and Special Mission Programs. The OSCAR program is an enhancement to the AV-8B aircraft avionics suite. It consists of new avionics hardware and software, improved software for a limited portion of the existing avionics subsystems and Mission Support System, and integration of two new weapons, the Advanced Medium-Range Air-to-Air Missile and the Joint Direct Attack Munition. The NAE approved the program for full-rate production on August 16, 2004.

Common Link Integration Processing. The CLIP program is under the PEO for Command, Control, Communications, Computers, and Intelligence and Space. CLIP will enable several systems to transition to Network Centric Warfare. CLIP provides for an integration approach that enhances implementation of the Joint Tactical Radio System requirements through the processing of the tactical data link messages, provides gateway functionality, and assists in enabling the

Network Centric Enterprise Services capabilities as an element of the Global Information Grid. The NAE approved the program for system development and demonstration on June 1, 2005.

Mark XIIA Mode 5 Identification Friend or Foe Upgrade. The Mode 5 program is under the PEO for Tactical Aircraft Programs. Mode 5 is an encrypted waveform that provides the warfighter with positive, secure, and reliable line-of-sight identification of friendly aircraft and ships. The new capability to identify friend or foe will better support the Navy in four operational environments: air-to-air, surface-to-air, air-to-surface, and surface-to-surface. Mode 5 is an upgrade to the Mark XII Identification Friend or Foe. The NAE approved the program for system development and demonstration on August 7, 2003.

Surface Electronic Warfare Improvement Program. SEWIP is under the PEO for Integrated Warfare Systems, Above Water Sensors. SEWIP is an upgrade to the existing AN/SLQ-32 (V) Electronic Warfare System. SEWIP includes multiple block upgrades. Block 1A consists of two subblocks: the first was for an updated computer processor and stand-alone electronic surveillance enhancement and the second was for the replacement of the existing display control console with an improved control and display. The NAE approved the first subblock for low-rate initial production on March 10, 2005, and the second subblock for low-rate initial production on December 23, 2005.

Appendix G. Other Matters of Interest

Acquisition Coordination Teams. SECNAV Instruction 5000.2C, "Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System," November 19, 2004, requires that an Acquisition Coordination Team be established for each Navy ACAT IC and II program. The 13 Navy programs reviewed had inconsistencies in the establishment of Acquisition Coordination Teams. Specifically, 4 of the 13 programs reviewed did not have an established Acquisition Coordination Team. One program, Harrier II AV-8B OSCAR, did not have an Acquisition Coordination Team or a group with a similar function. The program offices of the remaining three programs without an Acquisition Coordination Team (Advanced Arresting Gear, APG-79 Active Electronically Scanned Array Radar System, and Tactical Tomahawk) used what they considered to be a comparable functional group: Working Integrated Product Teams or Integrating Integrated Product Teams. SECNAV 5000.2C distinguishes between Working Integrated Product Teams, Integrating Integrated Product Teams, and Acquisition Coordination Teams based on the application and functionality of each group. The Working Integrated Product Teams and Integrating Integrated Product Teams are generally formulated to address the needs of various functional areas (for example, cost, performance, design, test, and contracting) or specific issues of the program. However, the SECNAV guidance specifically states that an Acquisition Coordination Team is a team of stakeholders from the acquisition community who represents the principal advisors to the milestone decision authority.

The programs with established Acquisition Coordination Teams use the Acquisition Coordination Team reviews during the period leading up to a program decision meeting. These reviews help the program manager to ensure that all acquisition documentation and other statutory and regulatory requirements have been met prior to a program decision meeting with the ASN(RD&A). The existence of an Acquisition Coordination Team supports the notion that all programmatic issues should be addressed and remedied at the lowest level possible, consistent with the Navy Integrated Product Team structure, which will also result in an effective procurement process.

All ACAT IC and II programs should have an established Acquisition Coordination Team that specifically addresses program readiness prior to a program decision meeting. Although some of the members of Working Integrated Product Teams and Integrating Integrated Product Teams may overlap with key members of an Acquisition Coordination Team, Navy program officials should establish a separate Acquisition Coordination Team as required by the SECNAV Instruction.

Common Link Integration Processing. FAR 15.406-3, "Documenting the Negotiation," states that the contracting officer must document in the contract file the principal elements of the negotiated agreement. The Navy uses business clearance memorandums to summarize the negotiated agreement.

During our site visit to the CLIP program office on August 12, 2005, program officials stated that CLIP did not have a price negotiation memorandum/business

clearance memorandum for the development contract, awarded on June 9, 2005. In June 2006, we followed up with the contracting officer to request information on why CLIP did not have a business clearance memorandum. The contracting officer provided a business clearance memorandum dated June 14, 2006. The business clearance memorandum states that a verbal clearance was provided by Space and Naval Warfare Systems Command on June 27, 2005, rather than a written clearance because the former contracting officer left Government service. However, the former contracting officer did not resign until August 18, 2005, almost 2 months after the contract was awarded.

Appendix H. Management Comments on Findings and Audit Response

The Deputy Assistant Secretary of the Navy (Management and Budget) provided comments on behalf of the ASN(RD&A).

Management Comments on AN/APG-79 Active Electronically Scanned Array Radar System Acquisition Strategy. The Deputy Assistant Secretary of the Navy (Management and Budget) stated that the assertion that the approval of the AN/APG-79 Active Electronically Scanned Array Radar System's acquisition strategy was caused by an oversight in the NAE approval chain was misleading. According to the Deputy Assistant Secretary of the Navy (Management and Budget), the ASN(RD&A) directed the program office to make a revision to the program involving a fourth LRIP decision at the Milestone C decision review. The Deputy Assistant Secretary of the Navy (Management and Budget) stated that this decision required the program office to revise the acquisition strategy, causing a delay in the formal approval of the acquisition strategy (page 86).

Audit Response. We revised the report (page 9) to reflect that the delay was caused by the ASN(RD&A) decision made during the Milestone C decision review.

Management Comments on Mode 5 Acquisition Strategy. The Deputy Assistant Secretary of the Navy (Management and Budget) stated that the ASN(RD&A) signed the acquisition strategy 6 months after the acquisition decision memorandum for Milestone B because the ASN(RD&A) directed the Mode 5 program to make changes to the acquisition strategy during the Milestone B decision review. According to the Deputy Assistant Secretary of the Navy (Management and Budget), the required changes were made and the document was restaffed; however, the document did not need to be resigned due to the ASN(RD&A) concurrence with the changes. The Deputy Assistant Secretary of the Navy (Management and Budget) also stated that upon concurrence with the other signature authorities, the document was then sent to ASN(RD&A) for final signature (pages 86-87).

Audit Response. DoD Instruction 5000.2 requires an approved acquisition strategy at the Milestone B review. It does not state that documents changed because of a milestone decision are not required to be resigned. If the acquisition strategy was not resigned, the ASN(RD&A) would have no way of determining if appropriate changes were made.

Management Comments on Common Link Integration Processing AoA. The Deputy Assistant Secretary of the Navy (Management and Budget) agreed that SECNAV Instruction 5000.2C requires the AoA for the Common Link Integration Processing program to be approved by the NAE, the Chief of Navy Operations, or the Commandant of the Marine Corps. However, the Deputy Assistant Secretary of the Navy (Management and Budget) cited the SECNAV Instruction as stating the PEO has overall responsibility of the AoA. According to the Deputy Assistant Secretary of the Navy (Management and Budget), the

program office interpreted that level of responsibility as providing adequate authority for the PEO to approve the AoA (page 87).

Audit Response. Although SECNAV Instruction 5000.2C gives overall responsibility of the AoA to the PEO, it does not give authority to the PEO to approve the AoA. According to the Instruction, the Component Acquisition Executive, the milestone decision authority, the Chief of Naval Operations, or the Commandant of the Marine Corps has the authority to approve the AoA unless the milestone decision authority designates that authority to another official, such as the PEO. Based on our review of the Common Link Integration Processing program, we found no evidence that the milestone decision authority delegated the AoA approval to the PEO.

Management Comments on AN/SPY-1D(V) Radar Upgrade. The Deputy Assistant Secretary of the Navy (Management and Budget) commented that our statement, "the system is an upgrade to the AN/SPY-1D(V) to improve performance in adverse environments with natural and electronic countermeasures" is incorrect. The Deputy Assistant Secretary of the Navy (Management and Budget) stated that the statement should read "the system is an upgrade to the AN/SPY-1D to improve performance in adverse natural environments and in electronic countermeasures" (page 87).

Audit Response. We revised the statement in the audit report (page 60).

Management Comments on SEWIP Human Systems Integration Plan. The Deputy Assistant Secretary of the Navy (Management and Budget) stated an independent Human Systems Integration plan, which encompasses the entire SEWIP program, was completed May 12, 2003, and approved January 31, 2006, in accordance with the DoD Instruction 5000.2. The Deputy Assistant Secretary of the Navy (Management and Budget) also stated that the milestone decision authority approved the acquisition documentation for the SEWIP program on August 13, 2002, per the "Acquisition Decision Memorandum for the Surface Electronic Warfare Improvement Program" (page 88).

Audit Response. We agree that a Humans Systems Integration Plan was completed for the SEWIP program. However, it was approved after both increments of Block 1A were approved for Milestone C and was not included as part of the acquisition strategy. DoD Instruction 5000.2 requires the program manager to have a comprehensive plan for human systems integration early in the acquisition process to optimize total system performance, minimize total ownership costs, and ensure that the system is built to accommodate the characteristics of the user population that will operate, maintain, and support the system. Because the plan was not approved until after both increments of Block 1A were approved for Milestone C, the plan was not authorized early in the acquisition process. In addition, during our audit, SEWIP program officials could not provide the tailoring agreement referenced in the August 13, 2002, acquisition decision memorandum. Therefore, we could not validate that one was developed and approved.

Management Comments on AN/AES-1 Airborne Laser Mine Detection System Operational Assessment Testing. The Deputy Assistant Secretary of

the Navy (Management and Budget) stated that the program office agrees that operational assessment testing had not been conducted on the AN/AES-1 Airborne Laser Mine Detection System prior to the LRIP decision. He stated further that program office did conduct the testing that was required by the acquisition decision memorandum for an LRIP decision. The Deputy Assistant Secretary of the Navy (Management and Budget) stated that a developmental test-assist was conducted concurrently with Commander, Operational Test and Evaluation Force and the results documented in a Letter of Observation, as required by the acquisition decision memorandum (pages 88-89).

Audit Response. DoD Instruction 5000.2 states that entrance into Milestone C depends, in part, on acceptable performance in development test and evaluation; operational assessment testing; and acceptable operational supportability. A developmental test-assist is not a formal phase of operational testing and does not resolve critical operational issues, nor does it reach conclusions regarding operational effectiveness and suitability or recommendations regarding fleet introduction. Therefore, operational assessment testing should have been preformed.

In addition, the Letter of Observation states that performance upgrades and modifications are planned for LRIP and must be thoroughly tested to verify performance; there is no post-mission analysis training for fleet personnel; and operational requirements document thresholds have been waived for the LRIP configuration, but not the production units. The Commander, Operational Test and Evaluation Force stated that performance has slowly improved, and in some cases, the waived thresholds have been met. However, the extremely limited number of successful flights makes it difficult to determine the performance or future potential of the system. The system must show progress toward, and potential to meet, full operational requirements document thresholds, as well as mission repeatability, before it will be ready to proceed to operational evaluation. Programs should not be approved to enter into the production and deployment phase of the acquisition process until the system has demonstrated, during operational testing, that it is potentially operationally effective and suitable and will meet the users needs.

Management Comments on Command, Control, Communications, Computers, and Intelligence Support Plan Waiver. The Deputy Assistant Secretary of the Navy (Management and Budget) stated the ORD Consolidation Letter for OSCAR dated January 29, 2002, along with the series of documents which it referenced and validated, properly established the requirements for the OSCAR program. Additionally, he stated that the requirements did not include an interoperability key performance parameter. The Deputy Assistant Secretary of the Navy (Management and Budget) stated that the fact that the command, control, communications, computers, and intelligence support plan waiver was signed by Deputy Assistant Secretary of the Navy (Command, Control, Communications, Computers, and Intelligence and Space) instead of by the ASN(RD&A) does not alter the fundamental validity of the waiver request or imply that the program should have developed a command, control, communications, computers, and intelligence support plan (pages 89-90).

Audit Response. Although program officials for OSCAR obtained a command, control, communications, computers, and intelligence support plan waiver from Deputy Assistant Secretary of the Navy (Command, Control, Communications, Computers, and Intelligence and Space), the waiver did not have the correct approval authority and the waiver was based on inappropriate ORDs. DoD Regulation 5000.2-R, "Mandatory Procedures for Major Defense Acquisition Programs and Major Automated Information System Acquisition Programs," June 10, 2001, states that the NAE, with the advice from the appropriate chief information officer, may waive command, control, communications, computers, and intelligence support plan preparation if the requirements authority has previously waived the requirement for an interoperability key performance parameter in the ORD. The waiver was not approved by the NAE as required by DoD Regulation 5000.2-R. As a result, the approval authority for the waiver was invalid.

In addition, the approval of the waiver was based on inappropriate ORDs. In a Department of the Navy memorandum, March 26, 2003, the Office for Chief of Naval Operations supported waiving the requirement for an OSCAR command, control, communications, computers, and intelligence support plan for the following reasons.

- The AV-8B Radar and Night Attack ORDs, which govern the OSCAR program, do not include an interoperability key performance parameter.

- The AV-8B Radar and Night Attack ORDs do not include an external information exchange requirements.

- Of the two major components that make up the OSCAR program, the mission computer already has a command, control, communication, computer and intelligence support plan waiver, and the weapons computer has no connection to the communications and information infrastructure.

However, in our review of the Test and Evaluation Master Plan we found that the OSCAR program is testing requirements found in additional ORDs that are not listed in the memorandum. Those additional requirements are:

- Joint Direct Attack Munition ORD,

- ARC-210 ORD, and

- AV-8B Targeting Pod Requirements Letter.

Therefore, because the waiver was not properly approved by the NAE and the memorandum asking for approval does not contain all the requirements for the OSCAR system, we feel the waiver is not valid. In addition to this audit, DoD IG Report No. D-2004-109, "Implementation of the DoD Management Control Program for Navy Acquisition Category II and III Programs," August 17, 2004, found that the program sponsor did not develop an ORD for the OSCAR program as required by DoD Instruction 5000.2.

Management Comments on OSCAR-Specific ORD. The Deputy Assistant Secretary of the Navy (Management and Budget) stated that there are six requirements documents that collectively define the operational performance requirement for the OSCAR upgrade. In addition, the Deputy Assistant Secretary of the Navy (Management and Budget) stated that the ORD Consolidation Letter for OSCAR, dated January 29, 2002, specifically defined the performance parameters of the OSCAR upgrade based on the performance requirements defined in the six ORDs (page 90).

Audit Response. DoD 5000-2R requires that users develop ORDs to illustrate program thresholds and objectives. These program thresholds and objectives are measures of effectiveness or performance and minimum acceptable requirements for the program. We found that the ORD Consolidation Letter only references two of the ORDs that were mentioned in the comments from the Deputy Assistant Secretary of the Navy (Management and Budget). Because not all of the ORDs were referenced in the ORD Consolidation Letter, there is no evidence that the ORD Consolidation Letter fully defines the operational performance requirement for the OSCAR upgrade. In addition, a previous report, DoD IG Report No. D-2004-109, "Implementation of the DoD Management Control Program for Navy Acquisition Category II and III Programs," August 17, 2004, states that an ORD was not prepared or approved for the OSCAR program. Based on the previous audit and our findings in this report, we believe that the OSCAR program should have developed an OSCAR-specific ORD.

Management Comments on the MH-60R Multi-Mission Helicopter Test and Evaluation Master Plan. The Deputy Assistant Secretary of the Navy (Management and Budget) stated that the MH-60R program had an approved Test and Evaluation Master Plan, Revision B, that indicated the operational testing required for the Milestone C. He further stated that the Commander, Operational Test and Evaluation Force provided the necessary approval to support the aircraft for full-rate production as tested. In addition, the Test and Evaluation Master Plan was updated and submitted for approval prior to Milestone C. Revision C of the Test and Evaluation Master Plan was approved through the Director, Test and Evaluation and by the milestone decision authority and briefed to Director, Operational Test and Evaluation staff prior to the milestone. The Deputy Assistant Secretary of the Navy (Management and Budget) stated that the Director, Operational Test and Evaluation staff agreed with the scope of follow-on testing and was in attendance at the milestone review (page 91).

Audit Response. SECNAV Instruction 5000.2C requires the program manager to submit an approved test and evaluation master plan as part of the full-rate production decision review. It must be approved by Director, Operational Test and Evaluation for ACAT IC programs such as MH-60R. The Test and Evaluation Master Plan, Revision C, was not approved by Director, Operational Test and Evaluation for ACAT IC programs prior to the full-rate production decision on March 31, 2006; therefore, the program did not meet the SECNAV Instruction 5000.2C requirement.

Management Comments on the MH-60R Multi-Mission Helicopter Operational Assessment Testing. The Deputy Assistant Secretary of the Navy (Management and Budget) stated that even though the operational assessment was

stopped by the program office, the Commander, Operational Test and Evaluation Force reported the findings of the operational assessment. He also stated that the program office addressed each of the findings and the plans to correct them. The Deputy Assistant Secretary of the Navy (Management and Budget) stated that the NAE approved LRIP II and the resultant acquisition decision memorandum references the findings from the operational assessment. The acquisition decision memorandum specifically identifies near-term criteria for the program to meet in order to proceed to the LRIP III. In June 2003, the Commander, Operational Test and Evaluation Force changed the policy for reporting on operational assessments to identify the risk areas of the program (pages 91-92).

Audit Response. DoD Instruction 5000.2 states that entrance into Milestone C depends on acceptable performance in development, test and evaluation; operational assessment testing; acceptable operational supportability; and mature software capability. In March 2002, the ASN(RD&A) approved revised exit criteria for the MH-60R LRIP II to include completion of Operational Testing II-A with a finding of potentially operationally effective and potentially operationally suitable. An operational assessment was conducted from June through September 2003 to determine the potential operational effectiveness and potential operational suitability of the MH-60R. The operational assessment was terminated by the program office prior to completion of the testing due to poor performance of the radar, electronic support measures, and acoustic subsystems; software not mature enough for operational testing; and post-mission analysis training did not ensure proficiency. The NAE approved the program for LRIP II on December 15, 2003, even though an operational assessment was not completed as required by the acquisition decision memorandum dated March 14, 2002. In addition, no justification was included in the acquisition decision memorandum for proceeding with LRIP without the required operational assessment. Also, a second operational assessment was conducted from October to December 2004. The operational assessment report, March 18, 2005, stated that the system did not meet all threshold values for operational effectiveness and operational suitability and included a listing of recommendations that, if not addressed, could result in the failure of operational evaluation testing. However, the NAE approved LRIP III, in an acquisition decision memorandum dated April 5, 2005.

Programs should not be approved to enter into the production and deployment phase of the acquisition process until the system has demonstrated during operational testing that it is potentially operationally effective and suitable and will meet the users needs. Doing so could result in systems being produced that will not meet the users' needs and require additional funds to retrofit the systems that have already been produced. In addition, approval of milestone decisions without meeting previously approved exit criteria should be documented in the acquisition decision memorandum.

Management Comments on Tactical Tomahawk. The Deputy Assistant Secretary of the Navy (Management and Budget) stated that the report incorrectly states that the Tactical Tomahawk program does not have an acquisition strategy. He also stated that the ASN(RD&A) determined that because Tactical Tomahawk is a product improvement building upon the Block III program, an AoA was not required for Milestone III. Program conditions had not changed significantly. As

a result, the Deputy Assistant Secretary of the Navy (Management and Budget) does not feel that the document was applicable to the program (pages 92-93).

Audit Response. During our audit, we were not provided a signature page verifying the ASN(RD&A) approval of the full-rate production Tactical Tomahawk acquisition strategy. After we issued the draft report, ASN(RD&A) officials provided us with the full-rate production acquisition strategy, signed on September 12, 2003, by the ASN(RD&A). We updated the report to reflect that Tactical Tomahawk has an approved acquisition strategy.(pages 6 & 8)

We do not agree that an AoA is not applicable for Tactical Tomahawk. An AoA is the evaluation of the operational effectiveness, operational suitability, and estimated costs of alternative systems to meet a mission capability. The analysis assesses the advantages and disadvantages of alternative systems being considered to satisfy a validated need, including the sensitivity of each alternative to possible changes in key assumptions and variables. Although Tactical Tomahawk is an upgrade to the previous Tactical Tomahawk blocks, program officials should have developed an AoA at the conception of the Tactical Tomahawk program.

Appendix I. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition, Technology, and Logistics
    Director, Acquisition Resources and Analysis
    Director, Defense Procurement and Acquisition Policy
Under Secretary of Defense (Comptroller)/Chief Financial Officer
    Deputy Chief Financial Officer
    Deputy Comptroller (Program/Budget)
Director, Program Analysis and Evaluation

Joint Staff

Director, Joint Staff

Department of the Navy

Assistant Secretary of the Navy (Manpower and Reserve Affairs)
Assistant Secretary of the Navy (Research, Development, and Acquisition)
Deputy Assistant Secretary of the Navy
    Air Programs
    Acquisition Management
    Command, Control, Communications, Computers, and Intelligence and Space Programs
    Integrated Warfare Systems
    Littoral and Mine Warfare Programs
    Management and Budget
Director, Air 1.0 Program Management for Advanced Arresting Gear
    Program Manager, Advanced Arresting Gear
Program Executive Office, Air Antisubmarine Warfare, Assault, and Special Mission Programs
    Program Manager, AV-8B Harrier II Open Systems Core Avionics Requirements
    Program Manager, MH-60R Multi-Mission Helicopter
Program Executive Officer, Command, Control, Communications, Computers, and Intelligence and Space
    Program Manager, Navy Advanced Extremely High Frequency Multiband Terminal
    Program Manager, Common Link Integration Processing
Program Executive Officer, Integrated Warfare Systems
    Program Manager, AN/SPY-1D(V) Radar Upgrade
    Program Manager, Surface Electronic Warfare Improvement Program
Program Executive Officer, Littoral and Mine Warfare
    Program Manager, Advanced Deployable System
    Program Manager, AN/AES-1 Airborne Laser Mine Detection System
    Program Manager, AN/AQS-20A Sonar Mine Detecting Set

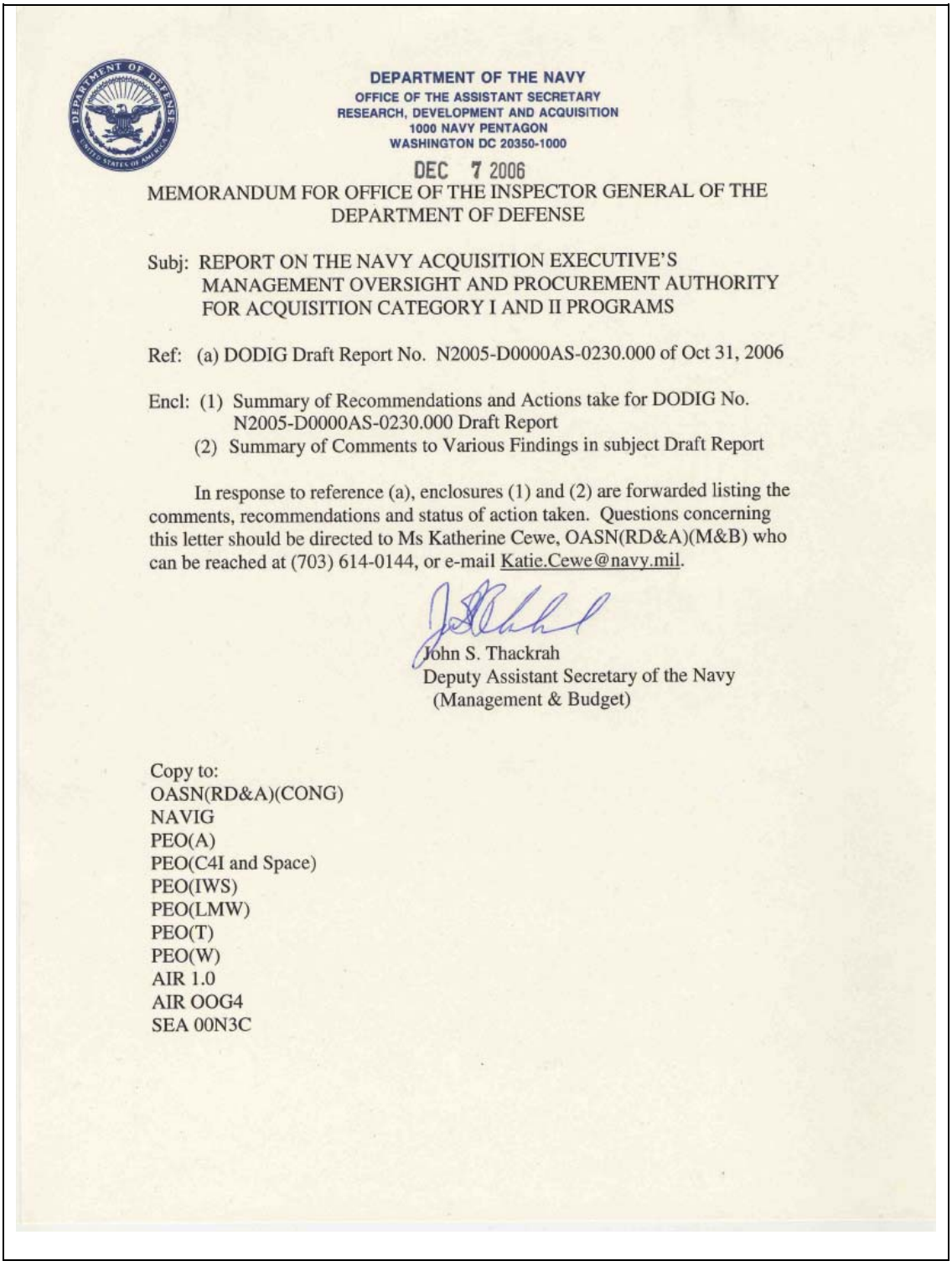
Department of the Navy (cont'd)

Program Executive Officer, Strike Weapons and Unmanned Aviation
    Program Manager, Tactical Tomahawk
Program Executive Officer, Tactical Aircraft Programs
    Program Manager, APG-79 Active Electronically Scanned Array Radar System
    Program Manager, Mark XIIA Mode 5 Identification Friend or Foe Upgrade
Naval Inspector General
Auditor General, Department of the Navy

Congressional Committees and Subcommittees, Chairman and Ranking Minority Member

Senate Committee on Appropriations
Senate Subcommittee on Defense, Committee on Appropriations
Senate Committee on Armed Services
Senate Committee on Homeland Security and Governmental Affairs
House Committee on Appropriations
House Subcommittee on Defense, Committee on Appropriations
House Committee on Armed Services
House Committee on Oversight and Government Reform
House Subcommittee on National Security and Foreign Affairs, Committee on Oversight and Government Reform

Department of the Navy Comments



DEPARTMENT OF THE NAVY
OFFICE OF THE ASSISTANT SECRETARY
RESEARCH, DEVELOPMENT AND ACQUISITION
1000 NAVY PENTAGON
WASHINGTON DC 20350-1000

DEC 7 2006

MEMORANDUM FOR OFFICE OF THE INSPECTOR GENERAL OF THE DEPARTMENT OF DEFENSE

Subj: REPORT ON THE NAVY ACQUISITION EXECUTIVE'S MANAGEMENT OVERSIGHT AND PROCUREMENT AUTHORITY FOR ACQUISITION CATEGORY I AND II PROGRAMS

Ref: (a) DODIG Draft Report No. N2005-D0000AS-0230.000 of Oct 31, 2006

Encl: (1) Summary of Recommendations and Actions take for DODIG No. N2005-D0000AS-0230.000 Draft Report
(2) Summary of Comments to Various Findings in subject Draft Report

In response to reference (a), enclosures (1) and (2) are forwarded listing the comments, recommendations and status of action taken. Questions concerning this letter should be directed to Ms Katherine Cewe, OASN(RD&A)(M&B) who can be reached at (703) 614-0144, or e-mail Katie.Cewe@navy.mil.

John S. Thackrah
Deputy Assistant Secretary of the Navy
(Management & Budget)

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DEPARTMENT OF THE NAVY RESPONSE TO RECOMMENDATIONS AND ACTION TAKEN REGARDING DODIG DRAFT REPORT ON NAVY ACQUISITION EXECUTIVE'S MANAGEMENT OVERSIGHT AND PROCUREMENT AUTHORITY FOR ACQUISTIION CATEGORY I AND II PROGRAMS (PROJECT NO. D2005-D000AS-023.000)

Recommendation A.1.a:

"We recommend that the Assistant Secretary of the Navy (Research, Development, and Acquisition) comply with Under Secretary of Defense Acquisition, Technology, and Logisitics Memorandum, "Policy for Systems Engineering in DoD," February 20, 2004; DoD Instruction 5000.2; and Secretary of the Navy Instruction 5000.2C when reviewing and approving systems engineering plans as part of a program's milestone review."

DON Comments:
Concur. In June 2005 the Assistant Secretary of the Navy for Research, Development and Acquisition (ASN (RD&A)) promulgated DoN policy and process for SEP review and approval (ASN(RD&A) Memorandum, "Policy for DoN Systems Engineering Plan (SEP) Review and Approval," June 6, 2005) to implement the requirements of the USD (AT&L) memorandum. In April 2006, the ASN(RD&A) consolidated responsibility for SEP development and approval with the ASN (RD&A) Chief Systems Engineer (ASN(RD&A)(CHENG)) (ASN (RD&A) Memorandum, "Revised Policy for DoN Systems Engineering Plan (SEP) Review and Approval," April 27, 2006). In accordance with NAE direction of 27 April 2006, ASN(RD&A)(CHENG) has been delegated the responsibility for approval of all ACAT IC, IAC and II System Engineering Plans. Additionally, SEP Component approval authority was also delegated for ACAT ID and IAM programs to ASN(RD&A)(CHENG). The responsibilities of the Program Executive Officers (PEOs) and Systems Commanders (SYSCOMs) to ensure timely development and implementation of quality SEPs was emphasized with ASN(RD&A)(CHENG) as the central office of primary responsibility for SEP approval. In addition, the SECNAVINST 5000.2D has been updated accordingly.

Recommendation A.1.b:

"We recommend that the Assistant Secretary of the Navy (Research, Development, and Acquisition) review, sign, date and maintain decision documents in the program files as a result of milestone reviews in the acquisition decision memorandum, waiver, or tailored documentation agreement."

DON Comments:
Concur. ASN(RD&A) will formally document decisions regarding tailoring or waiver of documentation in future acquisition decision memoranda, a tailoring agreements or a waiver approval. Also, these documents will be maintained in the program file for future reference.

Recommendation A.1.c:

"We recommend that the Assistant Secretary of the Navy (Research, Development, and Acquisition) comply with the Defense Acquisition Guidebook recommendations to update and approve acquisition program baselines for programs between milestone decision reviews within 90 days."

DON Comments:

Partially Concur, where feasible. The DON Acquisition and Capabilities Guidebook, Section 1.3.1 states that within 90 days of the program deviation, the PM is to 1) ensure the program is back within APB thresholds, or 2) submit a new APB, changing only the breached parameters and those parameters directly affected by the breached parameter, or, 3) provide a date by which the new APB will be submitted or by which the program will be back within original APB thresholds, and 4) keep the CNO/CMC (DC,P&R, and CD) informed with regard to program deviations and baseline recovery actions. The Defense Acquisition Guidebook states that "Within 90 days of the occurrence of the program deviation, one of the following should have occurred: the program is back within APB parameters; a new APB (changing only those parameters that were breached) has been approved; or an OIPT-level program review has been conducted to review the program manager's proposed baseline revisions and make recommendations to the Milestone Decision Authority. Approval by the MDA of the revised APB is desired to be obtained within 90 days after the reporting of the deviation, however, it is not always feasible. Instead when necessary, Program Reviews are scheduled to decide on the future course of the program or alternatives and direction may be given as to the contents of the program of record. Given the number of ACAT programs, the volatility of these efforts, the normal time required to develop an Independent Cost Estimate, and all other administrative issues associated with APB revisions, approval by the MDA is not always feasible within a 90 day timeframe. As such, the DON Acquisition and Capabilities Guidebook, Section 1.4.4 places no such requirement on the MDA. The Defense Acquisition Guidebook is considered guidance for ACAT I level programs, but not regulatory or required. Department of the Navy desires and strives to make every effort to achieve approval of revised APBs as expediently as possible.

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Recommendation A.1.d:

"We recommend that the Assistant Secretary of the Navy (Research, Development, and Acquisition) track deviation reports in the Navy Dashboard database to include the date, cause, effect, and mitigation."

DON Comments:
Concur. ASN(RD&A) will make the necessary changes to the Navy Dashboard database and start tracking deviation reports and baseline breaches (to include date, cause, effect and mitigation).

Deleted

Recommendation A.1.e:

"We recommend that the Assistant Secretary of the Navy (Research, Development, and Acquisition) approve or disapprove updated acquisition program baselines within 90 day of receiving them from the program manager."

DON Comments:

Partially Concur, where feasible. The DON Acquisition and Capabilities Guidebook, Section 1.3.1 states that within 90 days of the program deviation, the PM is to 1) ensure the program is back within APB thresholds, or 2) submit a new APB, changing only the breached parameters and those parameters directly affected by the breached parameter, or, 3) provide a date by which the new APB will be submitted or by which the program will be back within original APB thresholds, and 4) keep the CNO/CMC (DC,P&R, and CD) informed with regard to program deviations and baseline recovery actions. The Defense Acquisition Guidebook states that "Within 90 days of the occurrence of the program deviation, one of the following should have occurred: the program is back within APB parameters; a new APB (changing only those parameters that were breached) has been approved; or an OIPT-level program review has been conducted to review the program manager's proposed baseline revisions and make recommendations to the Milestone Decision Authority. Approval by the MDA of the revised APB is desired to be obtained within 90 days after the reporting of the deviation, however, it is not always feasible. Instead when necessary, Program Reviews are scheduled to decide on the future course of the program or alternatives and direction may be given as to the contents of the program of record. Given the number of ACAT programs, the volatility of these efforts, the normal time required to develop an Independent Cost Estimate, and all other administrative issues associated with APB revisions, approval by the MDA is not always feasible within a 90 day timeframe. As such, the DON Acquisition and Capabilities Guidebook, Section

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1.4.4 places no such requirement on the MDA. The Defense Acquisition Guidebook is considered guidance for ACAT I level programs, but not regulatory or required. Department of the Navy desires and strives to make every effort to achieve approval of revised APBs as expediently as possible.

Recommendation A.2:

"We recommend that program managers maintain approved documentation for the life of the acquisition program."

DON Comments:

Concur. The Program Offices are expected to maintain appropriate repositories of program documentation for the life cycle of the acquisition program. ASN(RD&A) will issue additional guidance to the various Program Offices to reinforce this requirement.

Recommendation A.3: Revised

"We recommend that the AV-8B Harrier II Open System Core Avionics Requirements program manager develop and prepare a tailored Information Support Plan as required by DoD Instruction 5000.2."

DON Comments:

Do not concur. At the time of OSCAR's development, there were no specific interoperability requirements for the OSCAR system beyond the legacy system it replaced, no external Information Exchange Requirements, and no interoperability KPPs. For these reasons, a C4ISP waiver was granted on 25 Aug 03, by Deputy Assistant Secretary of the Navy for C4I and Space, Dr. D.G. Uhler. The NAE was aware of the waiver and agreed with it. Consequently, the Navy believes that the original waiver was properly processed and approved. The rationale for the original waiver request was valid and remains valid. Therefore, there is no more of a requirement for an ISP today than there was at the time that the waiver request was submitted. The OSCAR program is currently 58% delivered to the Fleet. Retroactively completing an ISP at this point in the program's life cycle would be an inefficient use of available resources with limited or no benefit to the program or the Fleet.

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Recommendation A.4:

"We recommend that the Surface Electronic Warfare Improvement Program and the AN/AES-1 Airborne Laser Mine Detection System program managers submit their systems engineering plans for Navy Acquisition Executive approval as required by Under Secretary of Defense (Acquisition, Technology, and Logistics) Memorandum, "Policy for Systems Engineering in DoD," February 20, 2004."

DON Comments:
Concur. The SEWIP System Engineering Plan was recently developed, submitted and approved on 22 Oct 2006. In addition, and in order to maintain the relevancy and effectiveness of the SEWIP SEP, ASN (RD&A) (CHENG) has tasked the SEWIP program with revising their approved SEP in order to update it to reflect programmatic changes that occurred during the SEP approval process.

The ALMDS Program Manager has concurred and agreed to develop an ALMDS Systems Engineeering Plan and forward it for approval by March 2007. This ALMDS SEP, will be an annex to a Global OAMCM Systems Engineering Plan that covers the MH-60S helicopter, the "common console," and all common interfaces. This approach has been planned with and approved by ASN (RD&A) (CHENG). ASN (RD&A) (CHENG) will work with the AN/AES-1 Airborne Laser Mine Detection System program to obtain approval of their SEP.

In accordance with NAE direction of 27 April 2006, ASN(RD&A)(CHENG) has been delegated the responsibility for approval of all ACAT IC, IAC and II System Engineering Plans. Additionally, SEP Component approval authority was also delegated for ACAT ID and IAM programs to ASN(RD&A)(CHENG).

Revised

Recommendation A.5:

"We recommend that the Navy Advanced Extremely High Frequency Multiband Terminal program manager submit an updated acquisition program baseline to the Navy Acquisition Executive within 90 days of a program deviation."

DON Comments:

The requirement for a new NMT APB was due to the increase in the scope and cost of the program to a new, higher ACAT level (from an ACAT II to an ACAT IC). The program reported an APB deviation and continued to resubmit Program Deviation Report's (PDR) to update the status. Development and approval time of the APB was unusually extensive. The causative factors contributing to the lengthy APB update were as follows: (a) waiting for USD(AT&L) to adjudicate

the ACAT designation and promulgate the ACAT listing; (b) development of an Independent Cost Estimate (ICE); (c) establishment of a Consolidated Acquisition Reporting System (CARS) account and creation of NMT CARS file; and (d) reconciliation of original APB (not in CARS format) to the new CARS APB and citing derived requirements. (Note: Any one of the aforementioned events could not have occurred within 90 days of PDR submission).

The draft report includes an incorrect statement (pg 15): "However, after the program was designated as an ACAT IC, the approval of the acquisition program baseline was withdrawn." The Navy proposes this comment be changed to: "After designation of the program as an ACAT IC, the APB revision was approved. However, after the approval it was noted that inadvertently there were some changes to the performance section in error that required the APB to be corrected and resigned. The new corrected revision of the APB has been forwarded to ASN(RD&A) for approval."

While the APB was being developed the program office continuously provided updated status through PDR's to ASN (RD&A) to ensure that the NAE was kept informed on the status of the revisions needed. These PDRs and updates were in keeping with the guidance provided in the DoN Acquisition and Capabilities Guidebook which states: "Within 90 days of the program deviation, the PM is to.....or 3) provide a date by which the new APB will be submitted or by which the program will be back within original APB thresholds. 4) Keep the Chief of Naval Operations/Commandant of the Marine Corps (DC, P&R, and CD) informed with regard to program deviations and baseline recovery actions."

Recommendation B.1:

"We recommend that the Assistant Secretary of the Navy (Research, Development, and Acquisition) require program offices to schedule and complete an operational assessment prior to the low-rate initial production milestone decision in accordance with DoD Instruction 5000.2."

DON Comments:
The Navy believes its policy regarding OA activities prior to LRIP is consistent with the DoDI 5000.2:

Per SECNAVINST 5000.2C:

5.6.2 Navy Procedures for Certification: The SYSCOM Commander/Program Executive Officer (PEO)/ Direct Reporting Program Manager (DRPM)/PM shall convene an OTRR prior to certifying readiness for OT&E (including early

operational assessment (EOA), OA, IOT&E/OPEVAL, SQT, and FOT&E). The OTRR shall consist of all members of the testing team (DT&E and OT&E) including representatives from CNO (N091), the program sponsor, Assistant Secretary of the Navy (Research, Development and Acquisition) (ASN(RD&A)) Chief Engineer (CHENG), and COMOPTEVFOR.

5.6.4.1 Waivers: The term "Waivers" applies to a deviation from the criteria identified for certification in paragraph 5.6.1 of this instruction. Waivers do not change or delay any testing or evaluation of a system.

5.6.4.2 Deferrals: The term "Deferrals" applies to a delay in testing requirements directed by the TEMP. A deferral moves a testing requirement from one test period to a later period. Deferred items cannot be used in the analysis to resolve COIs; however, the OTA may comment on operational considerations in the appropriate sections of the test report. A deferral does not change the requirement to test a system capability, function, or mission, only the timeframe in which it is evaluated.

5.6.4.2.1 When Deferrals are Appropriate: Deferrals will not normally be granted for EOAs, OAs, or any OT&E prior to IOT&E. Performance shortfalls should be identified sufficiently early to document system capability maturity in the appropriate CDD, CPD, and TEMP. When unanticipated problems with system maturity or test resources would unduly delay an OT period, deferrals provide for continued testing and efficient use of scheduled resources (e.g., ranges, operational units, and assets).

5.6.5 Navy Waiver and Deferral Requests: Waivers and deferrals shall be requested in the OT&E certification message. If a waiver or deferral request is anticipated, the PM shall coordinate with the program sponsor, CNO (N912), and COMOPTEVFOR prior to the OTRR or similar review forum. Deferrals shall be identified as early as possible, normally no later than 30 days prior to OTRR. Use of the T&E WIPT or similar forum is also recommended to ensure full understanding of the impact on operational testing.

When requesting a waiver or deferral, the PM shall outline the limitations that the deferral or waiver will place upon the system under test, and their potential impacts on fleet use. Further, a statement shall be made in the OT&E certification message noting when approved deferrals will be available for subsequent OT.

The Department of the Navy (DON) Acquisition and Capabilities Guidebook, states that the MDA should determine if OT&E is required prior to LRIP for non-OSD T&E oversight programs. The SECNAV guidance therefore (for non-OSD T&E oversight programs) gives the MDA the necessary discretion to determine if

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Developmental or Integrated Test data and reports are adequate to make an LRIP decision or if additional OA is needed. Forcing such programs to include an OA in the T&E strategy, when program risk can be adequately managed without the use of an OA, is inefficient, runs counter to the CNO's challenge to the Navy to streamline test and evaluation. Instead this guidance allows the necessary flexibility to achieve cost, schedule and performance. Current guidance is adequate and should not be changed

Revised and renumbered as Recommendation B.3.

Recommendation B.2:

"We recommend that the Assistant Secretary of the Navy (Research, Development, and Acquisition) document in the acquisition decision memorandum justifications for exceeding the 10 percent low-rate initial production limitation."

DON Comments:

Concur, with comment. ASN(RD&A) will document in the acquisition decision memorandum the justification for exceeding the 10 percent low-rate initial production guideline. ASN(RD&A) already has been reflecting this justification in recent acquisition decision memorandums and the statutorily required Selected Acquisition Reports (SARs) and will continue to do so.

Comment: The Low-Rate Initial Production (LRIP) statute does not set 10 percent as "a limitation". 10 USC § 2400 (b) defines LRIP as:

> … production of the system in the minimum quantity necessary--
> (1) to provide production-configured or representative articles for operational tests pursuant to section 2399 of this title;
>
> (2) to establish an initial production base for the system; and
>
> (3) to permit an orderly increase in the production rate for the system sufficient to lead to full-rate production upon the successful completion of operational testing.

The "10 percent" reference comes from 10 USC § 2400 (a)(5) which establishes the requirement for the Secretary of Defense to include a statement of the LRIP quantity in the first Selected Acquisition Report (SAR). 10 USC § 2400 (a)(5) states that "[i]f the quantity exceeds 10 percent of the total number of articles to be produced, as determined at the milestone B decision with respect to that system, the Secretary shall include in the statement [in the SAR] the reasons for such quantity." The 10 percent is not a limitation but is instead a guideline and a threshold for which further explanation and documentation in the SAR is required for ACAT I programs. In addition, it should be noted that the reasons for exceeding 10 percent are also typically documented and thoroughly staffed in the

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Acquisition Strategy which is signed by the Milestone Decision Authority (MDA) prior to the milestone B decision.

Revised and renumbered as Recommendation B.4.

Recommendation B.3:

"We recommend that the Assistant Secretary of the Navy (Research, Development, and Acquisition) approve a program office's request to exceed the 10 percent low-rate initial production limitation only with Commander, Operational test and Evaluation Force recommendation that the system is ready to proceed to low-rate initial production."

DON Comments:
Do not concur. As described under B.2. above, 10 USC § 2400 does not establish 10 percent as a "limitation". Additionally, the LRIP statute requires both the MDA to establish the LRIP quantity at MS B and the Secretary of Defense to report on the LRIP quantity in the first SA (for ACAT I programs). Both of these are events that typically occur well before "the system is ready to proceed to low-rate initial production" as suggested in the recommendation.

Additionally, Commander, Operational test and Evaluation Force's (COTF's) evaluation of a system is restricted to whether or not the system under test satisfies the requirements of the capabilities documents. Test and evaluation is only one consideration by the Milestone Decision Authority (MDA) in support of a production decision. COTF has neither connection to, nor understanding of, all acquisition considerations, such as system producibility, funding considerations, logistics, contract considerations, etc.. Therefore, COTF is unable to render a complete and informed recommendation to the MDA concerning LRIP, and should limit its reporting to system performance, leaving acquisition officials to resolve production decisions. Production decisions should remain the responsibility of the MDA.

Renumbered as Recommendation B.5.

Recommendation B.4:

"We recommend that the Assistant Secretary of the Navy (Research, Development, and Acquisition) instruct the program manager for AV-8B Harrier II Open Systems Core Avionics Requirements to provide documentation that the suitability issues in the Operational Test Report for the AV-8B Harrier II Open Systems Core Avionics Requirements were corrected and that the corrections were verified by the Commander, Operational Test and Evaluation Force."

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DON Comments:

Action already taken and clarification is provided. There were four major documentation deficiencies identified in the OT report for OSCAR. By agreement with COMOPTEVFOR, these deficiencies were re-evaluated during subsequent operational testing of the H2.0 program. The COMOPTEVFOR report on the H2.0 program (COMOPTEVFOR 3980 (S0195-08-OT-IIIA-SCS-H2.0) Ser 573/S001 of 9 Jan 06) stated that the four major deficiencies in OSCAR were corrected, and there were no documentation deficiencies with the H2.0 program.

Deleted

Recommendation B.5:

"We recommend that the Assistant Secretary of the Navy (Research, Development, and Acquisition) include in acquisition decision memorandums exit criteria that Commander, Operational Test and Evaluation Force testing include a recommendation that the system is ready to proceed to low-rate initial production."

DON Comments:

Do not concur. Commander, Operational test and Evaluation Force's (COTF's) evaluation of a system is restricted to whether or not the system under test satisfies the requirements of the capabilities documents. Test and evaluation is only one consideration by the Milestone Decision Authority (MDA) in support of a production decision. COTF has neither connection to, nor understanding of, all acquisition considerations, such as system producibility, funding considerations, logistics, contract considerations, etc.. Therefore, COTF is unable to render a complete and informed recommendation to the MDA concerning LRIP, and should limit its reporting to system performance, leaving acquisition officials to resolve production decisions. Production decisions should remain the responsibility of the MDA. No change should be made to the current responsibilities of COTF and the MDA. Current COTF reporting is adequate and should not be changed.

Recommendation B.6:

"We recommend that the Assistant Secretary of the Navy (Research, Development, and Acquisition) require the program manager for the AN/APG-79 Active Electronically Scanned Array Radar System to obtain a determination from the Commander, Operational Test and Evaluation Force that the AN/APG-79 Active

Electronically Scanned Array Radar System is potentially operationally effective and suitable before approving any further production buys."

DON Comments:
Do not concur. The AESA Operational Evaluation Test completed in Nov 2006 and the report will be published February 2007. The Beyond LRIP Report will be provided in March 2007 with the Full Rate Production decision planned for April 2007. The proposed terminology "potentially operationally effective and suitable" would be applicable to an Operational Assessment report but not an Operational Evaluation Test report. Additionally, in the LRIP 4 ADM the following is already an exit criteria – "OPEVAL Report with system found Operationally Effective and Suitable".

Recommendation B.7:

"We recommend that the Assistant Secretary of the Navy (Research, Development, and Acquisition) instruct the program manager for the AN/SPY-1D(V) Radar Upgrade System to provide documentation that the suitability issues in the Operational Test Report for the AN/SPY-1D(V) Radar Upgrade System were corrected and that the corrections were verified by the Commander, Operational Test and Evaluation Force. In addition, we recommend that closeout of the program not be approved until the requested documentation is provided."

DON Comments:
Concur with comment. The ASN(RD&A) letter of 29 September 1993 formally approved the AN/SPY-1D(V) Radar Program beginning at Milestone (M/S) II under the prior DOD 5000 process. The program is currently under LRIP in the old acquisition process and not Full Rate Production.

Prior to LRIP approval, an independent AN/SPY-1D(V) assessment committee was tasked by ASN(RD&A) to "assess programmatic and technical risk; assess adequacy of land-based testing; assess performance of SPY-1D and SPY-1D(V) against current and near-term threats; and compare SPY-1D(V) with State-of-Art Technology". On 19 December 1994, the committee briefed the final report to ASN(RD&A) and the primary recommendation was to "complete development and deployment of the AN/SPY-1D(V) radar without delay". Additionally, a successful land-based operational test (OT-IIF1) was conducted in May 1996 at Combat Systems Engineering Development Site in Moorestown, NJ. The AN/SPY-1D(V) system was found to have the potential to be operationally effective and suitable.

During the AN/SPY-1D(V) DoD IG audit in February 2006, the Program Manager anticipated a successful OPEVAL to permit program closeout (i.e., system found to be "effective and suitable"). The Operational Test report was issued on 5 April 2006 and the program didn't meet suitability threshold requirements. The Program Manager is implementing a plan to resolve outstanding suitability deficiencies identified in the OPEVAL report prior to Milestone III (FRP) decision review.

Recommendation C.1:

"We recommend that the Assistant Secretary of the Navy (Research, Development, and Acquisition) issue official guidance to Deputy Assistant Secretaries of the Navy, program executive officers, and program managers mandating the use of Dashboard with quarterly updates for all ACAT programs."

DON Comments:
Concur. ASN(RD&A) will issue official guidance to the Deputy Assistant Secretaries of the Navy, Program Executive Officers, and the Program Managers mandating the use of Dashboard requiring quarterly updates for all ACAT programs.

Recommendation C.2:

"We recommend that the Assistant Secretary of the Navy (Research, Development, and Acquisition) modify Dashboard to distinguish different increments for evolutionary acquisition programs."

DON Comments:
Concur. ASN(RD&A) will develop the needed modifications to Dashboard in order to allow the various, different increments of evolutionary acquisition programs to be distinguished and reported.

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DEPARTMENT OF THE NAVY RESPONSE TO VARIOUS FINDINGS AND COMMENTS REGARDING DODIG DRAFT REPORT ON NAVY ACQUISITION EXECUTIVE'S MANAGEMENT OVERSIGHT AND PROCUREMENT AUTHORITY FOR ACQUISTIION CATEGORY I AND II PROGRAMS (PROJECT NO. D2005-D000AS-023.000)

Finding:
AN/APG-79 Active Electronically Scanned Array Radar System, Page 9. "The NAE approved the AN/APG-79 Active Electronically Scanned Array Radar System's acquisition strategy 22 days after approving the program's acquisition decision memorandum for Milestone C. Program officials stated that the document was discussed and submitted at the Milestone C review and the approval was delayed because of an oversight in the NAE approval chain."

Revised

DON Comments:
This is misleading in that there was no "oversight in the NAE approval chain." The "discussion" at the decision meeting was whether to change the Time Critical Parts milestone into a LRIP 4 decision in FY06. ASN(RD&A) decided to make that change to the program of record. Upon his decision at the meeting to make the change, the program office was directed to make the appropriate changes to the document and resubmit it to ASN(RD&A) for signature. These required revisions caused the delay between the Milestone C decision/review and when ASN(RD&A) signed the revised document.

Finding:
MK XII Mode 5 Identification Friend or Foe Upgrade, Page 9. "The Mode 5 acquisition strategy was approved 6 months after the NAE approved the acquisition decision memorandum for Milestone B. The Deputy Assistant Secretary of the Navy action officer stated that during the milestone decision briefing, the NAE requested several changes be made to the program's acquisition strategy before he would approve it. The NAE approved to proceed to the next acquisition phase because he did not want to delay the Milestone V decision. It took several months for the NAE-requested changes to be re-staffed and the acquisition strategy finally approved. However, program office personnel stated that the delay in approval of the acquisition strategy was due to staff schedules at the NAE level and that the acquisition strategy never changed after it was submitted at the milestone review. After examining the acquisition strategy we determined that the NAE signature was the only one dated after the acquisition decision memorandum was approved.

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DON Comments:
The changes made to the Acquisition Strategy were the result of the Milestone B decision. The necessary, required changes were made and the document was restaffed, however, the document did not need to be resigned due to concurrence with the changes. Upon concurrence by the other signature authorities, the document was then sent to ASN(RD&A) for his final signature.

Finding:
Common Link Integration Processing, page 7-8. "SECNAV Instruction 5000.2C requires the AoA be approved by the NAE, the Chief of Navy Operations, or the Commandant of the Marine Corps, but makes no mention of the PEO being approved to sign the AoA. The AoA was approved by the PEO instead of the NAE as required by the SECNAV Instruction 5000.2C. According to the program staff, the NAE advised them that the AoA could be approved by the PEO, but they could not provide supporting documentation."

DON Comments:
The findings as stated in the report are correct. The AoA cites para 6.4.1 of SNI 5000.2C as putting the overall responsibility of the AoA in the hands of the Program Executive Officer (PEO)/Systems Command (SYSCOM) Commander/Direct Reporting Program Manager (DRPM), or ASN(RD&A), and Chief of Naval Operations (CNO)?Commandant of the Marine Corps (CMC). The Program Office interpreted that as providing adequate authority for the PEO to approve.

Finding:
An/APY-ID(V) Radar Upgrade, page 49. "The AN/SPY-1D(V) system reports through the PEO for Integrated Warfare Systems. The NAE approved the system for low-rate initial production on January 24, 1997. The AN/SPY-1D(V) system was approved for a second low-rate initial production on December 21, 2001. The system is an upgrade to the AN/SPY-1D(V) to improve performance in adverse environments with natural and electronic countermeasures. The AN/SPY-iD(V) system is a component of the Aegis weapon system."

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DON Comments:
Incorrect statement. The AN/SPY-1D(V) is an upgrade to the AN/SPY-1D system. The statement should read as follows: "The system is an upgrade to the AN/SPY-1D to improve performance in adverse natural environments and in electronic countermeasures."

Revised

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Finding:
Surface Electronic Warfare Improvement Program, pages 9 -10. "The Surface Electronic Warfare Improvement Program (SEWIP) had an approved acquisition strategy for Block 1A; however, the strategy was incomplete because it did not include a section on human systems integration or its components as required by DoD Instruction 5000.2. DoD Instruction 5000.2 requires the program manager to have a comprehensive plan for human systems integration in place early in the acquisition process to optimize total system performance, minimize total ownership costs, and ensure that the system is built to accommodate the characteristics of the user population that will operate, maintain, and support the system. A SEWIP program official provided a separate human systems integration plan for the program; however it was developed after both spirals of Block 1A were approved for Milestone C. The Deputy Assistant Secretary of the Navy action officer stated that only spiral 2 of Block 1A required human systems integration planning. The action officer stated that instead of including the plan in the acquisition strategy for Block 1A, the program staff created a separate plan as an independent document for the program and that the plan was completed or near completion when the NAE approved the Milestone C acquisition decision memorandum for spiral 2 of Block 1A. Because human systems integration was not developed early in the acquisition process, the program's system performance and total ownership costs may be affected, along with optimized total system performance."

DON Comments:
An independent HSI plan, which encompasses the entire SEWIP Program, was completed in accordance with the DODI 5000.2 of 12 May 2003, and approved 31 January 2006. Acquisition documentation was approved by the Milestone Decision Authority (ASN (RD&A)) per Memorandum of August 13, 2002, subject "Acquisition Decision Memorandum for the Surface Electronic Warfare Improvement Program.

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Finding:
AN/AES-1 Airborne Laser Mine Detection System, page 20. "Program officials for the AN/AES-1 Airborne Laser Mine Detection System did not conduct an operational assessment prior to the NAE approval of the LRIP acquisition decision memorandum on June 14, 2005. Program officials eliminated the program's operational assessment because the acquisition decision memorandum did not require it and program officals could demonstrate the system's readiness to deploy during developmental testing. A developmental test report was issued in April 2005. It stated that the target depth and false contact density performance parameters were waived for Milestone C. In addition, the target depth key performance parameter threshold was reduced to 60 percent of the threshold depth

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for the LRIP decision. In an acquisition decision memorandum dated June 14, 2005, the NAE approved Milestone C LRIP although the system had shortfalls in three performance parameters, based on acceptance of the shortfalls by the Fleet and Resource Sponsor. Further, the NAE approved the program for LRIP quantities greater than the 10 percent threshold without an explanation in the acquisition decision memorandum as required by SECNAV Instruction 5000.2C."

DON Comments:
The Program Office agrees with the finding that the AN/AES-1 program did not conduct an operational assessment prior to receiving approval for LRIP but notes that the program did conduct the testing that was required by its Acquisition Decision Memorandum for an LRIP decision. Specifically, the program conducted developmental testing concurrently with COMOPTEVFOR. COMOPTEVFOR's participation was in the capacity of a DT-Assist as documented by their Letter of Observation, COMOPTEVFOR ltr Ser 563/306 dated 10 May 2005.

Finding:
AV-8B Harrier II Open Systems Core Avionics Requirements, page 10. "Program Officials for AV-8B Harrier II Open Systems Core Avionics Requirements (OSCAR) obtained a command, control, communications, computers, and intelligence support plan (C4ISP) waiver from Deputy Assistant Secretary of the Navy (DASN Space and C4I); however the waiver was not properly approved. DOD Regulation 5000.2R, "Mandatory Procedures for Major Defense Acquisition Programs and Major Automated Information System Acquisition Programs," June 10, 2001, states that an NAE, with the advice from the appropriate Chief Information Officer, may waive C4ISP preparation if the Requirements Authority has previously waived the requirement for an interoperability key performance parameter (KPP) in the operational requirements document (ORD). The Deputy Assistant Secretary of the Navy Command, Control, Communications, Computers, and Intelligence and Space approved a waiver for the program's command, control, communications, computers, and intelligence support plan. The waiver was granted because the program did not have interoperability KPP in the AV-8B Radar and Night Attack ORDs. OSCAR program officials currently consider these two ORD's as their operational requirements documents. However, as noted in the ORD section of this finding we have determined that OSCAR should have developed a program-specific ORD. In addition, the waiver was not approved by the NAE as required by DOD Regulation 5000.2-R. As a result, the reason for approving and the approval authority for the waiver were invalid; the program should have developed a command, control, communications, computers, and intelligence support plan."

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DON Comments:
The ORD Consolidation Letter for OSCAR Ser 582/C001, dated 29 Jan 02, along with the series of documents which it referenced and validated, properly established the requirements for the OSCAR program. These requirements did not include an interoperability KPP. Furthermore, the OSCAR program had no Information Exchange Requirement external to the AV-8B. Therefore, the basis of the original waiver was valid. The fact that the waiver was signed by DASN(C4I AND SPACE) instead of by NAE does not alter the fundamental validity of the waiver request or imply that the program should have developed a C4ISP.

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Finding:
Open Systems Core Avionics Requirements, page 11. "The program sponsor did not develop an ORD for the OSCAR program; however, the NAE approved the program to proceed through all milestone decisions, including full-rate production, without requiring the program manager to develop an ORD. As a result, we were unable to determine the warfighter requirement for the OSCAR acquisition program or identify the capability gap that the OSCAR acquisition program was intended to fill. In addition, without an approved ORD, the NAE was unable to determine the operational performance requirements and parameters for the proposed system. As of August 2004, the program officials did not intend to issue an OSCAR-specific ORD."

DON Comments:
As the OSCAR system replaced the existing legacy mission and weapons capabilities in the Night Attack and Radar variants of the aircraft, the warfighter requirement is defined in OR 025-05-84 AV-8B Night Attack, dated 18 Sep 84 and OR 224-05-89 AV-8B Radar, dated 8 Aug 88. The JDAM weapon capability introduced by the OSCAR upgrade is governed under OR CAF 401-91-2-A Joint Direct Attack Munition, dated 23 Aug 95. The correction to the aircraft to fully implement Havequick/SINCGARS capability within OSCAR is governed under OR 566-88-00 ARC-210 Radio System, dated 25 Sep 00. The incorporation of the Litening Targeting Pod capability is governed under the Operational Requirements Letter for the AV-8B Litening Targeting Pod, dated 20 Apr 01. The incorporation of the Advanced Mission Computer is governed under OR 549-88-00 Advanced Mission Computer and Displays, dated 21 Mar 00. Taken together, these documents fully defined the operational performance requirements for the OSCAR upgrade. The ORD Consolidation Letter for OSCAR Ser 582/C001, dated 29 Jan 02 specifically defined the performance parameters of the OSCAR upgrade based upon the performance requirements defined in the above mentioned ORDs.

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Finding:
MH-60R Multi-Mission Helicopter, page 13. "Even though the Director, Operational Test and Evaluation had not approved the MH-60R test and evaluation mater plan Revision C, the NAE approved full-rate production on March 31, 2006. Revision C of the test and evaluation master plan addresses follow-on operational test and evaluation activities for the MH60R upgrades and enhancements in the form of planned product improvements. The program manager must submit the approved test and evaluation master plan as part of the full-rate production decision, review. Commander, Operational Test and Evaluation Force conducts follow-on operational test and evaluation during the operations and support phase. Therefore, the test and evaluation master plan Revision C should have been approved prior to full-rate production approval. Because the Director, Operational Test and Evaluation had not approved the test and evaluation master plan Revision C, the NAE could not be assured that planned follow-on operational test and evaluation was appropriate or adequate."

DON Comments:
The program had an approved TEMP, Rev B, which called out the Operational testing required for the milestone and COTF provided the necessary approval to support the aircraft for Full Rate Production as tested. Also, the TEMP was updated and submitted for approval prior to the milestone. Revision C of the TEMP had been approved through N91 and by the MDA and had been briefed to DOT&E staff prior to the milestone. DOT&E staff agreed with the scope of follow-on testing and was in attendance at the milestone review. Additionally, follow on operational testing was briefed at the milestone review with the MDA. Thus when the MDA made the decision to proceed with Milestone C, the program's future test and evaluation plans were known and it was determined that the test and evaluation plans were adequate to proceed with into the next phase of the program.

Finding:
MH-60R Multi-Mission Helicopter, page 21-22. "Program officials for the MH-60R did not complete an operational assessment prior to LRIP II approval. The program changed its acquisition strategy from a remanufacture approach to a new-built approach starting with LRIP II, in an acquisition decision memorandum dated March 14, 2002. In addition, the acquisition decision memorandum required completion of an operational assessment with a conclusion that the MH-60R was potentially operationally effective and suitable prior to the approval of LRIP II. The Commander, Operational Test and Evaluation Force conducted an operational assessment of the MH-60R from June 2, 2003, through September 3, 2003. However, prior to completion of the operational assessment, the program office terminated the testing due to poor performance of the radar, electronic support

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measures, and acoustic subsystems. The NAE approved the program for LRIP II on December 15, 2003, even though an operational assessment was not completed, as required by DoD Instructions 5000.2 and the acquisition decision memorandum dated March 14, 2002. In addition, no justification was included in the acquisition decision memorandum for proceeding without the required operational assessment.

Further, program officials conducted a second operational assessment from October through December 2004. The operational assessment report, dated March 18, 2005, stated that the system did not meet all threshold values for operation effectiveness and operational suitability. Although the report included a listing of recommendations that, if not addressed, could result in the failure of operational evaluation testing, the Commander, Operational Test and Evaluation Force recommended continued program development. In addition, the NAE approved LRIP III, in an acquisition decision memorandum dated April 5, 2005. "

DON Comments:
Even though the Operational Assessment was stopped by the Program Office, COTF did in fact report their findings. The Program Office addressed each of those findings with the NAE and the plans to correct them. Several options to proceed with the program were briefed to the NAE with corresponding changes to the exit criteria. Accordingly, the NAE approved the program for LRIP II and the resultant acquisition decision memorandum references the brief, which describes in detail the findings from the operational assessment, and specifically identifies near term criteria for the program to meet in order to proceed with Advanced Procurement for LRIP III.

In June 2003, COTF changed their policy for reporting out of Operational Assessments to specifically identify the risk areas of the program based on their findings. In doing so, they now provide the MDA with detailed information so that a more informed decision can be made and that direction can be given as to where to focus the program efforts for the next milestone.

Finding:
Preparing and Updating Program Documentation Finding, page 3. "Since FY 2000, the NAE approved 10 of the 13 programs we reviewed for entry into the next phase of the acquisition process before obtaining all required or properly approved acquisition documentation. The NAE did not require 3 of the 13 programs to have approved and updated acquisition program baseline documentation between milestone decision reviews when significant changes affected the programs. These conditions occurred because the NAE did not adhere to DoD and Navy acquisition policy when reviewing and approving programs for a milestone decision review and because the NAE was not tracking program

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deviation reports in the Navy Dashboard database. In addition, it was unclear why the NAE allowed programs to proceed through milestones without required or properly approved acquisition documentation. No formal tailored documentation agreements existed and documentation decisions associated with each milestone review were not being formally documented in document waivers, tailoring agreements, or acquisition decision memorandums. As a result, the NAE did not have all the necessary information required to make fully informed milestone decisions and to take appropriate management actions between milestone decision reviews."

DON Comments: Revised

Specifically regarding the table on page 6 titled, "Key Documentation of the 13 Navy Programs" indicates that Tactical Tomahawk does not have an Acquisition Strategy. This is incorrect. The Acquisition Strategy to support the Tactical Tomahawk MSIII decision was signed by ASN(RD&A) on 12 September 2003. The Tactical Tomahawk paragraph on page 9 states, "The Tactical Tomahawk program officials stated that the NAE had approved the acquisition strategy, but they were unable to locate the signature page for the document. Because a signature page could not be located, we could not verify that the document was approved by the NAE." The ASR signed 12 Sept. 03 by ASN(RD&A) was an ASR/AP for the MSIII FRP decision. On the first page it states, "The ASR and AP were combined for streamlining purposes prior to the milestone decision. After Milestone III approval, AP updates will be approved by Program Executive Officer, Strike Weapons and Unmanned Aviation." The Acquisition Plan approved/signed by ASN(RD&A) on April 26, 2004 was an AP update for 105 missiles to the FRP contract.

The Analysis of Alternative paragraph on page 7 states the following with respect to Tactical Tomahawk, "Program officials for the following four programs were unable to provide an AoA or cost and operational effectiveness analysis." Tactical Tomahawk is a product improvement building upon the Tomahawk Block III program. Similarly, the Block III program was an improvement upon the Block II program. Program documentation indicated that prior to the Tomahawk Block III milestone III decision, the MDA determined that a COEA will not be required for Milestone III unless conditions have changed sufficiently so that previous cost-effectiveness determinations are no longer valid. Accordingly, the AoA column for Tactical Tomahawk in the Key Documentation table on page 6 should indicate "N/A". Also, the Tactical Tomahawk program should be removed from the list of four programs that could not provide a required AoA / COEA on page 7.

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