

ACQUISITION

**TRAINING AID FOR DOD AUDITORS IN PLANNING,
EXECUTING, AND REPORTING FOR ACQUISITION AUDITS**

(2005-ATM-001)



**Acquisition and Technology Management Directorate
Office of the Deputy Inspector General for Audit
August 2005**

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August 15, 2005

MEMORANDUM FOR AUDITOR GENERAL, DEPARTMENT OF THE ARMY
AUDITOR GENERAL, DEPARTMENT OF THE NAVY
AUDITOR GENERAL, DEPARTMENT OF THE AIR FORCE
DIRECTOR DEFENSE CONTRACT AUDIT AGENCY

SUBJECT: Training Aid for DoD Auditors in Planning, Executing, and Reporting for
Acquisition Audits (Report No. 2005-ATM-001)

We are providing this report for information and use as a training aid for DoD auditors in their planning, executing, and reporting of acquisition audits. It is not an audit report and therefore, no management comments were requested before publishing this report in final form.

Questions on this report should be directed to Mr. Harold C. James at (703) 604-9088 (DSN 664-9088) or Mr. John E. Meling at (703) 604-9091 (DSN 664-9091).

By Direction of the Deputy Inspector General for Auditing

A handwritten signature in cursive script that reads "Mary L. Ugone".

Mary L. Ugone
Assistant Inspector General
Acquisition and Technology Management

cc. Commandant, Industrial College of the Armed Forces
Commandant, National War College
President, Defense Acquisition University
President, National Defense University
President, Naval Post Graduate School

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Purpose and Overview

This summary provides DoD acquisition auditors with training information to improve their effectiveness in planning, executing, and reporting for Program Management Element (PME) audits. Specifically, the summary provides lists of acquisition-related problem areas commonly reported in audit reports of the DoD Inspector General (DoDIG), the Government Accountability Office (GAO), and the Service audit agencies. Additionally, for each acquisition-related problem area listed, the summary provides synopses of actual audit findings in reports that the DoDIG, GAO, or the Service audit agencies issued. The acquisition problem areas and finding synopses are grouped into the following ten PME-related areas:

- Requirements;
- Systems Engineering;
- Testing;
- Acquisition Strategy and Program Management;
- Contracting;
- Transition to Production;
- Program Reporting and Documentation (to include Earned Value Management);
- Management Control Program;
- Defense Contract Management Agency Support to Acquisition Programs; and
- Logistics, and Supportability, and Training

For the finding synopses from the DoDIG reports, this summary also provides a listing of the internal control breakdowns within the DoD that led to the reported problems.

Overall, this summary report includes 64 reported acquisition-related problem areas and 140 finding synopses. Auditors desiring more detail than the finding synopses provide can review the entire findings by visiting the web sites described below under Sources and Scope.

In addition to the reported problems in the PME-related areas and the internal control breakdowns, this summary report also includes a segment entitled Acquisition Risk Assessment Areas that was prepared by the Naval Audit Service. This segment lists potential risks in various acquisition areas and provides auditors with ideas for reviewing acquisition programs.

Sources and Scope

This summary report includes synopses for acquisition-related findings in audit reports issued in fiscal year 1998 through the third quarter of fiscal year 2005. DoD Inspector General Report No. D-2001-178, “Summary of Acquisition Program Audit Coverage,”

September 10, 2001, was the source for the finding synopses from the GAO and Service audit agency reports that were issued between October 1, 1999 and March 31, 2001. The following websites were used as sources for the remaining finding synopses:

- DoDIG: www.dodig.mil. (Go to the reports tab within the audit section of the website).
- GAO: www.gao.gov. (Go to the reports and testimony tab on the website homepage).
- Army Audit Agency: www.hqda.army.mil/aaaweb/. (Go to the audit information tab, to the extranet tab, and finally to the reports tab on the website).
- Naval Audit Service: www.hq.navy.mil/naualaudit/. (Go to the audit reports tab, then to the view listings of reports tab on the website).
- Air Force Audit Agency: www.afaahq.af.mil/domainck/index.shtml. (Go to plans and reports, then to Air Force Audit Reports).

Changing Audit Criteria

The auditor must realize that the DoD has continually revised the acquisition policies, procedures, and criteria supporting the findings in this summary report. In many cases, the DoD has moved procedural guidance from mandatory policy in the DoD 5000 series of directives to discretionary or best practice guidance in the Defense Acquisition Guidebook. Be sure to check the latest acquisition policies and guidance when performing your audits.

Program Management Element Related Areas

Requirements

Commonly Reported Problems in Requirements Area:

- Lack of validated support for required system quantities. (See Synopses 1, paragraphs 1 and 2, 4, 6, 17, 22 and 24).
- System duplicative or similar to a system already fielded or a system another Service is developing. (See Synopses 7, paragraph 1; and 20).
- Requirements not stated in measurable, testable terms; especially requirements for survivability in a chemical or biological environment. (See Synopsis 5).
- Needed to designate additional critical key performance parameters (KPPs) in requirements documents [especially important are KPPs for system interoperability in terms of information exchange and net readiness]. (See Synopses 8, 11, paragraph 2, 12, 13, 14 and 15).
- Requirements document does not reflect current threat. (See Synopsis 2).
- Approved or documented requirements not in line with user needs. (See Synopses 2, 7, paragraph 2; 8, 9, 14, 20 and 22).
- Performance requirements in requirements document reduced to promote passing operational tests. (See Synopsis 3).
- No or inadequate consideration of system alternatives. (See Synopsis 2).
- Requirements not fully defined before moving forward with acquisition program. (See Synopses 4, 18, 19 and 21).
- Requirements document, and derivative documents, such as the Acquisition Strategy, the Command, Control, Communications, Computers, and Intelligence (C4I) Support Plan, or Information Support Plan (ISP), and Program Protection Plan need to be updated to reflect current program direction. (See Synopses 10, 11, paragraph 1, 23, and 25).
- Service did not prepare C4I support plan or obtain Joint Staff support for programs with interoperability requirements. (See Synopsis 16).

***NOTE: The Operational Requirements Document (ORD) is now called the Initial Capabilities Document (ICD), the Capabilities Development Document (CDD), and the Capabilities Production Document (CPD), depending on what phase of the acquisition process the program is in. Also, the C4I Support Plan is now the ISP. Consult the latest version of Chairman of the Joint Chiefs of Staff (CJCS) Instruction 3170.01 Series and CJCS Instruction 6212.01 Series for updates on requirements and interoperability policies, respectively.**

Synopses of Findings Related to Requirements:

1. DoDIG Report No. 98-096, "Acquisition of the Army Tactical Missile System Anti-Personnel/Anti-Materiel Block IA Program," March 25, 1998.

The Army did not verify the war-reserve munitions requirement for the Army Tactical Missile System (TACMS) Block IA Program. Unless the Office of the Deputy Chief of Staff for Operations and Plans determines the quantity of Block IA missiles required before the scheduled March 1998 full-rate production decision, the Army Acquisition Executive cannot be sure that the planned production quantities are appropriate. (Finding A)

The Army procured at least 31 more Block IA missiles under Low Rate Initial Production (LRIP) than it needed for legitimate LRIP purposes. (Finding B).

2. DoDIG Report No. 99-173, "Ground Based Common Sensor System Fielding," June 2, 1999.

The Army planned to field a Ground Based Common Sensor System (GBCS)-Light System to the 82d Airborne Division that may not have satisfied their needs. The system may not have satisfied the users' needs because the 82d Airborne Division's 1988 operational needs statement had not been updated to reflect the current threat, alternate solutions to the users' needs had not been fully assessed, and the system had a history of nonperformance. In addition, the user had not agreed to accept the system. In fielding this system, the Army may not have been addressing the users' needs to combat the current and future threat. Furthermore, the small number of systems the Army planned to field may have resulted in excessive logistics and training requirements.

3. DoDIG Report No. D-2001-086, "On-Board Jammers for the Integrated Defensive Electronic Countermeasures," March 20, 2001.

The Navy reduced mission reliability from the level recommended in the cost and operational effectiveness analysis. The Navy reduced the requirements so that the AN/ALQ-165 Airborne Self-Protection Jammer (ASPJ) could pass the Operational Test and Evaluation (OT&E) and be installed on the F/A-18 E/F aircraft. Furthermore, the AN/ALQ-214, which would be on the on-board jammer for the Blocks II and III of the Integrated Defensive Electronic Countermeasures Suite (IDECS), would be tested against

the same operationally suitability requirements. By reducing the mission reliability rate, the Navy's logistical support requirement may have to be significantly increased to accomplish a 90 percent operational availability rate for the system. At the reduced rate, unscheduled maintenance may be required up to 2.5 times more often than if the system met the mission reliability rate recommended by the cost and operational effectiveness analysis.

4. DoDIG Report No. D-2001-111, "Acquisition of the Airborne Laser Mine Detection System," May 2, 2001.

One area warrants management attention before the Airborne Laser Mine Detection System program enters full-rate production. The Deputy Chief of Naval Operations (Resources, Warfare Requirements and Assessments) had to use assumptions concerning related acquisition programs to determine the number of Airborne Laser Mine Detection System units needed to satisfy Navy requirements. Until the Navy firms up requirements and tactics for related acquisition programs and assesses the feasibility of transferring Airborne Laser Mine Detection Systems between deployed and non-deployed ships, the Navy will not be able to ensure, through programming and budgeting, that Airborne Laser Mine Detection System production requirements remain fully funded in the Future Years Defense Program.

5. DoDIG Report No. D-2001-138, "Acquisition of the Joint Biological Point Detection System," June 13, 2001.

The Director, Joint Services Integration Group Secretariat released for coordination the draft ORD for the Joint Biological Point Detection System that did not include required Key Performance Parameters (KPPs); clearly define performance objectives for biological and chemical contamination survivability; and fully address system affordability and quantity requirements. (Finding A).

6. DoDIG Report No. D-2002-026, "Acquisition of the Vertical Take-off and Landing Tactical Unmanned Aerial Vehicle," December 14, 2001.

The Navy had not justified and documented the number of Vertical Take-off and Landing Tactical Unmanned Aerial Vehicle (VTUAV) systems that were stated as required. Until the Navy validates and documents the procurement requirements, the Navy will not know whether it will be able to fully fund, through programming and budgeting, the VTUAV program in the Future Years Defense Program. (Finding B).

7. DoDIG Report No. D-2002-036, "Acquisition of the Naval Fires Control System," January 8, 2002.

The Naval Fires Control System (NFCS) Program Office efforts to develop and acquire the NFCS Phase II duplicated the existing and planned functionality of the Army Advanced Field Artillery Tactical Data System (AFATDS). As a result, the Navy,

including the Marine Corps, planned to obligate \$71.2 million in Research, Development, Test and Evaluation funding from FY 2002 through FY 2007 for NFCS Phase II requirements that duplicate functions of AFATDS on amphibious ships. (Finding A).

Also, the NFCS did not have an updated and comprehensive ORD and Test and Evaluation Master Plan (TEMP) that included user objectives and minimum acceptable requirements for NFCS Phase I Plus and the functionality of NFCS Phase II. Without an updated and comprehensive ORD and TEMP, the Navy cannot plan for test resources required to test NFCS, thus impacting the NFCS schedule, cost, and performance, and cannot ensure that the NFCS meets the minimum required system capabilities or characteristics that are considered essential for successful mission accomplishment. (Finding C).

8. DoDIG Report No. D-2002-143, “Acquisition of the Army Land Warrior System,” September 5, 2002.

The Army had not finalized system requirements in the ORD because the Training and Doctrine Command (TRADOC) System Manager-Soldier was still defining the force structure requirement for the Land Warrior System to accommodate the Army’s ongoing transformation to the Objective Force capability. Also, the Army had not fully defined the mix of Land Warrior components that it will provide to soldiers receiving the system. Additionally, the Army Training and Doctrine Command released a draft ORD for coordination that did not identify reliability as a Key Performance Parameter for the Block II system. Until the Army completes ongoing efforts to fully define force structure requirements for the Land Warrior System, it will be less able to make informed affordability decisions and to support future budget submissions for the program. Also, the Army may develop and approve a system for production that does not fully meet user requirements. (Finding A).

9. DoDIG Report No. D-2003-013, “Fuel Cells of the V-22 Osprey Joint Advanced Vertical Aircraft,” October 24, 2002.

The V-22 fuel cells in the Engineering and Manufacturing Development aircraft and low-rate initial production aircrafts for Lots 1, 2, and 3 did not meet ballistic live-fire requirements. The V-22 Program Office issued a waiver for the LRIP aircraft to allow noncompliant fuel cells to be installed so that aircraft production would not be delayed.

10. DoDIG Report No. D-2003-052, “Acquisition of the Synthetic Aperture Radar/Moving Target Indicator,” January 31, 2003.

The Program Executive Officer has halted all contractual actions because the Army has not clarified requirements in the ORDs. As a result, existing program documentation such as the Acquisition Strategy, C4I Support Plan, the ORD, and the Program Protection Plan will need to be revised once the ORDs are approved.

11. DoDIG Report No. D-2003-083, “Acquisition of the Suite of Integrated Radio Frequency Countermeasures,” April 29, 2003.

The Army and U.S. Special Operations Command (USSOCOM) stated that they did not update the Operational Requirements Document, or the Command, Control, Communications, Computers, and Intelligence Support Plan, as necessary. (Finding A).

The Army and USSOCOM did not include Key Performance Parameters in the ORD as required. (Finding B).

12. DoDIG Report No. D-2004-008, “Implementation of Interoperability and Information Assurance Policies for Acquisition of Army Systems,” October 15, 2003.

The Army requirements community did not adequately address interoperability in the requirements generation process for use in the acquisition process. Interoperability was not adequately addressed because the Army Deputy Chief of Staff for Operations and Plans, in coordination with Army Chief Information Office, did not update Army regulations pertaining to system acquisitions to implement DoD and Joint Staff interoperability requirements. (Finding B).

13. DoDIG Report No. D-2004-046, “Acquisition of the CH-47F Improved Cargo Helicopter,” January 21, 2004.

The Army Director of Combat Development and the Deputy Chief of Staff for Operations and Plans had not finalized a revision to the 1997 ORD needed to support the evolutionary acquisition strategy implemented and to establish a Key Performance Parameter for system interoperability. Deputy Chief of Staff for Operations and Plans, United States Army (DCSOPS) had not forwarded the revised ORD for Joint Requirements Oversight Council approval because of higher workload priorities. (Finding A).

14. DoDIG Report No. D-2004-064, “Acquisition of the Boeing KC-767A Tanker Aircraft,” March 29, 2004.

The Air Force did not establish an acquisition strategy that serves as a sensible process for acquiring a tanker aircraft to satisfy the warfighter needs. The first 100 Tanker aircraft acquired will not fully meet warfighter requirements, including a Key Performance Parameter for the information exchange requirements because the Air Force tailored the first spiral ORD to correlate closely with the capabilities of the Boeing 767 tanker variant that Boeing was producing for the Italian Government. (Issue B).

15. DoDIG Report No. D-2005-033, “Implementation of Interoperability and Information Assurance Policies for Acquisition of Navy Systems,” February 2, 2005.

The Navy did not fully implement interoperability policies to prepare or update required acquisition documents because responsible Navy officials did not ensure that system program offices identified interoperability requirements and included those requirements in acquisition documents throughout the life of the system. (Finding B).

16. DoDIG Report No. D-2005-034, “Implementation of Interoperability and Information Assurance Policies for Acquisition of Air Force Systems,” February 2, 2005.

Air Force system program offices did not develop C4I Support Plans as required or obtain Joint Staff supportability certifications for programs with interoperability requirements. (Finding A).

17. GAO Report No. GAO-03-17, “Defense Management: Munitions Requirements and Combatant Commanders’ Needs Require Linkage,” October 15, 2002.

The DoD’s munitions requirements process provides varying requirements for current munitions acquisitions because of the inadequate linkage between the near-term munitions needs of the combatant commands and the munitions requirements computed by the military services.

18. GAO Report No. GAO-03-825R, “Military Space Operations: Common Problems and Their Effects on Satellite and Related Acquisition,” June 2, 2003.

Requirements for what the satellite needed to do and how well it had to perform were not adequately defined at the beginning of a program or were changed significantly after the program had begun.

19. GAO Report No. GAO-04-48, “Defense Acquisition: Despite Restructuring SBIRS High Program Remains at Risk of Cost and Schedule Overruns,” October 31, 2003.

Program moving forward with system development before requirements are set and sufficient knowledge known. Performance requirements were not adequately defined at the beginning of the program or were changed significantly once the program had already begun.

20. GAO Report No. GAO-04-530T, “Unmanned Aerial Vehicles: Major Management Issues Facing DoD’s Development and Fielding Efforts,” March 17, 2004.

DoD officials acknowledged that the Office of the Secretary of Defense has not issued any guidance that establishes an overall strategy for Unmanned Aerial Vehicles (UAVs) in DoD. DoD guidance documents do not represent a comprehensive strategy to guide the development and fielding of UAVs that complement each other, perform the range of missions needed, and avoid duplication.

21. GAO Report No. GAO-04-349, “Military Aircraft: DoD Needs to Determine Its Aerial Refueling Aircraft Requirements,” June 4, 2004.

The Air Force did not comprehensively reassess aerial refueling requirements following the most recent Quadrennial Defense Review, nor did it conduct a comprehensive analysis of alternatives before it proposed to lease aerial refueling aircraft.

22. GAO Report No. GAO-04-759, “Defense Acquisitions: Space-Based Radar Effort Needs Additional Knowledge before Starting Development,” July 19, 2004.

Space-Based Radar’s (SBR’s) concept of operations has not been approved and signed by requirements boards for either the DoD or intelligence community. Without documentation and formal approval, it is unclear who will be held accountable for setting requirements or how disagreements among SBR’s partners will be resolved when DoD moves SBR into ensuing phases of acquisition.

23. GAO Report No. GAO-05-304, “Tactical Aircraft: Air Force Still Needs Business Case to Support F/A-22 Quantities and Increased Capabilities,” March 15, 2005.

The Air Force, in the face of significant changes to the F/A-22, has not prepared a new business case to justify the resources needed to add a much more robust ground attack capability and to assume new missions. The Air Force embarked on the expensive and wide-ranging modernization program without a new business case to support investments of billions of dollars to develop and deliver new capabilities and missions.

24. Air Force Audit Agency Report No. F2003-0002-FC2000, “T-38C Propulsion Modernization Program,” January 14, 2003.

Air Force personnel did not accurately compute the quantity of T-38C aircraft and J85-5 engines requiring modification under the Propulsion Modernization Program (PMP). Air Force personnel did not consider expected PMP performance, reliability, and maintainability improvements to determine primary and spare engine requirements. Also, Air Education and Training Command (AETC) personnel did not adjust computational factors to determine backup and attrition reserve aircraft requirements.

25. Air Force Audit Agency Report No. F2004-0002-FC3000, “Global Hawk Unmanned Aerial Vehicle Program,” October 21, 2003.

Key Global Hawk plans and related documents were not fully aligned with the evolutionary acquisition strategy. Plans and related documents for system requirements, did not fully characterize the risks and complexities of concurrent development, production, and sustainment entailed by evolutionary acquisition. Also, the user did not develop a spiral-based ORD in a timely manner to support an evolutionary acquisition strategy.

Systems Engineering

Commonly Reported Problems in the Systems Engineering Area:

- Going into production without sufficient control over system design and without enforcing quality assurance. (See Synopsis 1).
- Failure to complete key systems engineering planning documents. (See Synopses 7 and 8).
- Failure to include requirements for open system design in key acquisition planning documents including the: Operational Requirements Document (ORD), Acquisition Management Plan (AMP), System Engineering Management Plan (SEMP), Request For Proposal (RFP), contract Statement Of Work (SOW), and Test and Evaluation Master Plan (TEMP). (See Synopsis 2, paragraph 1).
- Failure to establish a means or metric to evaluate design openness of systems, subsystems, and components. (See Synopsis 2, paragraph 3).
- Failure to insert Joint Technical Architecture (JTA) or JTA compliant DoD component technical architecture requirements into one or more key acquisition planning documents. (See Synopsis 3, paragraph 1).
- Not requiring contractors to use JTA or JTA compliant standards in system design, and not submitting a request for waiver when not using JTA standards. (See Synopses 3, paragraph 1 & 2; and 4).
- No independent verification and validation of system software. (See Synopsis 6).
- Technology not mature enough to be included in product development. (See Synopsis 9).
- Failure to develop adequate systems engineering requirements when converting a commercial system to military use. (See Synopsis 5).

***Note: JTA is now DoD Information Technology Standards and Profile Registry (DISR).**

Synopses of Findings Related to System Design:

1. DoDIG Report No. 98-165, “Modifications to the Tube-Launched, Optically Tracked, Wire-Command Missile Launcher for the Bradley Fighting Vehicle System,” June 25, 1998.

More than 800 Tube-Launched, Optically Tracked, Wire-Command (TOW) missile launcher Armament Control Units (ACUs) have been modified in the field with no assurance that the system design specifications have been met. As a result, interchangeability and overall reliability of the ACUs may have been degraded. Also, if modifications of the approximately 1,200 additional units take place in the field, as scheduled, without enforcing quality assurance requirements, more than 2,000 ACUs, valued at more than \$12 million may not reliably operate in accordance with design specifications.

2. DoDIG Report No. D-2000-149, “Use of an Open Systems Approach for Weapon Systems,” June 14, 2000.

Of the 17 major Defense acquisition programs that gained approval to begin program definition and risk reduction or to enter Engineering and Manufacturing Development (EMD) between March 1996 and July 1999, 14 programs proceeded into the next acquisition phase without program managers clearly defining open system design objectives or the strategy for achieving the objectives. Specifically, users and program managers did not include language concerning the required use of an open systems design in acquisition planning documents. The following list of seven acquisition planning documents shows the number of programs that did not include language concerning the required use of open systems out of the number of programs that prepared the cited document:

- Operational Requirements Document (6 of 17 programs),
- Single Acquisition Management Plan (2 of 12 programs),
- Acquisition Plan (3 of 5 programs),
- System Engineering Management Plan (2 of 6 programs),
- Request for Proposal (9 of 17 programs),
- Contract Statement of Work (8 of 15 programs), and
- Test and Evaluation Master Plan (11 of 17 programs)

As a result, DoD acquisition managers did not have assurance at program milestone reviews that program managers required and stressed the importance of implementing open system design objectives in acquisition strategies to weapon systems contractors. (Finding A).

Also, detailed documentation reviews at 4 of the 17 major Defense acquisition program offices showed that program managers for 3 of the 4 programs did not document a means for determining the extent of design openness of systems, subsystems, and components,

(the fourth program requested the prime contractor to provide a percentage measurement of the level of design openness). Without a means to measure the progress and the impact of implementing an open systems approach, acquisition decision makers can not readily gauge how well program managers are achieving the advantages of using an open systems design approach or assessing the susceptibility of a weapon systems design to obsolescence or costly upgrades to counter foreign military threats. (Finding B).

3. DoDIG Report No. D-2001-121, “Use of the DoD Joint Technical Architecture in the Acquisition Process,” May 14, 2001.

Thirty-nine of 43 program managers did not insert JTA or JTA-Compliant DoD Component Technical Architecture standards requirements into one or more key acquisition planning documents, including mission needs statement, operational requirements document, and contract statement of work. Also, 10 of the 43 program managers did not require contractors to use the JTA standards in supporting the design of their system or system upgrade. (Finding B).

In addition, thirteen of 15 program managers did not submit a waiver request as required for using alternative standards to JTA performance-based standards. As a result, the DoD will not fully realize the JTA objective of improving and facilitating the ability of its systems to support joint and combined operations in an overall investment strategy. (Finding C).

4. DoDIG Report No. D-2004-046, “Acquisition of the CH-47F Improved Cargo Helicopter,” January 21, 2004.

The Project Manager did not submit a waiver request to the Army Director, Enterprise Architecture Acquisition, as required. Further, when using or planning to use alternative standards to the Joint Technical Architecture Army (JTA-A) standards the Project Manager did not direct the contractor to update the study to determine whether the avionics and software upgrades complied with JTA-A standards. (Finding B).

5. DoDIG Report No. D-2004-064, “Acquisition of the Boeing KC-767A Tanker Aircraft,” March 29, 2004.

System Program Office did not fully develop system engineering requirements to convert the commercial non-developmental aircraft into an integrated military configuration. Further, the System Program Office and Contractor did not establish a performance metric for verifying that the program will meet the requirements for a 40 years’ service life. (Issue B-2).

6. DoDIG Report No. D-2004-074, “Reliability of the Automated Cost Estimating Integrated Tools Software Model,” April 23, 2004.

The Deputy Assistant Secretary of the Army (Cost and Economics) and the Commander, Air Force Electronic Systems Center (ESC) authorized acquisition program managers to use the Automated Cost Estimating Integrated Tools software model to prepare life cycle costs for their acquisition programs before verifying, validating, and accrediting the software model, as DoD policy requires..

7. DoDIG Report No. D-2005-009, “Pueblo Chemical-Agent-Destruction Pilot Plant Project,” November 1, 2004.

Program Manager did not adequately address the following systems engineering planning areas: Systems Engineering Plan, Integrated Logistics Support Plan and Support Analysis, Software Management Plan, Configuration Management Plan, Contractor Quality Control Plan, and Information Assurance and Systems Security Plans.

8. DoDIG Report No. D-2005-034, “Implementation of Interoperability and Information Assurance Policies for Acquisition of Air Force Systems,” February 2, 2005.

Air Force System Program Offices were not always preparing required System Security Authorization Agreements (SSAAs) for systems with information technology requirements. (Finding B).

9. GAO Report No. GAO-03-825R, “Military Space Operations: Common Problems and Their Effects on Satellite and Related Acquisitions,” June 2, 2003.

Programs did not always ensure that technologies were mature before making heavy investments in the program. This often caused cost and schedule increases due to the need to fix problems later in development. A continuing problem is that software needs are poorly understood at the beginning of a program.

Testing

Commonly Reported Problems in the Testing Area:

- Test and Evaluation Master Plan (TEMP) does not track to requirement documents [Operational Requirements Document (ORD) or Capabilities Development Document (CDD) and Capabilities Production Document (CPD)]. (See Synopsis 3).
- Test planning does not include testing of important system requirements or involves testing to lower requirements than those specified in the ORD. (See Synopses 1, 2, 3, 8, 9, 10, paragraph 2, and 11).
- TEMP out of date. (See Synopses 3, 4, 5 and 6, paragraph 1).
- Programmed funding not adequate to cover planned testing. (See Synopsis 3).
- Lack of planning to fix significant system deficiencies noted in testing. (See Synopses 6, paragraph 2; and 7)
- Program manager not providing acquisition milestone decision authority with complete information on testing results. (See Synopsis 10, paragraph 1).

Synopses of Findings Related to Testing:

1. DoDIG Report No. D-2000-163, “Ground Control Approach-2000 Radar System Test Plan and Test Results,” July 20, 2000.

The Air Force test planning for the Ground Control Approach-2000 radar system was incomplete and needed improvement. As a result, the extent to which controllers could meet the multiple target requirement with the Ground Control Approach-2000 radar was unknown. As a result, the October 1998 delivery justification requirement for the radar system was not met. (Finding A).

2. DoDIG Report No. D-2001-086, “On-Board Jammers for the Integrated Defensive Electronic Countermeasures,” March 20, 2001.

The Navy reduced the mission reliability from the level recommended by the cost and operational effectiveness analysis. The Navy reduced the requirements so that the AN/ALQ-165 Airborne Self-Protection Jammer, which the Navy plans to use in Block I of the Integrated Defensive Electronic Countermeasures Suite, could pass the Operational Test and Evaluation (OT&E) and be installed on the F/A-18 E/F aircraft. Furthermore, the AN/ALQ-214, which will be the on-board jammer for Blocks II and III of the Integrated Defensive Electronic Countermeasures Suite, will be tested against the same mission reliability requirements. By reducing the mission reliability rate, the Navy's

logistical support requirement may have to be significantly increased in order to accomplish a 90 percent operational availability rate for the system. At the reduced mission reliability rate, unscheduled maintenance may be required up to 2.5 times more often than if the system met the mission reliability rate recommended by the cost and operational effectiveness analysis. Additionally, it is unclear whether the additional protection provided by the on-board jamming capability justifies the investment in the development, acquisition and logistical support.

3. DoDIG Report No. D-2001-093, “Acquisition of the Battlefield Combat Identification System,” March 30, 2001.

The Battle Combat Identification System (BCIS) did not have an up-to-date and comprehensive TEMP. Further, the Army lacked funding to test 19 operational requirements and did not plan to operationally test a production prototype of the system in cold, fog, snow, or rain. Without an updated test and evaluation master plan that accurately shows user requirements (documented in ORD), testers will not fully evaluate the effectiveness of the BCIS in reducing fratricide. As a result, the Army has increased the risk of producing a system that will not meet the full needs of the user. Also, the milestone decision authority will not have sufficient operational test data to assess the readiness of the BCIS to enter full-rate production. (Finding B).

4. DoDIG Report No. D-2002-036, “Acquisition of the Naval Fires Control System,” January 8, 2002.

The Naval Fires Control System (NFCS) did not have an updated and comprehensive ORD and TEMP that included user objectives and minimum acceptable requirements for NFCS Phase I Plus and the functionality of NFCS Phase II. Without an updated and comprehensive ORD and TEMP, the Navy cannot plan for test resources required to test NFCS, thus impacting the NFCS schedule, cost, and performance; and cannot ensure that the NFCS meets the minimum required system capabilities or characteristics that are considered essential for successful mission accomplishment. (Finding C).

5. DoD Report No. D-2003-052, “Acquisition of the Synthetic Aperture Radar/Moving Target Indicator,” January 31, 2003.

The Program Executive Officer for Intelligence, Electronic Warfare and Sensors halted contractual actions until the Army clarifies system requirements in operational requirements documents being prepared for the new platforms. As a result, existing program documentation, such as the acquisition strategy; the command, control, communications, computers, and intelligence support plan; the operational requirements document; the TEMP; the program protection plan; the life-cycle cost estimate; and the risk management plan will need revision once the operational requirements documents for the new platforms are approved.

6. DoDIG Report No. D-2003-083, “Acquisition of the Suite of Integrated Radio Frequency Countermeasures,” April 29, 2003.

There was indecision concerning which organization, the Army or the U.S. Special Operations Command (USSOCOM), would manage the program. As a result, neither the Army nor USSOCOM had updated the ORD; the C4I support plan; the TEMP; and the program protection plan-key documents that were needed to effectively manage the program. (Finding A).

The Program Executive Officer authorized the program to enter Low-Rate Initial Production (LRIP) even though Army Test and Evaluation Command (ATEC) concluded that the system, as designed, was not sufficiently mature to be considered operationally effective, suitable, and survivable. (Finding C).

7. DoDIG Report No. D-2003-105, “Management of Developmental and Operational Test Waivers for Defense Systems,” June 20, 2003.

The Independent OT&E organizations were not able to fully resolve critical operational issues for weapon systems during Initial Operational Test and Evaluation (IOT&E). This condition occurred because Military Departments were approving operational test requirement waivers or waiver equivalents so that program tests and evaluations would be deferred into the production phase of the acquisition process. (Finding A).

Also, the Military Departments applied inconsistent waiver-and-limitation terminology and procedures when referring to the deferral of testing. This condition occurred because Office of the Secretary of Defense (OSD) had not issued specific guidance for approving and processing waivers and other deferrals of operational testing. (Finding B).

8. DoDIG Report No. D-2004-008, “Implementation of Interoperability and Information Assurance Policies for Acquisition of Army Systems,” October 15, 2003.

The Army testers did not consistently conduct Information Assurance (IA) testing for Army acquisition programs. As a result, Milestone Decision Authorities could not be assured that systems developed satisfied IA requirements. (Finding C).

9. DoDIG Report No. D-2004-064, “Acquisition of the Boeing KC-767A Tanker Aircraft,” March 29, 2004.

The Air Force did not comply with Sections 2366 and 2399 of Title 10, United States Code for determining the operational effectiveness, suitability, and survivability of the Boeing 767A Tanker aircraft before planning beyond LRIP (normally 10 percent or less of the total production quantity documented in the acquisition strategy) and committing to the subsequent production of all 100 Boeing KC-767A Tanker aircraft. (Issue B-4).

10. DoDIG Report No. D-2004-113, “Acquisition of the EA-6B Improved Capability III Program,” August 31, 2004.

The Program Manager provided the Assistant Secretary of the Navy (Research, Development, and Acquisition) with incomplete information on the operational assessment the Commander, Operational Test and Evaluation Force (COMOPTEVFOR) prepared in support of the LRIP decision. The Program Manager did not provide the details for several operational test results. As a result, the Assistant Secretary of the Navy (Research, Development, and Acquisition) approved the Program Manager’s request in June 2003 to procure 10 Improved Capability III systems for low-rate initial production, and the Navy increased the risk that it will incur costly retrofit expenses to correct the design deficiencies for those systems at the completion of the dedicated operational test and evaluation phase. (Finding A).

The Naval Air Systems Command issued the Program Manager an Interim Authority to Operate (IATO) the program information system without requiring the Program Manager for the program to first complete the verification and validation phases of the Defense Information Technology Security Certification and Accreditation Process (DITSCAP). As a result, the Program Manager began operational testing of a system that may not satisfy system information assurance requirements (Finding B).

11. GAO Report No. GAO-04-391, “Tactical Aircraft: Changing Conditions Drive Need for New F/A-22 Business Case,” March 15, 2004.

The F/A-22 did not meet key testing goals established for fiscal year 2003 and required for the aircraft to begin IOT&E testing. The Air Force’s efforts to stabilize avionics software and improve its performance have not been sufficiently demonstrated, and entrance criterion previously set for starting IOT&E testing has been changed.

Acquisition Strategy and Program Management

Commonly Reported Problems in Acquisition Strategy / Program Management:

- Schedule driven rather than event driven acquisition strategies. (See Synopses 9, paragraph 1).
- Acquisition strategy not viable to support effective and efficient program development. (See Synopses 1, 2, 5, 6, 7 and 17).
- Underestimating technical risks, led to unrealistic program cost and schedule plans. (See Synopses 13, 14 and 15).
- Funding out of sync with program progress or program managers failed to timely notify Comptroller that they would not need programmed procurement funds because of delays in program development and testing. (See Synopses 4, 7 and 16).
- Exit criteria not used effectively in program management. (See Synopses 3, paragraphs 1, 2, & 3; and 9, paragraph 2). Specifically:
 - Lack of program specific exit criteria to get to the next acquisition phase
 - Lack of meaningful, measurable exit criteria
 - Failure to report status toward attaining exit criteria in quarterly Defense Acquisition Executive Summary Reports
- Continuing expenditures for system program development when there is no longer an intention to fund system production. (See Synopses 2 and 5).
- Failure to update acquisition strategy to reflect new planning. (See Synopsis 8).
- Failure to fully implement Integrated Product Teams (IPTs). (See Synopses 11 and 12).
- No performance metric provision included in contract. See Synopsis 10, paragraph 1).
- Non-existent or inadequate risk management program. (See Synopses 10, paragraph 2; and 18).

Synopses of Findings Related to Acquisition Strategy / Program Management:

1. DoDIG Report No. 99-224, “The Ground Based Common Sensor Program,” July 26, 1999.

The Ground Based Common Sensor (GBCS) Program was not managed efficiently and effectively. As a result, the GBCS Program spent 9 years in the Engineering, Manufacturing, and Development (EMD) phase, and the Army spent \$902 million on the development and procurement of the GBCS Program and its subsystems. (Finding A).

2. DoDIG Report No. D-2001-012, “Acquisition of the Armored Medical Evacuation Vehicle,” November 22, 2000.

The Army did not have a viable acquisition strategy to acquire the Armored Medical Evacuation Vehicle (AMEV) at the completion of the EMD phase of the acquisition process. As a result, the Army had obligated about \$9.7 million in Research, Development, Test and Evaluation (RDT&E) funds for the program from its inception in FY 1997 through FY 2000 and planned to obligate another \$6.3 million to complete the developmental effort in FY 2001 through FY 2003 for a program that the Army did not intend to fund for production.

3. DoDIG Report No. D-2001-032, “Use of Exit Criteria for Major Defense Systems,” January 10, 2001.

Our review of the nine major Defense programs (three Army, three Navy, and three Air Force) showed that improvements were needed in the establishment of exit criteria at milestone decision points and in reporting the status toward attaining exit criteria requirements to Milestone Decision Authorities:

For seven of the nine programs reviewed, Milestone Decision Authorities did not ensure that the program managers proposed program-specific exit criteria for use at the future milestone decision point(s). As a result, the milestone decision authorities were limited in their ability to use exit criteria as a management tool to determine whether programs under their review and oversight should progress within an acquisition phase or continue into the next acquisition phase at milestone decision points. (Finding A).

Also, program managers for three of the five major Defense acquisition programs reviewed did not report their status toward attaining exit criteria requirements in the quarterly Defense Acquisition Executive Summary. As a result, milestone decision authorities and Office of the Secretary of Defense Action Officers did not have information, through the Defense Acquisition Executive Summary, to use as a management tool for assessing each program's progress toward satisfying exit criteria requirements and for providing direction, when needed, between milestone decision points. (Finding B).

4. DoDIG Report No. D-2001-036, “Acquisition of the Combat Survivor Evader Locator,” January 25, 2001.

The Program Management Office had planned for and managed design and development of the system well despite funding shortfalls. The Air Force had been funding the system through internal Air Force reprogramming below the threshold that required congressional notification. The report expressed concerns regarding how the Program Management Office would fund interoperability and security requirements along with associated technological challenges. In addition, the auditors had a concern that the Air Force plan to incrementally purchase its hand-held radio requirements through FY 2038 would not take advantage of economic order quantities and would not satisfy a critical mission need in a reasonable timeframe.

5. DoDIG Report No. D-2001-066, “Acquisition of the Advanced Tank Armament System,” February 28, 2001.

The Army did not establish a viable acquisition strategy to develop and acquire the system beyond the program definition and risk reduction phase. Instead, the Milestone Decision Authority considered the Advanced Tank Armament System to be a program element for funding technology demonstrations but did not appropriately manage and fund the system as a technology demonstration. As a result, the Army obligated about \$85.8 million in RDT&E funds through FY 2000 and planned to obligate another \$62.9 million from FY 2001 through FY 2007 for a program that the Army is not intending to develop and fund beyond the program definition and risk reduction phase of the acquisition process.

6. DoDIG Report No. D-2001-093, “Acquisition of the Battlefield Combat Identification System,” March 30, 2001.

The Army did not have a viable acquisition strategy to acquire the Battlefield Combat Identification System (BCIS) at the completion of the EMD phase of the acquisition process. As a result, the Army obligated about \$132.4 million in Research, Development, Test and Evaluation, and procurement funds through FY 2000 and plans to obligate another \$86.5 million to complete development efforts and produce 1,169 Low-Rate Initial Production (LRIP) units from FY 2001 through FY 2007 for the 4th Infantry Division. However, the Army had not provided \$918.5 million of procurement and operations and maintenance funds for the BCIS procurement objective of 16,414 units. Implementing the recommendation to not allow the third phase of the LRIP unless the Army provides full funding for BCIS production would permit the Army to put \$86.5 million of remaining funds to better use should the Army determine that the program is unaffordable. (Finding A).

7. DoDIG Report No. D-2001-103, “Acquisition of the Joint Helmet Mounted Cueing System,” April 18, 2001.

The acquisition approach of the joint program needed improvement to recognize the risks associated with the re-baseline and the contracting structure of the Joint Helmet Mounted Cueing System program, and to explore component breakout opportunities for full-rate production. As a result, the evaluation, identification, and management of contractor performance is at risk, and the joint program office would miss the opportunity to put approximately \$17 million of funds to better use through purchasing five components directly from manufacturers and eliminating the non-value-added overhead profit of 25 percent from intermediate tiers of contractors. (Finding B).

8. DoDIG Report No. D-2002-012, “Acquisition of the Firefinder (AN/TPQ-47) Radar,” October 31, 2001.

The Firefinder Product Office did not update its acquisition plan to incorporate its revised acquisition strategy to acquire the Q-47. Without an up-to-date acquisition plan, the Product Office cannot ensure that the efforts of personnel collectively responsible for the acquisition of the Q-47 are coordinated and integrated to ensure that the Army meets its needs in the most effective, economical, and timely manner. (Finding A).

9. DoDIG Report No. D-2002-026, “Acquisition of the Vertical Take-off and Landing Tactical Unmanned Aerial Vehicle,” December 14, 2001.

The Vertical Take-off and Landing Tactical Unmanned Aerial Vehicle (VTUAV) Program Manager developed a schedule-driven acquisition strategy rather than an event-driven acquisition strategy to achieve a directed initial operational capability date of September 2003 for the system. As a result, the program manager is proceeding with an acquisition strategy that includes high-risk items, which may not be resolved before the scheduled production milestone decision and may require the program manager to add time and funds for RDT&E to the budget to complete system development. (Finding A).

Also, the Vertical Take-off and Landing Tactical Unmanned Aerial Vehicle Program Manager proposed, and the Assistant Secretary of the Navy (Research, Development and Acquisition) approved, exit criteria that were based on minimum program accomplishments specified for each acquisition phase rather than on program-specific accomplishments. As a result, the milestone decision authority will not be able to use program-specific exit criteria in deciding whether the VTUAV should progress within the Engineering and Manufacturing Development phase or continue to the production phase of the acquisition process. (Finding C).

10. DoDIG Report No. D-2002-143, “Acquisition of the Army Land Warrior System,” September 5, 2002.

The program manager should have inserted a provision for performance metrics in the other transactions agreement with the Consortium to measure the benefits for implementing the other transactions agreement even though it was not a requirement. This condition occurred because the program manager and the Consortium did not implement procedures for performance metrics that the under Secretary of Defense for Acquisition, Technology, and Logistics suggested in the “Other Transactions Guide for Prototype Projects,” January 2001. (Finding B).

Also, the program manager had not implemented specified processes, documentation, and reporting requirements in the program risk management plan. As a result, the program manager and the Consortium members were not using the risk management plan to promote continuous risk assessment and to timely and effectively inform the acquisition decision authority on program risk and risk mitigation. (Finding D).

11. DoDIG Report No. D-2003-053, “Navy Transition of Advanced Technology Programs to Military Applications,” February 4, 2003.

Although 30 of 33 technologies did have working-level Integrated Product Teams (IPTs), other critical elements for transitioning were missing:

- Working-level IPTs did not establish charters to identify roles and responsibilities,
- Working-level IPTs did not include all planned acquisition recipients,
- Documentation of IPT issues and action items are needed to prevent development problems resulting from key personnel changes,
- Formal agreement on Technology Readiness Levels (TRLs) and exit criteria were not established for almost half of the technology recipients.

These conditions exist because Navy Science and Technology (S&T) management did not require formal working-level coordination between acquisition recipient officials and Navy S&T officials as was advocated in the Deputy Under Secretary of Defense for Science and Technology guidance. (Finding A).

12. DoDIG Report No. D-2003-132, “Air Force Transition of Advanced Technology Programs to Military Applications,” September 12, 2003.

Although 23 technologies did have working-level IPTs, other elements for transitioning were missing:

- All but two working-level IPTs had not established charters to identify roles and responsibilities,
- Half of the Advanced Technology Demonstrations (ATD)s had not established technology transition plans for emerging technologies,

- Most of the technologies did not have established agreements on TRLs and exit criteria with technology recipients,
- Twelve of the working-level IPTs did not document issues and action items to prevent development problems and provide accountability.

These conditions exist because Air Force S&T management had not fully implemented the best practices advocated by the Deputy Under Secretary of Defense for Science and Technology.

13. GAO Report No. GAO-NSIAD-00-74, “Joint Strike Fighter Acquisition: Development Schedule Should Be Changed to Reduce Risks,” May 9, 2000.

The Joint Strike Fighter program office implementation of its acquisition strategy would not ensure that the program would enter the engineering and manufacturing development phase with low technical risk. The aircraft being produced during the concept demonstration phase were not intended to demonstrate many of the technologies considered critical for achieving Joint Strike Fighter program cost and performance requirements. Instead, many of these technologies, such as avionics, flight systems, manufacturing and producibility, propulsion, supportability, and weapons delivery system, would be demonstrated only in laboratory or ground testing environments.

14. GAO Report No. GAO-01-74, “Defense Acquisitions: Need to Confirm Requirements for \$4.1 Billion Antiarmor Missile System,” December 5, 2000.

From 1995 through 1999, the program’s production schedule was increased from 9 to 14 years and quantities were reduced from 19,902 to 15,707 submunitions and from 1,806 to 1,206 missiles. During the period, total program costs increased from \$2.1 billion to \$3.1 billion, a 48 percent increase, as a result of schedule increases and quantity reductions as well as poor estimates and technical difficulties. Reductions in submunition and missile procurement quantities combined with increased total program cost resulted in unit procurement cost increases of 80 percent for the submunition and 72 percent for the missile. Further, the DoD 1999 estimates showed that the program would cost almost \$2.6 million to procure 1 missile loaded with 13 submunitions, \$1.1 million more than the 1995 estimate of \$1.5 million.

15. GAO Report No. GAO-01-6, “Defense Acquisitions: Space-Based Infrared System-low at Risk of Missing Initial Deployment Date,” February 28, 2001.

The Air Force’s current Space-Based Infrared System (SBIRS)-low acquisition schedule is at high risk of not delivering the system on time or at cost or with expected performance. In addition, the program had high technical risks because some critical satellite technologies had been judged to be immature for the current stage of the program. Also, the DoD acquisition policy and procedures required that assessments be made of the cost and mission effectiveness of space systems to alternative terrestrial systems. Despite the requirement, the Air Force had not adequately analyzed or identified cost-effective alternatives to the Space Based Infrared System-low that could satisfy critical missile defense requirements.

16. GAO Report No. GAO-05-183, “Defense Acquisitions: Improved Management Practices Could Help Minimize Cost Growth in Navy Shipbuilding Programs,” February 28, 2005.

Navy practices for estimating costs, contracting, and budgeting for ships have resulted in unrealistic funding of programs, increasing the likelihood of cost growth. Despite inherent uncertainties in the ship acquisition process, the Navy does not account for the probability of cost growth when estimating costs. Moreover, the Navy did not conduct an independent cost estimate for carriers or when substantial changes occurred in a ship class, which could have provided decision makers with additional knowledge of a program’s potential costs. In addition, contract prices were negotiated and budgets established without sufficient design knowledge and construction knowledge. When unexpected events did occur, the incomplete and untimely reporting on program progress delayed the identification of problems and the Navy’s ability to correct them.

17. GAO Report No. GAO-05-271, “Tactical Aircraft: Opportunity to Reduce Risks in the Joint Strike Fighter Program with Different Acquisition Strategy,” March 15, 2005.

Several program changes have made the original Joint Strike Fighter (JSF) program business case un-executable. Since initial estimates in 1996, development costs have grown over 80 percent, or \$20 billion. Program acquisition unit costs have increased by 23 percent, or \$19 million, since 2001. In addition, delivery of the first JSFs to the warfighter has been delayed 2 years so far. Continued program uncertainties make it difficult to estimate the resources needed for the program. Given the uncertainties, the program could use more time to gain knowledge before moving forward.

18. Air Force Audit Agency Report F2004-0004-FC3000, “Deep STARE Program Acquisition Management,” December 15, 2003.

Deep STARE program officials could enhance processes to assess and control critical program risks. Specifically, the risk assessment process did not identify a potentially significant risk involving the Charged Couple Device (CDD) lifetime buy. This significant risk was that the projected CDD lifetime buy could be insufficient if failure rates occur more often than projected. Additionally, risk handling plans did not include key elements such as mitigating actions, risk reduction schedules, or alternative approaches, and did not involve the projected impact of potential risks. These conditions occurred because program officials relied on the contractor to manage risk and did not develop a separate, government-specific risk management plan. As a result, program officials may not adequately assess potential future problems and develop strategies that increase the probability of a favorable outcome.

Contracting

Commonly Reported Problems in Contracting:

- Not obtaining consideration or obtaining inadequate consideration from contractors for waivers and deviations to contracts. (See Synopsis 1).
- Services did not have adequate controls in the acquisition planning process or acquisition strategy to ensure that contracted items met specifications, and that contracts contained necessary provisions. (See Synopses 3 and 6).
- Contracting officers did not use correct business and contracting practices as specified in the Federal Acquisition Regulation (FAR). (See Synopses 2 and 4).
- Contractor did not achieve desired results and contract performance was not effectively monitored. (See Synopsis 5).
- Services did not use performance-based contracting for acquisition contracts. (See Synopsis 7).

Synopsis of Findings Related to contracting:

1. DoDIG Report No. 98-197, “Management of Contract Waivers and Deviations for Trident II Missile,” September 09, 1998.

The Program Office did not perform cost and price analyses to determine the adequacy of consideration obtained for the approval of major waivers and deviations. As a consequence, the Program Office's methodology for obtaining consideration for more than 300 major waivers and deviations approved since FY 1984 did not ensure that the consideration that the Government received was appropriate. Also, the waiver and deviation incentive-fee provision in the cost-plus-incentive-fee contracts did not effectively motivate the contractor to annually reduce the numbers of waivers and deviations requested.

2. DoDIG Report No. D-2004-069, “The NATO AWACS Mid-Term Modernization Program Global Solution,” April 14, 2004.

Senior level managers that conducted the negotiations of the Global Solution Modification did not use correct business and contracting practices as specified in the Federal Acquisition Regulation (FAR). Specifically, the managers did not perform analyses of production and retrofit tasks to determine whether the \$1.32 billion negotiated price was fair and reasonable. As a result, Air Force officials awarded the contract modification without knowing whether Boeing had proposed an efficient, technically capable or economically responsible solution.

3. DoDIG Report No. D-2004-102, “Contracting for and Performance of the C-130J Aircraft,” July 23, 2004.

The Air Force conditionally accepted aircraft even though none of the aircraft met commercial contract specifications. Also, the Air Force contracting officer did not properly justify the use of a commercial item acquisition strategy. As a result, the Government fielded C-130J aircraft that cannot perform their intended mission, and the users incurred additional operations and maintenance costs to operate and maintain older C-130J aircraft, as well as the C-130J aircraft.

4. DoDIG Report No. D-2004-103, “Contract No. N00024-02-C-6165 for Consulting Services at the Naval Shipbuilding, Conversion, and Repair Facility,” August 2, 2004.

Naval Sea System Command contracting officials did not meet Federal Acquisition Regulation (FAR) criteria when they cited unusual and compelling urgency and only one responsible source to justify awarding a sole source contract for consulting service to DeWolff, Boberg and associates. An urgency requirement did not exist. Contracting Officials did not properly conduct acquisition planning. As a result, any financial benefits that could be achieved through competition were unattainable.

5. Army Audit Agency Report No. 2003-0175-IME, “Ground Equipment Contract Maintenance Support, ICorps And Fort Lewis, Washington,” March 7, 2003.

The contractor did not achieve desired results and operate efficiently in achieving desired results. Directorate of Logistics personnel didn’t effectively monitor contractor performance and didn’t fully comply with all contract administration instructions. Contractor maintenance sometimes failed the government’s quality assurance inspections and repair required rework. Contractor personnel routinely required more labor hours than allowed by maintenance allocation charts, and they required more time than Directorate of Logistics maintenance personnel needed for similar maintenance checks and services. As a result, the Army was paying more than necessary for contractor maintenance support.

6. Army Audit Agency Report No. 2004-0044-AMW, “Aviation Acquisition Planning Process,” November 24, 2003.

U.S. Army Aviation and Missile Command had effective procedures in place to ensure that contracts contained maintenance management requirements when needed. However, contracting officers did not ensure that solicitations and contracts for development, test, and production contained maintenance management requirements. As a result, contracts awarded by the project manager’s office sometimes did not contain clear aviation maintenance tracking requirements.

7. Air Force Audit Agency Report No. F2005-0003-FC3000, “Performance-Based Services Acquisition (PBSA) Management,” January 5, 2005.

Air Force functional and contracting personnel did not consistently use results-based requirements to ensure contracts were performance-based. As a result, 12 of 16 locations reviewed did not meet the intent of governing legislation and contracting policies regarding use of results-based requirements for services acquisition. This condition occurred because functional and contracting personnel did not always participate in available PBSA training and, accordingly, were unprepared to write performance-based contract Statements Of Work (SOWs). In addition, policy was conflicting and contributed to confusion regarding PBSA applicability. (Tab A).

Transition to Production

Commonly Reported Problems in Program Transition to Production:

Programs attempting to enter Low-Rate Initial Production (LRIP) or full-rate production without:

- Adequately demonstrating operational effectiveness and suitability. (See Synopses 2, 3, 4, 5, 6, 7, 8, 9 and 13).
- Providing milestone decision makers with adequate information (test results, required acquisition documents, etc). (See Synopses 1, 10 and 11).
- Controlling program costs as programs move toward production. (See Synopses 11 and 12).

Synopses of Findings Related to Transition to Production:

1. DoDIG Report No. 99-075, “Acquisition of the SH-60R Light Airborne Multipurpose System Mark III Block II Upgrade,” February 2, 1999.

The SH-60R program office and the user did not update the program documents that they needed to effectively manage the Block II Upgrade. Program documents, such as the Test and Evaluation Master Plan (TEMP) and the Operational Requirements Document (ORD), did not reflect current programmatic requirements. Further, the program office did not have a Command, Control, Communications, Computer and Intelligence (C4I) Support Plan to verify that production representative SH-60R helicopters will perform as required in the intended Command, Control, Communications, Computer and Intelligence operational environment. As a result, the program manager cannot ensure that planned testing will accurately evaluate the SH-60R program readiness to enter LRIP. (Finding B).

2. DoDIG Report No. 99-224, “Ground Based Sensor Program,” July 26, 1999.

The Government accepted seven limited-procurement-urgent Ground Based Common Sensor-Light Systems that never passed initial Operational Test and Evaluation (OT&E) and planned to accept five more systems upon the production contract close-out. (Finding A).

3. DoDIG Report No. D-2000-174, “V-22 Osprey Joint Advanced Vertical Aircraft,” August 15, 2000.

The V-22 aircraft had 22 deficiencies in operational effectiveness and suitability requirements that will not be corrected and tested before the Milestone III full-rate production decision in December 2000. The test team at the Naval Air Warfare Center described those items as major. The V-22 Program Management Office needs to demonstrate that these issues are being effectively addressed, so that the Milestone Decision Authority can be reasonably assured that the V-22 will meet all its operational requirements and be able to perform the full range of missions required by the Joint Operational Requirements Document.

4. DoDIG Report No. D-2000-187, “The Low-Rate Initial Production Decision for the Joint Biological Point Detection System,” September 11, 2000.

Military Department independent test agencies, in Operational Assessments (OAs), concluded that the Block I Joint Biological Point Detection System was not ready to enter into LRIP as planned in September 2000. In the assessments, the independent agencies concluded that the Point Detection System was not yet operationally effective, suitable, or survivable and needed design changes. Further, the Milestone Decision Authority for the planned LRIP was below the appropriate organizational level based on program expenditures.

5. DoDIG Report No. D-2001-103, “Acquisition of the Joint Helmet Mounted Cueing System,” April 18, 2001.

The Joint Helmet Mounted Cueing System Operational Tests (OT), as planned, would not provide the objective test results necessary to support the full-rate production decision in April 2002. As a result, the Air Force would spend about \$6 million for Operational Testing without adequately determining whether the system will be operationally effective, suitable, and would provide the warfighter with a first look, first shot advantage within visual range in the air-to-air combat arena. (Finding A).

6. DoDIG Report No. D-2002-114, “V-22 Osprey Hydraulic System,” June 24, 2002.

Additional oversight and maintenance training measures were needed to improve the reliability of the hydraulic system for the V-22 Osprey. The V-22 entered the LRIP phase in 1997 with a hydraulic system that performed at reliability rates significantly lower than predicted in the design process. During the Engineering and Manufacturing Development phase, the system achieved no better than 38.2 percent of the predicted reliability rate. The V-22 was produced with a less-than-optimal hydraulic system because the V-22 Program Manager (PMA-275) did not exercise sufficient oversight of the hydraulic system's design and monitor the reliability rates of the hydraulic system's performance. In addition, other actions were needed to ensure sufficient management

focus on the V-22 hydraulic system's performance and maintenance. Recommendation was made to the program office to monitor the V-22 hydraulic system's performance, especially component reliability rates, on a continual basis to improve the reliability of the hydraulic systems. Also, Bell Helicopter Textron, Inc. should amend course materials for the V-22 maintenance course to include the unique characteristics and hazards of the titanium hydraulic lines. Similarly, the Technical Study Guide Program for Marine Medium Tiltrotor Training Squadron 204 should be amended to expand the discussion of titanium hydraulic lines.

7. DoDIG Report No. D-2003-013, "Fuel Cells of the V-22 Osprey Joint Advanced Vertical Aircraft," October 24, 2002.

Safety risks for V-22 flight testing were not minimized because V-22 aircraft in use for engineering and manufacturing development flight testing did not have non-crashworthy fuel cells. The V-22 Program Office issued a waiver for the LRIP aircraft to allow noncompliant fuel cells to be installed so that aircraft production would not be delayed. As a result, the safety risk assessment cannot be relied upon and the safety risk to aircrews of those engineering and manufacturing development test aircraft will not be minimized if the aircraft are not retrofitted before further use in flight testing.

8. DoDIG Report No. D-2003-083, "Acquisition of the Suite of Integrated Radio Frequency Countermeasures," April 29, 2003.

The Program Executive Officer, Intelligence, Electronic Warfare, and Sensors authorized the Suite of Integrated Radio Frequency Countermeasures (SIRFC) program to enter LRIP even though the Army Test and Evaluation Command concluded that the system, as designed, was not sufficiently mature to be considered operationally effective, suitable, and survivable. As a result, U.S. Special Command (USSOCOM) has contracted to procure seven SIRFC systems at an estimated cost of \$19.6 million without assurance that the SIRFC units procured can successfully pass planned operational tests before the full-rate production decision review. (Finding C).

9. DoDIG Report No. D-2004-089, "Acquisition of the MH-47G Helicopter Service Life Extension Program," June 14, 2004.

Although the MH-47G Product Manager had begun LRIP of the MH-47G helicopter, system interoperability and supportability requirements had not been defined to support pre-production testing requirements. As a result, the Joint Chiefs of Staff cannot use the ORD to effectively review and certify the adequacy of MH-47G requirements for systems interoperability.

10. DoDIG Report No. D-2004-113, "Acquisition of the EA-6B Improved Capability III Program," August 31, 2004.

The program manager provided the Assistant Secretary of the Navy (Research, Development, and Acquisition) with incomplete information on the operational

assessment of the Improved Capability (ICAP) III Program that the Commander, Operational Test and Evaluation Force prepared in support of the LRIP decision. As a result, the Assistant Secretary of the Navy (Research, Development, and Acquisition) approved the program manager's request in June 2003 to procure 10 ICAP III systems for low-rate initial production, and the Navy increased the risk that it will incur costly retrofit expenses to correct the design deficiencies for those systems at the completion of the dedicated operational test and evaluation phase. (Finding A).

11. GAO Report No. GAO-NSIAD-00-182, "Defense Acquisitions: Howitzer Program Experiencing Cost Increases and Schedule Delays," July 28, 2000.

The program had experienced several schedule delays, and schedules current at the time of the review may not provide the DoD Milestone decision makers with sufficient information by March 2002 to make an informed decision to begin full-rate production. In addition, cost growth in the program prime development contract had been significant. Several design changes had been made to the lightweight Howitzer, however testing of the modified weapon would be delayed by the late delivery of the Howitzers to the program. These delays caused corresponding delays in the development test program, and in June 2000, the production decision was again delayed an additional 6 months (to March 2002).

12. GAO Report No. GAO-03-431, "Tactical Aircraft: DOD should Reconsider Decisions to increase F/A-22 Production Rates While Developmental Risks Continue," March 14, 2003.

The F/A-22 development program did not meet its key performance, schedule, and cost goals for fiscal year 2002. The program continues to address technical problems that have limited the performance of test aircraft. Aircraft also have been unable to meet maintenance requirements and are spending more time than planned on the ground undergoing maintenance. These delays are the result of technical problems and the late delivery of developmental aircraft to the flight test center. Many tasks originally scheduled for 2002 have been rescheduled for 2003.

13. GAO Report No. GAO-04-391, "Tactical Aircraft: Changing Conditions Drive Need for New F/A-22 Business Case," March 15, 2004.

The development test program continues to experience problems and risks further delays. The F/A-22's advanced avionics system which allows a pilot to have better control of information regarding the surrounding situation frequently failed, delaying earlier testing, and must now be proven stable before Initial Operational Test and Evaluation (IOT&E) can start. The F/A-22's avionics system continues to experience shutdowns and failures. As a result of the problems with the development test program, the start of IOT&E has been delayed, and the time to complete it has been compressed by 4 months. Additional delays in completing IOT&E could jeopardize the full rate production decision in December 2004.

Program Reporting and Documentation

Commonly Reported Problems in Program Reporting and Documentation:

- Incomplete or untimely reporting in the Selected Acquisition Report (SAR) or the Defense Acquisition Executive Summary (DAES), especially of program baseline breaches involving cost or schedule. (See Synopsis 1).
- Program cost estimates or cost reporting incomplete or out of date. Often fail to fully develop expected cost for program disposal, demilitarization, and handling of hazardous material. (See Synopses 5, paragraph 2; 6, 11 and 13).
- Failure to prepare key program documentation to support milestone review (Check current DoDI 5000.2 Enclosure E.3, Statutory Regulatory Information). (See Synopses 2, 5, paragraph 2; and 9).
- Failure to effectively use Earned Value Management System (EVMS) to manage the program. (See Synopses 4, 8, 10 and 12). Common problems include:
 - EVMS information not submitted timely,
 - Key EVMS calculations, such as EAC not performed,
 - Program management only considers the most optimistic EAC calculations,
 - Ignoring EVMS calculations showing adverse trends (negative cost and schedule variances or growing EACs),
 - Lack of program management staff trained in EVMS, and
 - Contractor not meeting EVMS requirements.
- Failure to comply with reporting requirements for Low-Rate Initial Production (LRIP) quantities, scheduling, or beyond LRIP production. (See Synopses 1 and 3).
- Classifying the program at a lower Acquisition Category (ACAT) than total planned Research Development Testing & Evaluation (RDT&E) or Procurement expenditures warrant, thereby decreasing the amount and level of program oversight. (See Synopsis 5, paragraph 1).
- Failure to submit waiver request when deviating from required procedures (See Synopsis 7).

Synopses of Findings Related to Program Reporting and Documentation:

1. DoDIG Report No. 98-096, "Acquisition of the Army Tactical Missile System Anti Personnel/Anti Material Block IA Program," March 25, 1998.

The Project Office did not prepare a Selected Acquisition Report (SAR) for Congress for the quarter that ended on June 30, 1997, showing that the full-rate-production decision for the Block IA Program had slipped more than 6 months and that the LRIP quantity procured exceeded 10 percent of the total Block IA requirements in the acquisition strategy. (Finding B).

2. DoDIG Report No. 99-224, "Ground Based Sensor Program," July 26, 1999.

The Army planned to transition from the Ground Based Common Sensor (GBCS) Program to the Prophet System, entering the program life cycle at Milestone II without the documentation required for a Milestone II decision. Specifically, the Army had not prepared a valid mission needs statement or analysis of alternatives. By not complying with prescribed milestone exit criteria, the Prophet System would be in noncompliance with DoD Regulation 5000.2-R and would face increased risk. (Finding B).

3. DoDIG Report No. D-2002-012, "Acquisition of the Firefinder (AN/TPQ-47) Radar," October 31, 2001.

The Director, Operational Test and Evaluation (DOT&E), did not consistently apply its beyond LRIP reporting requirements. As a result, DOT&E cannot ensure that its personnel are effectively applying beyond LRIP reporting requirements to address whether the test and evaluation performed for a program is adequate and whether the results of the Test and Evaluation (T&E) confirm that the program is effective and suitable for combat. (Finding B).

4. DoDIG Report No. D-2002-036, "Acquisition of the Naval Fires Control System," January 8, 2002.

The EVMS for the Naval Fires Control System (NFCS) did not provide the program office with information needed to effectively manage the program's cost and schedule data. Without a certified EVMS that accurately shows contractor cost and schedule performance data, the Navy has increased the risk of the program being adversely affected by undisclosed cost and schedule overruns. (Finding B).

5. DoDIG Report No. D-2003-004, "Acquisition of the Advanced Deployable System," October 3, 2002.

The System program manager did not inform the Assistant Secretary of the Navy (Research, Development, and Acquisition) that the oversight of the program should be raised to the level of an acquisition category I program. As a result, acquisition

management oversight was not provided commensurate with that required for an acquisition category I program. Designating the System as an acquisition category I program should provide the oversight necessary for an acquisition program of this magnitude. (Finding A).

Also, the System program office had not completed actions to update the acquisition strategy; cost analysis requirements description; life-cycle cost estimate; Command, Control, Communications, Computers and Intelligence (C4I) Support Plan; and programmatic environmental, safety, and health evaluation plan as required showing the current status of the program. As a result, the program manager did not have up-to-date acquisition documentation needed to effectively manage program cost and performance and acquisition decision makers could not make fully informed investment decisions. (Finding C).

6. DoDIG Report No. D-2004-035, “Major Range and Test Facility Base,” December 8, 2003.

The Military Departments’ information on institutional funding and backlog of test assets and facilities for Major Range and Test Facility Base (MRTFB) ranges varied significantly because the manner, method, and amounts of funding; the collection and reporting of backlog data; and accounting for charges to customers were different. As a result, the Office of the Secretary of Defense and the Offices of the Secretaries of the Military Departments did not have comparable data when making decisions on the funding levels needed to reduce the backlog of the infrastructure and test assets needed to support test missions.

7. DoDIG Report No. D-2004-046, “Acquisition of the CH47F Improved Cargo Helicopter,” January 21, 2004.

The Project Manager did not submit a waiver request to the Army Director, Enterprise Architecture Acquisition, as required, when becoming aware through a 1999 contractor study that the avionics for the CH-47F configuration did not comply with Joint Technical Architecture-Army (JTA-A) standards. As a result, the CH-47F Program will not fully meet the DoD objective for systems to have an open design that supports system interoperability and future block upgrades. (Finding B).

8. DoDIG Report No. D-2004-056, “Air Force Satellite Control Network Contract,” March 10, 2004.

Honeywell did not satisfy the Satellite Control Network contractual requirement to provide a DoD-compliant EVMS and improperly obtained reimbursement for correcting the system deficiencies. This condition occurred because Honeywell stated in its contract proposal that it had EVMS capabilities when it did not, and the Air Force did not conduct an evaluation of the proposed EVMS before contract award. As a result, without the required EVMS, the Air Force and the contract administrator did not have the information needed to effectively monitor Honeywell’s technical, cost, and schedule

performance on the satellite modernization contract, and Honeywell may be in violation of the false statement and false claim statutes of the United States Code. (Finding B).

9. DoDIG Report No. D-2004-113, “Acquisition of the EA-6B Improved Capability III Program,” August 31, 2004.

The Program Manager provided the Assistant Secretary of the Navy (Research, Development, and Acquisition) with incomplete information on the operational assessment of the Improved Capability III (ICAP III) Program that the Commander, Operational Test and Evaluation Force prepared in support of the Low-Rate Initial Production (LRIP) decision. As a result, the Assistant Secretary of the Navy (Research, Development, and Acquisition) approved the Program Manager’s request in June 2003 to procure 10 ICAP III systems for low-rate initial production, and the Navy increased the risk that it will incur costly retrofit expenses to correct the design deficiencies for those systems at the completion of the dedicated operational test and evaluation phase. (Finding A).

Also, the subcontractor did not submit, through the prime contractor for the ICAP III Tactical Jamming System Receiver, updated reliability prediction data needed to perform a cost-benefit analysis to determine the best maintenance and logistical support strategy for the receiver. As a result, the Program Manager is not able to accurately predict the expected reliability of the Tactical Jamming System Receiver and may incur higher than expected costs to maintain and logistically support the receiver when the ICAP III Program becomes operational. (Finding C).

10. Army Audit Agency Report No. A-2005-0084-ALA, “Earned Value Management, Program Executive Office, Aviation,” December 21, 2004.

Program offices didn’t make sure prime contractors fully complied with requirements to use earned value to manage their programs. The program offices didn’t perform sufficient analyses during pre-contract award to make sure the contractor’s EVM system complied with established EVM criteria. DCMA support was only partially effective in monitoring contractor earned value compliance. As a result, earned value information wasn’t accurate or timely and program offices could not always rely on the information to effectively manage their programs.

11. Naval Audit Service Report No. N2001-0018, “Total Ownership Cost-Reduction Plans,” March 20, 2001.

Navy Systems Command Program offices provided limited or no documentation showing how cost baselines and cost reduction initiatives were developed. Available documentation supported only a small portion of the assumptions and conclusions used to create the baselines. Various costs were excluded from the cost baselines, and metrics were vague or did not measure desired outcomes. In addition, in some cases, cost reduction initiatives did not relate to program cost drivers, and program offices did not identify specific cost drivers. Navy management recognized that more action was needed

regarding the Total Ownership Cost-Reduction Plans initiative and agreed to issue revised policy guidance.

12. Naval Audit Service Report No. N2003-0045, “Earned Value Management at Program Executive Office for Anti-Submarine Warfare, Assault and Special Mission Programs,” May 2, 2003.

The H-1 Upgrades Program had not effectively implemented Earned Value Management (EVM). As a result, the H-1 Program Management Office could not fully rely on EVM data to make informed decisions concerning the contractor’s cost, schedule, and technical performance of the program. Additionally, contractor’s EVM system was no longer compliant with DoD acquisition policy, and Defense Contract Management Agency at the contractor’s plant did not conduct a compliance review of the contractor’s EVM system, when warranted. (Finding 1).

13. Air Force Audit Agency Report No. 99064028, “Sensor Fuzed Weapon Pre-Planned Product Improvement,” April 10, 2000.

Management visibility could have been improved by increasing the level of cost reporting detail, establishing improved analytical capabilities to assess contractor performance, and improving the timeliness of earned value data submissions. Improved contract performance visibility could provide more detailed and timely identification of cost and schedule impact from technical performance issues and facilitate earlier implementation of alternative technical approaches, mitigating actions, recovery plans, and resource reallocations.

Management Control Program

Commonly Reported Problems relating to implementing the DoD Management Control Program, as required by DoD Directive 5010.38, "Management Control (MC) Program," August 26, 1996, and DoD Instruction 5010.40, "Management Control Program Procedures," August 28, 1996.

- MC Program not effectively established to provide adequate controls and safeguards over program resources. (See Synopses 1 and 2).
- Not effectively integrating the requirements of the DoD MC Program into the management assessment and reporting process. (See Synopses 3, 4 and 5).

Synopses of Findings Relating to Management Control Program:

1. DoDIG Report No. 99-224, "Ground Based Sensor Program," July 26, 1999.

The Program Executive Office for Intelligence, Electronic Warfare and Sensors did not fully implement an effective management control program. As a result, the MC Program did not provide reasonable assurance that the resources allocated were safeguarded or protected adequately against waste, fraud, or mismanagement, and that organizational, operational, or administrative objectives were accomplished. (Finding C).

2. DoDIG Report No. D-2000-142, "Defense Information Systems Agency's Acquisition Management of the Global Combat Support System," June 9, 2000.

The Defense Information Systems Agency (DISA) had not established management accountability for effectively acquiring and preparing the Global Combat Support System for deployment and life-cycle support as required by DoD and Office of Management and Budget guidance. As a result, the Defense Information Systems Agency could not determine whether resources invested in the Global Combat Support System acquisition provided quality and timely products to users within life-cycle estimates; and therefore, by the beginning of FY 2001, they plan to implement a performance-based measurement system in order to integrate management accountability into the Global Combat Support System acquisition.

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

The Army did not effectively integrate the requirements of the DoD MC program into its management assessment and reporting process for 10 Acquisition Category II and III programs that had an estimated life-cycle cost of \$10.6 billion. As a result, program managers did not provide milestone decision authorities with timely and documented information that would have enabled them to assist program managers who were

experiencing cost overruns, schedule delays, and performance problems. Further, Army milestone decision authorities made important program decisions at milestone decision points with incomplete information on the readiness of the systems for the next phase of the acquisition process.

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

The Air Force did not effectively integrate the requirements of the DoD MC Program into its management assessment and reporting process for eight Acquisition Category II and III programs that had an estimated life-cycle cost of \$1.9 billion. As a result, the program managers did not have documented and updated information needed to more effectively manage their programs. The program managers further contributed to this condition by not reporting program deviations and not requesting revisions to acquisition program baselines when cost, schedule, and performance breaches occurred. Program managers did not provide milestone decision authorities with timely and documented information so they could assist program managers who were experiencing cost overruns, schedule delays, and performance problems. Further, milestone decision authorities made important program decisions at milestone decision points with incomplete information on the readiness of the systems for the next phase of the acquisition process.

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

The Navy did not effectively integrate the requirements of the DoD MC Program into its management assessment and reporting process for nine Acquisition Category II and III programs that had an estimated life-cycle cost of \$5.79 billion. As a result, program managers did not have documented and updated information needed to more effectively manage their programs. The program managers further contributed to this condition by not reporting program deviations and not requesting revisions to acquisition program baselines when cost, schedule, and performance breaches occurred. In addition, program managers did not provide milestone decision authorities with timely and documented information so they could assist program managers who were experiencing cost overruns, schedule delays, and performance problems. Further, Navy milestone decision authorities made important program decisions at milestone decision points with incomplete information on the readiness of the systems for the next phase of the acquisition process.

Defense Contract Management Agency (DCMA) Support to Acquisition Programs

Commonly Reported Problems in DCMA Support to Acquisition Programs:

- Memorandums of Agreement (MOAs) between DCMA and the Program Office were too restrictive or not well enough defined to provide for meaningful program surveillance and optimum use of DCMA resources. (See Synopses 2, paragraph 2; 4, and 8).
- DCMA does not provide meaningful analysis of contractor Earned Value Management (EVM) support and other contractor reporting. Instead, DCMA recycles contractor reports. (See Synopses 3, 5, 7, and 9).
- Managers did not adequately consider Defense Contract Audit Agency (DCAA) analysis. (See Synopsis 6).
- Program managers use program office personnel to do contract administration functions when DCMA resources are available. (See Synopsis 1).

Synopses of Findings Related to DCMA Support to Acquisition Programs:

- 1. DoDIG Report No. 99-071, “Cooperative Engagement Capability Program Office Use of Defense Contract Management Command Resources,” January 27, 1999.**

The Cooperative Engagement Capability Program Office did not make optimum use of resources at the contract administration office (DCMA) to support its program. The program office reliance on Navy technical agents limited the contract administration office in its ability to provide the contract administration support agreed to in the memorandum of agreement. Also, the program office could put to better use up to \$51.6 million of funds that it budgeted for in the Future-Years Defense Plan to pay the Navy technical agents.

- 2. DoDIG Report No. 99-154, “Defense Contract Management Support to Acquisition Program Managers,” May 12, 1999.**

Although DCMA provided effective contract administration office support to system acquisition program managers overall, it could improve implementation of procedures in the following two areas:

DCMA program support teams did not document that they reviewed 17 of the 34 MOA annually as required at the 4 contract administration offices that we visited. As a result, the contract administration offices did not document that they had verified with the

program managers that the 17 MOAs still clearly defined the roles and responsibilities needed to support current program acquisition strategies and that the agreements addressed the most current of the program manager's concerns. (Finding A).

DCMA program support teams did not define contract-specific surveillance responsibilities and procedures in 47 of the 48 program surveillance plans at the 4 contract administration offices as required. Also, program support teams did not document that they had reviewed and updated 12 of the 48 program surveillance plans in a timely manner. As a result, the program surveillance plans may not have been optimally effective in assisting program support teams to effectively and efficiently evaluate contractor systems and processes on 100 major acquisition system contracts. (Finding B).

3. DoDIG Report No. 99-216, “Earned Value Management System Support to Acquisition Program Managers,” July 21, 1999.

Our audit showed that DCMA offices could further improve their EVM support to program managers. Specifically, four of the five contract administration offices that we visited could provide program managers with more insightful system surveillance assessments of the contractors' EVM system. Also, all five contract administration offices could provide more useful analysis of contractor cost, schedule, and performance data to program managers on a more-timely basis. As a result, program managers for Defense system contracts were not kept fully informed on whether the contractors' EVM systems provided reliable cost, schedule, and technical information and were not receiving timely and useful EVM data analysis to assist in making program management decisions.

4. DoDIG Report No. D-2002-143, “Acquisition of the Army Land Warrior System,” September 5, 2002.

The delegation agreement between the Agreements Officer for the program office and the DCMA, Syracuse, provided limited and vaguely defined requirements for administration support. As a result, the program manager may not obtain timely and meaningful information on Consortium performance against cost, schedule, and performance requirements. (Finding C).

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

The program office did not apply standard estimate-at-completion formulas in calculating EVM computations and did not request the DCMA to review EVM calculations. As a result, the program office's estimate-at-completion was significantly lower than the estimate-at-completion calculated using standard formulas and did not provide decision makers with accurate data on estimated contract cost overruns. Revising the current draft memorandum of agreement between the program office and the DCMA to include

DCMA oversight of contractor EVM calculations will help provide accurate earned value management data to decision makers. (Finding B).

6. GAO Report No. GAO-05-169, “Contract Management: The Air Force Should Improve How It Purchases AWACS Spare Parts,” February 15, 2005.

The Air Force did not adequately consider DCAA and DCMA analyses of these purchases of AWACS spare parts, which would have allowed the Air Force to better assess the contractor’s proposals. In addition, the contracting officer did not act on DCMA analyses that showed a much lower price was warranted. Instead, the contracting officer relied on a Boeing judgmental analysis to support Boeing’s proposed price. As a result, the Air Force has purchased three ailerons for about \$1.4 million, 24 cowlings for about \$7.9 million, and three radomes for about \$5.9 million. The unit price for the ailerons and cowlings increased by 442 percent and 354 percent, respectively since last purchased.

7. Army Audit Agency Report No. A-2005-0084-ALA, “Earned Value Management, Program Executive Office, Aviation,” December 21, 2004.

Program offices did not make sure prime contractors fully complied with requirements to use earned value to manage their programs. The program offices didn’t perform sufficient analyses during pre-contract award to make sure the contractor’s EVM system complied with established EVM criteria. DCMA support was only partially effective in monitoring contractor earned value compliance. As a result, earned value information wasn’t accurate or timely and program offices could not always rely on the information to effectively manage their programs.

8. Army Audit Agency Report No. A-2005-0149-ALA, “Earned Value Management,” April 6, 2005.

Although program offices established MOAs with DCMA, the MOAs sometimes weren’t outcome based that clearly defined program risks areas for the DCMA to monitor during surveillance reviews. As a result, the surveillance reviews didn’t provide the program managers with an effective tool for mitigating program risks.

9. Naval Audit Service Report No. N2003-0045, “Earned Value Management at Program Executive Office for Anti-Submarine Warfare, Assault and Special Mission Programs,” May 2, 2003.

The H-1 Upgrades Program had not effectively implemented EVM. As a result, the H-1 Program Management Office could not fully rely on EVM data to make informed decisions concerning the contractor’s cost, schedule, and technical performance of the program. Additionally, contractor’s EVMS was no longer compliant with DoD acquisition policy, and DCMA at the contractor’s plant did not conduct a compliance review of the contractor’s EVMS, when warranted. (Finding 1).

Logistics, Supportability, and Training

Commonly Reported Problems in Logistics, Training and, Supportability:

- Inadequate planning and cost estimating (as part of life-cycle cost estimate) for handling hazardous waste or for demilitarization and disposal of hazardous material at the end of the useful life of a weapon system. (See Synopses 1, paragraphs 1 & 2; and 6).
- Failure to perform independent logistic assessment. (See Synopsis 9).
- Failure to develop a Program Environmental, Safety, and Health Evaluation (PESHE) for the weapon system. (See Synopses 1, paragraph 3; 2, paragraphs 1 & 2; and 3).
- Failure to develop a comprehensive total ownership (life-cycle) cost for developing weapon systems. (See Synopses 2, paragraph 3; and 5).
- Failure to plan or provide training to personnel that will operate hardware or software systems. (See Synopsis 8).
- Failure to use reliability data to plan for maintenance and logistical support of systems. (See Synopses 7).
- Failure to provide adequate funding for logistical support. (See Synopsis 4).

Synopsis of Findings Related to Logistics, Training, and Supportability:

1. DoDIG Report No. 99-177, "Hazardous Material Management C/KC-135 Strato Tanker," June 4, 1999.

The following two areas warrant management attention to ensure that the Program Office identifies potential demilitarization and disposal liabilities and evaluates the impact of environmental, safety, and health issues on mission and cost:

The C/KC-135 Program Office did not include the cost of demilitarization and disposal of the C/KC-135 at the end of its useful life in the program's life-cycle cost estimate. As a result, the Program Office cannot accurately report in Air Force financial statements the liability for demilitarization, disposal, and cleanup costs for the C/KC-135 over the next 41 years. (Finding A).

The C/KC-135 Program Office did not develop a PESHE that included an environmental strategy, program environmental responsibilities, and a methodology to track and

document the completion of the environmental strategy throughout the program's life-cycle. Without the evaluation, the Program Office cannot ensure that it is aware of the impact of environmental, safety, and health issues on mission and cost and may also be forgoing opportunities to further reduce environmental life-cycle costs over the extended life span of the C/KC-135. (Finding B).

2. DoDIG Report No. D-2000-092, "Acquisition of the Minuteman III Propulsion Replacement Program," March 1, 2000.

The following three areas warrant additional management attention:

The System Program Office did not ensure that analyses of the potential environmental consequences of developing and deploying the Propulsion Replacement Program were performed and approved as required. As a result, the System Program Office may not be able to inform the Air Force Acquisition Executive of the environmental effect of the program before the full-rate production decision planned for September 2000. (Finding A).

The System Program Office did not complete its PESHE (evaluation). As a result, the System Program Office did not receive the benefits of early identification and resolution of potential environmental problems during the system engineering process and cannot be assured that the program's environmental, safety, and health issues, and their associated life-cycle cost impacts are incorporated in future day-to-day decision making processes. (Finding B).

The System Program Office did not plan to develop a comprehensive total ownership (life-cycle) cost estimate for the Propulsion Replacement Program. As a result, the System Program Office did not realize the benefits of performing cost and performance tradeoff analyses early in the acquisition process. Moreover, the System Program Office did not have a baseline to measure future mandated reductions in program life-cycle costs. (Finding C).

3. DoDIG, Report No. D-2000-121, "Hazardous Material Management for Major Defense Systems," May 4, 2000.

The program offices for the nine programs reviewed generally planned and provided for reduction and elimination of hazardous material in their programs. However, improvement was needed in developing a PESHE; estimating the environmental costs for demilitarization, disposal, and cleanup of the system; processing an analysis of the potential environmental consequences of developing and deploying the system; and establishing a hazardous material reutilization and inventory management program.

4. DoDIG Report No. D-2000-174, “V-22 Osprey Joint Advanced Vertical Aircraft,” August 15, 2000.

DoD had not provided adequate funding for V-22 aircraft logistical support to obtain the required fully mission-capable rate of 75 percent. The V-22 Program Management Office needs to demonstrate that these issues are being effectively addressed, so that the Milestone Decision Authority can be reasonably assured that the V-22 will meet all its operational requirements and be able to perform the full range of missions required by the Joint Operational Requirements Document.

5. DoDIG Report No. D-2002-012, “Acquisition of the Firefinder (AN/TPQ-47) Radar,” October 31, 2001.

The Firefinder Product Office did not develop an environmental assessment and a PESHE for the Q-47 to identify environmental safety issues, occupational health requirements, and demilitarization and disposal requirements; establish program environmental responsibilities; and compose a methodology to track progress throughout the remainder of the program life-cycle. Without an environmental assessment and a PESHE, the Product Office cannot ensure that the Army is aware of the effect of the program on the human environment and the impact of environmental, safety, and occupational health issues on mission and cost, and may also be forgoing opportunities to further reduce environmental life-cycle costs over the life span of the Q-47. (Finding C).

Also, the Firefinder Product Office did not include environmental costs for pollution prevention, hazardous waste management, demilitarization, disposal, and associated cleanup for the Q-47 at the end of its useful life in its life-cycle cost estimate. As a result, the Firefinder Product Office understated the total life-cycle costs for the Q-47 and would not be able to report the liability for pollution prevention, hazardous waste management, demilitarization, disposal, and associated cleanup for the Q-47 in the Army financial statements when the Army begins fielding the system. (Finding D).

6. DoDIG Report No. D-2003-128, “The Chemical Demilitarization Program: Increased Costs for Stockpile and Non-Stockpile Chemical Materiel Disposed Programs,” August 29, 2003.

The Director, Chemical Materials Agency (the Director) has been affected by costly delays in reaching public consensus when obtaining State permit modifications needed to begin disposal operations. The Director was also impacted by the monetary effects of decisions on the type of technology to be employed at two Assembled Chemical Weapons Assessment facilities, the cost escalation and safety incidents at operational chemical disposal facilities, and rising cost estimates for closure of disposal facilities. These conditions exist because the Chemical Demilitarization Program is a very large and complex program influenced by several offices within and outside of the Department of Defense. As a result, the Army will continue to experience cost growth in funds needed to complete Demilitarization Program requirements. (Finding A).

Also, the Product Manager for Non-Stockpile Chemical Materiel did not have information needed to prepare a reliable estimate of the cost and schedule to dispose of buried chemical warfare materiel. (Finding B).

7. DoDIG Report No. D-2004-113, “Acquisition of the EA-6B Improved Capability III Program,” August 31, 2004.

The subcontractor did not submit, through the prime contractor for the ICAP III Tactical Jamming System Receiver, updated reliability prediction data needed to perform a cost-benefit analysis to determine the best maintenance and logistical support strategy for the receiver. (Finding C).

8. DoDIG Report No. D-2005-025, “DoD FY 2004 Implementation of the Federal Information Security Management Act for Information Technology Training and Awareness (FISMA),” December 17, 2004.

The Assistant Secretary of Defense for Networks and Information Integration/DoD Chief Information Officer (DoD CIO) did not ensure that training information that the DoD Components reported in response to FISMA data calls was accurate and supportable. In particular, the DoD CIO did not ensure that all DoD Components had appropriately defined and identified employees with significant IT security responsibilities, developed training and certification requirements for those IT security professionals, or established processes to track and monitor training taken by those individuals. (Finding A).

Also, the DoD CIO did not ensure that security awareness training information that the DoD Components reported in response to FISMA data calls was accurate and supportable. Specifically, the DoD CIO did not ensure that the DoD Components had effective processes in place to track and monitor completion of security awareness training requirements. (Finding B).

9. Naval Audit Service Report No. N2000-0027, “Independent Logistics Assessments Polices,” June 27, 2000.

Program Executive Offices and Systems Commands were not always compliant with the policy requirement to perform Independent Logistic Assessments. When they were completed they were mostly compliant. Program Executive Offices and System Commands did not perform a significant number of Independent Logistic assessments and did not always disclose results or the basis of logistics certifications to decision authorities. Procedures to implement the assessments were not formalized, validated, or complete. Without timely and quality Independent Logistics Assessments results and/or knowing the basis of logistics certifications, decision authorities could not make fully informed decisions. Ineffective implementation represented a material management control weakness.

Internal Control Breakdowns

The internal control breakdowns in the findings for DoD OIG reports include the following 16 categories:

1. OSD not Implementing Legislative or Regulatory Requirements within DoD Components. (See page 48).
2. Inadequate OSD Direction or Oversight. (See page 49).
3. OSD Not Establishing Reporting Mechanisms to Monitor DoD Component Accomplishment of Legislative or Regulatory Requirements. (See page 50).
4. DoD Component Headquarters Not Implementing Legislative or Regulatory Requirements within Their Components. (See pages 50 – 56).
5. DoD Component Headquarters Not Establishing Reporting Mechanisms to Monitor DoD Component Accomplishment of Legislative or Regulatory Requirements. (See pages 57 and 58).
6. Inadequate Coordination between DoD Components. (See pages 58).
7. Shortfalls in Program Executive Officer Knowledge or Judgment. (See page 59).
8. Shortfalls in Combat or Doctrine Developer Knowledge or Judgment. (See pages 59 – 62).
9. Shortfalls in Program Manager Knowledge or Judgment. (See pages 63 – 70).
10. Inadequate Program Manager Oversight of Contractor. (See pages 70 and 71).
11. Inadequate Interface between the Program Manager and the Combat Developer. (See pages 71 and 72).
12. Shortfalls in Source Selection Authority Knowledge or Judgment. (See page 72).
13. Shortfalls in Contracting Officer or Contract Administration Support Staff Knowledge or Judgment. (See pages 72 and 73).
14. Inadequate Support from Matrixed Support Organizations. (See page 74).
15. Outside Agency Influence. (See page 74).

1. OSD not Implementing Legislative or Regulatory Requirements Within DoD Components

a. DoDIG Report No. D-2000-149, “Use of an Open Systems Approach for Weapon Systems,” June 14, 2000.

Of the 17 major Defense acquisition programs that gained approval to begin program definition and risk reduction or to enter Engineering and Manufacturing Development (EMD) between March 1996 and July 1999, 14 programs proceeded into the next acquisition phase without program managers clearly defining open system design objectives and strategy for achieving the objectives. The DoD and Component acquisition executives allowed this condition to occur because they did not enforce the requirement that program managers use an open systems design approach in key acquisition documents as part of the acquisition milestone review process. (Finding A).

Detailed documentation reviews at 4 of 17 major Defense acquisition program offices showed that program managers for 3 of the 4 programs did not document a means for determining the extent of design openness of systems, subsystems, and components. The OSD Joint Task Force did not provide program managers with guidance on how to document the means for determining the extent of system design openness, and establish acquisition policy to recognize that determining the level of openness of system design is most meaningful when combined with program impact assessments. (Finding B).

b. DoDIG Report No. D-2005-025, “DoD FY 2004 Implementation of the Federal Information Security Management Act for Information Technology Training and Awareness,” December 17, 2004.

The Assistant Secretary of Defense for Networks and Information Integration/DoD Chief Information Officer (DoD CIO) did not ensure that training information that the DoD Components reported in response to FISMA data calls was accurate and supportable. In particular, the DoD CIO did not ensure that all DoD Components had appropriately defined and identified employees with significant IT security responsibilities, developed training and certification requirements for those IT security professionals, or established processes to track and monitor training taken by those individuals. This condition occurred because the DoD CIO did not implement the requirements of numerous policy documents issued since 1998 and did not establish specific reporting mechanisms to monitor and oversee accomplishment of those requirements by DoD Components. (Finding A).

2. Inadequate OSD Direction or Oversight

a. DoDIG Report No. D-2002-012, “Acquisition of the Firefinder (AN/TPQ-47) Radar,” October 31, 2001.

The Director, Operational Test and Evaluation, did not consistently apply beyond low-rate initial production reporting requirements. This condition occurred because the Director, Operational Test and Evaluation, oversight list indicated that the Director did not intend to prepare a beyond low-rate initial production report for the Q-47 even though he intended to prepare such a report. (Finding B).

b. DoDIG Report No. D-2003-105, “Management of Developmental and Operational Test Waivers for Defense Systems,” June 20, 2003.

The Military Departments applied inconsistent waiver-and-limitation terminology and procedures when referring to the deferral of testing. This condition occurred because OSD had not issued specific guidance for approving and processing waivers and other deferrals of operational testing. (Finding B).

c. DoDIG Report No. D-2003-128, “The Chemical Demilitarization Program: Increased Costs for Stockpile and Non-Stockpile Chemical Materiel Disposed Programs,” September 4, 2003.

The Product Manager for Non-Stockpile Chemical Materiel did not have information needed to prepare a reliable estimate of the cost and schedule to dispose of buried chemical warfare materiel. This condition occurred because the Under Secretary of Defense for Acquisition, Technology, and Logistics had not directed the DoD Components to identify, schedule, and fund the disposal of buried chemical warfare materiel from existing and former DoD installations. (Finding B).

d. DoDIG Report No. D-2004-102, “Contracting for and Performance of the C-130J Aircraft,” July 23, 2004.

The Air Force conditionally accepted 50 C-130J aircraft at a cost of \$2.6 billion even though none of the aircraft met commercial contract specifications or operational requirements. These conditions occurred because the Air Force contracting officer did not properly follow the Federal Acquisition Regulation to justify the use of a commercial item acquisition strategy and the Air Force did not adequately manage the program operation. Additionally, the Office of the Secretary of Defense did not provide adequate oversight of the C-130J Program.

3. OSD Not Establishing Reporting Mechanisms to Monitor DoD Component Accomplishment of Legislative or Regulatory Requirements

DoDIG Report No. D-2005-025, “DoD FY 2004 Implementation of the Federal Information Security Management Act for Information Technology Training and Awareness,” December 17, 2004.

The DoD Chief Information Officer (CIO) did not ensure that security awareness training information that the DoD Components reported in response to the Federal Information Security Management Act data calls was accurate and supportable. Specifically, the DoD CIO did not ensure that the DoD Components had effective processes in place to track and monitor completion of security awareness training requirements. This condition occurred because the DoD CIO had not established a specific reporting process to monitor and oversee DoD Components compliance with DoD Instruction 8500.2, “Information Assurance (IA) Implementation.” (Finding B).

4. DoD Component Headquarters Not Implementing Legislative or Regulatory Requirements Within Their Components

a. DoDIG Report No. 99-154, “Defense Contract Management Command Support to System Acquisition Program Managers,” May 12, 1999.

Defense Contract Management Command Contract Administration Support Teams did not accomplish annual reviews of 17 Memorandums of Agreement that supported contracts totaling \$2.5 billion. This condition occurred because the Director of the Defense Contract Management Command did not require:

- the East and West District offices to establish follow-up, corrective action procedures to annually review and update memorandums of agreement,
- contract administrative offices to coordinate annual reviews of memorandums of agreement with program offices and did not clearly define the differences between major and minor revisions of memorandums of agreement. (Finding A).

b. DoDIG Report No. 99-216, “EVMS Support to Acquisition Program Managers,” July 21, 1999

The Defense Contract Management Command contract administration offices could improve their earned value management support to program managers. Specifically, four of the five contracted administration offices visited could provide program managers with more insightful system surveillance assessments of the contractor’s earned value management systems (EVMSs). Also, all five contract administration offices could provide more useful analysis of contractor cost, schedule, and performance data to program managers on a more timely basis. These conditions occurred because the Director of the Defense Contract Management Command did not:

- establish requirements for contract administration offices to assess and report to program managers on the overall health of contractor EVMSs, to request, whenever possible, on-line access of contractor EVMS data, and to include forecasting and risk assessments in EVMS data analysis;
 - develop earned value management performance measures for contract administration offices that objectively measure their efforts to improve earned value management support provided to program managers; and
 - fully implement plans to improve earned value management training of staff and share earned value management best practices.
- c. **DoDIG Report No. D-2000-142, “Defense Information Systems Agency's Acquisition Management of the Global Combat Support System,” June 9, 2000.**

Management accountability was insufficient for effectively acquiring and preparing the Global Combat Support System for deployment and life-cycle support, as required by DoD and Office of Management and Budget guidance. This condition occurred because DISA had not managed the Global Combat Support System as a capital acquisition with cost, schedule, and performance baselines linked to mission area planning, budgeting, project management, accounting, and auditing cycles.

- d. **DoDIG Report No. D-2000-149, “Use of an Open Systems Approach for Weapon Systems,” June 14, 2000.**

Of the 17 major Defense acquisition programs that gained approval to begin program definition and risk reduction or to enter engineering and manufacturing development between March 1996 and July 1999, 14 programs proceeded into the next acquisition phase without program managers clearly defining open system design objectives or strategy for achieving the objectives. The DoD and Component acquisition executives allowed this condition to occur because they did not enforce the requirement that program managers use an open systems design approach in key acquisition documents as part of the acquisition milestone review process. (Finding A).

- e. **DoDIG Report No. D-2001-012, “Acquisition of the Armored Medical Evacuation Vehicle,” November 22, 2000.**

The Army did not have a viable acquisition strategy to acquire the Armored Medical Evacuation Vehicle (AMEV) at the completion of the engineering and manufacturing development phase of the acquisition process. This condition occurred because the milestone decision authority allowed the AMEV to enter engineering and manufacturing development without full funding for the production phase of the acquisition process.

f. DoDIG Report No. D-2001-032, “Use of Exit Criteria for Major Defense Systems,” January 10, 2001.

For seven of the nine programs reviewed, Milestone Decision Authorities did not ensure that program managers proposed program-specific exit criteria for use at the future milestone decision point(s). This condition occurred because the milestone decision authorities for four programs did not enforce the requirement that program managers propose program specific exit criteria for use at future milestone decision point(s). (Finding A).

Further, program managers for three of the five major Defense acquisition programs reviewed did not report their status toward attaining exit criteria requirements in the quarterly Defense Acquisition Executive Summary. Program managers did not report exit criteria status because two programs managers did not understand the exit criteria reporting requirements established in DoD Regulation 5000.2-R, and one program manager did not have exit criteria established to report against. Moreover, the Defense Acquisition Executive did not have procedures in place to enforce the reporting requirement. (Finding B).

g. DoDIG Report No. D-2001-066, “Acquisition of the Advanced Tank Armament System,” February 28, 2001.

The Army did not establish a viable acquisition strategy to develop and acquire the system beyond the program definition and risk reduction phase. This condition occurred because the milestone decision authority did not consider the Advanced Tank Armament System (ATAS) to be a program and therefore did not require full funding for the engineering and manufacturing development and production phases of the acquisition process and the same level of management control as Acquisition Category I and II programs under his cognizance.

h. DoDIG Report No. D-2001-093, “Acquisition of the Battlefield Combat Identification System,” March 30, 2001.

The Army did not have a viable acquisition strategy to acquire the Battlefield Combat Identification System (BCIS) at the completion of the engineering and manufacturing development phase of the acquisition process. This condition occurred because the milestone decision authority allowed the BCIS to enter Low-Rate Initial Production (LRIP) without ensuring that the program was affordable and that Army had fully funded the program. (Finding A).

i. DoDIG Report No. D-2002-026, “Acquisition of the Vertical Take-off and Landing Tactical Unmanned Aerial Vehicle,” December 14, 2001.

The Vertical Take-off and Landing Tactical Unmanned Aerial Vehicle (VTUAV) Program Manager proposed, and the Assistant Secretary of the Navy (Research,

Development and Acquisition) approved, exit criteria that were based on minimum program accomplishments specified for each acquisition phase rather than on program-specific accomplishments. This condition occurred because the Assistant Secretary of the Navy (Research, Development and Acquisition) did not enforce the requirement that the program managers propose program-specific exit criteria for the full-rate production decision point. (Finding C).

j. DoDIG Report No. D-2002-036, “Acquisition of the Naval Fires Control System,” January 8, 2002.

The earned value management systems for the NFCS did not provide the information needed to effectively manage the program’s cost and schedule data. This occurred because the Defense Contract Management Agency did not certify the Earned Value Management System and the NFCS Program Office did not provide oversight to ensure the validity of contractor cost and schedule performance data. (Finding B).

k. DoDIG Report No. D-2003-053, “Navy Transition of Advanced Technology Programs to Military Applications,” February 4, 2003.

Although 30 of 33 technologies did have working-level Integrated Product Teams (IPTs), other critical elements for transitioning were missing:

- working-level IPTs did not establish charters to identify roles and responsibilities,
- working-level IPTs did not include all planned acquisition recipients,
- documentation of IPT issues and action items are needed to prevent development problems resulting from key personnel changes, and
- formal agreement on Technology Readiness Levels (TRLs) and exit criteria were not established for almost half of the technology recipients.

These conditions existed because Navy Science and Technology (S&T) management did not require formal working-level coordination between acquisition recipient officials and Navy S&T officials as was advocated in the Deputy Under Secretary of Defense for Science and Technology guidance. (Finding A).

Also, the performance appraisal process was not effectively used as a management tool to assist in achieving DoD performance goals and the Office of Naval Research (ONR) corporate goals of transitioning technology. This condition occurred because the ONR did not incorporate performance goals necessary for successful technology transitioning into the S&T product managers’ performance plans. (Finding B).

l. DoDIG Report No. D-2003-105, “Management of Developmental and Operational Test Waivers for Defense Systems,” June 20, 2003.

The Independent Operational Test and Evaluation organizations were not able to fully resolve critical operational issues for weapon systems during Initial Operational Test and Evaluation. This condition occurred because Military Departments did not force program managers to meet requirements before going to production, and were instead approving

operational test requirement waivers and equivalents and allowing program tests and evaluations to be deferred into the production phase of the acquisition process. (Finding A).

m. DoDIG Report No. D-2003-132, “Air Force Transition of Advanced Technology Programs to Military Applications,” September 12, 2003.

Although 23 technologies did have working-level IPTs, other elements for transitioning were missing:

- all but two working-level IPTs had not established charters to identify roles and responsibilities,
- half of the Advanced Technology Demonstrations (ATD)s had not established technology transition plans for emerging technologies,
- most of the technologies did not have established agreements on TRLs and exit criteria with technology recipients, and
- twelve of the working-level IPTs did not document issues and action items to prevent development problems and provide accountability.

These conditions exist because Air Force S&T management had not fully implemented the best practices advocated by the Deputy Under Secretary of Defense for Science and Technology.

n. DoDIG Report No. D-2004-008, “Implementation of Interoperability and Information Assurance Policies for Acquisition of Army Systems,” October 15, 2003.

The Army testers did not consistently conduct Information Assurance (IA) testing for Army acquisition programs. This condition occurred because:

- Army Training and Doctrine Command (TRADOC) did not coordinate with the Army Test and Evaluation Command to fully identify IA requirements in Operational Requirement Documents for testing Army programs with interoperability and supportability requirements,
- Combat developers at TRADOC were not aware of their roles and responsibilities in implementing the DoD Information Technology Security and Accreditation Process (DITSCAP),
- The Army Chief Information Officer did not verify that program managers for Army acquisition programs with information technology requirements prepared and maintained a System Security Authorization Agreement (SSAA) in accordance with the DITSCAP, and
- The Assistant Secretary of the Army (Acquisition, Logistics, and Technology) did not require System Security Authorization Agreement signatories to coordinate with the Army Test and Evaluation Command throughout the acquisition cycle to minimize duplicative IA testing efforts for Army systems subject to the DITSCAP. (Finding C).

o. DoDIG Report No. D-2004-035, “Major Range and Test Facility Base,” December 8, 2003.

The Military Departments’ information on institutional funding and backlog of test assets and facilities for Major Range and Test Facility Base (MRTFB) ranges varied significantly. This condition occurred because the Military Department’s manner, method, and amounts of funding; the collection and reporting of backlog data; and accounting for charges to customers were different.

p. DoDIG Report No. D-2004-064, “Acquisition of the Boeing KC-767A Tanker Aircraft,” March 29, 2004.

The Air Force did not establish an acquisition strategy that served as a sensible process for acquiring a tanker aircraft to satisfy the warfighter needs. The first 100 Tanker aircraft acquired will not fully meet warfighter requirements, including a Key Performance Parameter for the information exchange requirements, because the Air Force tailored the first spiral Operational Requirements Document to correlate closely with the capabilities of the Boeing 767 tanker variant that Boeing was producing for the Italian Government. (Issue B).

q. DoDIG Report No. D-2004-069, “The NATO AWACS Mid-Term Modernization Program Global Solution,” April 14, 2004.

The senior level managers that conducted the negotiations of the Global Solution modification did not use correct business and contracting practices as specified in the Federal Acquisition Regulation. This occurred because the Principal Deputy Assistant of the Air Force for Acquisition and Management conducted negotiations with the contractor and determined the price without an independent Government cost estimate, an analysis of the contractor’s proposed solution to meet the Government requirements, a technical evaluation, audit assistance, or a determination of reasonable profit and share ratios.

r. DoDIG Report No. D-2004-074, “Reliability of the Automated Cost Estimating Integrated Tools Software Model,” April 23, 2004.

The Army and Air Force authorized acquisition program managers to use the Automated Cost Estimating Integrated Tools (ACEIT) Software Model to prepare life-cycle cost estimates for their acquisition programs before verifying, validating, and accrediting the ACEIT software model as required. This condition occurred because the Deputy Assistant Secretary of the Army (Cost and Economics) and the Commander, Air Force ESC did not comply with DoD policy for verifying, validating, and accrediting software models.

s. DoDIG Report No. D-2004-113, “Acquisition of the EA-6B Improved Capability III Program,” August 31, 2004.

The Program Manager began operational testing of a system that may not satisfy system information assurance requirements because the Naval Air Systems Command issued an Interim Authority to Operate (IATO) the program information system without requiring the program manager to first complete the verification and validation phases of the Defense Information Technology Security Certification and Accreditation Process (DITSCAP) as required. (Finding B).

t. DoDIG Report No. D-2005-033, “Implementation of Interoperability and Information Assurance Policies for Acquisition of Navy Systems,” February 2, 2005.

The Navy did not fully implement interoperability policies to prepare or update required acquisition documents. This condition occurred because responsible Navy officials (Chief of Naval Operations in coordination with the Assistant Secretary of Navy [Research, Development and Acquisition] and the Deputy Assistant Secretary of the Navy for Command, Control, Communications, Computers, Intelligence and Space) did not ensure that system program offices identified interoperability requirements and included those requirements in acquisition documents throughout the life of the system. (Finding B).

u. DoDIG Report No. D-2005-034, “Implementation of Interoperability and Information Assurance Policies for Acquisition of Air Force Systems,” February 2, 2005.

Air Force system program offices did not develop Command, Control, Communications, Computers, and Intelligence (C4I) Support Plans as required or obtain Joint Staff supportability certifications for programs with interoperability requirements. This condition occurred because the Air Force Chief Information Officer did not ensure that the Office of the Air Force Deputy Chief of Staff for War-fighting Integration updated policy to require program managers to prepare and submit certified C4I support plans before applicable program decision reviews. (Finding A).

Also, Air Force System program offices did not always prepare required System Security Authorization Agreements (SSAAs) for systems with information technology requirements. Only 26 of 40 system program offices surveyed had prepared SSAAs. The SSAAs were not prepared because the Air Force Chief Information Officer did not verify that the respective system program offices had prepared SSAAs when the system was subject to the DoD Information Technology Security Certification Accreditation Program (DITSCAP). (Finding B).

5. DoD Component Headquarters Not Establishing Reporting Mechanisms to Monitor DoD Component Accomplishment of Legislative or Regulatory Requirements

a. DoDIG Report No. D-2004-047, “Implementation of the DoD Management Control Program for Army Category II and III Programs,” January 23, 2004.

The Army did not effectively integrate the requirements of the DoD Management Control Program into its management assessment and reporting process for 10 Acquisition Category II and III programs that had an estimated life-cycle cost of \$10.6 billion. This condition occurred, in part, because the Army did not have a reporting mechanism in place for program managers to inform Milestone Decision Authorities, at least quarterly, of their progress toward

- satisfying cost, schedule, and performance requirements in Acquisition Program Baselines; and
- obtaining, preparing, updating, and issuing approved program documentation before and at planned milestone decision reviews.

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

The Air Force did not effectively integrate the requirements of the DoD Management Control Program into its management assessment and reporting process for eight Acquisition Category II and III programs that had an estimated life-cycle cost of \$1.9 billion. This condition occurred because the existing reporting mechanism in the Air Force did not require program managers to inform milestone decision authorities (MDAs), at least quarterly, of their progress toward:

- satisfying cost, schedule, and performance requirements in Acquisition Program Baselines; and
- obtaining, preparing, updating, and issuing approved program documentation before and at planned milestone decision reviews.

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

The Navy did not effectively integrate the requirements of the DoD Management Control Program into its management assessment and reporting process for nine Acquisition Category II and III programs that had an estimated life-cycle cost of \$5.79 billion. This condition occurred, in part, because the existing reporting mechanism in the Navy did not require program managers to inform Milestone Decision Authorities, at least quarterly, of their progress toward:

- satisfying cost, schedule, and performance requirements in Acquisition Program Baselines; and

- obtaining, preparing, updating, and issuing approved program documentation before and at planned milestone decision reviews.

6. Inadequate Coordination Between DoD Components

a. DoDIG Report No. D-2002-036, “Acquisition of the Naval Fires Control System,” January 8, 2002.

The Naval Fires Control System (NFCS) Program Office efforts to develop and acquire the NFCS Phase II duplicated the existing and planned functionality of the Army Advanced Field Artillery Tactical Data System (AFATDS). This condition occurred because the Navy believed that the AFATDS was unacceptable for Naval use even though the AFATDS fully or mostly met 94 percent of the operational requirements document (ORD) requirements for NFCS phase I and met 100 percent of the requirements for NFCS Phase II. Further, the Marine Corps supported the AFATDS for Naval use. (Finding A).

b. DoDIG Report No. D-2003-083, “Acquisition of the Suite of Integrated Radio Frequency Countermeasures,” April 29, 2003.

Managing organizations had not updated the Operational Requirements Document (ORD), the C4I Support Plan, or the Test and Evaluation Master Plan for the Suite of Integrated Radio Frequency Countermeasure (SIRFC) program. This condition occurred because of Army and U.S. Special Operations Command (USSOCOM) indecision concerning which organization would manage the program. (Finding A).

c. DoDIG Report No. D-2004-008, “Implementation of Interoperability and Information Assurance Policies for Acquisition of Army Systems,” October 15, 2003.

The Army testers did not consistently conduct Information Assurance (IA) testing for Army acquisition programs. This condition occurred because Army Training and Doctrine Command (TRADOC) did not coordinate with the Army Test and Evaluation Command to fully identify IA requirements in ORDs for testing Army programs with interoperability and supportability requirements; combat developers at TRADOC were not aware of their roles and responsibilities in implementing the DoD Information Technology Security and Accreditation Process (DITSCAP); the Army Chief Information Officer did not verify that program managers for Army acquisition programs with information technology requirements prepared and maintained an System Security Authorization Agreement in accordance with the DITSCAP; and the Assistant Secretary of the Army (Acquisition, Logistics, and Technology) did not require SSAA signatories to coordinate with the Army Test and Evaluation Command throughout the acquisition cycle to minimize duplicative IA testing efforts for Army systems subject to the DITSCAP. (Finding C).

7. Shortfalls in Program Executive Officer Knowledge or Judgment

a. DoDIG Report No. 99-224, “The Ground Based Common Sensor Program,” July 26, 1999.

The Program Executive Officer for Intelligence, Electronic Warfare and Sensors did not fully implement an effective management control program because the Program Executive Officer did not task the Program Manager to identify and evaluate assessable units at the functional level. (Finding C).

b. DoDIG Report No. D-2003-083, “Acquisition of the Suite of Integrated Radio Frequency Countermeasures,” April 29, 2003.

The Program Executive Officer authorized the program to enter Low-Rate Initial Production (LRIP) even though Army Test and Evaluation Command concluded that the Suite of Integrated Radio Frequency Countermeasures (SIRFC), as designed, was not sufficiently mature to be considered operationally effective, suitable, and survivable. This occurred because the Program Executive Officer made the decision to allow the Program to enter LRIP in order to meet its SIRFC requirement for an initial operational capability in FY 2005 for the MH-47 Chinook special operations rotary-wing aircraft. (Finding C).

8. Shortfalls in Combat or Doctrine Developer Knowledge or Judgment

a. DoDIG Report No. 98- 096, “Acquisition of the Army Tactical Missile System Anti-Personnel/Anti-Materiel Block IA Program,” March 25, 1998.

The Army did not verify the war-reserve munitions requirement for the Block IA program. This condition occurred because the Office of the Army Deputy Chief of Staff for Operations and Plans did not calculate the quantity of Block IA missile needed to meet war-reserve munitions requirements before accepting the procurement objective of the Army Training and Doctrine Command Analysis Center as the war-reserve munitions requirement. (Finding A).

b. DoDIG Report No. 99-224, “Ground Based Common Sensor Program,” July 26, 1999.

The Army did not prepare a valid mission needs statement or analysis of alternative because the Army Training and Doctrine Command stated that the Prophet System was to be a transition, not a new start. (Finding B).

c. DoDIG Report No. D-2001-086, “On-Board Jammers for the Integrated Defensive Electronic Countermeasures,” March 20, 2001.

The Navy reduced mission reliability in the requirements from the level recommended in the cost and operational effectiveness analysis. The Navy reduced the requirements so that the AN/ALQ-165 Airborne Self-Protection Jammer could pass the Operational Test and Evaluation (OT&E) and be installed on the F/A-18 E/F aircraft. Furthermore, the AN/ALQ-214, which would be on the on-board jammer for the Blocks II and III of the Integrated Defensive Electronic Countermeasures Suite (IDECS), would be tested against the same reduced operational suitability requirements.

d. DoDIG Report No. D-2001-093, “Acquisition of the Battlefield Combat Identification System,” March 30, 2001.

The Battle Combat Identification System (BCIS) did not have an up-to-date and comprehensive Test and Evaluation Master Plan (TEMP). The TEMP was not suitable for testing the BCIS because the Army Training and Doctrine Command System Manager did not update the Operational Requirements Document in accordance with new guidance requirements on key performance parameters. (Finding B).

e. DoDIG Report No. D-2001-103, “Acquisition of the Joint Helmet Mounted Cueing System,” April 18, 2001.

The Joint Helmet Mounted Cueing System Operational Tests, as planned, would not provide the objective test results necessary to support the full-rate production decision in April 2002. This condition occurred because the Air Combat Command had not identified operational parameters and articulate requirements in measurable terms in the Operational Requirements Document. Further, the Program Office had not updated the Test and Evaluation Master Plan, which was outdated and insufficient, to provide the overall structure for an objective testing program and to ensure that the operational tests would provide objective results that can determine whether the program is operationally effective and suitable for meeting the warfighters needs in entering production. (Finding A).

f. DoDIG Report No. D-2001-111, “Acquisition of the Airborne Laser Mine Detection System,” May 2, 2001.

The Deputy Chief of Naval Operations (Resources, Warfare Requirements and Assessments) had to use assumptions concerning related acquisition programs to determine the number of Airborne Laser Mine Detection System (ALMDS) units needed to satisfy Navy requirements. This condition occurred because the deployment platform (MH-60S Helicopter), and related mine countermeasure acquisition programs affecting the number of ALMDS units needed, were not finalized and the Deputy Chief of Naval Operations (Resources, Warfare Requirements and Assessments) had not evaluated the

feasibility and cost effectiveness of transferring or cross-decking ALMDS units among Navy ships to reduce ALMDS requirements.

g. DoDIG Report No. D-2001-138, “Acquisition of the Joint Biological Point Detection System,” June 13, 2001.

The Director, Joint Services Integration Group Secretariat released for coordination the draft Operational Requirements Document for the Joint Biological Point Detection System that did not include required Key Performance Parameters; clearly define performance objectives for biological and chemical contamination survivability; and fully address system affordability and quantity requirements. This condition occurred because the Director for the Secretariat did not verify that the released document fully complied with the Chairman of the Joint Chiefs of Staff criteria for defining system requirements. (Finding A).

h. DoDIG Report No. D-2002-026, “Acquisition of the Vertical Take-off and Landing Tactical Unmanned Aerial Vehicle,” December 14, 2001.

The Navy had not justified and documented the number of Vertical Take-off and Landing Tactical Unmanned Aerial Vehicle (VTUAV) systems that were stated as required. This condition occurred because the Deputy Chief of Naval Operations (Resource, Warfare Requirements, and Assessments) had not performed a documented analysis to determine the quantities needed for peacetime or wartime operations and also had not considered the viability and cost-effectiveness of transferring, or cross-decking, VTUAV assets between deployed and non-deployed ships. (Finding B).

i. DoDIG Report No. D-2002-036, “Acquisition of the Naval Fires Control System,” January 8, 2002.

The Naval Fires Control System (NFCS) Program Office efforts to develop and acquire the NFCS Phase II duplicated the existing and planned functionality of the Army Advanced Field Artillery Tactical Data System (AFATDS). This condition occurred because the Navy believed that the AFATDS was unacceptable for Naval use even though the AFATDS fully or mostly met 94 percent of the operational requirements document (ORD) requirements for NFCS phase I and met 100 percent of the operational requirements for NFCS Phase II. Further, the Marine Corps supported the AFATDS for Naval use. (Finding A).

j. DoDIG Report No. D-2002-143, “Acquisition of the Army Land Warrior System,” September 5, 2002.

The Army had not finalized system requirements in the Operational Requirements Document because the Training and Doctrine Command (TRADOC) System Manager-Soldier was still defining the force structure requirement for the Land Warrior System to accommodate the Army’s ongoing transformation to the Objective Force capability. Additionally, TRADOC released a draft operational requirements document that did not

identify reliability as a critical performance parameter. This condition occurred because the TRADOC System Manager-Soldier did not verify that the released operational requirements document fully complied with Joint Staff criteria for defining system requirements. (Finding A).

k. DoDIG Report No. D-2004-008, “Implementation of Interoperability and Information Assurance Policies for Acquisition of Army Systems,” October 15, 2003.

The Army requirements community did not adequately address interoperability in the requirements generation process for use in the acquisition process. Interoperability was not adequately addressed because the Army Deputy Chief of Staff for Operations and Plans, in coordination with Army Chief Information Office, did not update Army regulations pertaining to system acquisitions to implement DoD and Joint Staff interoperability requirements. (Finding B).

Also, the Army testers did not consistently conduct Information Assurance (IA) testing for Army acquisition programs. This condition partly occurred because Army Training and Doctrine Command did not coordinate with the Army Test and Evaluation Command to fully identify IA requirements in Operational Requirements Document for testing Army programs with interoperability and supportability requirements and combat developers at TRADOC were not aware of their roles and responsibilities in implementing the DoD Information Technology Security and Accreditation Process (DITSCAP). (Finding C).

l. DoDIG Report No. D-2004-046, “Acquisition of the CH-47F Improved Cargo Helicopter,” January 21, 2004.

The Army Director of Combat Development and the Deputy Chief of Staff for Operations and Plans had not finalized a revision to the Operational Requirements Document to establish a Key Performance Parameter for system interoperability. Deputy Chief of Staff for Operations and Plans, United States Army (DCSOPS) had not forwarded the revised Operational Requirements Document for Joint Requirements Oversight Council approval because of higher workload priorities. (Finding A).

m. DoDIG Report No. D-2004-089, “Acquisition of the MH-47G Helicopter Service Life Extension Program,” June 14, 2004.

The MH-47G Product Manager had begun Low-Rate Initial Production of the MH-47G Helicopter without having defined system interoperability and supportability requirements. U.S. Army Special Operations Command combat developers did not follow established DoD policy for timely updating of the operational requirements document after planning to add avionics and hardware to upgrade the MH-47D and E helicopters to the MH-47G configuration.

9. Shortfalls in Program Manager Knowledge or Judgment

a. DoDIG Report No. 98-096, “Acquisition of the Army Tactical Missile System Anti Personnel/Anti Materiel Block IA Program,” March 25, 1998.

Because of an unintentional omission, the Project Office did not prepare a Selected Acquisition Report for Congress to report that the full-rate production decision had slipped more than 6 months and that the LRIP quantity procured exceeded 10 percent of the total requirement in the acquisition strategy. (Finding B).

b. DoDIG Report No. 98-165, “Modifications to the Tube Launched, Optically Tracked, Wire Command Missile Launcher for the Bradley Fighting Vehicle System,” June 25, 1998.

More than 800 Tube Launched, Optically tracked, Wire Command (TOW) missile launcher Armament Control Units (ACUs) have been modified in the field with no assurance that the system design specifications have been met. This occurred because the program office did not enforce the quality assurance requirements prescribed by the Department of the Army in MWO 9-1425-453-50 and DMWR 9-1440-453-1.

c. DoDIG Report No. 99-071, “Cooperative Engagement Capability Program Office Use of Defense Contract Management Command Resources,” January 27, 1999.

The Cooperative Engagement Capability Program Office did not make optimum use of Contract Administration Office Clearwater, Florida resources because the program used Navy technical agents for production engineering and software support.

d. DoDIG Report No. 99-075, “Acquisition of the SH-60R Light Airborne Multipurpose System Mark III Block II Upgrade,” February 2, 1999.

The SH-60R Program Office and user did not update program documents such as the Test and Evaluation Master Plan, the Operational Requirements Document, and the Command, Control, Communications, Computers, and Intelligence Support Plan. This occurred because the SH-60R Program Manager did not agree with the need for live-fire test and evaluation, the user anticipated additional changes in requirements and would incorporate all changes at the next milestone, and the program office stated the requirement for a Command, Control, Communications, Computers, and Intelligence Support Plan occurred after the program entered the engineering and manufacturing development phase. (Finding B).

e. DoDIG Report No. 99-177, “Hazardous Material Management for the C/KC-135 StratoTanker Aircraft,” June 4, 1999.

The Program Office did not develop a programmatic environmental, safety, and health evaluation (PESHE) because the Program Manager relied on the C/KC-135 Weapon System Pollution Prevention Master Plan (the Master Plan) to address the environmental requirements of the C/KC-135; however the Master Plan did not include those requirements. (Finding B).

f. DoDIG Report No. 99-224, “The Ground Based Common Sensor Program,” July 26, 1999.

The Army did not manage the Ground Based Common Sensor Program efficiently and effectively because of several poor business decisions and practices. Specifically, the Ground Based Common Sensor-Light Systems Program had a fragmented management structure, the Source Selection Authority selected an inexperienced contractor, and the criteria used by the program manager in its customer testing did not accurately reflect the performance of the system. (Finding A).

g. DoDIG Report No. D-2000-092, “Acquisition of the Minuteman III Propulsion Replacement Program,” March 1, 2000.

The Intercontinental Ballistic Missile System Program Office did not ensure that analysis of the potential environmental consequences of developing and deploying the Minuteman III Propulsion Replacement Program were performed and approved as required. This condition occurred because the Intercontinental Ballistic Missile System Program Office did not consider that the increase in program activity was significant and was not familiar with the DoD policy required for the milestone decision authority to approve environmental analysis documentation. (Finding A).

The Intercontinental Ballistic Missile System Program Office did not complete its programmatic environmental, safety, and health evaluation (PESHE), in accordance with DoD Regulation 5000.2-R, because the Intercontinental Ballistic Missile System Program Office did not recognize that DoD Regulation 5000.2-R applied to ongoing as well as new acquisition programs. (Finding B).

Also, the Intercontinental Ballistic Missile System Program Manager did not plan to develop a comprehensive total ownership (life-cycle) cost estimate for the Propulsion Replacement Program because the requirement to prepare the cost estimate wasn't in effect when the system began in the late 1950s and because the program manager did not foresee the advantages of developing such an estimate. (Finding C).

h. DoDIG Report No. D-2000-163, “Ground Control Approach-2000 Radar System Test Plan and Test Results,” July 20, 2000.

The Air Force test planning was incomplete and needed improvement. This occurred because the Air Force Program Director, Global Air Traffic Operations Mobility Command and Control System Program Office, and the Commander, Air Mobility Command did not include the multiple target requirement in the test plans. (Finding A).

i. DoDIG Report No. D-2000-187, “The Low-Rate Initial Production Decision for the Joint Biological Point Detection System,” September 11, 2000.

Military Department independent test agencies, in Operational Assessments (OAs), concluded that the Block I Joint Biological Point Detection System was not ready to enter into Low Rate Initial Production as planned in September 2000. This condition occurred because the product manager followed an aggressive acquisition strategy and schedule based on the users stated reluctance to slip system fielding dates and the risk of the program office losing significant production dollars, should the schedule slip. Also, the Joint Program Manager for Biological Defense had not established exit criteria for use in determining whether the Block I system was ready for low-rate initial production. Further, the milestone decision authority was below the appropriate organizational level based on estimated program expenditures.

j. DoDIG Report No. D-2001-032, “Use of Exit Criteria for Major Defense Systems,” January 10, 2001.

Program managers for three of the five major Defense acquisition programs reviewed did not report their status toward attaining exit criteria requirements in the quarterly Defense Acquisition Executive Summary. Program managers did not report exit criteria status because two programs managers did not understand the exit criteria reporting requirements established in DoD Regulation 5000.2-R and one program manager did not have exit criteria established to report against. (Finding B).

k. DoDIG Report No. D-2001-093, “Acquisition of the Battlefield Combat Identification System,” March 30, 2001.

The Battle Combat Identification System (BCIS) did not have an up-to-date and comprehensive Test and Evaluation Master Plan (TEMP). This occurred because the BCIS Product Manager did not ensure that planned operational tests addressed all BCIS operational requirements. (Finding B).

l. DoDIG Report No. D-2001-103, “Acquisition of the Joint Helmet Mounted Cueing System,” April 18, 2001.

The Joint Helmet Mounted Cueing System Operational Tests, as planned, would not provide the objective test results necessary to support the full-rate production decision in April 2002. This condition occurred because the Air Combat Command had not identified operational parameters and articulate requirements in measurable terms in the Operational Requirements Document. Further, Program Office had not updated the Test and Evaluation Master Plan, which was outdated and insufficient to provide the overall structure for an objective testing program and to ensure that the operational tests would provide objective results that can determine whether the program is operationally effective and suitable for meeting the warfighters needs in entering production. (Finding A).

Also, the Joint Helmet Mounted Cueing System (JHMCS) acquisition approach needed improvement because:

- the acquisition plan was outdated,
- the acquisition plan did not address low-rate initial production (LRIP),
- the acquisition plan did not recognize the risks associated with the restructure, and the contracting structure of the JHMCS program, and
- the acquisition plan did not explore component breakdown opportunities for full-rate production. (Finding B).

m. DoDIG Report No. D-2001-121, “Use of the DoD Joint Technical Architecture in the Acquisition Process,” May 14, 2001.

Thirty-nine of 43 program managers did not insert Joint Technical Architecture (JTA) or JTA-Compliant DoD Component Technical Architecture standards requirements into one or more key acquisition planning documents, including mission needs statement, operational requirements document, and contract statement of work. Also, 10 of the 43 program managers did not require contractors to use the JTA standards in supporting the design of their system or system upgrade in accordance with OSD Policy Memorandums. This occurred because program managers were not submitting or were late in submitting documentation. (Finding B).

Also, thirteen of 15 program managers did not submit a waiver request, as required in DoD Regulation 5000.2-R, for using alternative standards to JTA performance-based standards. As a result, the DoD will not fully realize the JTA objective of improving and facilitating the ability of its systems to support joint and combined operations in an overall investment strategy. (Finding C).

n. DoDIG Report No. D-2002-012, “Acquisition of the Firefinder (AN/TPQ-47) Radar,” October 31, 2001.

The Firefinder Product Office did not update its acquisition plan to incorporate its revised acquisition strategy to acquire the Q-47 Radar. This condition occurred because the Product Office viewed the acquisition plan as an internal document within the Army Communications and Electronics Command and did not intend to update the plan until the LRIP phase decision in FY 2004. (Finding A).

Also, the Firefinder Product Office did not complete an environmental assessment and a programmatic environmental, safety, and occupational health evaluation (PESHE). This condition occurred because:

- the Firefinder Product Office believed that the environmental assessment for Q-37 was sufficient because the Q-47 was originally a Pre-Planned Product Improvement for the Q-37; and
- the management control reviews by the Firefinder Product Manager did not include a review for PESHE requirements. (Finding C).

Further, the Firefinder Product Office did not include environmental costs for pollution prevention, hazardous waste management, demilitarization, disposal, and associated cleanup for the Q-47 at the end of its useful life in its life-cycle cost estimate. This condition occurred because the Firefinder Product Program Office believed that:

- those environmental costs were not significant enough to estimate because disposal revenue would offset disposal costs; and
- historically, this type of radar is fielded longer than its planned life-cycle, which is through FY 2027. (Finding D).

o. DoDIG Report No. D-2002-026, “Acquisition of the Vertical Take-off and Landing Tactical Unmanned Aerial Vehicle,” December 14, 2001.

The Vertical Take-off and Landing Tactical Unmanned Aerial Vehicle (VTUAV) Program Manager developed a schedule-driven acquisition strategy, rather than an event driven strategy. This condition occurred because the Program Manager wanted to achieve an initial operational capability date of the fourth quarter of FY 2003, as directed by the Deputy Chief of Naval Operations (Warfare Requirements and Programs) and validated by the Joint Requirements Oversight Council. (Finding A).

p. DoDIG Report No. D-2002-036, “Acquisition of the Naval Fires Control System,” January 8, 2002.

The NFCS did not have an updated and comprehensive Operational Requirements Document and Test and Evaluation Master Plan (TEMP) that included user objectives and minimum acceptable requirements for NFCS Phase I Plus and the functionality of NFCS Phase II. This condition occurred because the Deputy Chief of Naval Operations (Naval Warfare) and PMS 529 (the Program Office) did not update the ORD and TEMP,

respectively, to include Phase I Plus after the NFCS changed from two phases (Phase I and II) to three phases (Phase I, Phase I Plus, and Phase II) to meet the requirements. (Finding C).

q. DoDIG Report No. D-2002-114, “V-22 Osprey Hydraulic System,” June 24, 2002.

The V-22 entered the LRIP phase in 1997 with a hydraulic system that performed at reliability rates significantly lower than predicted in the design process. This problem occurred because the V-22 Program Manager did not exercise sufficient oversight of the hydraulic system's design and did not specifically monitor the reliability rates of the hydraulic system's performance.

r. DoDIG Report No. D-2002-143, “Acquisition of the Army Land Warrior System,” September 5, 2002.

The program manager should have inserted a provision for performance metrics in the other transactions agreement with the Consortium in order to measure the benefits of implementing the other transactions agreement in the acquisition of the Army Land Warrior System. This condition occurred because the program manager and the Consortium did not implement procedures for performance metrics that the under Secretary of Defense for Acquisition, Technology, and Logistics suggested in the “Other Transactions Guide for Prototype Projects,” January 2001. (Finding B).

Also, the program manager had not implemented specified processes, documentation, and reporting requirements in the risk management plan. This condition occurred because the program manager did not emphasize and enforce implementation of the formalized risk management plan. (Finding D).

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

The program manager did not inform the Assistant Secretary of the Navy (Research, Development, and Acquisition) that the oversight of the program should be raised to acquisition Level 1 program. This occurred because the program manager believed that cost information showing that the program had exceeded established thresholds for research, development, test, and evaluation had been provided to the Assistant Secretary of the Navy and that no further action on his part was required. (Finding A).

Also, the Advanced Deployable System Program Office did not apply standard estimate-at-completion formulae in calculating earned value management, because it did not believe that the standard formulae accurately reflected the unique aspects of the Advanced Deployable System program. (Finding B).

t. DoDIG Report No. D-2003-013, “Fuel Cells of the V-22 Osprey Joint Advanced Vertical Aircraft,” October 24, 2002.

The V-22 fuel cells in the Engineering and Manufacturing Development aircraft and LRIP aircrafts for Lots 1, 2, and 3 did not meet ballistic live-fire requirements. This condition occurred because the V-22 Program Office issued a waiver from requirements for the LRIP aircraft to allow noncompliant fuel cells to be installed so that aircraft production would not be delayed. Additionally, the Program Office did not plan to install crash worthy fuel cells on the EMD aircrafts because a safety risk assessment evaluated the fuel cell configuration to be of medium risk, and the benefits of returning to flight outweighed the benefits of retrofitting to install the crashworthy fuel cells.

u. DoDIG Report No. D-2004-046, “Acquisition of the CH47F Improved Cargo Helicopter,” January 21, 2004.

The Project Manager did not submit a waiver request as required by the Joint Technical Architecture-Army (JTA-A) standards because the Project Manager did not comply with established JTA-A policy for submitting waiver requests when using or planning to use alternative standards to the JTA-A standards. (Finding B).

v. DoDIG Report No. D-2004-064, “Acquisition of the Boeing KC-767A Tanker Aircraft,” March 29, 2004.

Costly contract modifications to convert a commercial aircraft to the KC-767A military configuration will occur because the KC-767A System Program Office had not fully developed system engineering requirements. Further, the KC-767A System Program Office and Boeing did not establish a performance metric for verifying that the KC-767A Tanker aircraft will meet the requirements for a 40-year service life while operating 750 hours per year. (Issue B-2).

Also, the Air Force (KC-767A System Program Office) did not comply with statutory provisions for determining the operational effectiveness, suitability, and survivability of the Boeing 767A Tanker aircraft before proceeding beyond LRIP and committing to the subsequent production of all 100 Boeing KC-767A Tanker aircraft. (Issue B-4).

w. DoDIG Report No. D-2004-089, “Acquisition of the MH-47G Helicopter Service Life Extension Program,” June 14, 2004.

Although the MH-47G Product Manager had begun Low Rate Initial Production of the MH-47G Helicopter, system interoperability and supportability requirements had not been defined to support pre-production testing requirements. This condition occurred because U.S. Army Special Operations Command combat developers did not follow established DoD policy for timely updating the operational requirements document, and Product Manager did not follow established DoD policy for preparing a Command,

Control, Communications, Computers, and Intelligence Support Plan to address MH-47G interoperability and supportability requirements.

x. DoDIG Report No. D-2004-113, “Acquisition of the EA-6B Improved Capability III Program,” August 31, 2004.

The Commander, Operational Test and Evaluation Force (COMOPTEVFOR) operational assessment was not provided to the Assistant Secretary of the Navy (Research, Development, and Acquisition) as required. This condition occurred because the Program Manager limited his presentation of the COMOPTEVFOR test results to their conclusion that the ICAP III was potentially operationally effective and suitable, the ratings for the critical operational issues, and a listing of the 50 additional deficiencies. The briefing did not describe how the deficiencies affected operational effectiveness and suitability. (Finding A).

y. DoDIG Report No. D-2005-009, “Pueblo Chemical-Agent-Destruction Pilot Plant Project,” November 1, 2004.

Program Manager did not adequately address the following systems engineering planning areas: Systems Engineering Plan, Integrated Logistics Support Plan and Support Analysis, Software Management Plan, Configuration Management Plan, Contractor Quality Control Plan, and Information Assurance and Systems Security Plans.

10. Inadequate Program Manager Oversight of Contractor

a. DoDIG Report No. D-2001-121, “Use of the DoD Joint Technical Architecture in the Acquisition Process,” May 14, 2001.

Of the 43 major Defense acquisition program managers, thirty-nine did not insert Joint Technical Architecture (JTA) or JTA-Compliant DoD Component Technical Architecture standards requirements into one or more key acquisition planning documents, including mission needs statement, operational requirements document, and contract statement of work. Also, ten program managers did not require contractors to use the JTA standards in supporting the design of their system or system upgrade. This condition occurred because the program managers and DoD Components were not submitting or were late in submitting the documents for Defense Information System Agency review as part of the requirements generation process that occurs before the milestone decision points. (Finding B).

b. DoDIG Report No. D-2002-036, “Acquisition of the Naval Fires Control System (NFCS),” January 8, 2002.

The earned value management systems for the NFCS did not provide the information needed to effectively manage the program’s cost and schedule data. This occurred because the Defense Contract Management Agency did not certify the Earned Value

Management System and the NFCS Program Office did not provide oversight to ensure the validity of contractor cost and schedule performance data. (Finding B).

c. DoDIG Report No. D-2004-046, “Acquisition of the CH-47F Improved Cargo Helicopter,” January 21, 2004.

The Project Manager for the CH-47F Improved Cargo Helicopter did not submit a waiver request for the CH-47F Improved Cargo Helicopter to the Army Director, Enterprise Architecture Acquisition, as required. Further, the Project Manager did not direct the contractor to update the study to determine whether the avionics and software upgrades complied with DISR standards. This condition occurred because the Project Manager did not comply with established JTA-A policy memorandum for submitting waiver requests when using or planning to use alternative standards to the JTA-A standards. (Finding B).

d. DoDIG Report No. D-2004-113, “Acquisition of the EA-6B Improved Capability III Program,” August 31, 2004.

The subcontractor did not submit updated reliability prediction data needed to perform a cost-benefit analysis. This condition occurred because the Program Manager did not direct the prime contractor to update reliability predictions after analyzing and resolving all hardware failures identified during developmental testing, or to retain documentation of corrective actions taken to reduce the frequency of hardware failures. (Finding C).

11. Inadequate Interface Between the Program Manager and the Combat Developer

a. DoDIG Report No. 99-075, “Acquisition of the SH-60R Light Airborne Multipurpose System Mark III Block II Upgrade,” February 2, 1999.

The SH-60R Program Office and user did not update program documents such as the Test and Evaluation Master Plan, the Operational Requirements Document, and the Command, Control, Communications, Computers, and Intelligence Support Plan, as needed to effectively manage the program. This occurred because the SH-60R Program Manager did not agree with the need for live-fire test and evaluation, the user (combat developer) anticipated additional changes in requirements and would incorporate all changes in the Operational Requirements Document at the next milestone, and the program office stated the requirement for a Command, Control, Communications, Computers, and Intelligence Support Plan occurred after the program entered the engineering and manufacturing development phase. (Finding B).

b. DIG Report No. 99-173, “Ground Based Common Sensor System Fielding,” June 2, 1999.

The Army planned to field a system that may not have satisfied the user’s needs because the 82nd Airborne Division had not evaluated their operational requirements against the

current and projected threat, nor had the Army considered whether there were possible alternatives available to satisfy the 82nd Airborne Division's operational needs.

12. Shortfalls in Source Selection Authority Knowledge or Judgment

a. DoDIG Report No. 99-224, "Ground Based Sensor Program," July 26, 1999.

The Army did not manage the Ground Based Common Sensor (GBCS)-Light Systems Program efficiently and effectively because of several poor business decisions and practices. The Milestone Decision Authority did not notify the Assistant Secretary of the Army (Acquisition, Logistics, and Technology) that the GBCS Program should have been elevated to an Acquisition Category I or II program. The Source Selection Authority selected an inexperienced engineering, manufacturing, and development contractor and entered into premature production using a build-to-model contract that was based upon an immature, unproven model. (Finding A).

b. DoDIG Report No. D-2004-056, "Air Force Satellite Control Network Contract," March 10, 2004.

Honeywell did not satisfy contractual requirement to provide a DoD-compliant Earned Value Management System (EVMS). Additionally, Honeywell improperly obtained reimbursement for correcting the system deficiencies because Honeywell stated in its contract proposal that it had EVMS capabilities when it did not. This condition occurred because the Air Force Source Selection Officials did not conduct an evaluation of Honeywell's proposed EVMS before contract award. (Finding B).

13. Shortfalls in Contracting Officer or Contract Administration Support Staff Knowledge or Judgment

a. DoDIG Report No. 99-154, "Defense Contract Management Command Support to Acquisition Program Managers," May 12, 1999.

Defense Contract Management Command Contract Administration Support Teams did not define contract-specific surveillance responsibilities and procedures. Instead, the Defense Contract Management Command Contract Administration Support Teams prepared generic surveillance plans that addressed general surveillance responsibilities and procedures that were applicable to all assigned contracts for a contractor. Further, the Defense Contract Management Command Contract Administration Support Teams did not document surveillance plans. These conditions occurred because the Defense Contract Management Command Contract Administration Support Teams did not comply with requirements for preparing and updating surveillance plans. (Finding B).

b. DoDIG Report No. D-2002-143, “Acquisition of the Army Land Warrior System,” September 5, 2002.

The delegation agreement between the Agreements Officer for the Land Warrior System Program Manager and the Defense Contract Management Agency (DCMA) Contract Administration Office, Syracuse, provided limited and vaguely defined requirements for administrative support, because:

- the Agreements Officer and DCMA staff negotiated the Agreement when the Land Warrior System was classified an acquisition category II program, and
- DCMA Syracuse, the DCMA Agreement Administration Center for other transactions agreements, did not establish delegation agreements with other DCMA offices located near Consortium facilities to provide administration support to the Land Warrior Program. (Finding C).

c. DoDIG Report No. D-2004-102, “Contracting for and Performance of the C-130J Aircraft,” July 23, 2004.

The Air Force conditionally accepted 50 C-130J aircraft at a cost of \$2.6 billion even though none of the aircraft met commercial contract specifications or operational requirements. The Air Force also paid Lockheed Martin more than 99 percent of the C-130J aircraft’s contracted price. These conditions occurred because:

- the Air Force contracting officer did not properly justify the use of a commercial item acquisition strategy;
- the Air Force did not adequately manage the program operation;
- the contracts did not provide sufficient financial incentives for delivering aircraft; and
- the Office of the Secretary of Defense did not provide effective oversight of the C-130J Program deficiencies.

d. DoDIG Report No. D-2004-103, “Contract No. N00024-02-C-6165 for Consulting Services at the Naval Shipbuilding, Conversion, and Repair Facility,” August 2, 2004.

The Naval Sea Systems Command contracting officials did not meet the Federal Acquisition Regulation criteria when they cited unusual and compelling urgency and only one responsible source to justify awarding a sole-source contract for consulting services. An urgent requirement did not exist and other potential firms were available to complete the contract requirement. This condition occurred because contracting officials did not:

- properly conduct acquisition planning,
- attempt to obtain competition for the original contract and its nine subsequent modifications,
- award modifications within the original scope of work, and
- adequately document contract decisions and rationales.

14. Inadequate Support From Matrixed Support Organizations

DoDIG Report No. 99-177, “Hazardous Material Management C/KC-135 Strato Tanker,” June 4, 1999.

The C/KC-135 Program Office did not include the cost of demilitarization and disposal of the C/KC-135 at the end of its useful life in the program’s life-cycle cost estimate. This condition occurred because the Air Force cost analysts did not include a cost element in their cost model to account for demilitarization and disposal of the aircraft and associated infrastructure. (Finding A).

15. Outside Agency Influence

DoDIG Report No. D-2003-128, “The Chemical Demilitarization Program: Increased Costs for Stockpile and Non-Stockpile Chemical Materiel Disposed Programs,” August 29, 2003.

The Chemical Materials Agency’s has been affected by: costly delays in reaching public consensus when obtaining State permit modifications needed to begin disposal operations, monetary effects of decisions on the type of technology to be employed at two Assembled Chemical Weapons Assessment facilities, the cost escalation and safety incidents at operational chemical disposal facilities, and rising cost estimates for closure of disposal facilities. These delays occurred because the Chemical Demilitarization Program (the Demilitarization Program) is a very large and complex program influenced by several offices within and outside of the Department of Defense. (Finding A).

Acquisition Risk Assessment Areas (From Naval Audit Service)

1. Strategic Planning

- DON
- USMC
- ASN (RD&A)
- NAVSUP

Potential Risks:

- ✓ Focus on wrong (Priorities) objectives and goals
- ✓ Not achieve mission outcomes (i.e. not resolve on-going problems or achieve goals and objectives)
- ✓ Not linked to lower level plans or higher level plans
- ✓ Progress not measured or monitored

2. Warfare Strategies

Potential Risks:

- ✓ Not meet force structure requirements
- ✓ Not perform mission

3. Programming and Budgeting

Potential Risks:

- ✓ Too many programs for the available dollar
- ✓ Program instability
- ✓ Poor execution
- ✓ Funding profile does not match acquisition strategy
- ✓ Funding profile not stable from budget cycle to budget cycle
- ✓ Insufficient funds lead to program stretch-out and increased costs
- ✓ Funding programmed to modify or alter weapons being decommissioned within five years contrary to Defense Authorization/Appropriation Act
- ✓ Inadequate funding for logistics support (including spares, maintenance, and quality assurance)

4. Program Management Analyses/Documents:

- Total Ownership Costs/Plans

Potential Risks:

- ✓ Funds not made available for weapons modernization
- ✓ Acquire weapon systems that are not affordable
- ✓ +Not reduce program risks
- ✓ Poor decisions about weapon systems affordability
- ✓ Marginal performance capabilities incorporated at excessive costs-satisfactory cost-performance tradeoffs not done

- Life Cycle Cost Estimate

Potential Risks:

- ✓ Realistic cost objectives not established early

- ✓ Excessive life-cycle costs due to inadequate treatment of support requirements
 - **Mission Need Statement**
 - **Analysis of Alternatives**
 - ❖ Cost Effectiveness
 - ❖ Generation Skipping in Acquisitions
 - ❖ Commercial Off the Shelf
 - ❖ Non-Developmental Items

Potential Risks:

 - ✓ Analysis not done or not thorough
 - ✓ More cost effective alternatives not considered
 - ✓ Analyses flawed in methodology or supporting data
 - **Operational Requirements Documents**
 - ✓ Operational requirements not properly established or vaguely stated
 - ✓ Requirements not stable
 - ✓ Required operating environment not described
 - ✓ Requirements do not address logistics and suitability
 - ✓ Requirements are too constrictive – identify specific solutions that force high costs
 - **Acquisition Strategy**
 - ❖ Abbreviated Acquisition

Potential Risks:

 - ✓ Cost effective solutions not matched to valid needs
 - ✓ High risk acquisition strategies (decisions based on poor assumptions about maturity and availability of technology)
- 5. Threat Analysis**
- Potential Risks:**
- ✓ Uncertainty in threat accuracy
 - Intelligence agencies identify differing threats and/or disagree
 - ✓ Sensitivity of design and technology to threat
 - ✓ Vulnerability of system to threat and threat countermeasures
 - ✓ Vulnerability of program to intelligence penetration
 - ✓ Program managers unaware of threat analyses
 - ✓ Identified threats not considered in system development
 - ✓ More cost effective ways of countering the threat not considered
 - ✓ Systems are developed based on invalid or insignificant threats
- 6. Science and Technology**
- Potential Risks:**
- ✓ Not focus on future warfighter needs
 - ✓ Not acquiring technology faster, better, cheaper
- 7. Research and Development**
- Warfare Centers
 - Commercial
- Potential Risks:**
- ✓ Not focus on future warfighter needs
 - ✓ Not acquiring/fielding technology faster, better, cheaper

8. Design

Potential Risks:

- ✓ Design implications not sufficiently considered in concept exploration
- ✓ System will not satisfy user requirements
- ✓ Design does not address all potential operating environments
- ✓ Mismatch of user manpower or skill profiles with system design solution or human-machine interface problems
- ✓ Increased skills or more training requirements identified late in the acquisition process
- ✓ Design not cost effective
- ✓ Design relies on immature technologies or “exotic” materials to achieve performance objectives
- ✓ Software design, coding, and testing

9. Interoperability

- Joint
- Combined
- US only

10. C3I –Command, Control, and Communications, and Intelligence

11. Modernization

- Replacements
- Modifications
- Modification of Retiring Systems
- Concurrency
- Service Life Extensions

Potential Risks:

- ✓ Not buying appropriate or sufficient capability for fleet
- ✓ Too many programs for available dollars (plans cannot be executed with available funds)
- ✓ Not achieve mission outcomes
- ✓ Not focus on warfighter needs

12. Prototyping

13. Software Development and Integration

Potential Risks:

- ✓ Unrealistic cost, schedule, performance estimates
- ✓ Unable to achieve mission outcomes
- ✓ Significant reliance on software
- ✓ Legal requirements like the Warner Amendment not met for mission critical systems

14. Low Rate Initial Production (LRIP)

- ✓ Buying out majority of requirement before MS III full production decision and before design is stable and testing is complete requiring post-production modifications at additional costs
- ✓ Exceeding LRIP quantities authorized by the Milestone Decision Authority at the Milestone II decision

15. Requirements

- Quantitative

- **Potential Risks:**

- ✓ Weapons are forced on the Department by Congress through the “pork barrel” National Guard and Reserve Equipment Appropriation
 - ✓ Requirement over/understated, funds wasted, other valid requirements unfounded
 - ✓ Requirements calculated based on inaccurate or incomplete data or using ill-conceived formulas
 - ✓ Requirements do not consider the entire mix of available weapons to meet the threat
 - ✓ Requirements based on cold war strategies and enemies and not updated for current threats, strategies, and force structure needs
 - ✓ Training requirements overstated/unaffordable
 - ✓ Insufficient consideration given to modeling and simulation for training purposes
 - ✓ Requirements improperly inflated to support Foreign Military Sales Training
 - ✓ No requirements study performed
 - ✓ Calculations based on invalid data

- Operational

- **Potential Risks:**

- ✓ Gold plating
 - ✓ Insufficient capability to meet threat
 - ✓ Failure to meet user needs

- Threat support

- Training Devices

16. Logistics

- Wholesale

- Retail

- Direct vendor delivery

- General

- **Potential Risks:**

- ✓ Inadequate supportability late in development or after fielding, resulting in need for engineering changes, increased costs, and or schedule delays
 - ✓ Life-cycle costs not accurate because of poor logistics supportability analyses
 - ✓ Logistics analyses results not included in cost-performance tradeoffs
 - ✓ Design trade studies do not include supportability considerations

- Focused Logistics

- **Potential Risks:**

- ✓ Not achieve mission outcomes
 - ✓ Uneconomical and inefficient
 - ✓ Management systems are wasteful

17. Provisioning

Potential Risks:

- ✓ Relying too heavily on contractors to develop provisioning requirements
- ✓ Failing to perform adequate logistics support analyses
- ✓ Buying wrong parts
- ✓ Buying too many parts

18. Contractor Logistics Support

Potential Risks:

- ✓ Not cost or operationally effective

19. Spare and Repair Parts

Potential Risks:

- ✓ Buying wrong parts
- ✓ Buying too many or insufficient parts
- ✓ Storing in the wrong locations
- ✓ Not disposing of excesses
- ✓ Cannibalization
- ✓ Inventory too high

20. Maintenance

Potential Risks:

- ✓ Inadequate planning and funding for support facilities prior to fielding

21. Warranties

Potential Risks:

- ✓ Warranties not cost effective
- ✓ Failure to buy needed warranties
- ✓ Warranties are of insufficient or excessive length
- ✓ Repairing organically when warranties exist
- ✓ Invalidating warranties by organic repairs
- ✓ Creating idle capacity in military facilities by contracting for warranty repairs
- ✓ Over-dependence on contractors (that could go out of business) for repairs of mission essential equipment needed in wartime

22. Acquisition Reform

Potential Risks:

- ✓ Ineffective oversight of reform implementation
- ✓ Reforms either not implemented or partially implemented resulting in increased costs and cycle time
- ✓ Unaffordable weapon systems
- ✓ Unrealistic cost, schedule, performance estimates
- ✓ Not meeting military needs
- ✓ Not achieving anticipated savings

23. Procurement

- Stretchout
- Cost saving techniques like multiyear contracting not considered
- Improper contract type used (fixed price for development efforts)
- Contract incentives not properly used to control costs

- Contractor overpayments due to improper price evaluations or ineffective use of progress payments

24. Foreign Military Sales

Potential Risks:

- ✓ FMS not considered in early stages of program development
- ✓ Selling sensitive or prohibited equipment to potential enemies
- ✓ Omitting important provisions from FMS contracts, such as against sharing the technology with others
- ✓ Not monitoring foreign government control over technology loss
- ✓ Improper pricing of sales

25. Contracting Practices

- Competition/Sole Source
- Multiyear contracting
- Types
- Pricing

Potential Risks:

- ✓ Poor oversight and accountability in acquiring goods and services
- ✓ Not ensuring best services at best prices
- ✓ Improper payments made to contractors

26. Developmental/Operational Testing

Potential Risks:

- ✓ Test planning not initiated early in the program (Phase O)
- ✓ Testing does not address the ultimate operational environment (testing in unrealistic conditions)
- ✓ Test procedures do not address all performance and suitability specifications (wrong critical operational issues tested)
- ✓ Performance requirements reduced to meet system capabilities rather than user needs
- ✓ Test facilities not available to accomplish specific tests, especially system-level tests
- ✓ Insufficient time to test thoroughly
- ✓ Failing to test
- ✓ Not considering test results in program management decisions (ignoring unsatisfactory test results)
- ✓ Lowering system standards to allow systems to pass tests
- ✓ Concealing or falsifying test results
- ✓ Over-relying on contractors to perform tests and report results

27. Concurrency

Potential Risks:

- ✓ Immature or unproven technologies will not be adequately developed before production
- ✓ Production funding will be available too early – before development effort has sufficiently matured
- ✓ Concurrency established without clear understanding of risks

28. Simulation

Potential Risks:

- ✓ Same risks as test and evaluation
- ✓ M&S are not verified, validated, or accredited for the intended purpose
- ✓ Program lacks proper tools and modeling and simulation capability to assess alternatives

29. Technology

Potential Risks:

- ✓ Program depends on unproved technology for success – there are no alternatives
- ✓ Program success depends on achieving advances in state-of-the-art technology
- ✓ Potential advances in technology will result in less than optimal cost-effective system or make system components obsolete
- ✓ Technology has not been demonstrated in required operating environment
- ✓ Technology relies on complex hardware, software, or integration design

30. Production/Facilities

Potential Risks:

- ✓ Production implications not considered during concept exploration
- ✓ Production not sufficiently considered during design
- ✓ Inadequate planning for long lead items and vendor support
- ✓ Production processes not proven
- ✓ Prime contractors do not have adequate plans for managing subcontractors
- ✓ Sufficient facilities not readily available for cost effective production
- ✓ Contract offers no incentive to modernize facilities or reduce cost
- ✓ Contract provisions place undue risk on either the contractor or the government

31. Information Technology/Systems

- Security
- Assurance
- Accuracy
- Enterprise Resource Planning

32. Competitive Sourcing

Potential Risks:

- ✓ Failing to develop an implementation strategy
- ✓ Outsourcing highly technical jobs
- ✓ Performing inadequate/inaccurate cost comparisons
- ✓ The morale factor and related productivity loss
- ✓ Loss of institutional knowledge
- ✓ Failing to retain a residual in-house capability
- ✓ Creating what is essentially a sole-source environment

- ✓ Failure to track actual performance against cost comparison predictions
- ✓ Failing to maintain accurate information databases

33. Reengineering

34. Activity Based Costing

35. Industrial Base

36. Program Management

Potential Risks:

- ✓ Over-tailoring of the acquisition process (too many process steps and decision points omitted)
- ✓ Not using best practices identified by other program managers
- ✓ Not employing acquisition reform techniques
- ✓ Not complying with mandatory requirements of acquisition instructions (DOD 5000 series)
- ✓ Acquisition strategy does not give adequate consideration to various essential elements, e.g., mission need, test and evaluation, technology, etc.
- ✓ Subordinate strategies and plans are not developed in a timely manner or based on the acquisition strategy
- ✓ Proper mix (experience, skills, stability) of people not assigned to Program Management Office or to contractor team
- ✓ Failure to prepare a Risk Management Plan (for either the program office or the contractor)
- ✓ Effective risk assessments not performed or results not understood and acted upon
- ✓ Required program oversight is not provided at the proper level because the program is split to avoid funding thresholds or the wrong Acquisition Category is assigned (to include designating high-cost acquisition programs as Non-Acquisition Category programs)

37. Contract Support Services

Potential Risks:

- ✓ Creating a sole-source environment
- ✓ Having contractors perform inherently government functions
- ✓ Failing to maintain a residual in-house capability

38. Acquisition Workforce

Potential Risks:

- ✓ Insufficient trained personnel resulting in morale problems, delayed procurements, or costly mistakes in contracting due to overwork

39. Schedule/Cycle Time

Potential Risks:

- ✓ Schedule not considered in trade-off decisions
- ✓ Schedule does not reflect realistic acquisition planning
- ✓ Acquisition Program Baseline schedule objectives not realistic and attainable
- ✓ Resources not available to meet schedule

40. Contractor Risk

- ✓ Close relationship that develops between the program manager and contractor may cause the program manager to act more in the contractor's interest rather than the Government's
- ✓ Contractor's effort to minimize business risks may conflict with program manager's effort to lower program risk
- ✓ Contractor may be incapable of delivering on either promised performance, schedule, or costs (inadequate production facilities/capacity, equipment, technical expertise, resources, management abilities, and tools, or has a history of poor performance)
- ✓ Contractor may be unaware of/unable to afford/apply industry best practices
- ✓ Defective pricing
- ✓ Unapproved substitution of substandard materials
- ✓ Bidder collusion
- ✓ Buy-in during bidding process
- ✓ Program manager may abrogate his responsibilities by over-relying on the contractor for program management

41. Configuration Management

Potential Risks:

- ✓ Inadequate maintenance of equipment
- ✓ High costs of parts or acquiring unneeded parts

Appropriations:

Ship Construction, Navy
Aircraft Procurement, Navy
Weapons Procurement, Navy
Research, Development, Test and Evaluation
Other Procurement, Navy
National Guard and Reserve Equipment
Operations and Maintenance, Navy
Marine Corps?

Types of Equipment:

Aircraft (Manned and Unmanned)
Ships
Armored Vehicles
Artillery
Communications
Information Systems
Ordnance (Missiles, Bombs, Rockets, etc.)

Chemical Biological Weapons

- Hazardous Materials
- Storage
- Exposure

Simulators/Trainers