



DEPARTMENT OF DEFENSE

# AUDIT REPORT

COMPONENT BREAKOUT PROGRAM  
FOR MAJOR SYSTEMS

No. 91-018

December 5, 1990

*Office of the  
Inspector General*





INSPECTOR GENERAL  
DEPARTMENT OF DEFENSE  
400 ARMY NAVY DRIVE  
ARLINGTON, VIRGINIA 22202-2884

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MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION  
COMPTROLLER, DEPARTMENT OF DEFENSE  
ASSISTANT SECRETARY OF THE ARMY (FINANCIAL  
MANAGEMENT)  
ASSISTANT SECRETARY OF THE NAVY (FINANCIAL  
MANAGEMENT)  
ASSISTANT SECRETARY OF THE AIR FORCE (FINANCIAL  
MANAGEMENT AND COMPTROLLER)

SUBJECT: Report on the Audit of the Component Breakout Program  
for Major Systems (Report No. 91-018)

This is our final report on the Audit of the Component Breakout Program for Major Systems for your information and use. Comments on a draft of this report were considered in preparing the final report. This self-initiated audit was made by the Contract Management Directorate from May through November 1989. Our overall objective was to determine if the Services were performing adequate component breakout reviews and aggressively pursuing component breakout on major systems. We were unable to identify the complete scope of the Program, but we identified at least 72 major systems scheduled for production during FY 1990 with an estimated procurement cost of about \$278.6 billion for FY's 1990 through 1994. Breakout potential should be assessed for each of those systems.

The audit showed that the Services frequently were not performing adequate component breakout reviews or aggressively pursuing component breakout on major systems. The Deputy Secretary of Defense, in response to the draft of this report, issued an August 9, 1990, memorandum directing preparation of better guidance for planning and performing component breakout reviews (Appendix E). The Deputy Secretary also directed that the program managers complete component breakout reviews as part of the acquisition strategy and that adequate resources be made available to complete component breakout analysis. Further, the Deputy Secretary directed the Under Secretary of Defense for Acquisition and the Comptroller, DoD, to evaluate the feasibility of establishing monetary goals for breakout savings and cost avoidance and recommend appropriate program/budget adjustments.

We commend the Deputy Secretary's initiative because we estimate that DoD can achieve \$2.36 billion of weapon system cost reductions through sound business decisions related to component breakout. The Navy's plan for implementing the Deputy Secretary of Defense memorandum is at Appendix P. As of the date of this report, the Army and Air Force had not provided us copies of

their implementation plans. The results of the audit are summarized in the following paragraphs, and the finding and audit recommendations are contained in Part II of this report.

Prior audits on 23 major systems identified about \$166 million in lost savings and \$612 million in potential monetary benefits that would not be realized unless DoD breakout policy was more adequately implemented. On this audit, we estimated that, if 10 percent of the estimated universe of components requiring breakout reviews were broken out, monetary benefits of \$2.36 billion could be realized during FY's 1991 through 1994. We recommended that the Under Secretary of Defense for Acquisition include in the revisions of DoD Directive 5000.1 and DoD Instruction 5000.2, a requirement for program managers to perform and document component breakout reviews as part of their system acquisition strategy and include detailed guidance in DoD Manual 5000.2 on the approach to complete the breakout analysis. We also recommended that the Under Secretary of Defense for Acquisition and the Comptroller, DoD, through the Defense Management Report implementation process, evaluate the possibility of establishing monetary goals for breakout savings and cost avoidance at an aggregate level above individual weapon systems and recommend appropriate program/budget adjustments.

We recommended that the Service Acquisition Executives direct program executive officers and program managers to comply with the component breakout requirements in the Defense Federal Acquisition Regulation Supplement and direct program managers to complete component breakout reviews as a required step in acquisition strategies. We recommended that the Service Acquisition Executives institute procedures to verify, on a continuing basis, that program managers comply with the Deputy Secretary of Defense August 9, 1990, guidance on Component breakout. We also recommended that the applicable Service Acquisition Executives direct the Program Managers for the Black Hawk Helicopter, the Coastal Minehunter Ship, the Surface Ship Torpedo Defense System, and the C-17 Aircraft to perform component breakout reviews (page 5).

We provided a draft of this report to the addressees on May 9, 1990, and requested that comments be provided by July 9, 1990. We received comments from the Deputy Secretary of Defense; the Principal Deputy Assistant Secretary of Defense (Production and Logistics); the Principal Deputy Comptroller, DoD; the Director, Army Contracting Support Agency; the Assistant Secretary of the Navy (Research, Development and Acquisition); and the Deputy Assistant Secretary of the Air Force (Acquisition). The comments are summarized in Part II of this report, and the complete texts of the responses are in Appendixes D through J.

The Deputy Secretary of Defense issued a memorandum on component breakout in August 1990, directing actions to be taken by the Under Secretary of Defense for Acquisition, the

Comptroller, DoD, and the Secretaries of the Military Departments. Based on the Deputy Secretary's memorandum, we have revised Recommendations 1., 2., 3.a., and 3.b., accordingly. The Deputy Secretary's actions are dispositive of those recommendations. We request that the addressees provide estimated completion dates for implementing the revised recommendations in their responses to the final report.

The Principal Deputy Assistant Secretary of Defense (Production and Logistics), the Navy, and the Air Force generally nonconcurred with the draft report recommendations to establish reporting requirements and to monitor the Component Breakout Program. They also nonconcurred in the draft report recommendations to establish component breakout objectives and to include the objectives in the performance standards of program officials. The Army did not comment on those recommendations. Although we believe that active monitoring by senior managers is the best way to ensure full compliance by program managers with component breakout policy, we recognize the DoD reluctance to create what could be viewed as an additional special advocacy program. Therefore, we are deferring the recommendations concerning specific program monitoring, establishment of component breakout objectives, and inclusion of those objectives in performance standards of program officials. Instead, we will plan future audit and audit followup efforts to apprise the Deputy Secretary of Defense of the extent to which his guidance is being implemented.

The Army partially concurred with the draft report recommendation to perform component breakout reviews of the Apache and Black Hawk helicopters. The Army stated that it is so far inside the production lead time for the last production lot of the Apache that it would be impossible for the Government to provide additional breakout items in time. Although we believe that component breakout reviews should have been done on the Apache, we accept the Army's position and have deleted the Apache from the recommendation in the final report. The Army also stated that the Black Hawk was in final production and component breakout would be counterproductive at this time, and that "In the event that future requirements are identified and funds appropriated, formal breakout reviews will be accomplished." The Army's statement on the Black Hawk is misleading and not fully responsive to the recommendation. Procurement strategies provided to us in October 1990 reflect planned procurements of the Black Hawk helicopters during FY 1992 through at least FY 1999. The breakout review process needs to begin so that the lead time is sufficient to allow breakout to occur on the Black Hawk.

The Navy concurred with the recommendation to perform component breakout reviews of the Surface Ship Torpedo Defense System. The Navy did not agree to perform component breakout reviews of the Coastal Minehunter Ship because detailed validated technical specifications are not available. We contend that

breakout is possible on the Coastal Minehunter Ship because the Navy can procure the components from the actual manufacturers without detailed specifications.

The Air Force nonconcurred with the draft report recommendations to perform component breakout reviews of the C-17 and Combat Talon II systems. The Air Force feels there are no viable breakout candidates on the C-17 at this time, but stated it will begin identifying C-17 components in the Fall of 1990 for potential breakout after the aircraft completes its Operational Readiness Evaluation. We consider the Air Force's commitment to proceed with component breakout reviews to be an acceptable alternative action and have therefore revised the recommendation. The Air Force stated that the production contract for the final Combat Talon II was awarded in April 1990. Although we believe that component breakout reviews should have been done, the draft report recommendation on the Combat Talon II has been deleted in the final report.

The audit identified internal control weaknesses as defined by Public Law 97-255, Office of Management and Budget Circular A-123, and DoD Directive 5010.38. The August 9, 1990, Deputy Secretary of Defense guidance and the recommendations in this report, if implemented, will correct the internal control weaknesses. The review of internal controls is summarized in Part I of the report and the weaknesses are detailed in the Finding. A copy of this report is being provided to the senior officials responsible for internal controls within the Office of the Secretary of Defense and the Military Departments.

DoD Directive 7650.3 requires that all audit recommendations be resolved promptly. Final comments must be provided to us within 60 days of the date of this report. The recommendations requiring additional comments and the recommendations that were revised for the final report are provided in Appendix O. The specific action needed to resolve each recommendation is in Part II of this report.

We estimated that \$2.36 billion of monetary benefits could be realized by implementing Recommendations 1., 2., and 3. The Principal Deputy Assistant Secretary of Defense (Production and Logistics), the Army, the Navy, and the Air Force disagreed with the amount of the potential monetary benefits that could be achieved through an effective component breakout program. The Principal Deputy and the Navy did not agree with our method of computing the benefits but did not provide alternate methods for computing the benefits. We believe that our estimates are valid, quantitatively defensible, and conservative. We ask that the Under Secretary of Defense for Acquisition and the Comptroller, DoD, provide final comments on the estimated monetary benefits identified in Appendix M of \$2.36 billion.

We appreciate the cooperation and courtesies extended to the audit staff. If you have any questions on this audit, please contact Mr. Garold Stephenson, Program Director, on (703) 614-6275 (AUTOVON 224-6275) or Mr. Joseph Doyle, Project Manager, on (703) 614-2342 (AUTOVON 224-2342). A list of the audit team members is provided in Appendix Q. The planned distribution of this report is listed in Appendix R.

A handwritten signature in black ink that reads "Robert J. Lieberman". The signature is written in a cursive, flowing style.

Robert J. Lieberman  
Assistant Inspector General  
for Auditing

cc:  
Deputy Secretary of Defense  
Secretary of the Army  
Secretary of the Navy  
Secretary of the Air Force



REPORT ON THE AUDIT OF THE COMPONENT BREAKOUT  
PROGRAM FOR MAJOR SYSTEMS

TABLE OF CONTENTS

	<u>Page</u>
TRANSMITTAL MEMORANDUM/EXECUTIVE SUMMARY	i
PART I - INTRODUCTION	1
Background	1
Objectives and Scope	2
Internal Controls	3
Prior Audit Coverage	3
PART II - FINDING AND RECOMMENDATIONS	5
Management of Component Breakout Program	5
APPENDIXES	See next page

Prepared by:  
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Project No. 9AP-0044

LIST OF APPENDIXES

	<u>Page</u>
APPENDIX A - Synopses of Prior Audit Reports that Addressed Aspects of DoD's Component Breakout Program	27
APPENDIX B - Inspector General, DoD Memorandum For Under Secretary of Defense (Acquisition) Recommending Clarification of Component Breakout Guidance, September 1988	37
APPENDIX C - Assistant Secretary of Defense (Production and Logistics) Response to Inspector General, DoD, February 1989	39
APPENDIX D - Deputy Secretary of Defense Memorandum for the Inspector General, on Component Breakout, June 1990	41
APPENDIX E - Deputy Secretary of Defense Memorandum on Component Breakout in Systems Acquisition, August 1990	43
APPENDIX F - Principal Deputy Assistant Secretary of Defense (Production and Logistics) Comments	45
APPENDIX G - Principal Deputy Comptroller, DoD, Comments	49
APPENDIX H - Department of Army Comments	51
APPENDIX I - Department of Navy Comments	55
APPENDIX J - Department of Air Force Comments	63
APPENDIX K - Monetary Benefits Identified in Prior Audit Reports	69
APPENDIX L - Computation of Monetary Benefits	71
APPENDIX M - Summary of Potential Monetary and Other Benefits Resulting from Audit	73
APPENDIX N - Activities Visited or Contacted	75
APPENDIX O - Recommendations Requiring Additional Comments and Recommendations That Were Revised or Deleted in the Final Report	77

LIST OF APPENDIXES  
(Continued)

	<u>Page</u>
APPENDIX P - Navy's Plan for Implementing Deputy Secretary of Defense Memorandum on Component Breakout	79
APPENDIX Q - Audit Team Members	81
APPENDIX R - Final Report Distribution	83



REPORT ON THE AUDIT OF THE COMPONENT BREAKOUT  
PROGRAM FOR MAJOR SYSTEMS

PART I - INTRODUCTION

Background

Component breakout is the process of the Government acquiring production components directly from a manufacturer and furnishing the components to the end-item prime contractor for incorporation in the production of the end item. "Components" include subsystems, assemblies, and other major elements of an end item. The purpose of component breakout is to decrease the production cost of a major system by reducing the amounts paid for prime contractor indirect costs and profit. Breakout can be accomplished either through competitive procurement if several manufacturers can provide the item or by noncompetitive procurement if there is only one manufacturer or vendor. Component breakout is applicable to major systems for which total research, development, and test and evaluation expenditures are estimated to be more than \$75 million, or for which eventual acquisition expenditure will exceed \$300 million.

DoD policy is to break out components from prime contractors whenever substantial net cost avoidances can be achieved, and the breakout decision will not jeopardize quality, reliability, performance, or timely delivery of the system. Defense Federal Acquisition Regulation Supplement (DFARS) 217.7202 states that:

- The desirability of component breakout should be considered regardless of whether the prime contract is based on price competition.

- A component is normally a candidate for breakout if its procurement cost is expected to exceed \$1 million for the current year's requirement.

- Any decision regarding breakout of a component must include an assessment of the potential risks of delayed delivery and reduced reliability of the component; a calculation of estimated net cost savings (i.e., estimated acquisition savings less any offsetting costs); and an analysis of the technical, operational, logistical, and administrative factors.

- The system program manager is responsible for the component breakout selection, review and decision process.

DFARS provides general guidance to assist program officials in making breakout decisions. The guidance identifies circumstances that could preclude breakout of components and requires that program officials eliminate the problems to facilitate component breakout on subsequent production runs. The DFARS requires that activities maintain documentation on breakout reviews performed.

The documentation should include a list of components reviewed, components that have no potential for breakout, components susceptible to breakout, and components for which a decision to break out has been made.

### Objectives and Scope

Our overall audit objective was to determine if the Services were performing adequate component breakout reviews and aggressively pursuing component breakout on major systems. Our specific objectives were to:

- Determine whether major components were being considered for breakout, with primary consideration given to those components representing the highest annual procurement costs and offering the largest potential net savings through breakout.

- Determine whether components susceptible to breakout were identified early in the acquisition cycle to ensure that the necessary technical data packages were obtained and that maximum savings from the breakout action were achieved.

- Determine whether results of breakout reviews were adequately justified and documented.

- Evaluate the validity of the reasons for not breaking out components.

- Identify added costs to DoD resulting from procurement of components from the prime contractor rather than the actual manufacturer; conversely, identify management costs occasioned by breakout.

- Evaluate compliance with applicable internal controls.

- Follow up on prior audit recommendations either to study components for breakout or to break out particular components.

Because of internal control weaknesses, there was not sufficient documentation available to complete all of our specific audit objectives. Accordingly, we terminated our audit work after determining the Component Breakout Program was ineffectively managed, and that the requirement to perform component breakout reviews was generally ignored.

The audit was made from May through November 1989. We interviewed officials responsible for component breakout programs within the Office of the Secretary of Defense and the Services. We examined the DoD and Services component breakout guidance, administrative procedures, acquisition plans, contracts, and other documentation pertaining to component breakout. We also interviewed responsible program management officials for the following programs.

- Army's Advanced Attack Helicopter (Apache)
- Army's UH-60 Helicopter (Black Hawk)
- Navy's Coastal Minehunter Ship
- Navy's Surface Ship Torpedo Defense System
- Air Force's C-17 Aircraft
- Air Force's MC-130H Aircraft (Combat Talon II)
- Marine Corps' Light Armored Vehicle Air Defense System

We examined the "FY 90-91 Summary of Major Defense Acquisition Programs," dated February 1989, and identified 72 major systems scheduled for production in FY 1990 and beyond. These systems had an estimated FY 1990 through FY 1994 procurement cost of about \$278.6 billion. In addition, we identified and analyzed 30 prior audit reports that addressed aspects of component breakout on major systems. The reports were issued during FY 1985 through FY 1989 by the General Accounting Office, the Inspector General, DoD, the Army Audit Agency, and the Air Force Audit Agency.

This performance audit was made in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD. Accordingly, we included such tests of internal controls as were considered necessary. A list of activities visited or contacted is shown in Appendix N.

#### Internal Controls

We evaluated internal controls applicable to management of the Component Breakout Program. Specifically, we reviewed procedures within the Defense Acquisition System management structure for establishing component breakout program objectives and for monitoring compliance with DoD Component Breakout policies. The lack of established program objectives and procedures for ensuring that component breakout reviews were performed was an internal control weakness within the Office of the Secretary of Defense and the Services. There was a lack of management oversight and review of component breakout efforts and no system of accountability to ensure that DoD policy was implemented. Management oversight at successively higher levels within the organizational chain was inadequate. Recommendations 1., 2., and 3. in this report, if implemented, will correct the internal control weakness.

#### Prior Audit Coverage

Component breakout had not received previous coverage from a Defense-wide perspective. However, component breakout was covered as part of audits of individual major systems and specific components. Appendix A synthesizes the 30 prior audit reports that addressed aspects of component breakout. We grouped the findings and problems in the reports into the following categories:

- breakout analysis or plan was not accomplished or was inadequate (25 Reports),

- breakout guidance was inadequate (10 Reports),

- breakout analysis or action was untimely (5 Reports),

- activity claimed lack of staff to perform or manage breakout (5 Reports),

- failure to include an assignment of subcontracts or a purchase agreement clause in production contracts (4 Reports),

- components broken out as spares, but not broken out as Government-furnished equipment (3 Reports), and

- prior audit recommendations not implemented (3 Reports).

Additionally, we found that the Program Managers for the Apache and the Black Hawk helicopters had not implemented recommendations in Army Audit Agency Report No. MW 86-701, November 1985, requiring the program managers and project managers to review their systems and identify items for breakout and document any decisions to not break out items.

## PART II - FINDING AND RECOMMENDATIONS

### Management of Component Breakout Program

#### FINDING

The Component Breakout Program (the Program) was not sufficiently emphasized by the DoD and Service Acquisition Executives. The Services and program managers frequently did not comply with the DoD requirement to perform component breakout reviews and did not aggressively pursue component breakout on major systems. The Office of the Secretary of Defense, the Army, and the Navy lacked policies and procedures for monitoring breakout efforts. Although the Air Force had policies and procedures for monitoring breakout efforts, the policies and procedures were not followed. Additionally, DoD and the Services had not established clearly defined objectives for the Program, and DoD guidance on component breakout was unclear and incomplete. As a result, the Services were not systematically identifying about \$114.2 billion of components with breakout potential. Major components were not being considered for breakout and significant monetary benefits that could be achieved through breakout were not being identified. Prior audits of 23 major systems identified \$166 million in lost savings and \$612 million in potential monetary benefits. On this audit, we estimated that if only 10 percent of the estimated universe of components requiring breakout review were broken out, potential monetary benefits of \$2.36 billion could be realized during FY's 1991 through 1994.

#### DISCUSSION OF DETAILS

Background. OMB Circular A-109, "Major Systems Acquisitions," requires the head of each Agency to designate an acquisition executive to integrate and unify the management process for major system acquisitions and to monitor implementation of policies and practices. The Circular also requires that a program manager be designated for each major system acquisition. Within DoD, the lines of authority for the Defense Acquisition System are a four-tier reporting chain for program management consisting of the Defense Acquisition Executive, Service Acquisition Executives, Program Executive Officers, and Program Managers.

The Under Secretary of Defense for Acquisition (USD[A]) is the Defense Acquisition Executive. The USD(A) is responsible for policy administration, oversight, and supervision of acquisition matters DoD-wide. The Service Acquisition Executives are the Assistant Secretary of the Army (Research, Development and Acquisition), the Assistant Secretary of the Navy (Research, Development and Acquisition) and the Assistant Secretary of the Air Force (Acquisition). The Service Acquisition Executives administer Service programs with policy guidance from the

USD(A). The Program Executive Officers are key middle managers responsible to the Service Acquisition Executives for defined groups of major system acquisition programs. Program Managers have responsibility for and authority over the individual system acquisition programs.

Defense Acquisition Executive Management and Oversight. The USD(A) had not established mechanisms to ensure that the Services and program managers performed component breakout reviews. Defense Federal Acquisition Regulation Supplement (DFARS) 217.7202 did not require the Services to identify or report results of component breakout reviews to the USD(A). Personnel in the Office of the USD(A) could not monitor the Services' compliance in implementing DoD breakout policy. Likewise, the lack of program objectives and reporting requirements prevented us from fully evaluating the value and effectiveness of the Program. Our USD(A) point of contact for the audit was unable to provide information on the scope or magnitude of the Program or to quantify its benefits and costs. He stated that implementation of the Program was the responsibility of the Services. Successful implementation and evaluation of the Program was further hampered by the lack of clear and specific guidance as to when component breakout reviews were required.

Component breakout guidance in DFARS 217.7202 was unclear and incomplete regarding when a component breakout review was required, even though the Inspector General, DoD had previously recommended that the guidance be clarified. In 1986, the Inspector General, DoD requested each of the Services to provide its definition of the \$1 million threshold referred to in DFARS. The Army and Navy said the \$1 million pertained to the annual acquisition cost (unit price times quantity purchased) of each component. The Air Force said the \$1 million pertained to system cost, and that it considered all components as candidates for breakout if a system's costs were \$1 million or more. The Services continued to have problems interpreting the DFARS guidance. In 1989, Air Force officials for the F-15 and the Combat Talon II (MC-130H) programs had different interpretations of when component breakout was required. The F-15 program officials concluded breakout analyses were required for components with procurement costs of \$1 million over the life of the program. The Combat Talon II officials concluded that breakout analyses were required only on components with procurement costs that exceeded \$1 million per component per aircraft.

The \$1 million threshold in DFARS 217.7202 can be interpreted to mean the annual unit acquisition cost, annual system acquisition cost, unit acquisition cost, system acquisition cost, unit acquisition cost over the program life, or system acquisition cost over the program life. Since various interpretations continue to exist and significantly impact the dollar threshold and the number of items considered for breakout, the guidance in this area still needs to be clarified.

In September 1988, the Inspector General, DoD requested, in a memorandum, that the Under Secretary of Defense for Acquisition provide additional guidance to clarify under what circumstances a breakout analysis is required and exactly what procedures and documentation are appropriate for a quality breakout analysis. (See Appendix B for complete text of memorandum.) The Deputy Assistant Secretary of Defense (Procurement) responded in a memorandum dated February 23, 1989, stating "The Services generally believe the current DFARS guidance is clear. However, there is some concern that the guidance is too detailed and restrictive and that it may not stress [a number of] factors other than cost savings sufficiently to be considered in evaluating the merits of component breakout." (See Appendix C for complete text of memorandum.) We believe that there is still confusion in the Services and the program offices on when and how to do breakout analyses. This conclusion is supported by the prior audits on 23 major systems that identified about \$166 million in lost savings and \$612 million in potential monetary benefits and the results of this audit of the Services and 6 program offices. If DoD determines that DFARS is not the appropriate place to provide clarifying guidance on component breakout, then DoD should provide the clarifying guidance in associated DoD directives, instructions, and manuals.

Services Management and Oversight. The Service Acquisition Executives had not established mechanisms to ensure that program managers fully implemented DoD breakout policy. The Army and the Navy had not established policies and procedures to ensure implementation of the component breakout requirements in DFARS 217.7202. The Air Force established internal control procedures to monitor implementation of the Program, but the controls were not used.

Army. The Army had not established procedures to ensure compliance with the component breakout requirements in DFARS 217.7202. The Army Acquisition Executive had not designated an official responsible for oversight of the Program and had not established objectives and reporting requirements to ensure that program managers implemented the Program. Personnel in the Office of the Assistant Secretary of the Army (Research, Development and Acquisition) were unable to provide information on whether component breakout reviews were performed or performed properly. We were told that neither the Army nor the Army Materiel Command had a formal component breakout program and that component breakout was the responsibility of the individual program managers. Program managers were not evaluated on their performance relating to component breakout. Seven prior audits concluded breakout reviews were poorly executed, if executed at all, and that major components were not considered for breakout. The audits also questioned the reasons for not breaking out components. The audits identified \$112 million of lost savings and projected potential savings of \$57.2 million on components that were not reviewed for possible breakout.

Navy. The Navy had not established procedures to ensure compliance with the component breakout requirements of DFARS 217.7202. Senior Navy acquisition officials had not issued Navy-wide guidance on implementation of the Program. The Navy had not designated an official responsible for oversight of the Program and had not established component breakout objectives and reporting requirements to ensure that program managers performed component breakout reviews. Also, program managers were not evaluated on their performances relating to component breakout. In November 1988, the Assistant Secretary of the Navy (Shipbuilding and Logistics) issued a memorandum on acquisition plans for major systems that required program managers to discuss component breakout plans. The memorandum did not provide specific guidance on component breakout or refer to DFARS 217.7202. The four Navy acquisition plans we reviewed, which were issued or revised after November 1988, did not discuss component breakout plans.

Component breakout should have been an area of interest to the Navy Acquisition Executive because the General Accounting Office and Inspector General, DoD issued 16 audit reports during FY 1985 through FY 1989 pertaining to component breakout on Navy systems. The reports identified \$53.8 million in lost savings and projected potential savings of \$290.5 million on components that were not reviewed for possible breakout. We found that only the Naval Air Systems Command (NAVAIR) had an established, functioning component breakout program. The Naval Sea Systems Command (NAVSEA), the Space and Naval Warfare Systems Command (SPAWAR), and the Marine Corps had not established current procedures and internal controls to ensure that program managers performed the required component breakout reviews.

NAVAIR. NAVAIR was the only activity we visited that had a functioning component breakout program and should be commended on its component breakout achievements. However, the effectiveness of the program still needed to be improved. The NAVAIR implementing regulation for component breakout was NAVAIR Instruction 4200.5B, "Policy and Procedures Governing the Component Breakout Program," dated July 1985. NAVAIR had estimated savings of about \$173 million through FY 1992 on 28 components approved for breakout since October 1984. As of June 30, 1989, NAVAIR had 49 components on 6 systems under review for possible breakout. Sixteen of the forty-nine components had been identified in Inspector General, DoD audits.

The Inspector General, DoD issued 11 audit reports during FY's 1985 through 1989, which showed that improvements were needed in NAVAIR's component breakout program. The audits identified \$9.3 million in lost savings and identified 50 candidates for component breakout with potential monetary benefits of \$97.1 million. The reports also noted the following conditions that hindered the effectiveness of NAVAIR's program.

- The failure to list major aircraft components in NAVAIR Instruction 4200.5B may prevent those items from being considered for breakout.

- Program managers can unilaterally exclude a component without justification before it is studied for potential breakout because NAVAIR Instruction 4200.5B only requires justifications for rejections of components studied.

- NAVAIR's breakout cost model results in unrealistic estimates of Government costs. This may result in an incorrect determination that it is uneconomical to break out a particular component.

- NAVAIR Instruction 4200.5B did not contain guidance on breaking out components on multiyear procurements.

As of October 1989, NAVAIR officials were in the process of revising NAVAIR Instruction 4200.5B and the breakout cost model to correct the deficiencies identified during prior audits. The revisions were not sufficiently complete to permit evaluation.

NAVSEA. NAVSEA did not have a component breakout program, and had not issued guidance or established internal controls to ensure program managers complied with DFARS 217.7202. NAVSEA did not perform component breakout primarily because senior command officials believed there was less risk to the Government when the prime contractor provided the entire system and was responsible for delivery and proper performance of the system. NAVSEA was unable to provide the cost versus risk data to support its general position on breakout. DoD policy in DFARS 217.7202 is to break out components from prime contractors whenever substantial net cost avoidances can be achieved and the breakout decision does not jeopardize quality, reliability, performance, or timely delivery. The assessment of the cost avoidance and the associated risks should be evaluated for each applicable component individually and not as an overall position. The General Accounting Office and the Inspector General, DoD issued five audit reports during FY's 1985 through 1989 pertaining to component breakout on NAVSEA systems. The reports identified \$44.5 million in lost savings, and projected potential savings of \$193.4 million on components that were not reviewed for possible breakout.

SPAWAR. SPAWAR had an inactive component breakout program, and had not issued current guidance or established internal controls to ensure program managers complied with DFARS 217.7202. SPAWAR had an outdated instruction (NAVELEX Instruction 4270.2A, September, 1979) that required component breakout reviews, but SPAWAR did not enforce this requirement. The officials stated that the Small and Disadvantaged Business Specialist and the Small Business Administration (SBA) breakout team at SPAWAR reviewed all procurements for potential component breakout. However, SPAWAR's Small and Disadvantaged Business

Specialist and the SBA breakout team were not provided lists of subcontracted components for identification of candidates for breakout. These advocacy offices reviewed acquisition plans and procurement requests, but these documents did not identify all subcontracted components. Neither office could provide an example of a component breakout recommendation that they had made.

Marine Corps. The Marine Corps did not have a component breakout program and had not issued guidance or established internal controls to ensure program managers complied with DFARS 217.7202. The Marine Corps officials were not familiar with the requirement for component breakout. Most Marine Corps systems (about 93 percent of procurement funds) were procured through the other Services. We did not review major systems procured by the Marine Corps to determine if the systems should have been evaluated for breakout.

Air Force. The Air Force Acquisition Executive had not issued directives or regulations to implement the Program. However, Headquarters, Air Force Systems Command (AFSC) had issued AFSC/AFLC Regulation 800-31, which stated that it was responsible for monitoring how effectively the program managers implemented component breakout. Headquarters, AFSC did not monitor or review the component breakout data submitted by program managers.

The subordinate commands provided Headquarters, AFSC with information on component breakout, but the information was not reviewed. We visited system program offices at the Aeronautical Systems Division (ASD) and determined that annual component breakout reports were submitted to the Manufacturing Directorate of ASD, which in turn forwarded the reports to Headquarters, AFSC. Headquarters, AFSC had not reviewed the reports for at least the last 2 years, and could not find the reports for 1987 and 1988. Neither ASD nor AFSC had determined if adequate component breakout reviews were performed or provided any status information on component breakout reviews to Headquarters, Air Force. The Air Force Audit Agency and the Inspector General, DoD issued seven audit reports during FY's 1985 through 1989, which identified potential monetary benefits of \$264.3 million on components that had not been reviewed for possible breakout.

Program Office Implementation of Component Breakout Policy. The six program offices we reviewed had not performed component breakout reviews as required by DFARS 217.7202. The program managers had not systematically identified the components meeting the \$1 million threshold or performed component breakout reviews on their systems. Program officials provided the following general reasons for not performing component reviews:

- It was felt that component breakout was not cost effective.

- Breakout results in additional work without additional resources.

- Program officials favored sole-source procurement of components from prime contractors as the most preferred method of ensuring system integrity and timely delivery.

- Program officials were not aware of the DFARS requirement to perform component breakout reviews.

Program officials were unable to provide cost versus risk data to support their general position on breakout. DoD policy in DFARS is to break out components from prime contractors whenever substantial net cost avoidances can be achieved, and the breakout decision does not jeopardize quality, reliability, performance, or timely delivery. Component breakout decisions should not be based on an overall position about component breakout. The decision should be based on the assessments of the cost avoidances and the associated risks for each applicable component. Our review of the six program offices showed the following:

Army Advanced Attack Helicopter (Apache). The Program Manager for the Apache helicopter had not identified the components requiring breakout reviews or performed component breakout reviews. Additionally, the program manager had not fully implemented a recommendation in Army Audit Agency Report No. MW 86-701, November 1985, requiring program managers to review their systems and identify items for breakout. The program manager concentrated breakout efforts on items that were well below the \$1 million threshold, such as kits, trainers, and other items not involving production line support. We identified 97 components on the Apache that should have been reviewed. Some components appeared to be obvious candidates for breakout. For example, one component with an annual procurement cost of over \$1 million was procured from the prime contractor for production contracts, while the spare parts were procured from the actual manufacturer. The 97 components had an estimated contractor cost of \$725 million in the multiyear (FY's 1986 through 1988) contract for 284 Apache helicopters. As of September 1989, the Army planned to acquire 132 more Apache helicopters.

Army UH-60 Helicopter (Black Hawk). The Project Manager for the Black Hawk helicopter had not performed a breakout review since 1986, and no reviews were planned. The Army Audit Agency stated in Report No. MW 86-701, November 1985, that Black Hawk personnel identified 55 components that the Army acquired as spare parts from the actual manufacturer while the same components were acquired by the prime contractor for production. The Project Office estimated that cost avoidances of \$29.3 million could be achieved if the 55 components were

provided as Government-furnished material for a planned procurement of 300 Black Hawk helicopters. The Army Aviation Systems Command Internal Review and Audit Compliance Office followed up on the Army Audit Agency report and issued Report No. 02-0984-618, August 1987. The Internal Review report stated that no additional components had been broken out for the Black Hawk since the Army Audit Agency review. The report also stated that the project office had developed a list of potential breakout candidates, but did not review the items to determine if they should be broken out. The Internal Review report recommended that the project manager immediately evaluate the potential candidates for breakout and document the breakout decisions. The project manager agreed with the recommendation. However, the recommendation was not implemented and the opportunity to avoid \$29.3 million of procurement costs on the 300 helicopters was lost. We identified 65 components on the Black Hawk that should have been reviewed for potential breakout. The components had an estimated contractor cost of \$170 million in the multiyear (FY's 1988 through 1991) contract for 252 Black Hawk helicopters. As of September 1989, the Army planned to procure 1,146 more Black Hawk helicopters.

Navy Coastal Minehunter Ship. The Program Manager for the Coastal Minehunter Ship was not familiar with the DFARS requirement for component breakout and had not performed component breakout reviews or identified the components requiring review. When advised of the requirement, the program manager stated his goal had been to minimize Government-furnished equipment, not to increase it. The program manager believed that the Government was responsible for the delivery and performance of Government-furnished equipment, and that the Government was subject to claims from the shipbuilder (prime contractor) if the equipment was not delivered on time or did not perform properly. The program manager wanted the shipbuilder to have that responsibility. We could not evaluate the program manager's position because there were no supporting documents available. However, the Government can and should include provisions in contracts to warrant the timely delivery and performance of components provided as Government-furnished equipment. We identified 14 components for the Coastal Minehunter Ship that should have been evaluated for component breakout. The components included heating and air conditioning, generator sets, air compressors, cranes, anchor/windlass, and various other components. The estimated annual cost of the components for four ships was about \$98 million. As of August 1989, the Navy planned to acquire 16 more Coastal Minehunter Ships, including 4 ships in both FY 1992 and FY 1993.

Navy Surface Ship Torpedo Defense System. The Program Manager for the Surface Ship Torpedo Defense (SSTD) System was not familiar with the DFARS requirement for component breakout reviews and stated that he would consider component breakout in the future if he determined that the prime contractor was overcharging the Government. He further stated that he would be

reluctant to break out the electronic components because of the interfacing of the components. The program engineer stated he would be reluctant to break out any components because they interface, and technical problems could arise if a manufacturer changed any component. Both the program manager and program engineer expressed concern that if the Government buys the components, the Government would be responsible for the delivery and performance of the components. We believe this concern can be resolved by including appropriate provisions in the contracts. The program engineer stated that the program office would need additional people, money, and space to conduct breakout studies and manage items broken out. We did not evaluate these concerns because no supporting documentation was available. We identified four components of the SSTD system that should have been evaluated for component breakout, including the towed body, towed array, winch, and tow cable. The estimated annual cost for the 4 components for 40 systems was about \$18 million. As of September 1989, the Navy planned to acquire about 270 more SSTD systems at the approximate rate of 40 systems per year.

Air Force C-17 Aircraft. The Program Manager for the C-17 aircraft had not conducted component breakout reviews on the C-17 although candidate components had been identified. Air Force Audit Agency (AFAA) Report 7036316, "Acquisition of the F117-PW-100 Engine and Its Related Logistics Support," June 1988, stated that prior to the audit, the C-17 Program Office did not have a plan to break out components on the C-17. During the AFAA audit, the Program Office compiled a list of components with breakout potential. This July 1987 list included the engine, electrical generators, auxiliary power unit, aircrew seats, weather radar, main and nose landing gear, tires, and various other components. The components were to be evaluated between September 1987 and November 1987. The component breakout evaluations were not conducted, and a new date was not established to perform the reviews. In December 1987, the program manager decided that component breakout would not occur until after the 12th production aircraft, so that the prime contractor would remain responsible for the total aircraft during initial squadron testing. The AFAA report concluded that this revised breakout plan allowed sufficient time to break out the engines and any other components for the FY 1991 procurement for aircraft 13 through 22 (Lot IV). The engine was broken out for Lot IV; however, we doubt that additional breakout will occur because the program manager may not conduct timely breakout reviews.

As of September 1989, the program manager planned to delay performing component breakout reviews until a contractor had developed a component breakout decision model. Contract award to ALESAT Corporation for the proposed model was projected for May 1990 and the decision model development and validation was scheduled to take 19 months. We determined that the C-17 Program Office was not aware that the Air Force already owned a model developed by Universal Energy Systems for estimating component

breakout costs and net savings. On February 23, 1990, the Inspector General, DoD issued Report No. 90-039, "Report on the Procurement of a Component Breakout Model by the Air Force Aeronautical Systems Division," which recommended that the C-17 Program Manager not award a contract for a component breakout decision model, and that the C-17 Program Manager apply the model developed by Universal Energy Systems. We believe that sufficient information and models exist to allow the program manager to perform component breakout reviews of the C-17. The aircraft was in full-scale development, with six aircraft on contract, and four scheduled to go on contract in FY 1990. A total of 210 aircraft was planned for the program.

Air Force MC-130H Aircraft (Combat Talon II). The Program Manager for the Combat Talon II aircraft had not conducted component breakout reviews on the aircraft. The program manager initially exempted the program from component breakout because he misinterpreted the \$1 million annual threshold for each component in the DFARS to mean \$1 million per component per aircraft. Program officials stated that only the radar, which was not design stable, met the threshold. Program officials subsequently determined that breakout of the components was not feasible since only 13 aircraft remained to be purchased.

The MC-130H modification involved the installation of an avionics package in the C-130 aircraft. The avionics package was primarily off-the-shelf avionics (except the radar) and the design was relatively stable. As of September 1989, there were 11 MC-130H modifications on contract, and 13 remained to be purchased. We determined that at least four components should have been reviewed for breakout. These components were the radar system, the multipurpose displays, the infrared detection set, and the intercommunication set. The estimated cost of these components for the next procurement (FY 1990 through FY 1991) of seven MC-130H modifications was about \$30.6 million.

Monetary Benefits. Significant monetary benefits can be achieved through an effective component breakout program. Audit reports issued during FY's 1985 through 1989 identified about \$166 million in lost savings and \$612 million in potential savings on 23 major systems where program managers had not performed adequate component breakout reviews (See Appendix K). We were unable to determine the complete universe of systems that met the DFARS definition of major systems requiring component breakout because of the lack of a system to identify and report the data. However, we identified at least 72 major systems scheduled for production in FY 1990, in the "FY 90-91 Summary of Major Defense Acquisition Programs," with a FY 1990 through FY 1994 procurement cost of about \$278.6 billion. Based on factors developed during our review of the six system acquisition programs, we estimated that about \$114.2 billion (41 percent) of the \$278.6 billion is for subcontracted components that should be

reviewed for possible breakout. We estimate that monetary benefits of \$2.36 billion could be realized during FY's 1991 through 1994, if only 10 percent of the components are broken out.

In the draft report we estimated the monetary benefits for FY's 1990 through 1994. Due to the timing of the final report, we revised the estimates and eliminated FY 1990 from the monetary benefits computations. The computation of the original and revised potential monetary benefits is shown in Appendix L. While we limited our projections of monetary benefits to 4 years on the 72 systems, we identified an additional \$166.7 billion in planned procurements for these systems beyond the 4 years. We believe that comparable monetary benefits can also be achieved on these planned procurements.

Conclusions. The Component Breakout Program was not effectively managed, and the requirement to perform component breakout was generally ignored by the Services and program managers. There was no accountability to ensure that program managers performed breakout reviews and when appropriate, broke out components on major systems. This lack of accountability was an internal control weakness within the Defense Acquisition System. Failure to perform breakout reviews and identify components for breakout resulted in significant lost monetary benefits.

#### RECOMMENDATIONS, MANAGEMENT COMMENTS AND AUDIT RESPONSE

The Deputy Secretary of Defense; the Principal Deputy Assistant Secretary of Defense (Production and Logistics); the Principal Deputy Comptroller, DoD; the Director, Army Contracting Support Agency; the Assistant Secretary of the Navy (Research, Development and Acquisition); and the Deputy Assistant Secretary of the Air Force (Acquisition) provided comments on the draft report. The complete texts of the comments are in Appendixes D through J.

Recommendation 1. We recommend that the Under Secretary of Defense for Acquisition include in the revision of DoD Directive 5000.1, "Defense Acquisition," and DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," a requirement for program managers to perform and document component breakout reviews as part of their system acquisition strategy and include detailed guidance in DoD Manual 5000.2 "Defense Acquisition Management Documentation and Reports" on the approach to complete the breakout analysis. The guidance should:

(a) Establish a method for determining when a component breakout review is required, including dollar thresholds that address annual, multiyear, and program life thresholds.

(b) Provide criteria for when a procurement is exempt from a component breakout review.

(c) Establish specific and mandatory review procedures.

(d) Establish appropriate models for completing breakout reviews and determining cost and net savings associated with component breakout.

(e) Specify the documentation required to support a breakout decision.

(f) Establish a requirement for an independent review and validation of component breakout studies and decisions.

Management Comments. On August 9, 1990, in response to the draft report, the Deputy Secretary of Defense issued a memorandum on Component Breakout in Systems Acquisition. The memorandum stated that we must eliminate unnecessary costs in our acquisition programs and break out system components for procurement directly from actual manufacturers whenever it makes good business sense. The Deputy Secretary directed the Under Secretary of Defense to include in the revisions of DoD Directive 5000.1 and DoD Instruction 5000.2 a requirement for program managers to perform and document component breakout reviews and to include in DoD Manual 5000.2 detailed guidance on the approach to complete the breakout analysis. The memorandum also directed the Under Secretary to establish appropriate models for completing breakout reviews and determining costs and net savings associated with component breakout decisions. The Principal Deputy Assistant Secretary of Defense (Production and Logistics) stated that in order to reach the desired program manager audiences, component breakout guidance should be included in DoD Directives 5000.1 and 5000.2.

Audit Response. We consider the actions directed by the Deputy Secretary of Defense to be responsive to the recommendation. In the draft report, we recommended that clarifying guidance on component breakout be included in DFARS 217.7202. Based on responses to the draft report, we changed the location of needed clarifying guidance from the DFARS to the DoD directive, instruction, and manual cited. We request that the Under Secretary of Defense for Acquisition provide estimated completion dates for incorporating component breakout guidances in DoD Directive 5000.1, DoD Instruction 5000.2, and DoD Manual 5000.2 in his response to the final report.

Recommendation 2. We recommend that the Under Secretary of Defense for Acquisition and the Comptroller, Department of Defense, through the Defense Management Report implementation process evaluate the feasibility of establishing monetary goals for breakout savings and cost avoidance at a aggregate level above individual weapon systems, and recommend appropriate program budget adjustments.

Management Comments. The Deputy Secretary of Defense, in his memorandum of August 9, 1990, directed that the Under Secretary of Defense for Acquisition and the Comptroller, DoD, through the Defense Management Report implementation process, evaluate the feasibility of establishing monetary goals for breakout savings and cost avoidances and recommend appropriate program/budget adjustments. The Principal Deputy Comptroller, DoD stated that DoD has already considered component breakout as one of the many segments that will be addressed under the Defense Management Review Decision titled, "Inventory Management Plan."

Audit Response. We revised the recommendation based on the Deputy Secretary of Defense memorandum. We consider the action directed by the Deputy Secretary of Defense to be responsive to the recommendation. We request the Under Secretary of Defense for Acquisition and the Comptroller, DoD, to respond to the revised recommendation and to provide estimated completion dates for evaluating the feasibility of establishing monetary goals and for recommending appropriate program/budget adjustments.

Recommendation 3.a. We recommend that the Service Acquisition Executives direct program executive officers and program managers to comply with the component breakout requirements in the Defense Federal Acquisition Regulation Supplement 217.7202 and direct program managers to complete component breakout reviews as a required step in acquisition strategies.

Management Comments. The Deputy Secretary of Defense in his memorandum of August 9, 1990, directed that the Secretaries of the Military Departments direct program managers to complete breakout reviews as a required step in acquisition strategies and ensure that program managers have the resources and expertise to perform adequate component breakout analyses. The Army did not specifically respond to the recommendation. However, the Army provided a copy of a memorandum issued by the Commanding General, Army Materiel Command, which issued specific direction to his Commanders to perform the required component breakout reviews. The Navy concurred with the recommendation and stated it supports the concept that appropriate review of components for breakout must be conducted by program managers and supports the need for more complete guidance to program officials and improved documentation of the breakout decision process. The Navy also stated that additional direction is required to ensure that program officials comply with the component breakout requirements of the DFARS and suggested that this guidance be included in DoD Instruction 5000.2. The Air Force stated that it embraces component breakout as an important program management tool and will continue to promote proper use of this tool. However, the Air Force nonconcurred with the recommendation stating that it would be redundant to have the Service Acquisition Executive direct program officials to comply with component breakout requirements that have been directed in the DFARS.

Audit Response. The action directed by the Deputy Secretary of Defense is responsive to the recommendation. The action taken by the Commanding General, Army Materiel Command to provide engineering, production, logistics, cost analysis, and contracting support to program managers is highly commended. However, the primary responsibility for component breakout reviews still rests with the program managers and the success of the program is dependent on program managers' compliance with and support for the Program. We request that the Service Acquisition Executives reconsider their responses and provide additional responses.

Recommendation 3.b. We recommend that the Service Acquisition Executives institute procedures to verify, on a continuing basis, that program managers comply with the Deputy Secretary of Defense August 9, 1990 guidance on component breakout in systems acquisition.

Management Comments. The Air Force nonconcurred and the Navy partially concurred with Draft Report Recommendation A.3.b. The Army did not comment on the recommendation.

Audit Response. In light of the Deputy Secretary of Defense August 9, 1990 guidance on component breakout, we have revised Recommendation 3.b. In the draft report we recommended that the Service Acquisition Executives:

"establish responsibility within their immediate offices to review and monitor program managers' compliance and to establish accountability for component breakout reviews in the performance standards of program executive officers and program managers."

We request that the Service Acquisition Executives provide comments on the revised recommendation in their responses to the final report.

Recommendation 4. We recommend that the Army Acquisition Executive direct the Black Hawk Program Manager to perform component breakout reviews of the systems in accordance with Defense Federal Acquisition Regulation Supplement 217.7202 before issuing new contract awards for additional systems.

Management Comments. The Army partially concurred with the draft report recommendation. The Army acknowledged that breakout reviews conducted for the Apache and Black Hawk were undocumented or not fully documented and claimed that considerable informal reviews were accomplished. The Army stated that breakout reviews at this time on the Apache would serve no constructive purpose. The Army is so far inside the 30-month production lead time for the last production lots that it would be impossible for the Government to provide the items in time. In addressing the Black Hawk, the Army stated that the Black Hawk was also in final production and component breakout would be counterproductive at

this time. In the event that future requirements are identified and funds provided, formal breakout reviews will be accomplished.

Audit Response. The Army was unable to support its position that component breakout reviews of the Apache and Black Hawk helicopter were performed. The program managers had not identified the components requiring review. The program manager for the Apache concentrated breakout efforts on items such as kits, trainers, and other items not involving production line support. Although we believe that component breakout reviews should have been performed for the Apache, we accept the Army's position that breakout is not possible at this time. We have deleted the Apache from the recommendation in the final report.

The Army statement on the Black Hawk is misleading and not fully responsive to the recommendation. Procurement strategies for the Black Hawk provided to us in October 1990 reflect planned additional procurements during FY 1992 through FY 1999. The data show that the Army still plans to procure the quantities of Black Hawks cited in the draft report. The breakout review process needs to begin so that the lead time is sufficient to allow additional breakout on the Black Hawk to occur. We request that the Army reconsider its position and provide additional comments on the revised recommendation.

Recommendation 5. We recommend that the Navy Acquisition Executive direct the Coastal Minehunter Ship and the Surface Ship Torpedo Defense System Program Managers to perform component breakout reviews of their systems in accordance with Defense Federal Acquisition Regulation Supplement 217.7202 before issuing new contract awards for additional systems.

Management Comments. The Navy partially concurred with the recommendation. The Navy agreed to perform component breakout reviews of the Surface Ship Torpedo Defense System when support and testing issues are resolved and validated specifications are available. The Navy did not agree to perform component breakout reviews of the Coastal Minehunter Ship because detailed, validated "build to print" technical specifications will not be available until after award of the contract for the FY 1992 ships. The Navy stated that the FY 1993 final buy of the ships will be an option to the FY 1992 contract, and the complexities and risks involved in having different Government-furnished equipment on the option ships exclude any potential for breakout for the FY 1993 option buy separate from the FY 1992 buy.

Audit Response. We disagree with the Navy's position that detailed specifications are required before breakout can occur on the Coastal Minehunter Ship. Detailed specifications would be needed to breakout the components to full and open competition. However, the Navy does not need the detailed specifications to buy the same component from the actual manufacturers who are subcontracting to the current shipbuilder. We believe the Navy should perform component breakout reviews on components such as those identified in the draft report that the shipbuilder is

procuring from the actual manufacturer. We believe the component breakout reviews can be completed prior to award of the FY 1992 contract for the Coastal Minehunter Ship and that the use of the existing sources for the subcontracted components will eliminate the Navy's concern about having different Government-furnished equipment on the FY 1993 option buy.

While the Navy agreed to perform component breakout reviews of the Surface Ship Torpedo Defense System, its comments were not fully responsive to the recommendation. The Navy did not provide estimated completion dates for the planned component breakout actions. We request that the Navy reconsider its position on component breakout reviews of the Coastal Minehunter Ship and provide estimated completion dates for planned component breakout actions on the Surface Ship Torpedo Defense System in its reply to the final report.

**Recommendation 6.** We recommend that the Air Force Acquisition Executive direct the C-17 Aircraft Program Manager to perform component breakout reviews of the system in accordance with Defense Federal Acquisition Regulation Supplement 217.7202 before issuing new contract awards for additional systems beyond aircraft P-12. As a minimum, this review should include the components contained in the July 1987 list compiled by the program office.

**Management Comments.** The Air Force nonconcurred with Draft Report Recommendation A.6.a. to perform component breakout reviews of the C-17 Aircraft. The Air Force stated that a preliminary breakout review performed in 1987 identified the aircraft engine for breakout beginning with aircraft P-13 and that no other components were viable candidates for breakout at that time due to the continuing development of the aircraft. The Air Force stated that in the Fall of 1990, it will begin identifying C-17 components for potential breakout after the aircraft completes its Operational Readiness Evaluation. The Air Force also nonconcurred with Draft Report Recommendation A.6.b. to perform component breakout reviews of the Combat Talon II aircraft because the Air Force believes the program office performed the required reviews. The Air Force further stated that the production contract for the final Combat Talon II Aircraft was awarded in April 1990.

**Audit Response.** We agree that the Air Force should start in the Fall of 1990 to identify C-17 components for breakout. However, we continue to believe that the Air Force should perform component breakout reviews before awarding contracts for C-17 aircraft beyond the 12 aircraft required to complete the Operational Readiness Evaluation. Accordingly, we have revised Draft Report Recommendation A.6.a. to direct the program manager to perform component breakout reviews before issuing new contract awards for additional C-17 aircraft beyond aircraft P-12. Although we still believe that the Air Force could have performed component breakout reviews of the Combat Talon II, we have deleted Draft Report Recommendation A.6.b. in the final report

because the opportunities for breakout were lost when the Air Force awarded the final contract for Combat Talon II. We request that the Air Force provide comments on the revised recommendation in its response to the final report.

Management Comments on Monetary Benefits. The Principal Deputy Assistant Secretary of Defense (Production and Logistics), the Army, the Navy, and the Air Force disagreed with the amount of the potential monetary benefits that could be achieved through an effective component breakout program. The Principal Deputy and the Army stated that the draft report cost savings estimates appear to have been based on cost avoidance of the prime contractor's overhead with no recognition of the risks associated with breakout of the components. The Principal Deputy believes that the risks and consequences to the program must be considered. The Navy stated that no statistical data are provided to support the assumptions used in the savings analysis and that no factor of technical complexity or system integration effects is considered. The Army and Navy feel that the audit does not recognize any offsetting costs or risks associated with awarding and managing additional prime contracts for GFE. The Navy also stated that the report arbitrarily estimates that 10 percent of the components could be broken out and applies a "DoD Standard Breakout Savings Factor" obtained from the DFARS Supplement No. 6, which is intended for use in the DoD Spare Parts Breakout Program. The Navy believes that it is totally inappropriate to estimate savings associated with breaking out components using a factor derived for estimating savings associated with low-dollar value spare parts breakout. The Navy states that general and administrative expenses and profit will not be eliminated if the Navy breaks out a component because these costs would be reallocated to other Government programs and contracts, thereby eliminating or offsetting any savings. The Air Force nonconcurred in the monetary benefits on the basis of its nonconcurrence with the findings and recommendations.

Audit Response. We recognize that our potential monetary benefits calculations did not fully identify offsetting costs to the Government that may result from component breakout. The program offices we visited did not perform component breakout reviews of their systems; consequently, they could not identify offsetting costs. The offsetting costs will vary depending on the complexity and use of the component and must be determined for each component considered for breakout. We believe that we more than adequately covered offsetting costs when we conservatively based our monetary benefits on only 10 percent of the components meeting the breakout threshold.

We disagree with the Navy's comment that the standard savings factor of 25 percent was devised for estimating savings on low-dollar value spares. The savings factor was designed for

estimating savings associated with breakout of low- and high-dollar value items when savings data determined under local conditions were not available. We fully recognize that savings will vary by component, by system, and by contractor. However, we used the 25-percent factor because no other data were available. We believe the 25-percent savings factor is applicable to items whether they are procured as spares or components. In many cases, the components to be considered for breakout are being or will be procured as spare parts. We also disagree with the Navy's position that contractor overhead expenses and profit will not be eliminated if the Navy breaks out a component. The component must be evaluated on an item-by-item basis. However, we do not believe that all the costs would be reallocated to other Government programs and contracts thereby eliminating or offsetting any savings. The Navy's position also contradicts NAVAIR's position that it has saved an estimated \$173 million on components approved for breakout from October 1984 through FY 1992.

The universe examined in this audit is only a portion of the potential universe for component breakout savings. Although this is not a typical simple random sample, it is nevertheless quantitatively defensible since the estimation is to only a subportion of the universe. The universe used in the audit projections did not include systems scheduled to begin production between FY 1991 and FY 1994, or the estimated cost of \$167 billion to complete procurements of the 72 systems beyond FY 1994, or systems in production for which no Defense Acquisition Board review was planned. We conservatively estimated that if only 10 percent of the dollars in this limited universe could be broken out DoD could achieve an estimated \$2.36 billion of monetary benefits.

Management Comments on the Finding. The Principal Deputy Assistant Secretary of Defense (Production and Logistics), the Army and the Navy generally concurred with the finding. The Air Force nonconcurred with the finding that the C-17 and the Combat Talon II Program Managers had not performed component breakout reviews. The Air Force stated that it is apparent the C-17 Program Office has a component breakout program because the C-17 Program Office identified nondevelopmental aeronautical equipment items that have been supplied to the contractor as Government-furnished equipment, and that C-17 aircraft organizational and intermediate support equipment has been identified for breakout potential.

The Air Force stated the Combat Talon II Program Manager had performed component breakout reviews on the three contractor-furnished systems that met the \$1 million threshold and chose not to break out the components because they would not become design stable until completion of flight testing. The Air Force stated that the draft report did not give credit to the program office for the breakout efforts they have accomplished. The Air Force stated that design and development of shipping containers for radar antennas and nose radome, contractor repair of controls and

display, and intermediate and depot-level support equipment were broken out from the prime contractor. The Air Force also nonconcurrent that the program manager initially exempted the program from component breakout because he misinterpreted the \$1 million annual threshold for each component in the DFARS to mean \$1 million per component per aircraft. The Air Force stated the program office did not exempt the program from component breakout and that there was no misinterpretation of the guidance. The program office interpreted the guidance "to clearly mean the total cost for an item to be considered for breakout should be at least \$1 million per component."

The Army disputes that an estimated savings of \$29.3 million was lost by not pursuing component breakout on the procurement of 300 Black Hawk helicopters. The Army stated that the estimated savings were not realistic since most of the items were procured as part of the multiyear contract at reduced prices from the contractor through vendor competition and economic order quantities. The estimated cost avoidance also did not include any cost that would occur if the GFE was not provided to the contractor as specified in the contract. The Army further argued that the estimated cost avoidance of \$29.3 million amounted to less than 3 percent of the contract cost and could have been offset with minimum production line delays.

Audit Response. We do not agree with the Air Force's position that the C-17 Program Office performed the required component breakout reviews. The C-17 Program Office has not performed component breakout reviews of the C-17 aircraft as defined in the DFARS 217.7202. We limited our review to component breakout as defined in DFARS 217.7202, that is, components to be incorporated in the end item and to those components that have been included as contractor-furnished material in a previous acquisition of the end item. Component breakout does not pertain to the initial Government-furnished equipment/contractor-furnished equipment decisions that must be made at the inception of the program. Although the C-17 Program Office is to be commended for the breakout efforts achieved, the items identified do not meet the criteria established in the DFARS.

We also do not agree with the Air Force that the Program Manager for the Combat Talon II performed component breakout reviews as required by the DFARS 217.7202-2 on three contractor-furnished systems. The Combat Talon II Acquisition Plan approved in June 1987 listed six major components or subsystems, including the three systems that the Air Force identified in its comments and stated that none of the components would be broken out because the prime contractor is expected to seek, promote, and sustain competition. The Acquisition Plan also stated that the Combat Talon II design is relatively stable, consists primarily of off-the-shelf avionics, and that only the radar system has a specified reliability and maintainability requirement. The August 1989 Component Breakout Review Report submitted by the Program Director for Special Operations Forces states that there

was insufficient justification to break out the APQ-170 radar, the AAQ-15 IDS, and the Displays because the Combat Talon II design was unstable. This information conflicts with information included in the Acquisition Plan pertaining to the stability of the design, but confirms that the Air Force is following the intent not to perform component breakout on the Combat Talon II as stated in the Acquisition Plan. Additionally, in September 1989, a program office official informed us that no reviews of the components had actually been done.

We also disagree with the Air Force's position that the program office did not initially exempt the Combat Talon II from component breakout and did not misinterpret the \$1 million threshold. The DFARS states that "breakout will normally not be justified for a component whose cost is not expected to exceed \$1 million for the current year's requirement." In September 1989, program office officials told us that component breakout reviews of the Combat Talon II were not required because only the radar met the \$1 million per component per shipset (aircraft) threshold and that this component was not design stable. Additionally, the 1988 and 1989 Component Breakout Review Reports stated that the only contractor-furnished item on the Combat Talon II with a value in excess of \$1 million is the APQ-170 radar. However, the Air Force concurred with the draft report statement that "the Combat Talon II officials concluded that breakout analyses were required only on components with procurement costs that exceeded \$1 million per component per aircraft." These statements clearly indicate that program officials misinterpreted the DFARS guidance on the \$1 million threshold and exempted the Combat Talon II from component breakout review. We identified four components on the Combat Talon II system with 1-year buy requirements in excess of \$1 million. Although the Special Operations Forces office is to be commended for breaking out design and development of shipping containers, contractor repair services, and intermediate and depot-level support equipment, these items are not components to be incorporated in the end item and were not included in our review, which was limited to component breakout as defined in DFARS 217.7202-2. We request the Air Force to reconsider its position and provide additional comments to the final report.

We are at a loss, at this time, to explain the apparent reversal in the Army's position regarding the Army's estimate of cost avoidances of \$29.3 million associated with breakout on a procurement of 300 Black Hawk helicopters. The original estimate discussed in Army Audit Agency Report No. MW 86-701 was prepared by the program office. The Army concurred in the 1985 Army Audit Agency report and in a followup report in 1987 by Internal Review. The project manager concurred in the Internal Review recommendations to immediately evaluate the potential candidates for breakout and document the breakout decisions. The program manager did not implement the recommendation in the Internal Review report. During our audit, we requested the program office to provide the results of the reviews and the reasons for not breaking out the items. The program office could not provide the

requested information. Furthermore, the position should have been presented in response to the Army Audit Agency and Internal Review reports instead of the concurrences given at that time. The fact remains that the program office did not implement the agreed upon recommendations to perform and document the component breakout reviews. Additionally, the items discussed in the Army Audit Agency report were also acquired as spare parts. The vendor competition and economic order quantities, which the Army discussed, could have been achieved by consolidating the production requirements with the spare parts requirement and the use of competitive procurement practices. For this reason, we consider the Army's response to be unresponsive.



SYNOPSIS OF PRIOR AUDIT REPORTS THAT ADDRESSED ASPECTS OF DOD'S  
COMPONENT BREAKOUT PROGRAM

Office of the Inspector General, DoD, Audit Report No. 85-079,  
"Quick-Reaction Report on the Breakout of Component Parts  
Procurement at the U.S. Army Missile Command," March 15, 1985.

The audit objective was to evaluate the breakout of optical sights for the TOW Missile and computers for the Pershing II Missile. The audit disclosed that excessive prices were paid for the components because they were not broken out to the actual manufacturer. The components were not broken out because program officials favored procurement from the prime contractors to ensure system integrity and timely delivery. The audit estimated that \$4.3 million could have been saved if the optical sights were purchased from the actual manufacturer. The report recommended that the Army evaluate current and future provisioning and replenishment of component and spare parts for breakout. The Army agreed with the recommendations and initiated procedural changes to emphasize competitive procurement.

Army Audit Agency, Audit Report No. WE 85-207, "Telecommunications  
Automation and Control Systems," May 23, 1985.

A specific audit objective was to determine if Telecommunications Automation and Control Systems were acquired in the most practicable way. The audit found that the systems were not acquired in the most cost-effective manner or in accordance with applicable guidance. The report identified \$3 million in potential savings and recommended that the Army procure the standard remote terminals components from the actual manufacturers. The report also recommended that the Army perform component breakout reviews for all new telecommunications equipment acquisitions. The Army agreed to implement the recommendations.

Army Audit Agency, Audit Report No. MW 86-701, "Negotiation  
Exceptions, U.S. Army Aviation Systems Command," November 22,  
1985.

A specific audit objective was to determine if breakout was considered for the Black Hawk, Apache, and the Remotely Piloted Vehicle. The audit found that breakout reviews were seldom made or documented because program managers preferred dealing with prime contractors to minimize technical risks associated with breaking out components on production contracts. In 1984, Black Hawk personnel identified 55 component breakout candidates and estimated cost avoidance of \$29.3 million if the components were broken out starting in FY 1988. A similar cost avoidance of \$29.3 million was lost because the 55 components were not broken out for the FY 1985 production contract. The audit identified opportunities to achieve monetary benefits through component breakout on the Apache and on the Remotely Piloted Vehicle.

SYNOPSIS OF PRIOR AUDIT REPORTS THAT ADDRESSED ASPECTS OF DOD'S  
COMPONENT BREAKOUT PROGRAM (Continued)

These potential monetary benefits were not quantified. The report recommended that component breakout regulations be updated, program managers conduct and document breakout reviews, and that program managers establish challenging goals based on breakout and competition reviews. The Army agreed to implement the recommendations. Our review showed that the recommendations to perform breakout reviews were not implemented.

Office of the Inspector General, DoD, Audit Report No. 87-142,  
"Procurement of Ammunition Storage Racks for the M1A1 Tank,"  
May 7, 1987.

The audit objective was to evaluate the Army's acquisition strategy and compliance with procurement policies in procuring the M1A1 tank ammunition storage racks. The audit found that the Army's acquisition strategy did not adequately consider breakout of the storage racks for procurement from the actual manufacturer, and that breakout could reduce future costs by \$24.9 million. The report recommended that the storage racks be broken out, and that other components on the M1A1 tank be subjected to breakout reviews. The Army nonconcurrent with the recommendation and believed that breakout of the racks was not cost-effective. The Army agreed to review breakout again as part of the planning for the FY 1996 tank procurement.

Office of the Inspector General, DoD, Audit Report No. 87-155,  
"Procurement of the North Seeking Gyrocompass for the M981 Fire  
Support Team Vehicle," May 21, 1987.

The audit objective was to determine the feasibility of the Army purchasing the gyrocompass from the actual manufacturer, and to determine the amount of savings available through breakout. The audit found that the Army's decision not to breakout the FY 1984 and FY 1985 requirements for gyrocompasses increased the contract cost by \$5.4 million. In 1986, based on a Defense Contract Audit Agency recommendation and its own initiative, the Army broke out the gyrocompass to the actual manufacturer.

Office of the Inspector General, DoD Audit Report No. 87-216,  
"Survey of the Component Breakout Program for Aircraft Systems,"  
August 7, 1987.

The audit objective was to determine if the Army was performing comprehensive component breakout reviews of aircraft systems. The audit determined that component breakout practices varied among program offices, and neither the Army nor the Aviation Systems Command had developed a standardized method of estimating cost savings from breakout. This audit was terminated after the survey, and the observations were provided to the Army for consideration.

SYNOPSIS OF PRIOR AUDIT REPORTS THAT ADDRESSED ASPECTS OF DOD'S  
COMPONENT BREAKOUT PROGRAM (Continued)

Office of the Inspector General, DoD, Audit Report No. 89-042,  
"Acquisition of the Army's 5-Ton Truck," December 23, 1988.

The audit objective was to evaluate component breakout decisions for the 5-Ton Truck. The Program Manager did not determine if the components for the truck could be broken out. Component breakout was not addressed in the acquisition plan because the Program Executive Officer (PEO) had not implemented a component breakout program. The report stated the Army lost the opportunity to save about \$73 million through breakout and recommended that the PEO establish procedures to ensure compliance with component breakout guidance. The Army agreed to implement the recommendations.

Office of the Inspector General, DoD, Audit Report No. 86-052,  
"Acquisition of the A-6F Aircraft (Formerly the A-6E Upgrade),"  
December 26, 1985.

A specific audit objective was to assess the component breakout program for the A-6F. The audit disclosed that a component breakout study needed to be initiated quickly for the A-6F because the development and production schedule was only 5 years, and it normally takes 3 to 4 years from the time a breakout study is initiated until the actual delivery of the component. The report recommended that a breakout study begin immediately. The Navy initiated a component breakout study of the A-6F Aircraft.

Office of the Inspector General, DoD, Audit Report No. 86-069,  
"Acquisition and Modification of the P-3C Aircraft," February 19,  
1986.

A specific audit objective was to determine if an adequate breakout program had been developed. The audit found that the component breakout program could be improved. About \$600,000 in prime contractor surcharges were unnecessarily incurred because two components were not broken out for 28 months although the Program Manager had decided breakout should occur. About \$2.7 million could be saved if the items were broken out for future procurements. Also about \$9.7 million could be saved if 17 items purchased from the actual manufacturer for spares were broken out for production. The Program Manager's interpretation of DFARS 217.7202 and NAVAIR's lists of the types of items to be considered for component breakout limited the number of components considered for breakout. The report recommended that OSD clarify DFARS component breakout guidance; that NAVAIR revise their instruction to explain that component lists are guides, not limitations; and that NAVAIR break out the components identified in the report. The Navy did not break out the components identified in the report because the P-3C program was terminated.

SYNOPSIS OF PRIOR AUDIT REPORTS THAT ADDRESSED ASPECTS OF DOD'S  
COMPONENT BREAKOUT PROGRAM (Continued)

The OSD issued new guidance in 1987 to clarify DFARS 217.7202, but confusion and misinterpretation of the guidance still existed during our current audit.

Office of the Inspector General, DoD, Audit Report No. 86-104,  
"Acquisition of the Carrier Variant Antisubmarine Warfare  
Helicopter," July 2, 1986.

A specific audit objective was to evaluate the component breakout program for the Carrier Variant Antisubmarine Warfare Helicopter. The audit found that the Navy specified in the contract that the prime contractor identify two qualified sources for high-dollar components purchased from subcontractors. This allowed the Program Manager to conduct breakout reviews when production of the components became stable. The report did not contain any recommendations.

Office of the Inspector General, DoD, Audit Report No. 87-082,  
"HARPOON Weapon System," February 10, 1987.

A specific audit objective was to determine if the HARPOON Missile was being economically and efficiently procured. The audit found that the Program Manager had not broken out any HARPOON components because the Naval Air Systems Command (NAVAIR) agreed with the prime contractor not to break out components in contracts for FY's 1984 through 1986. The report identified six components for possible breakout and estimated cost avoidances of \$32.2 million in FY's 1988 through 1991 by breaking out the components. The report recommended NAVAIR initiate a component breakout review of the HARPOON and break out components after FY 1987 if the review showed that breakout would result in savings without jeopardizing production. The Navy agreed with the recommendations and initiated the component breakout reviews. The cost estimates in the breakout study were questionable and were reaudited and addressed in Office of the Inspector General, DoD, Audit Report No. 89-108. "Component Breakout of the HARPOON Weapon System," September 14, 1989.

Office of the Inspector General, DoD, Audit Report No. 87-110,  
"Acquisition of Landing Craft Air Cushion," April 3, 1987.

A specific audit objective was to evaluate breakout reviews made, or planned, by the Landing Craft Air Cushion (LCAC) program office. The audit disclosed the program office did not make or plan a component breakout study because the Program Manager did not provide sufficient oversight over purchases. The report noted that \$1.5 million was lost because breakout was not performed, and recommended that the Navy study the feasibility of breaking out LCAC components and spare parts and integrate the procurement of LCAC spare parts and components with production procurements. The Navy agreed to implement the recommendations.

**SYNOPSIS OF PRIOR AUDIT REPORTS THAT ADDRESSED ASPECTS OF DOD'S  
COMPONENT BREAKOUT PROGRAM (Continued)**

Office of the Inspector General, DoD, Audit Report No. 87-156,  
"Acquisition of the AV-8B Aircraft," May 22, 1987.

The audit objective was to determine the adequacy of the component breakout program for the AV-8B (ADVANCED HARRIER). The audit found that the Navy did not identify all of the components on the AV-8B aircraft that could have been broken out because it misinterpreted DFARS 17.7202. The report estimated that savings of \$10 million could be achieved by breaking out 12 components by the FY 1988 or FY 1989 procurement and recommended that the components be broken out. The report also recommended that the Navy provide the Program Manager the necessary assistance to evaluate component breakout data provided by the prime contractor. The Navy agreed to implement the recommendations.

Office of the Inspector General, DoD Audit Report No. 87-215,  
"Audit of the Component Breakout Program for Aircraft Systems."  
August 7, 1988.

The audit objective was to determine if the Navy was performing comprehensive component breakout reviews of aircraft systems. The survey found that NAVAIR had a breakout directive and program. However, some observations indicated a need for changes to policy and procedures. These observations included the failure to list major components in NAVAIR'S component breakout guidance; program managers unilaterally excluded components from breakout without justification; and use of the NAVAIR breakout cost model resulted in unrealistic estimates of Government costs. This audit was terminated after the survey, and the observations were provided to NAVAIR for consideration.

Office of the Inspector General, DoD, Survey Report No. 87-221,  
"Survey of the Acquisition of the E-6A Take Charge and Move Out  
(TACAMO) Aircraft," August 17, 1987.

A specific survey objective was to evaluate the results of the Navy's efforts to reduce production costs for the TACAMO through component breakout. The survey identified items, such as radios, electronic support measures equipment, and navigation equipment with potential for component breakout because they were installed in more than one type of aircraft. The report recommended that the Navy evaluate the TACAMO program for component breakout and break out components if the evaluation showed that savings would result with no degradation of product. The Navy estimated savings of \$174,000 for the last production buy in FY 1989. The Navy agreed to implement the recommendation.

SYNOPSIS OF PRIOR AUDIT REPORTS THAT ADDRESSED ASPECTS OF DOD'S  
COMPONENT BREAKOUT PROGRAM (Continued)

Office of the Inspector General, DoD, Audit Report No. 88-038,  
"Acquisition of the Standard Missile," October 20, 1987.

A specific audit objective was to evaluate the adequacy of the Standard Missile component breakout program. The audit found that the Project Office did not fully break out components below the subsystem level and cited shortages of engineers and contracting specialists as obstacles. The audit identified 33 component breakout candidates and estimated potential savings of \$128.4 million. The report recommended that the Navy make a breakout evaluation of components below the subsystem level and, if appropriate, break out the components. The Navy did not agree with the recommendation and stated that it would be more cost effective if the prime contractor competitively awarded the subcontracts for the needed components. Furthermore, the Navy maintained that it had already considered breakout. The Office of the Assistant Inspector General for Auditing considered the Navy breakout analysis to be superficial. No additional audit work was performed on the system during this review.

Office of the Inspector General, DoD, Audit Report No. 88-052,  
"Procurement of Crashworthy Crewseats for Helicopters,"  
November 30, 1987.

The audit objective was to determine if the procurement of crewseats could be broken out to the actual manufacturer. The audit found that the Navy had not considered or initiated breakout of crewseats for SH-60 helicopters. The audit estimated that \$4.4 million in savings could be realized if the Navy broke out the FY 1989 through FY 1998 requirements for crewseats for the SH-60B and SH-60F helicopters to the actual manufacturer. The report recommended that the Navy break out the crewseats. The Navy agreed to implement the recommendation.

Office of the Inspector General, DoD, Audit Report No. 88-068,  
"MK-46 Torpedo Program," January 11, 1988.

A specific audit objective was to determine whether component and replenishment spares breakout programs existed for the MK-46 Torpedo program. The audit found that the Navy had not made an objective breakout analysis of MK-46 components although the administrative contracting office and the Defense Contract Audit Agency recommended expanded subcontractor competition and breakout. It was estimated that \$43 million was lost because breakout did not occur before the final contract award for the program. The report encouraged the Navy to pursue component breakout on the MK-50 Torpedo, which would replace the MK-46.

SYNOPSIS OF PRIOR AUDIT REPORTS THAT ADDRESSED ASPECTS OF DOD'S  
COMPONENT BREAKOUT PROGRAM (Continued)

Office of the Inspector General, DoD, Audit Report No. 88-088,  
"Acquisition of the T-45 Aircraft," February 24, 1988.

A specific audit objective was to determine the adequacy of the component breakout reviews and decisions for the T-45. The audit concluded that the T-45 Program Office completed a breakout study and had made a good attempt at component breakout.

Office of the Inspector General, DoD, Audit Report No. 88-193,  
"Management of the Phoenix Missile Program," August 22, 1988.

The audit objective was to evaluate the management of the Phoenix missile program and determine whether the missile was being procured effectively. The audit found that the Navy planned to procure at least 10 components from the prime contractor that could have been broken out because the Navy did not conduct a breakout review. The audit estimated that the Navy could save \$35.4 million in FY's 1990 through 1992 if the components were broken out. The report recommended that the Navy make a breakout review and, if appropriate, break out the components. The Navy agreed to conduct a breakout review to be completed in time to affect the FY 1991 procurement.

General Accounting Office, Report No. GAO/NSIAD-89-8, "Torpedo  
Procurement - Issues Related to the Navy's MK-50 Torpedo  
Propulsion System," January 1989, OSD Case No. 7785.

The audit objective was to determine the feasibility of breaking out components of the MK-50 torpedo propulsion system. The audit found that the Navy did not plan to break out the propulsion system or its components. The report recommended that the Navy make a determination on breakout of the propulsion system or its components prior to seeking bids for full-rate production of the MK-50 torpedo. DoD agreed with the findings in the report but reemphasized belief that added cost and risk would occur if current dual-sourcing procurement strategy changed. DoD will review component breakout at the appropriate time.

Office of the Inspector General, DoD, Audit Report No. 89-104,  
"Acquisition of the MK-50 Torpedo Program," August 29, 1989.

The audit objective was to review the management of the MK-50 torpedo acquisition program. The audit found that a component breakout analysis was not made or planned, and that the acquisition plan did not require a component breakout program because the Navy claimed component breakout was an alternate acquisition strategy to dual sourcing. The audit identified 11 components for possible breakout and estimated potential savings of \$65 million over 5 years if broken out. The report recommended that the Program Manager conduct a breakout analysis and, if appropriate, break out the components. The report also

SYNOPSIS OF PRIOR AUDIT REPORTS THAT ADDRESSED ASPECTS OF DOD'S  
COMPONENT BREAKOUT PROGRAM (Continued)

recommended that the Program Manager revise the MK-50 acquisition plan to specify that dual sourcing and component breakout were not mutually exclusive and to discuss component breakout of major components or subsystems. The report also recommended that the Program Manager include provisions in the solicitation for full-rate production contracts that require alternate bids based on contractor-furnished material as well as Government-furnished material. The Navy generally concurred with the recommendations regarding component breakout.

Office of the Inspector General, DoD, Audit Report No. 89-108.  
"Component Breakout of the HARPOON Weapon System," September 14,  
1989.

The audit objective was to determine if breakout of HARPOON missile components was cost-effective. The audit concluded that component breakout of the HARPOON was cost-effective, and the Navy's component breakout studies were invalid. As a result of the invalid studies, HARPOON components were not broken out and an estimated \$8.7 million of monetary benefits were lost in FY 1988 and FY 1989. The audit estimated that \$34.6 million could be realized if breakout began with the FY 1990 production. The report recommended that the Navy break out components of the HARPOON missile for FY 1990 and revise its guidance to require that component breakout studies be reviewed and validated by the competition advocate. The Navy comments to the report were not fully responsive. As of March 14, 1990, resolution of the recommendations had not been completed.

Air Force Audit Agency, Audit Report No. 3040291, "Acquisition  
Management of the Advanced Medium Range Air-to-Air Missile,"  
October 22, 1984.

A specific audit objective was to evaluate the component breakout program for the Advanced Medium Range Air-to-Air Missile (AMRAAM). The audit found the AMRAAM Program Manager had not initiated a component breakout program and had not established a breakout review committee to evaluate the potential breakout for the FY 1987 production option and planned follow-on buys. The audit identified eight components with breakout potential and estimated \$17.8 million could be saved. The report recommended that the Armament Division implement a component breakout program for AMRAAM and evaluate and adjust manpower requirements necessary to support breakout efforts. The corrective actions taken or planned for all recommendations were considered responsive by the Air Force Audit Agency.

SYNOPSIS OF PRIOR AUDIT REPORTS THAT ADDRESSED ASPECTS OF DOD'S  
COMPONENT BREAKOUT PROGRAM (Continued)

Air Force Audit Agency, Audit Report No. 4046383, "Followup Audit Acquisition Practices and Installation Management in the KC-135/CFM56 Reengine Program," January 29, 1985.

The audit objective was to determine if a component breakout program was established for the KC-135/CFM56 as recommended in a prior Air Force Audit Agency report. The follow-up audit disclosed that 20 of 22 components recommended for breakout in the prior report were scheduled for breakout beginning in FY 1985 with estimated savings of over \$70 million. The remaining two components were still being considered for breakout. The audit estimated that if all 22 components were broken out, over \$140 million in savings could be realized.

Air Force Audit Agency, Audit Report No. 4036385, "CONUS Over-the-Horizon Backscatter Radar System Component Breakout," January 30, 1985.

The audit objective was to determine the adequacy of planning and implementation of component breakout for the radar system. The audit found that the acquisition strategy did not address component breakout and a component breakout program had not been established. The audit identified 16 components, 11 of which were commercially available, as candidates for breakout and estimated savings of \$14 million. The report recommended that a component breakout program be established for the radar systems. The Air Force agreed to implement a component breakout program for the radar system.

Office of the Inspector General, DoD, Audit Report No. 86-117, "Component Breakout Program for the F-15 Aircraft," August 20, 1986.

The audit objectives were to determine if a comprehensive breakout review was made on the Aircraft, to evaluate breakout decisions, and to determine if necessary actions had been taken to facilitate breakout. The Program Office identified 22 parts to be broken out in FY 1986; however, the audit identified 52 additional component breakout candidates. Forty-eight of the components are also purchased from the prime contractor as spare parts. The audit estimated that the Air Force could avoid \$63.4 million in prime contractor surcharges over the remaining F-15 procurement life if the 52 parts were broken out. In addition, 20 of the 48 parts purchased as spare parts were in excess of calculated requirements and could be used to satisfy F-15 production needs at an additional savings of \$11.9 million. The report recommended that the Air Force break out the 52 components identified, use long supply assets for production aircraft, maintain a list of breakout candidates, and document breakout decisions. The Air Force agreed to implement the recommendations.

SYNOPSIS OF PRIOR AUDIT REPORTS THAT ADDRESSED ASPECTS OF DOD'S  
COMPONENT BREAKOUT PROGRAM (Continued)

Office of the Inspector General, DoD, Survey Report No. 87-217,  
"Audit of the Component Breakout Program for Aircraft Systems,"  
August 7, 1987.

The audit objective was to determine if the Air Force was performing component breakout reviews of 14 different aircraft systems. The audit concluded that not all of the program offices complied with Air Force guidance. The survey found that component breakout reviews were not always performed annually, that annual reports submitted to Aeronautical Systems Division sometimes did not document breakout decisions, and that the cost model was deficient in its ability to quantify offsetting costs. The audit was terminated after the survey, and the observations were provided to the Air Force for consideration.

Office of the Inspector General, DoD, Audit Report No. 88-035,  
"Procurement of Defense Meteorological Satellite Program  
Satellites," October 16, 1987.

A specific audit objective was to evaluate procedures used to attain reasonable costs for major components of Defense Meteorological Satellites. The audit disclosed the Air Force had not determined which major components of the satellites could be broken out because a study made in 1978 or 1979 was used to determine that breakout was not cost-effective. The audit identified six components to be considered for breakout and estimated that about \$4.65 million in savings could result if the components were broken out. The report recommended that the Air Force initiate a component breakout evaluation and, if appropriate, break out the components. The Air Force agreed to perform breakout evaluations on all future procurements.

Air Force Audit Agency, Audit Report No. 7036316, "Acquisition of  
The F117-PW-100 Engine and Its Related Logistics Support,"  
June 20, 1988.

The audit objective was to evaluate the acquisition strategy for the F117-PW-100 engine. The C-17 Program Office did not have a component breakout plan but stated that breakout of the engine would occur on the FY 1991 (Lot IV) procurement. The audit concluded that breakout of the engine could occur for the FY 1990 (Lot III) procurement of the C-17, and that the Air Force could save about \$14 million if both installed and spare engines were broken out. The report recommended that the engines be broken out for Lot III, or that the C-17 prime contractor's profit on the engine be eliminated on the procurement. The Air Force agreed to attempt to eliminate the prime contractor's profit on the engines and to break out the engine on Lot IV procurement. However, the Air Force had not initiated breakout reviews on the other components identified in 1987 as potential breakout candidates.



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

SEP 26 1988

**MEMORANDUM FOR UNDER SECRETARY OF DEFENSE (ACQUISITION)**

**SUBJECT: Need for Clarification of Component Breakout Guidance**

Your July 27, 1988 response to my request for coordination on a disputed audit issue concerning breakout review for the Navy Standard Missile raised the possibility of a need for changes to the DoD component breakout policy. On reviewing the issue further, I am convinced that there is, indeed, a need for additional guidance to clarify under what circumstances a breakout analysis is required and exactly what procedures and documentation are appropriate for a quality breakout analysis.

My view that there is confusion associated with the current breakout guidance--and a need for clarification--is based on events associated with recent audits of three major systems: the HARPOON Missile, the M1A1 Tank and the Standard Missile.

As part of the audits of those systems, my staff evaluated the extent to which breakout had been considered. Using the Defense Federal Acquisition Regulation Supplement (DFARS) 17.7202 guidelines as evaluative criteria, the auditors assumed breakout analyses were mandatory, and that documentation supporting decisions concerning breakout should include sufficient details to demonstrate the rationale and prudence of those decisions.

Each of the three weapon system audits resulted in findings which were critical of various aspects of the Army or Navy breakout review processes. Recommended corrective actions on two of the reports were disputed, in part due to differing interpretations of DFARS component breakout guidance on whether a breakout analysis was required. Furthermore, even when there was agreement on the need for a breakout analysis, the adequacy of subsequent corrective actions remained questionable--again, largely because of incomplete guidance in the DFARS on what constitutes an adequate breakout analysis and the documentation requirements related thereto. Expanded guidance is necessary to address the following questions:

(1) Under what circumstances are breakout reviews mandatory? Conversely, what circumstances or procurement techniques, if any, exempt specific systems from the requirement for breakout analysis?

(2) What specific review procedures are mandatory and what documentation is required to be developed and retained to support breakout decisions? An example of an acceptable breakout evaluation would be beneficial.

Additional details relevant to these issues are enclosed.

I want to reiterate that I do not advocate component breakout unless the overall benefit of that approach can be demonstrated. I do believe, however, that breakout potential should always be fully assessed and that the basis for breakout decisions should be reasonably documented. If we are to continue to perform audits of the Services' breakout programs, and I think we should, clarification of the applicable guidelines is needed to establish a common baseline, to avoid variances in interpretations, and to maximize the intended benefits of the DoD breakout initiative both through program management and by audit oversight.

I urge you to issue additional guidance to clarify the points raised above. My office will continue to pursue the specific issues involved with the individual audit reports with the Army and the Navy as appropriate. Your views, within 30 days, will be appreciated.



Jane Gibbs Brown  
Inspector General

Enclosure



THE OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE  
WASHINGTON, D C 20301-8000

PRODUCTION AND  
LOGISTICS  
(P/DSPS)

23 FEB 1989

MEMORANDUM FOR DEPARTMENT OF DEFENSE INSPECTOR GENERAL

SUBJECT: Resolution of Disputed Issue Associated with OIG Audit  
Report No. 88-038, "Acquisition of the Standard  
Missile," October 20, 1987

In our interim response of November 18, 1988, we advised that we would provide a final response after receiving comments from the Services. The Services generally believe the current DFARS guidance is clear. However, there is some concern that the guidance is too detailed and restrictive and that it may not stress factors other than cost savings sufficiently to be considered in evaluating the merits of component breakout. The effects of component breakout on other acquisition strategies, such as dual sourcing and multiyear procurement, can be critical to the evaluation. For example, the impact on a weapon system warranty may cause the government's rights to be changed if a component breakout decision is not analyzed carefully. Therefore, the decision to use component breakout cannot rest solely on the potential cost savings. Other factors and the consequences to the program must be considered.

This appears to be a continuing point of disagreement between acquisition program managers and DoD IG reviewers. We plan to stress the importance of the documentation of component breakout decisions and this will be a topic of discussion during our Inter-Departmental Staff Meeting.

ELEANOR R. SPECTOR  
DEPUTY ASSISTANT SECRETARY OF  
DEFENSE FOR PROCUREMENT





THE DEPUTY SECRETARY OF DEFENSE

WASHINGTON, D C. 20301

9 JUN 1990

MEMORANDUM FOR THE INSPECTOR GENERAL

SUBJECT: Component Breakout

This is in reply to your memorandum of May 18, 1990 forwarding the results of a Department of Defense Inspector General audit of the component breakout for major systems.

Please prepare and forward to me by June 25, 1990 a draft memorandum for my signature that would direct the appropriate officials of the Department to take the actions necessary to remedy the shortcomings identified by your audit.

A handwritten signature in black ink, appearing to read "Don Atwood".

10863





THE DEPUTY SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301

9 AUG 1990

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS  
UNDER SECRETARY OF DEFENSE FOR ACQUISITION  
COMPTROLLER  
INSPECTOR GENERAL

SUBJECT: Component Breakout in Systems Acquisition

A recent audit performed by the Inspector General determined that component breakout on major defense acquisition programs was not always considered as a potential acquisition strategy. Component breakout reviews were often not performed, and, when performed, valid breakout opportunities were not pursued.

The DoD purchases billions of dollars of components through prime contractors as part of the production of major systems. In many cases, that is a perfectly sound business decision for a variety of reasons. Nonetheless, we must be attuned to breakout possibilities and not hesitate to exploit opportunities for cost savings when it is prudent and the risks are acceptable.

The Under Secretary of Defense for Acquisition shall:

- Include in the revision of DoD Directive 5000.1 and DoD Instruction 5000.2, a requirement for program managers to perform and document component breakout reviews as part of their system acquisition strategy. Include in DoD Manual 5000.2, detailed guidance on the approach to complete the breakout analysis. The guidance in those directives should specify when a breakout review is required, what constitutes an adequate breakout analysis, and the related documentation requirements. It should address dollar thresholds and the circumstances or procurement techniques, if any, which exempt systems from the requirement for breakout analysis.

- Establish appropriate models for completing breakout reviews and determining costs and net savings associated with component breakout decisions.

The Secretaries of the Military Departments shall:

- Direct Program Managers to complete component breakout reviews as a required step in acquisition strategies.

- Ensure that Program Managers have the resources and expertise to perform adequate component breakout analyses. The development of sufficient in-house capability to analyze breakout potential is generally preferable to contracting for breakout studies.

The Under Secretary of Defense for Acquisition and the Comptroller, through the Defense Management Report implementation process, will evaluate the feasibility of establishing monetary goals for breakout savings and cost avoidance at an aggregate level above individual weapon systems, and recommend appropriate program/budget adjustments.

We must eliminate unnecessary costs in our acquisition programs and break out system components for procurement directly from actual manufacturers whenever it makes good business sense. Please provide me your plans, within 30 days from the date of this memorandum, for accomplishing the actions directed above.

*J. J. Atwood*



ASSISTANT SECRETARY OF DEFENSE  
WASHINGTON, D C 20301-8000

PRODUCTION AND  
LOGISTICS

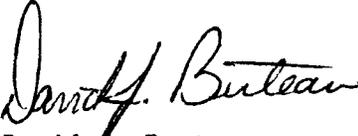
July 11, 1990

MEMORANDUM FOR DEPARTMENT OF DEFENSE INSPECTOR GENERAL

SUBJECT: Draft Report on the Audit of the Component Breakout  
Program for Major Systems (Project No. 9AP-0044)

We support the position that component breakout should be considered on every major program and should be effected when there are cost savings and low technical and schedule risk of the government furnishing items to a prime contractor.

We do not necessarily agree with elevating this element of a Program Manager's responsibility to the USD(A) level, creating it as an advocacy program, or developing cost saving targets and reports on progress. Also, we believe that current DFARS coverage on component breakout is sufficiently detailed and that, in order to reach the desired program management audience for further component breakout guidance, such information should be in DoDD 5000.1/.2.

  
David G. Berteau  
Principal Deputy

Attachment

## COMMENTS ON THE COMPONENT BREAKOUT PROGRAM DRAFT REPORT

### MANAGEMENT:

We do not agree with elevating the management of component breakout above the Program Manager's (PM) level. This is contrary to the program management philosophy of eliminating layers of management which detract from the PM's responsibilities. In addition, there are many acquisition strategy alternatives that a PM must consider. Such alternatives include dual sourcing and multiyear contracts. These alternative strategies may be incompatible with component breakout. For example, in dual sourced production with two separate supplier sets, price competition at the prime contractor and subcontractor level is probably more effective in controlling costs than component breakout. To raise the management of component breakout to a higher level would create an advocacy program for this single program; perhaps at the expense of other more effective strategies.

Program Managers must be sensitive to additional risk and potential liability to the government as a result of introducing an expansion of management responsibility for Government Furnished Equipment/Material with component breakout. The government may effectively reduce a prime contractor's system responsibility.

The IG cost savings estimates appear to have been based on cost avoidance of the prime contractor's overhead with no recognition of the risks associated with breakout of major weapon system components. We believe risks, and the consequences to the program, must be considered. A recent example of problems with component breakout is an instance where we projected significant savings from buying an aircraft wing from a source other than the prime contractor. That decision has resulted in extensive schedule delays, procurement of additional wings from the aircraft prime, and attendant increased government management effort and cost.

### COST SAVINGS TARGETS, AND REPORTS ON STATUS:

The premise that dollar savings targets can be identified for future component breakout may not be practical in the major weapon system acquisition process. The establishment of targets works best when the target can be realized with a single quantifiable factor as the only determinant for the achievement of the goal. If dollar savings were the only factor to consider in making the decision to breakout components, establishing targets might make sense as a way to encourage the achievement of increased breakout.

However, as indicated above, there are other factors and risks that have to be considered in determining the overall effectiveness of component breakout for a specific major system. Also, each major system must be judged individually, on the extent of breakout potential, based on its unique characteristics. Another risk is that Program Managers, in their quest for target achievement, may decide on breakout when it would be detrimental to the program. The establishment of dollar savings targets carries a resource commitment to develop targets, administer the targets, prepare reports on the status of targets, and brief target status at all levels of management.

DFARS COVERAGE:

We do not believe the DFARS coverage on component breakout is inadequate. DFARS 217.7202-2 provides guidance for determining when a component breakout review is required; DFARS 217.7202-4 provides guidelines for making breakout decisions; and DFARS 217.7202-5 requires that reviews be conducted to make a final decision on breakout. It also requires that the decisions be documented in the contracting activity's records.

The DFARS does not contain guidance on a standard cost model or specify the documentation required to support a specific breakout decision. This additional guidance recommended by the IG addresses decisions that a program manager, not a contracting officer, must make. We therefore recommend that this guidance would be more appropriately located in DoD Directive 5000.1/DoD Instruction 5000.2/DoD Manual 5000.2-M and not in the DFARS.





COMPTROLLER OF THE DEPARTMENT OF DEFENSE  
WASHINGTON, DC 20301-1100

AUG 10 1990

MEMORANDUM FOR THE INSPECTOR GENERAL, DOD

SUBJECT: Draft Report on the Audit of the Component Breakout Program for Major Systems (Project No. 9AP-0044)

Final Report

Page No.

The following is in response to number 2 of the recommendations for corrective action of the subject report on page 33:

Revised

16

The Department of Defense has already considered component breakout as one of the many segments that will be addressed under the Defense Management Review Decision titled, "Inventory Management Plan" which is scheduled to be submitted to the DepSecDef in September 1990.

Donald B. Shycoff  
Principal Deputy Comptroller





DEPARTMENT OF THE ARMY  
OFFICE OF THE ASSISTANT SECRETARY  
U.S. ARMY CONTRACTING SUPPORT AGENCY  
5109 LEESBURG PIKE  
FALLS CHURCH, VIRGINIA 22041-3201



4 SEP 1990

REPLY TO  
ATTENTION OF

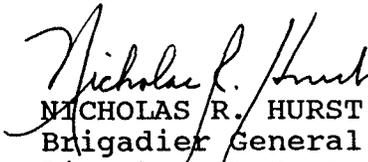
SFRD-KAC

MEMORANDUM FOR ACTING DIRECTOR, CONTRACT MANAGEMENT DIRECTORATE,  
INSPECTOR GENERAL, DEPARTMENT OF DEFENSE,  
400 ARMY NAVY DRIVE, ARLINGTON, VA 22202-2884

SUBJECT: Draft Report on the Audit of the Component Breakout  
Program for Major Systems (Project No. 9AP-0044)

1. Enclosed is the Army's response to the requisite findings and recommendations contained in the subject audit report.
2. The Army point of contact for any questions and/or correspondence regarding this audit report is Mr. Peter Staples, who can be reached on 756-7576.

Encl

  
NICHOLAS R. HURST  
Brigadier General, GS  
Director, U.S. Army Contracting  
Support Agency

CF:  
SAIG-PA  
SARD-ZE  
SARD-ZS

**RECOMMENDATION 4:**

We recommend that the Army Acquisition Executive direct the APACHE and BLACK HAWK Program Managers to perform component breakout reviews of their systems in accordance with Defense Federal Acquisition Regulation Supplement 217.7202 before issuing new contract awards for additional systems.

**ARMY COMMENTS:**

1. **(Army Advanced Attack Helicopter - APACHE).** Concur in part. While we acknowledge that breakout reviews conducted for the APACHE were not fully documented, reviews (during lot buys P2 through P7 time frames) were accomplished, and documentation regarding reviews and their results provided to the DoDIG during the course of this audit. Items broken out, or recommended for breakout, ranged from 9 items in lot buy P2 to 62 items in lot buy P5 through P7. Dollar values ranged from \$112 thousand to \$25 million. At this juncture in the APACHE program, review of installed components for breakout would serve no constructive purpose. The Army is so far inside the 30-month production lead time for the last production lots (P10) that it would be impossible for the Government to provide additional breakout items in time to meet production dock-time requirements. However, in the event that future requirements are identified and funding is appropriated for production beyond lot buy P10, formal component breakout review and analysis will be conducted.

2. **(Army UH-60 Helicopter - BLACK HAWK).** Concur in part. As in the case of the APACHE, considerable informal component breakout was conducted during the course of production of the BLACK HAWK, although mostly undocumented. The BLACK HAWK program has utilized several means to reduce the overall cost of the system while maintaining the directed schedule and required performance. There is considerable documentation on the savings achieved by the BLACK HAWK Project Manager through multiyear procurements, spares acquisition integrated with production (SAIP), and full and open competition of major Government Furnished Equipment (GFE). As in the case of the APACHE, component breakout of a system in final production would be counterproductive at this time. In the event that future requirements are identified and funds appropriated, formal breakout reviews will be accomplished.

3. By memorandum dated 19 July 1990, General William G.T. Tuttle, Commanding General, U.S. Army Materiel Command, issued specific direction to his Commanders to perform the required component breakout reviews in accordance with existing regulations. A copy of this memorandum is attached.

4. **Estimated Monetary Benefits.** We believe that the estimated monetary benefit amount stated in the audit report is overstated due to the fact that no decrement has been taken to account for the risk that the Government has assumed (cost of delinquent and/or defective Government furnished material (GFM) and its impact on the prime contractor, costs associated with accomplishing breakout (ie. tooling, drawings, technical data packages, etc.), cost of additional Government personnel required to manage breakout items, and the cost of adding additional items to the supply system. The audit report indicates that an estimated \$29.3 million of procurement costs on 300 BLACK HAWK helicopters was lost due to the lack of implementation of the breakout policy. Based on the assumed value of these components, an average of 15 percent would have to be saved on each component to achieve that level of cost avoidance. This is not a realistic expectation since most of these items are procured as part of the multiyear contract and are already being procured at reduced prices from the contractor through vendor competition and economic order quantity procurements which have resulted in a minimum of 12 percent savings over annual procurements. The estimated cost avoidance also does not include any cost that would occur if the GFE was not provided to the contractor as specified in the contract. The production contract that was used to develop the estimated \$29.3 million is a \$1 billion contract. The estimated cost avoidance offset amounts to less than 3 percent of the contract cost which could easily be offset with even minimum production line delays due to GFE shortages. These are real occurrences that have real costs and must be considered when performing a cost analysis for the purpose of breakout.



DEPARTMENT OF THE ARMY  
HEADQUARTERS, U. S. ARMY MATERIEL COMMAND  
5001 EISENHOWER AVENUE, ALEXANDRIA, VA 22304-0001



AMCPP-MC (715)

19 July 1990

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Component Breakout

1. A recent draft Department of Defense Inspector General audit report is very critical of the Services' management of component breakout. The policy, which is contained in the Defense Federal Acquisition Regulation Supplement (DFARS 217.72), requires the review of major components and subassemblies for direct procurement from the actual manufacturer, or competitively, when substantial net cost savings can be achieved without jeopardizing quality, reliability, performance or delivery schedules of the end item.
2. This report follows a succession of audits of individual programs that have consistently found that component breakout reviews were not conducted or were inadequately documented. Although the primary responsibility for these reviews rests with Program Managers (PMs), the regulation states that the PMs are to be supported by cognizant engineering, production, logistics, maintenance and other appropriate personnel, including the contracting officer. It is therefore clear that our matrix support responsibilities include providing breakout analyses and recommendations to the PMs. To the extent that we have not been providing these reviews, we have failed to perform our acquisition support mission.
3. I consider this to be a material weakness requiring immediate corrective action. Therefore, I expect you to implement the existing regulation at your command, including the Federal Acquisition Regulation requirement to address component breakout in acquisition plans, within 30 days. Programs for which total research, development, test and evaluation expenditures are estimated to be more than \$75 million, and programs expected to exceed \$300 million in total life cycle acquisition cost will require a plan of action. That plan should focus on sequentially identifying and reviewing the remaining highest dollar value candidates offering potential net savings. To assist in arriving at an economic analysis that will withstand audit scrutiny, I am having a cost model developed. The model will be provided to you by 30 September 1990. In the interim, please send your preliminary plan of action for major programs within 30 days to AMCPP-MC, ATTN: Mr. R. Kuhn, DSN 284-5676/85.

  
WILLIAM G. T. TUTTLE, JR.  
General, USA  
Commanding

DISTRIBUTION:

B1

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APPENDIX H  
Page 4 of 4



THE ASSISTANT SECRETARY OF THE NAVY  
(Research, Development and Acquisition)  
WASHINGTON, D.C. 20350-1000

30 JUL 1990

Final Report  
Page No.

MEMORANDUM FOR THE DEPARTMENT OF DEFENSE ASSISTANT INSPECTOR  
GENERAL FOR AUDITING

Subj: DRAFT REPORT ON THE AUDIT OF THE COMPONENT BREAKOUT  
PROGRAM FOR MAJOR SYSTEMS (PROJECT NO. 9AP-0044)

Encl: (1) DON Response to Draft Audit Report

The Navy partially concurs with the findings and recommendations made in the subject draft report. Our detailed comments are contained in enclosure (1).

While the Navy concurs and supports the concept that appropriate review of components for breakout must be conducted by the Program Manager, we do not concur with the estimated monetary savings of \$2.86 billion and the methodology used to calculate these savings. We believe the audit findings ignore the very real offsets inherent in integration/delivery of Government furnished equipment (GFE). Revised

The approach utilized in the audit process results in unsupported conclusions. No statistical data is provided to support the assumptions utilized in the potential savings analysis and no factor of technical complexity or system integration effect of any of the component population is considered. Additionally, the audit does not recognize any offsetting costs or risks associated with awarding and managing additional prime contracts for GFE.

The Navy does not concur with establishing a Component Breakout Advocate with oversight responsibility in the Office of the Secretary of Defense. This is not in line with the intent of the Defense Management Review to reduce advocacies/advocacy staffs, eliminate detailed directions to Program Managers, and reduce excessive oversight. Deleted

I recommend that the DODIG emphasize the need for more complete guidance to program officials and for improved documentation of the breakout decision process.

  
Gerald A. Cann

Copy to:  
NAVINGEN  
NAVCOMPT (NCB-53)

Department of the Navy Response  
to  
DODIG Draft Audit Report of May 9, 1990  
on  
The Component Breakout Program  
for Major Systems  
Project No. 9AP-0044

Final Report  
Page No.

Finding:

Based on factors developed during our review of six system acquisition programs, we estimate that about \$114.2 billion (41 Percent) of the \$278.6 billion is for subcontracted components that should be reviewed for possible breakout. If only 10 percent of these components are broken out we estimate that the monetary benefits of \$2.86 billion could be realized during FY's 1990 through 1994" Revised

DON Comment:

We do not concur with the DODIG's estimated monetary benefits. The analysis of potential savings from component breakout ignores offsetting factors. DODIG estimates the dollar value of components available for breakout for 72 major systems acquisitions at 41 percent of the total procurement cost based on a review of three programs that were not randomly selected and may not be representative of the universe. The report also arbitrarily estimates that 10 percent of this amount could be broken out and applies a "DoD Standard Breakout Savings Factor" obtained from the DFARS Supplement No. 6 which is intended for use in the DoD Spare Parts Breakout Program. Component breakout per DFAR Supplement 217.7202-4 "will normally not be justified for a component whose cost is not expected to exceed \$1 million for the current year's requirement." Component breakout refers to high dollar value components and sub-assemblies. Components costing in excess of \$1 million are not typically spare parts and it is totally inappropriate to estimate savings associated with breaking out components using a factor derived for estimating savings associated with low dollar value spare parts breakout.

The report states that "(p)rior audits of 23 major systems identified \$166 million in lost savings and \$612 million in potential monetary benefits." Prior audits referenced in Appendix A of the report, on Navy programs, are also likely misleading. They have attempted to estimate savings associated with potential component breakouts by calculating the amount of prime contractor "adders" to the component prices as determined from the pricing of the prime contractor's contract with the Navy. These "adders" include such costs as material overhead,

General and Administrative (G&A) expenses and profit. G&A, for example, includes many expenses such as the salaries of executive, legal, accounting, and financial staffs and miscellaneous activities related to the overall business operation. These costs will not be eliminated if the Navy breaks out a component. If component breakout were implemented, these costs would not be saved, they would be reallocated to other government programs and contracts thereby increasing the costs of these contracts and eliminating or offsetting any savings. Profit added to component costs by prime contractors is associated with the risk accepted by the prime for managing the effort and ensuring that components and subassemblies are delivered in accordance with contract requirements including timely delivery. Savings of profit through component breakout may be offset by increased government staffing costs required to manage a greater number of contracts and added cost to the government due to late government furnished equipment claims and costs associated with problems encountered in integration and overall system performance accountability.

#### Finding:

The Under Secretary of Defense for Acquisition (USD(A)), as the Defense Acquisition Executive responsible for policy administration, oversight, and supervision of acquisition matters DoD-wide, had not established program objectives or reporting requirements to ensure that the Services and program managers performed component breakout reviews. As a result the Office of the USD(A) did not monitor the Services' compliance in performing breakout reviews.

#### Recommendation 1:

We recommend that the Under Secretary of Defense for Acquisition:

a. Designate a program manager for the Component Breakout Program within the Assistant Secretary of Defense (Production and Logistics) to monitor the Services' implementation of the component breakout program. Consideration should also be given to assigning this program manager responsibility for monitoring the Spare Parts Breakout Program to ensure close coordination between activities involved in the production buy and activities involved in spare parts procurements. Deleted

b. Direct the Defense Acquisition Regulatory Council to clarify the guidance in Defense Federal Acquisition Regulation Supplement 217.7202. At a minimum, this clarification should: Deleted

(1) Establish a method for determining when a component breakout review is required, including dollar thresholds that address annual, multiyear, and program life thresholds.

(2) Provide criteria for when a procurement is exempt from a component breakout review.

(3) Establish specific and mandatory review procedures.

(4) Establish a standard model for determining cost and net savings associated with component breakout.

(5) Specify the documentation required to support a breakout decision.

(6) Establish a requirement for an independent review and validation of component breakout studies and decisions.

c. Establish a reporting requirement within the Defense Acquisition System that will provide the following information: Deleted

(1) Major systems or equipment in production and the associated components that meet the breakout threshold.

(2) The components meeting the threshold, categorized as follows:

(a) Components not yet reviewed and estimated date of review.

(b) Components determined to have no breakout potential. The determination should document reasons why breakout was not recommended.

(c) Components identified as potential breakout candidates. The determination should document the barriers to breakout and planned corrective action.

(d) Components provided as contractor-furnished material that were broken out as replenishment spares. Justification should be provided on why components in this category were not broken out.

(e) Components selected for breakout. The determination should include the planned date of breakout and the estimated net savings.

d. Require the Service Acquisition Executive to establish component breakout objectives and to include the objectives in the performance standards of program executive officers and program managers. Deleted

e. Require competition advocates and program executive officers to review and approve all component breakout plans and decisions. Deleted

f. Develop procedures to report and track the identified Deleted material weakness as required by DoD Directive 510.38, "Internal Management Control Program."

Navy Position:

Defer comment on the recommendation to USD(A). However, the DON position is:

Recommendation 1.a: The establishment of any new policy/program advocate is inconsistent with and contrary to the intent and direction of the Defense Management Review. The DMR intent is to flow down authority and responsibility to the lowest practicable level. It is sufficient to make the program manager and the program executive officer aware of all acquisition regulations and guidance and to let them accommodate the appropriate and judicial mix and emphasis of each into the procurement at hand. Single advocacies tend to sub-optimize this process to the detriment of the overall objective.

Recommendation 1.b: Close examination of the regulation covered in DoD FAR Supplement 217.7202 reveals that sufficient guidance for the requirement for, and the conduct of, the component breakout review exists. Because each component breakout consideration is unique and dependent on the specifics of the weapons system, a "standard model" is neither applicable nor feasible (other than in the most simplistic of forms as is now described in the DoD FAR Supplement.) Documentation of the review decision is defined clearly enough in the current regulation to obviate the necessity for new regulatory coverage. It is recommended, however, that the topic of component breakout be addressed in more detail in the new DoDD 5000.1/.2 series acquisition policy directives.

Recommendation 1.c: Establishment of additional reporting requirements is contrary to the intent and direction of the Defense Management Review. Additionally, the requirement for documentation of the breakout review ensures that appropriate recording of the decision be made part of contracting activity's records. This is sufficient for oversight and is consistent with assigning authority and responsibility at the lowest appropriate level.

Recommendation 1.d: Establishment of separate component breakout objectives in PEO/PM performance standards sub-optimizes the entire process of assigning and holding these executives responsible for the overall acquisition function for a weapon system. Focusing on one sub-element of the acquisition process will unduly jeopardize other, equally critical considerations that must be balanced in the management of major systems acquisition.

Recommendation 1.e: It is current Navy policy that activity competition advocates review and evaluate component breakout decisions prior to a final decision. (See Attachment A.) It is still, however, the ultimate responsibility of the program manager to ascertain if component breakout is appropriate for a given program. This is consistent with the guidance in the DoD FAR Supplement.

Recommendation 1.f: The Internal Management Control Program is designed to track the resolution of major deficiencies/defects in management control systems. The real issue at hand is the documentation of the breakout decisions that have been made. While it is recognized that improvement of the documentation is warranted, it is not felt that this situation necessitates inclusion in the Internal Management Control Program.

### Findings:

Various interpretations exist of the Defense Federal Acquisition Regulation Supplement (DFARS) 217.7202 with respect to dollar thresholds, exemption criteria, review procedures, methods for determining costs and savings, documentation, and independent reviews of breakout decisions. In addition the Services have not established component breakout objectives or accountability for those objectives.

### Recommendation 2:

We recommend that the Comptroller, Department of Defense, prepare and submit a Defense Management Review Decision on component Breakout that establishes dollar savings targets for the Services.

Revised

### DON Position:

Defer comment on the recommendation to Comptroller, Department of Defense. However, the DON position is that, first, the audit report does not reflect the reality of the offsetting costs of the risk associated with generation of additional Government Furnished Equipment (GFE) into the acquisition process which, if properly considered, would markedly reduce any hypothetical savings. Second, establishment of a dollar target would, by its mere existence, place inappropriate emphasis on the savings and cloud a clear evaluation of the offsetting risks to quality performance, reliability and timely delivery of the end item.

### Finding:

The Service Acquisition Executives had not established objectives and reporting requirements for the Program to ensure that program managers fully implemented the Program.

Recommendation 3:

We recommend that the Service Acquisition Executives:

a. Direct program executive officers and program managers to comply with the component breakout requirements in the Defense Acquisition Regulation Supplement 217.7202. Revised

b. Establish responsibility within their immediate offices to review and monitor program managers' compliance and to establish accountability for component breakout reviews in the performance standards of program executive officers and program managers. Revised

DON Position:

Recommendation 3.a: Concur. The requirement is clearly described in DoD FAR Supplement 217.7202; however, although it is also called out in the Navy's Acquisition Plan Guide, there remains a need to further make program officials aware of this requirement. Component breakout is discussed in the DoD FAR Supplement section concerning Acquisition Plans and Acquisition Plans are discussed in the new DODI 5000.2, Part XI, Section C, Attachment 2, but it is felt that even this guidance requires embellishment to make the requirement more visible. It is recommended that the guidance for component breakout be clarified in the DODI 5000.2 vice in Service directives to be consistent with DoD intent that all acquisition policy be in that directive without Service supplementation.

Recommendation 3.b: Partially concur. We have already issued guidance for field activity competition advocates to "review and evaluate component breakout and breakback decisions prior to final approval". We do not feel it necessary or appropriate to establish the requirement for a separate advocacy on the SAE staff to review and approve such decisions. This again is inconsistent with the objectives and intent of the Defense Management Review. Accordingly, it is not considered necessary to establish performance standards for program executive officers or program managers for component breakout compliance to the exclusivity of all other key acquisition processes/requirements.

Finding:

The Coastal Minehunter Ship and the Surface Ship Torpedo Defense System (SSTD) Program Managers were not familiar with the DFARS requirement for component breakout. We identified components in each of these programs that should be evaluated for component breakout.

Recommendation 5:

We recommend that the Navy Acquisition Executive direct the Coastal Minehunter Ship and the Surface Ship Torpedo Defense System Program Managers to perform component breakout reviews of their systems in accordance with the Defense Federal Acquisition Regulation Supplement 217.7202 before issuing new contract awards for additional systems.

DON Position:

Partially concur. It is the policy of the Naval Sea Systems Command to conduct component breakout review in conjunction with the development of major systems acquisitions. Increased documentation of such reviews and conclusions will be required in future acquisitions. However, in the specific case of the Coastal Minehunter, detailed, validated "build to print" technical specifications (necessary to breakout any component) will not be available until completion of testing and delivery of the lead ship (currently estimated as January 1992). Establishing January 1992 as milestone to make a "BREAKOUT" decision results in the FY 93 buy being the first opportunity for the government to procure selected components. Current Navy and OSD approved profiles for the MHC 51 class program reflect a new contract for the FY 92 ships with the FY 93 (last flight) being an option(s) to the FY 92 contract(s). Considering the complexities and risks involved with having different GFE on option ships to a base contract excludes any potential for "BREAKOUT" for the FY 93 buy separate from the FY 92. Delaying the award of the FY 92 ships until after a "BREAKOUT" decision would have a negative cost and schedule impact on both the FY 92 and FY 93 ship contracts. Likewise, issuing a new contract for the FY 93 ships, exclusively to support "BREAKOUT", would negate the economies of scale savings associated with our current strategy and create an increased cost for both the FY 92 and FY 93 programs. Finally, executing either of these options to effect "BREAKOUT" would place an additional burden on the Program Manager and would increase personnel resource requirements in a reducing civilian personnel environment. Component breakout for the Surface Ship Torpedo Defense System (SSTD) will be considered for follow-on procurement when support and system testing issues are resolved and detailed, validated specifications are available for breakout competition.



DEPARTMENT OF THE AIR FORCE  
WASHINGTON DC 20330-1000

JUL 27 1990

OFFICE OF THE ASSISTANT SECRETARY

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

SUBJECT: DOD(IG) Draft Report on the Audit of the Component  
Breakout Program for Major Systems (Project Number  
9AP-0044) - INFORMATION MEMORANDUM

This is in reply to your memorandum for Assistant Secretary of the Air Force (Financial Management and Comptroller) requesting comments on the findings and recommendations made in subject report.

In general, we nonconcur with the recommendations in your report as it applies to the Air Force. Specific comments on the recommendations and findings are attached. As noted in your report AFSC/AFLC Regulation 800-31 provides guidance for component breakout. This regulation is planned to be superceded by AFR 800-3 which is currently in draft form. The AFR 800-3 effort is currently on hold pending the review and publication of DODD 5000.1 and DODI 5000.2.

The Air Force embraces component breakout recognizing it as an important program management tool. We will continue to promote the proper use of this tool in the Air Force.

A handwritten signature in cursive script that reads "Daniel S. Rak".

DANIEL S. RAK  
Deputy Assistant Secretary  
(Acquisition)

1 Attachment  
AF Comments to Draft Rpt 9AP-0044

AIR FORCE COMMENTS  
ON  
DRAFT DOD(IG) REPORT PROJECT 9AP-0044

Final Report  
Page No. \_\_\_\_\_

a. Page 33, paragraph 3a recommends the Service Acquisition Executive direct program executive officers and program managers to comply with the component breakout requirements in Defense Federal Acquisition Regulation Supplement (DFARS) 217.7202. The Air Force nonconcur since it would be redundant to direct the accomplishment of requirements that that have been directed in the DFARS. 17  
Revised

b. Page 33, paragraph 3b recommends the Service Acquisition Executive establish within his office a program manager compliance monitor and "establish accountability for component breakout reviews in the performance standards of program executive officers and program managers". The Air Force nonconcur with this recommendation since it is now being sufficiently accomplished. The program managers are responsible and accountable for component breakout throughout the acquisition review process. Program reviews of various types are held at each level of DOD acquisition management, including that of the program executive officer, to status the numerous and complex requirements of weapon systems programs. During these reviews, component breakout is one of many management tools considered, where appropriate, for each program. Specifically increasing the attention and accountability for component breakout would place a disproportionate bias on the one particular management tool. Component breakout is not always the best approach when government administrative costs (personnel and funds) are compared to the cost and efficiency of contractor managed integration. This is especially true in today's environment of DMR driven reductions in the acquisition workforce. 18

c. Page 34, paragraph 6a recommends the C-17 Program Manager be directed to perform component breakout reviews of the system using, as a minimum, the July 1987 component list. The Air Force does not concur with this recommendation. During the 1987 timeframe, a preliminary component breakout review was conducted by the C-17 program office which resulted in a July 1987 list of items with breakout potential. Of these items, the F117 engine was identified for breakout (beginning with aircraft P-13). It was decided no other items on the list were viable candidates for breakout at that time due to the continuing development of the aircraft. 20  
Revised

d. Also, the C-17 program office has identified 70 non-developmental aeronautical equipment items that were in the DoD item management inventory, and have been supplying the contractor with the GFE items. With close to 700 pieces of organizational and intermediate support equipment identified, over 400 are already breakout candidates, 200 are in the DoD inventory and the remaining 60 plus items are future breakout items. It is apparent the C-17 program office has a component breakout program.

e. Breakout of development before that development is complete carries with it major technical and financial risks. Total system performance for the C-17 is to be demonstrated during the Operational Readiness Evaluation which is currently planned for completion in the fourth quarter of FY93. That is the time the program office can sensibly proceed with the breakout of the most stable developmental items if it were financially attractive. The program office plans to begin screening breakout candidates this fall, which would provide a generous lead time.

f. Page 34, Recommendation 6b. The report recommends that Deleted the Air Force Acquisition Executive direct the Special Operations Forces Program Manager to perform component breakout reviews of the CT-11 aircraft systems prior to the award of contracts for additional systems. The Air Force does not concur with this recommendation. We believe the program office performed the requisite component breakout reviews per AFSCR/AFLCR 800-31. In any case, the production contract for the final 13 aircraft was signed in April 1990.

g. Page 9, para 1, sentence 5. The report states: 5  
"Although the Air Force had policies and procedures for monitoring the Program, they did not follow them". We concur with the finding; however, the oversight process described in the current AFSCR/AFLCR 800-31, Government-Furnished Equipment/Contractor-Furnished Equipment (GFE/CFE) Selection Process, dated May 31, 1985, is no longer valid. Under the new streamlined acquisition management process, the acquisition command headquarters no longer have oversight of program decisions on major programs. During the acquisition regulation streamlining effort underway since early 1989, the Air Force chose not to revise AFSCR/AFLCR 800-31; instead we would incorporate the essentials of 800-31 into an overarching program management regulation. That effort is currently on hold pending the outcome of the DODD 5000.1/DODI 5000.2 review and subsequent publication.

h. Page 12, para 1, sentence 8. The draft report states: 6  
"The Combat Talon II officials concluded that breakout analyses were required only on components with procurement costs that exceeded \$1 million per component per aircraft". We concur with this finding.

i. Page 19, para 3. The draft report states that 10  
"Headquarters, AFSC did not monitor or review the component breakout data submitted by program managers" in accordance with the duties stated in AFSCR/AFLCR 800-31. As we stated above, the Defense Management Review and streamlined acquisition management process have redefined the oversight process for acquisition programs and superseded much of the process described in that regulation. In addition, a headquarters-level focal point does not have the program visibility nor information necessary to make, or second-guess a component breakout decision without imposing inordinate reporting requirements on the program offices.

J. Page 27, para 2, Finding on Air Force MC-130H Aircraft 14  
(Combat Talon II) and page 34, Recommendation 6b. The Air Force Deleted  
nonconcurrs with the findings on pages 27 and 28 for the Combat  
Talon II (CT-II) and the recommendation for the Air Force  
Acquisition Executive on page 34. The draft report states that  
the CT-II Program Manager had not performed component reviews on  
the MC-130H aircraft and subsequently recommended the Air Force  
Acquisition Executive direct the reviews before the award of  
contracts for additional systems. In fact, the CT-II Program  
Manager had performed component breakout reviews on the three  
contractor-furnished systems that met the \$1 million threshold.  
In the 1989 CT-II Component Breakout Review, the program office  
considered the Emerson APQ-170 Multi-Mode Radar, the Texas  
Instruments AAQ-15 Infrared Detection Set, and Honeywell Controls  
& Displays as potential candidates for component breakout. The  
program office chose not to break the components out since they  
were not design stable, and would not stabilize until the  
completion of flight testing. Due to the concurrency of the  
program, the flight testing of the CT-II aircraft is still ongoing  
at the same time as production.

k. Page 27, para 2. The draft report also states that the 14  
Program Manager "initially exempted the program from component  
breakout because he misinterpreted the \$1 million annual threshold  
for each component in the DFARS to mean \$1 million per component  
per aircraft". This is not correct for two reasons. First, the  
program office did not exempt the CT-II program from component  
breakout. In fact, they chose three systems for review since the  
three systems exceeded the \$1M threshold per component (one  
component per aircraft) for the annual buy. Second, there was no  
misinterpretation. The program office interpreted this to clearly  
mean the total cost for an item to be considered for breakout  
should be at least \$1 million per component.

l. Page 28, para 1. The report states "that at least four 14  
components should have been reviewed for breakout" which "were the  
radar system, the multipurpose displays, the Infrared detection  
set, and the Intercommunications set". As stated above, the  
concurrency of the development and production phases of the  
program did not allow sufficient time to stabilize the design,  
baseline, and break out these systems prior to the issuance of the  
production Request for Proposal for the final 13 aircraft.

m. Page 28, para 1. The draft report did not give credit  
to the CT-II Program Office for the breakout efforts they have  
accomplished. The design and development of shipping containers  
for the APQ-170 radar antennas, the AAQ-15 IDS, and the nose  
radome were broken out to the Air Force Packaging and Evaluation  
Activity (AFPEA) at an estimated savings of \$1.95 million. The  
production containers were broken out to a local 8(a) company for  
an estimated savings on \$5 million. Contractor repair of the IDS  
and Controls and Displays were also broken out from the prime  
contractor for an estimated savings of \$5 million. The program

office also broke out intermediate and depot level support equipment for the IDS at an estimated savings of \$8 million. Finally, efforts are in process for break out of the containers for the APQ-170 radar receiver/transmitters, multi-sensor signal processors, servo power supplies, signal data converters, and video displays.

Appendix M

n. Appendix F, reference 2, 3 and 6 identifies a projected Revised cost avoidance of \$2.86 billion during FY's 1990 through 1994 applicable to the Army, Navy and Air Force procurement appropriations. The Air Force nonconcurs with the cost avoidance estimate attributable to the Air Force. The basis for this is our nonconcurrence with the recommendations which were discussed in paragraph a through f of this document.



MONEYARY BENEFITS IDENTIFIED IN PRIOR AUDIT REPORTS

REPORT NO.	ISSUED BY	DATE	REPORT TITLE	SYSTEM	LOST	POTENTIAL SAVINGS (\$000)	NONE REPORTED
<b>ARMY</b>							
85-079	DODIG	03/15/85	Breakout of Component Parts Procurement, Army Missile Command	TOW Missile Optical Sights/Perching I. Computers	\$ 4,300	\$ 3,000	
VE 85-207	AAA	05/23/85	Telecommunications Automation and Control Systems, Army Information System Command	Various Telecommunications Equipment			
NW 86-701	AAA	11/22/85	Negotiation Exceptions, Army Aviation Systems Command	Black Hawk, Apache, and Remotely Piloted Vehicle	29,300	29,300	
87-142	DODIG	05/07/87	Procurement of Ammunition Storage Backs for M1A1 Tanks	M1A1 Tank		24,900	
87-155	DODIG	05/21/87	Procurement of the North Seeking Gyrocompass for the M981 Fire Support Team Vehicle	North Seeking Gyrocompass	5,400		
87-216	DODIG	08/10/87	Component Breakout Program for Aircraft Systems	Cobra (AH-1S), Black Hawk (UH-60), Aeroscout (OH-58), Chinook (CH-47), Apache (AH-64), Huron (C-12/HC-12)	73,000		
89-042	DODIG	12/23/88	Acquisition of the Army's 5-Ton Truck	M999A2 5-Ton Truck			
<b>TOTALS</b>					<b>\$112,000</b>	<b>\$ 57,200</b>	
<b>NAVY</b>							
86-052	DODIG	12/26/85	Acquisition of the A-6F Aircraft (Formerly the A-6B Upgrade)	A-6F Aircraft			
86-069	DODIG	02/19/86	Acquisition and Modification of the P-3C Aircraft	P-3C Aircraft	\$ 600	\$ 12,400	
86-104	DODIG	07/02/86	Carrier Variant Antisubmarine Warfare Helicopter	Carrier Variant Antisubmarine Warfare Helicopter			
87-082	DODIG	02/10/87	HARPOON Weapon System	HARPOON Weapon System			
87-110	DODIG	04/03/87	Acquisition of Landing Craft Air Cushion	Landing Craft Air Cushion (LCAC)	1,500		
87-156	DODIG	05/22/87	Acquisition of the AV-8B Aircraft	AV-8B (Advanced Harrier)		10,091	
87-215	DODIG	08/10/87	Component Breakout Program for Aircraft Systems	Sea Cobra, C-2A Greyhound, B-2C Hawkeye, V-22 Osprey, CB-53B Super Stallion, BA-6B Prowler, F-14, F/A-18, MH-53B Sea Dragon, SH-60B LAMPS, SH-60F CV-Relo			
87-221	DODIG	08/17/87	B-6A Take Charge and Move Out (TACAMO) Aircraft	B-6A Take Charge and Move Out Aircraft (TACAMO)		174	
88-038	DODIG	10/20/87	Acquisition of the Standard Missile	Standard Missile		128,400	
88-052	DODIG	11/30/87	Procurement of Crashworthy Crewseats for Helicopters	SH-60B and SH-60F Helicopters		4,400	
88-068	DODIG	01/11/88	ME-46 Torpedo Program	ME-46 Torpedo	43,000		
88-088	DODIG	02/24/88	Acquisition of the T-45 Aircraft	T-45 (Navy Undergraduate Jet Flight Training System)		35,400	
88-193	DODIG	08/22/88	Phoenix Missile Program	Phoenix Missile		65,000	
NSIAD-89-8	GAO	01/27/89	ME-50 Propulsion System Procurement	ME-50 Torpedo		34,600	
89-104	DODIG	08/29/89	Acquisition of the ME-50 Torpedo Program	ME-50 Torpedo Program	8,700		
89-108	DODIG	09/14/89	Component Breakout of the HARPOON Weapon System	HARPOON Weapon System			
<b>TOTALS</b>					<b>\$ 53,800</b>	<b>\$290,465</b>	
<b>AIR FORCE</b>							
3040291	AFAA	10/22/84	Acquisition of the Advanced Medium Range Air-to-Air Missile	Advanced Medium Range Air-to-Air Missile (AMRAAM)		\$ 17,894	
4046363	AFAA	01/29/85	Acquisition Practices in the KC-135/CP456 Reengine Program	KC-135/CP456		140,000	
4046365	AFAA	01/30/85	CONUS Over-the-Horizon Backscatter Radar System Component Breakout	CONUS Over-the-Horizon Backscatter Radar		14,225	
86-117	DODIG	08/20/86	Component Breakout Program for the F-15 Aircraft	F-15		75,307	
87-217	DODIG	08/10/87	Component Breakout Program for Aircraft Systems	B1-B, C5-B, KC-10, TB-1, CV-22, MH-60G, F-16A, F16C/D, F-15, C-17A, MC-130, AC-130U, C-27, C-20		4,650	
88-035	DODIG	10/16/87	Procurement of Defense Meteorological Satellites	Defense Meteorological Satellite		12,270	
7046316	AFAA	06/20/88	F117-PW-100 Engine and Related Logistics Support	F117-PW-100 Engine			
<b>TOTALS</b>					<b>\$ 0</b>	<b>\$264,316</b>	
<b>GRAND TOTALS</b>					<b>\$165,800</b>	<b>\$612,011</b>	

\* Included in Report 89-108.  
Acronyms identified on next page.

**MONETARY BENEFITS IDENTIFIED IN PRIOR AUDIT REPORTS**  
(Continued)

**Acronyms**

DoDIG - Department of Defense, Inspector General  
AAA - Army Audit Agency  
GAO - General Accounting Office  
AFAA - Air Force Audit Agency

**COMPUTATION OF MONETARY BENEFITS**  
**(\$ IN BILLIONS)**

	<u>FY 1990-1994</u>	<u>FY 1991-1994</u> <sup>1/</sup>
Procurement Cost for 72 Major Systems <sup>2/</sup>	\$278.59	\$230.58
Estimated Percent of Procurement Cost for Components that Should Be Reviewed. <sup>3/</sup>	<u>41</u>	<u>41</u>
Cost of Components that Should Be Reviewed for Breakout	\$114.22	\$ 94.54
Estimated Percent of Components that Could Be Broken Out <sup>4/</sup>	<u>10</u>	<u>10</u>
Estimated Cost of Components Approved for Breakout	\$ 11.42	\$ 9.45
DoD Standard Breakout Savings Factor <sup>5/</sup>	<u>.25</u>	<u>.25</u>
Estimated Monetary Benefits	\$ 2.86	\$ 2.36

<sup>1/</sup> Monetary benefits were revised to reflect FY 1991 through FY 1994 because of the timing of the final report.

<sup>2/</sup> Listed in "FY 90-91 Summary of Major Defense Acquisition Programs."

<sup>3/</sup> Based on subcontracted components with an estimated annual procurement cost of \$1 million or more on the Apache, Black Hawk, and Coastal Minehunter Ship.

<sup>4/</sup> Auditors' estimate of the minimum amount of components that could be broken out after review.

<sup>5/</sup> Breakout savings factor shown in DFARS Supplement No. 6.



**SUMMARY OF POTENTIAL MONETARY AND  
OTHER BENEFITS RESULTING FROM AUDIT**

<u>Recommendation Reference</u>	<u>Description of Benefits</u>	<u>Amount and/or Type of Benefit</u>
1.	Program Results. Improved management and oversight of the Component Breakout Program.	This recommendation contributes to the cost avoidance of \$2.36 billion claimed for Recommendation 3.
2.	Economy and Efficiency. Improved management of the Component Breakout Program and compliance with regulations.	This recommendation contributes to the cost avoidance of \$2.36 billion claimed for Recommendation 3.
3.	Economy and Efficiency. Performance of adequate component breakout reviews on major systems will identify components that can be procured from the actual manufacturer or competitively and provided as Government-Furnished Material (GFM) to the prime contractor, thereby avoiding prime contractor markups.	\$2.36 billion of funds put to better use during FY's 1991 through 1994. The cost avoidance is applicable to Army, Navy, and Air Force procurement appropriations.
4.	Economy and Efficiency. Performance of adequate component breakout reviews on the Black Hawk system will identify components that can be procured from the actual manufacturer, or competitively and provided as GFM to the prime contractor thereby avoiding prime contractor markups.	Not Determined. We did not perform the necessary audit work to determine the components to be broken out and the estimated cost avoidance. The cost avoidance is applicable to Army procurement appropriations.
5.	Economy and Efficiency. Performance of adequate component breakout reviews on the Coastal Minehunter	Not Determined. We did not perform the necessary audit work to determine

**SUMMARY OF POTENTIAL MONETARY AND  
OTHER BENEFITS RESULTING FROM AUDIT**  
(Continued)

<u>Recommendation Reference</u>	<u>Description of Benefits</u>	<u>Amount and/or Type of Benefit</u>
	Ship and the Surface Ship Torpedo Defense System will identify components that can be procured from the actual manufacturer or procured competitively and provided as GFM to the prime contractor, thereby avoiding prime contractor markups.	the components to be broken out and the estimated cost avoidance. The cost avoidance is applicable to Navy procurement appropriations.
6.	Economy and Efficiency. Performance of adequate component breakout reviews on the C-17 Aircraft will identify components that can be procured from the actual manufacturer or procured competitively and provided as GFM to the prime contractor, thereby avoiding prime contractor markups.	Not Determined. We did not perform the necessary audit work to determine the components to be broken out and the estimated cost avoidance. The cost avoidance is applicable to Air Force Procurement appropriations.

## ACTIVITIES VISITED OR CONTACTED

### Office of the Secretary of Defense

Under Secretary of Defense for Acquisition, Program Integration  
Directorate, Washington, DC  
Assistant Secretary of Defense (Production and Logistics),  
Washington, DC

### Department of the Army

Office of the Assistant Secretary of the Army for Research,  
Development and Acquisition, Washington, DC  
Headquarters, Army Materiel Command, Alexandria, VA  
Army Aviation Systems Command, St. Louis, MO  
Advanced Attack Helicopter Program Management Office,  
St. Louis, MO  
Black Hawk Project Management Office, St. Louis, MO  
Headquarters, Army Audit Agency, Alexandria, VA

### Department of the Navy

Office of the Assistant Secretary of the Navy (Research,  
Development and Acquisition) Arlington, VA  
Naval Air Systems Command, Arlington, VA  
Naval Sea Systems Command, Arlington, VA  
Space and Naval Warfare Systems Command, Arlington, VA  
Coastal Minehunter Ship Program Office, Arlington, VA  
Surface Ship Torpedo Defense System Program Office,  
Arlington, VA  
Marine Corps Research, Development and Acquisition Command,  
Rosslyn, VA  
Headquarters, Naval Audit Service, Falls Church, VA

### Department of the Air Force

Office of the Assistant Secretary of the Air Force  
(Acquisition), Washington, DC  
Headquarters, Air Force Systems Command, Andrews Air Force Base,  
MD  
Aeronautical Systems Division, Wright-Patterson Air Force Base,  
OH  
Special Operations Forces System Program Office, Wright-Patterson  
Air Force Base, OH  
C-17 System Program Office, Wright-Patterson Air Force Base, OH  
Headquarters, Air Force Audit Agency, Norton Air Force Base, CA

### Defense Agencies

Headquarters, Defense Contract Audit Agency, Alexandria, VA

ACTIVITIES VISITED OR CONTACTED (Continued)

Other Government Agencies

Small Business Administration Office, Space and Naval Warfare  
Systems Command, Arlington, VA

Small Business Administration Office, Aeronautical Systems  
Division, Wright-Patterson Air Force Base, OH

Non-Government Activities

Universal Energy Systems, Inc., Dayton, OH

RECOMMENDATIONS REQUIRING ADDITIONAL COMMENTS AND  
RECOMMENDATIONS THAT WERE REVISED OR DELETED  
IN THE FINAL REPORT

RECOMMENDATIONS REQUIRING ADDITIONAL COMMENTS

Under Secretary of Defense for Acquisition

Recommendations 1., and 2.

Comptroller, Department of Defense

Recommendation 2.

Army Acquisition Executive

Recommendations 3.a., 3.b., and 4.

Navy Acquisition Executive

Recommendations 3.a., 3.b., and 5.

Air Force Acquisition Executive

Recommendations 3.a., 3.b., and 6.

RECOMMENDATIONS THAT WERE REVISED  
IN THE FINAL REPORT

Recommendations

1., 2., 3.b., 4., and 6.

RECOMMENDATIONS IN THE DRAFT REPORT  
THAT WERE DELETED FROM THE FINAL REPORT

Recommendations

A.1.a., A.1.c., A.1.d., A.1.e., A.1.f., and A.6.b.





DEPARTMENT OF THE NAVY

OFFICE OF THE SECRETARY  
WASHINGTON, D.C. 20350-1000

OFFICE OF THE  
SECRETARY OF DEFENSE

10 October 1990

90 OCT 11 AM 9:27

EXECUTIVE SUMMARY/COVER BRIEF

MEMORANDUM FOR THE DEPUTY SECRETARY OF DEFENSE

FROM:

H. Lawrence Garrett,  
Secretary of the Navy

SUBJECT:

COMPONENT BREAKOUT IN SYSTEMS ACQUISITION

PURPOSE:

INFORMATION--To report on planned Navy actions to achieve breakout reviews and improved breakout documentation.

DISCUSSION:

In response to TAB A, and to achieve your desired review of component breakout opportunities and improved decision documentation, I propose to issue to our Program Executive Officers/Program Managers a component breakout policy memorandum prior to the issuance of the new DoDD 5000.1/.2/.2M acquisition directives. I further intend to insure our Systems Commands possess the capability to provide these breakout analyses on a matrix support basis.

With respect to your direction in TAB A to the Under Secretary of Defense for Acquisition and the Comptroller to evaluate the feasibility of establishing monetary goals for breakout savings and cost avoidance, with appropriate program adjustments, I have some concerns. Component breakout is one of many methods available to the program manager to control or reduce costs. Other strategies include: multi-year procurement, dual sourcing, other forms of competition, use of commercial off-the-shelf equipment, use of non-developmental items and warranties. It should remain the responsibility of the program manager to determine the proper mix of these methods to use in his or her acquisition strategy to control and reduce costs while meeting schedule and operational requirements. This should not be subordinated to a desire to achieve component breakout or any other particular strategy. Establishing a cost savings target for component breakout would take away the discretion and responsibility of the program manager to use all the tools at his or her disposal; it may result in a suboptimization we don't want.

TAB A - DEPSECDEF memo of 9 Aug 89, same subject

18487



**AUDIT TEAM MEMBERS**

David K. Steensma, Director, Contract Management  
Garold E. Stephenson, Program Director  
Joseph P. Doyle, Project Manager  
Eugene E. Kissner, Team Leader  
David L. Spargo, Team Leader  
Johnetta R. Colbert, Auditor  
Riccardo R. Buglisi, Auditor  
Leron A. Mims, Auditor  
George A. Ford, Auditor



## FINAL REPORT DISTRIBUTION

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Assistant Secretary of Defense (Public Affairs)  
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Comptroller of the Department of Defense, Deputy Comptroller  
(Management Systems)  
Director, Defense Acquisition Regulatory Council  
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Advanced Attack Helicopter Program Management Office  
Black Hawk Project Management Office  
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Commander, Space and Naval Warfare Systems Command  
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Acquisition Command  
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Other DoD Activities

Defense Contract Audit Agency  
Defense Logistics Studies Information Exchange  
Industrial College of the Armed Forces

Non-DoD Activities

Office of Management and Budget  
U.S. General Accounting Office, NSIAD Technical Information Center

Congressman John R. Kasich

Congressional Committees:

Senate Subcommittee on Defense, Committee on Appropriations  
Senate Committee on Armed Services  
Senate Committee on Governmental Affairs  
Senate Ranking Minority Member, Committee on Armed Services  
House Committee on Appropriations  
House Subcommittee on Defense, Committee on Appropriations  
House Ranking Minority Member, Committee on Appropriations  
House Committee on Armed Services  
House Committee on Government Operations  
House Subcommittee on Legislation and National Security,  
Committee on Government Operations

Other Government Agencies:

Small Business Administration Office, Space and Naval  
Warfare Systems Command, Arlington, VA  
Small Business Administration Office, Aeronautical Systems  
Division, Wright-Patterson Air Force Base, OH