

conclusions and recommendations. While the evaluation falls outside the formal DoDIG follow-up process, and adoption of its recommendations is discretionary, we intend to respond to the report, as requested, to provide feedback, correct factual errors, and add some perspective that is not reflected in the report. The draft response will be provided to you prior to transmittal to the DoDIG.

C Kendall

Cynthia Kendall
Acting Director of Defense Information

Attachment



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



JAN 28 1993

MEMORANDUM FOR DIRECTOR OF DEFENSE INFORMATION

SUBJECT: Evaluation of the Department of Defense Corporate Information
Management Initiative

Enclosed is our evaluation report on the Corporate Information Management (CIM) initiative within the Department of Defense (DoD). We conducted the evaluation to provide you with information on the implementation and institutionalization of the CIM initiative within the Department. We specifically addressed the two questions you posed: 1) What is the status of the January 10, 1991, CIM implementation plan? and 2) How is the Department doing on institutionalizing the CIM initiative?

In this evaluation, we found that the tasks associated with the January 10, 1991, CIM implementation plan have been completed or incorporated in the normal ongoing duties and responsibilities of the Assistant Secretary of Defense (Command, Control, Communications and Intelligence) and other DoD components. However, in spite of those actions, we found that the institutionalization of the CIM initiative is severely hampered by the lack of an overall CIM plan that is clearly presented to and understood by DoD managers and the subsequent inability to develop an effective consensus and support for the initiative by those same managers. We also found that savings and associated budgeting requirements attributed to the CIM initiative are inadequately analyzed, documented, and reported. While the recommendations contained in the evaluation are discretionary, their implementation will materially assist the Department in achieving the potential benefits of the CIM initiative.

We hope this report will be of value to you. We would appreciate your feedback on the information contained in the report. Should you need additional information, please call Mr. Jay W. Jarrett, Evaluation Director, at (703) 693-9108.

Katherine A. Brittin
Katherine A. Brittin
Assistant Inspector General
for Inspections

Enclosure

cc: Assistant Secretary of Defense (Command, Control, Communications
and Intelligence)

- The Assistant Secretary of Defense (Command, Control, Communications and Intelligence) solicit the support and approval of the Secretary of Defense to establish a Defense Corporate Management Board to serve as the overall director, implementor, and coordinator of the Corporate Information Management initiative.
 - The Board should be chaired by the Deputy Secretary of Defense, with the Secretaries of the Military Departments as members and the Director of Defense Information as the Executive Secretary.
 - The Board should be supported by functional area working groups chaired by the appropriate Principal Staff Assistant with representation from the Military Departments and Defense Agencies. The functional integration managers, Office of the Director of Defense Information, and the Defense Information Systems Agency, should provide technical information and management support to the working groups.
- The Assistant Secretary of Defense (Command, Control, Communications and Intelligence) and the Director of Defense Information ensure adequate economic analyses are conducted and documented to support Corporate Information Management initiatives and their related budget requirements and savings.
- The Assistant Secretary of Defense (Command, Control, Communications and Intelligence) and the Director of Defense Information, in cooperation with the Comptroller, Department of Defense, establish a tracking system which links the information technology budget, the Defense Management Report Decisions, and other initiatives to better identify budget and savings information related to Corporate Information Management.

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During the evaluation, draft DoD Directive 8000.1, "Defense Information Management Program"; draft DoD Instruction 8020.1, "Functional Process Improvement Program"; and draft DoD Manual 8320.1-M, "Functional Process Improvement," were staffed for coordination within the Department. While the Assistant Secretary of Defense (Command, Control, Communications and Intelligence) (ASD(C3I)) and the Director of Defense Information issued numerous memoranda concerning the CIM Initiative, the draft directive, instruction and manual represented the first formulation of DoD policy and direction regarding the roles and responsibilities envisioned for the DoD components in the implementation of the CIM Initiative.

METHODOLOGY

In March 1992, the Director of Defense Information requested our assistance in evaluating the CIM Initiative, with specific reference to the progress being made on institutionalizing the Initiative within the DoD. The evaluation was conducted by the Special Studies Division, Program Evaluation Directorate, Office of the Assistant Inspector General for Inspections. A list of the team members is presented in Appendix A.

We reviewed existing formal and draft policy and guidance documents along with other explanatory documents covering the CIM concept and implementation. The documents included the Executive Level Group's CIM plan; the "Implementation Plan for Corporate Information Management," January 10, 1991; the CIM "Process Improvement Methodology for DoD Functional Managers"; DoD directives and instructions, including working drafts; Defense memoranda and manuals which establish, describe, and implement all or part of the CIM Initiative; and training material from the Information Resources Management College at the National Defense University. We focused on the latest or most current versions of those documents to more accurately reflect the rapidly changing environment within which the CIM Initiative was evolving. A list of the major documents reviewed is presented in Appendix B.

To fully address the goals and objectives of the evaluation, we conducted 81 interviews with DoD managers and their staffs. The interviews dealt primarily with the functional and technical areas of the CIM Initiative. The interviews included managers and staff members in the

SECTION I - INTRODUCTION

(Command, Control, Communications and Intelligence) and other DoD components (Tasks 12, 17, 21, 24, 25, 31, and 34). None of the 7 ongoing tasks are significant to the successful implementation and institutionalization of CIM. Therefore, we believe formal tracking of the 1991 CIM Implementation Plan is no longer useful and should be discontinued.

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support the centralization proposals made in Defense Management Review Decision 918.

While the ongoing changes may be notionally correct, the functional and technical managers we interviewed could not identify the rationale behind those changes, the desired end point, or the specific steps to transition from their current organizational and mission responsibilities to those designed to meet the final objectives of the CIM Initiative—whatever they may be. As a result, even though the managers agreed conceptually with the direction of the CIM Initiative, they did not understand or support many of the functional and technical decisions associated with the Initiative.

Many of those functional and technical decisions will require major realignments of people and dollars among DoD activities and have a great impact on key missions for which the Services and Defense Agencies are responsible. As a result, the managers of those functions are understandably concerned about how those changes will affect their mission responsibilities. We believe the failure to address those concerns with well thought out plans and sound economic decisions has, and will continue to, hurt support for the changes, even among those managers who have already demonstrated support for centralization and streamlining with their own functional areas.

Organizational Realignments

The recent establishment of the Joint Logistics Systems Center (JLSC) is a good example of how the lack of planning has hurt support from managers. The creation of the JLSC represents a major organizational realignment within the Department to accomplish the CIM objectives in the logistics functional area. We interviewed eight senior logistics functional managers during the evaluation, including the Assistant Secretary of Defense (Production and Logistics). All eight agreed that the establishment of the JLSC should help improve the development and implementation of the integrated logistics systems required by the DoD. However, they all noted their own incomplete understanding of how and under what authority the JLSC will function in the absence of an integrated CIM plan. Their principal concerns centered on their ability to fulfill mission responsibilities under the JLSC concept. Even with the formation of the JLSC, the Services retain significant responsibilities for operating the DoD automated logistics

systems, many of which interface with systems from other functional areas to ensure the readiness and sustainability of U. S. Forces. There is no comprehensive CIM plan which describes how and when the systems in the other functional areas will change. In fact, there is not even a CIM plan which identifies the key interfaces among the DoD information systems and addresses how those key functional interfaces will be handled.

Technical Decisions

In addition to major organizational realignments without an integrated plan, the managers we interviewed were also concerned about the technical decisions that were being made without an integrated plan. Those concerns fell into two principal areas--realignment of technical support and selection of migration systems without a clear plan or adequate economic analyses to evaluate alternatives.

Realignment of Technical Support

The managers we interviewed believe the recent decision to transfer information technology capability from the functional area managers to the DISA (under Defense Management Report Decision 918, "Defense Information Infrastructure") did not fully consider their operational responsibilities. However, without a clear CIM plan, the managers were not sure they understood the full implications of the Defense Management Report Decision 918.

The functional area managers repeatedly stressed that while the overall CIM Initiative was being developed and implemented, and while initiatives such as Defense Management Report Decision 918 were being refined, they still have to fulfill their immediate and ongoing mission responsibilities. For example, all of the Military Services have ongoing logistics requirements that must be met on a daily basis. While the JLSC may eventually develop logistics systems to replace the current systems, and the DISA may eventually take over the implementation of those new systems, the Military Services still face the immediate responsibility of ensuring that current logistics requirements are met. In the absence of a clear plan, along with an explanation of how they will transition from their current logistical support systems and organizations to the new systems and organizations, the Military Services are reluctant to support the CIM Initiative. Further, the Military Services feel they must retain sufficient information technology capability to support their current logistical

system requirements until the new systems are in place and functioning properly.

*Selection of
Migration
Systems*

The functional area managers we interviewed also expressed concerns about the process for making technical decisions without an integrated plan. The process used by the Information Technology Policy Board (ITPB) to select information technology solutions and migration systems impacts directly on the functional managers' ability to accomplish their mission responsibilities. We found there was a lack of adequate analysis to support those selections.

The Information Technology Policy Board was created to reach decisions and begin implementation in three areas of information technology requiring centralized (corporate) policy direction. Those areas are DoD-wide information technology standards, modeling support to architecture and system development, and definition of standards and methods for managing data. We talked to four members of the ITPB regarding the process used to select technical solutions. Despite their charter, the Board members stated that the selection of standard information systems, including migration systems, was done by the Director of Defense Information or the DISA.

We found no evidence that the Director of Defense Information or the DISA coordinated such selections with the DoD functional area managers or with the ITPB. In addition, the Director of Defense Information did not use business process improvement plans or functional economic analyses to support the system selections. For example, the Army data dictionary system was offered to the ITPB as the Defense standard. The ITPB reviewed the system and rejected it by a vote of 6 to 2 because the system was not easy to maintain and would require many new data elements at significant cost to the Department. Subsequently, the Army lobbied the Director of Defense Information, who renamed the system and designated it as the DoD Standard Data Dictionary System without an economic or functional analysis to support the decision. While we recognize consensus may be difficult to achieve and that timely decisions must be made to ensure the CIM implementation progresses, the Director of Defense Information did not explain to the Board the reasons their decision was overruled or the need for an immediate decision.

The data dictionary example is not an isolated incident. We also found that no economic analysis was conducted to support the selection of the Navy's Engineering Drawing Management Information and Control System (EDMICS) over the Army and Air Force engineering drawing systems, known respectively as Digital Storage and Retrieval Engineering Data System (DSREDS) and Engineering Drawing Control Retrieval System (EDCARS). In fact, many more systems were also designated as DoD Standard Systems (Figure 1) without the required economic analyses or field surveys to support those decisions. We believe the credibility of the selection process has been hurt by the repeated selection of migration systems outside the designated approval process without a clear definition of the selection criteria and an overall CIM plan which demonstrates an understanding of the key system interfaces among functional areas.

Figure 1
Systems Designated DoD Corporate Information Systems Without
the Required Economic Analyses or Field Surveys
(As of April 1992)

FINANCIAL

Defense Civilian Payroll System;
 Defense Joint Military Pay System;
 Defense Retired and Annuitant Pay System;
 Defense Travel Pay System;
 DoD Non-Appropriated Fund Central Pay System;
 Defense Transportation Payment System;
 Defense Contract Payment System

PERSONNEL

Automated Patient Evacuation System;
 Automated Quality of Care Evaluation System;
 Computer Assisted Processing of Cardlograms;
 Composite Health Care System;
 Defense Blood Standard System;
 Defense Enrollment Eligibility System;
 Defense Medical Logistics System/Central Processing and
 Distribution Defense Medical Regulating Information System;
 Decision Support System;
 Medical Expense and Performance Reporting System;
 Expense Assignment System;
 Theater Management Information System/Theater Army Medical
 Management Management Information System/Shipboard
 Non-Tactical Automated Medical System;
 Tri-Service Food Service System;
 Tri-Service Micro Pharmacy System;
 Veterinary Service Automated Data Management System

MATERIEL MANAGEMENT

Defense Logistics Information System;
 Defense Automated Address System;
 Defense Reutilization and Marketing System

*COMPUTER-AIDED
ACQUISITION AND
LOGISTICS SUPPORT*

Engineering Drawing Management Information and Control
 System (EDMICS)
 Joint CALS System;

CONCLUSION

The Director of Defense Information has not followed his own basic precepts in developing and articulating a business process improvement plan and functional economic analysis for the overall CIM Initiative. Lacking a definitive plan and formal policy guidance, the Principal Staff Assistants and the DoD component functional managers have expressed reservations about the defacto process for selecting technical solutions and migration information systems within their functional areas. Those reservations have resulted in lukewarm support for the CIM Initiative, as a whole.

Recommendation 1

The Director of Defense Information develop and disseminate an overall, definitive Corporate Information Management business plan which specifically identifies the final organizational and management structure envisioned for the Corporate Information Management Initiative and the roles and responsibilities of the DoD components. The plan should include the most recent listing of systems that have been designated, and those being considered, as candidates for standard or migration systems; the current status of Corporate Information Management functional and technical initiatives along with their tasks and time frames; and a clear delineation of the respective roles, responsibilities, and authorities of the DoD components, including those of the Assistant Secretary of Defense (Command, Control, Communications and Intelligence), the Defense Agencies, and the Military Departments.

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B. THE DIRECTOR OF DEFENSE INFORMATION HAS NOT ADEQUATELY COMMUNICATED THE GUIDANCE AND DIRECTION NECESSARY TO ENSURE EFFECTIVE IMPLEMENTATION OF THE CORPORATE INFORMATION MANAGEMENT INITIATIVE

The absence of DoD policy and guidance on the CIM Initiative has added to the confusion caused by the lack of a clear description and understanding of the Initiative. The requirement for policy and guidance was recognized in the January 1991 CIM Implementation Plan. However, to date, there are no approved DoD directives or instructions which provide a clear definition of the CIM Initiative and define the respective roles and responsibilities of the DoD components.

Without formal and clear guidance in the form of DoD directives and instructions, the DoD components are reluctant to commit their limited resources to the implementation of the CIM Initiative. The Principal Staff Assistants and DoD functional area managers we interviewed repeatedly referred to the dilemma they faced between their ability to support the CIM Initiative and their lack of formal justification for diverting resources from ongoing and approved programs and initiatives to cover the upfront costs of implementing CIM.

FORMAL GUIDANCE IS SUBJECT TO VARYING INTERPRETATIONS

After we completed the field work on this evaluation, DoD Directive 8000.1, "Defense Information Management (IM) Program," was issued on October 27, 1992. The directive is the first formal guidance concerning the CIM Initiative and the roles and responsibilities of the DoD functional managers. However, the guidance is general in nature and subject to varying interpretation as it relates to the respective roles and responsibilities of the DoD components.

An example of the potential for varying interpretations is paragraph E.1.d. of the Directive. The paragraph states that the Assistant Secretary of Defense (Command, Control, Communications and Intelligence) (ASD(C3I)) shall "Identify opportunities for the integration of Information Management (IM) strategic planning, processes, methods, approaches, activities, services, systems, and information across functional areas. Facilitate resolution of functional and technical integration issues across functional areas and

forward unresolved functional issues to the Deputy Secretary of Defense." The DoD Directive 8000.1 defines information management as "The functional proponents creation, use, sharing, and disposition of data or information as corporate resources critical to the effective and efficient operation of functional activities consistent with IM guidance issued by the C3I. It includes the structuring of functional management improvement processes by the Office of the Secretary of Defense Principal Staff Assistants to produce and control the use of data and information in functional activities; information resources management; and supporting information technology and information services."

Paragraph E.1.d. can be interpreted to mean that the ASD(C3I) will have the authority and responsibility for integrating and coordinating business processes and operations in all functional areas, adjudicating disputes between functional areas, and preparing documentation to forward disputes and proposed resolutions of functional issues to the Deputy Secretary. However, it can also be interpreted to mean that the primary responsibility of the ASD(C3I) will be to identify opportunities for the integration of information management activities for the functional area managers.

The DoD Directive 8000.1 was issued after our on-site interviews. However, based on positions stated during those interviews, we predict the lack of clarity in the directive will create a split in the Department, primarily along organizational lines associated with the implementation of the CIM initiative. Support for the varying interpretations will be split into two groups: those managing the implementation of the CIM Initiative within DoD (e.g., the ASD(C3I) and the Director of Defense Information, who primarily support the first and broader interpretation) and those responsible for implementing the CIM Initiative within their respective organizations (e.g., the Principal Staff Assistants, the Military Departments, and Defense Agencies, who support the second and more restrictive interpretation).

ASD(C3I) Interpretation

Under that first interpretation, the ASD(C3I) plays a significant role in the development and implementation of functional business process management systems in all DoD functional areas. In that role, the ASD(C3I) would be the approval authority for all of the Department's functional business process management systems. This would most



DEFENSE INFORMATION SYSTEMS AGENCY

701 S. COURT HOUSE ROAD
ARLINGTON, VA 22204-2199

IN REPLY AA
REFER TO:

24 May 1993

General Frederick M. Franks, Jr.
Commanding General
United States Army Training and Doctrine Command
Fort Monroe, Virginia 23651-5000

Dear General Franks,

I am pleased to have the opportunity to review and provide comments on the final draft of FM 100-19, titled Domestic Support Operations. The Defense Information Systems Agency (DISA) and the National Communications System (NCS) offer services which merit essential consideration in planning domestic support operations.

This agency's responsibility is to extend the Defense Information Infrastructure (DII) to the JTF. Our management effort of the DII includes services ranging from telecommunications provisioning to acquisition of leased services and equipment and has proven to be essential to the success of operations addressed by this publication. Including our input in FM 100-19 would provide the planner with clear understanding of what to ask for and who to call at DISA.

We are working closely with your point of contact, Lieutenant Colonel Grimm, and will provide our input directly to ensure that a statement of DISA's responsibilities and capabilities is included in this publication. My staff has established the channel with your POC for coordination of any future undertakings and we look forward to working with you to ensure success in your efforts.

Sincerely,

A handwritten signature in black ink that reads "Al Short".

ALONZO E. SHORT, JR.
Lieutenant General, USA
Director



DEFENSE INFORMATION SYSTEMS AGENCY

701 S. COURT HOUSE ROAD
ARLINGTON, VA 22204-2199

IN REPLY
REFER TO: AA

24 May 1993

MEMORANDUM FOR MAJ WEYRICK, BRUCE L. 577-70-2413 920315 - 930314

SUBJECT: Supplementary Officer Evaluation Report (OER) Review as
Required by AR 623-105, paragraph 3-13.

1. As required by AR 623-105, an additional review of the referenced OER was made by me using paragraph 3-14 as the principal source of guidance.
2. The OER is complete and correct as written and requires no further comment from me.

A handwritten signature in black ink that reads "Alonzo E. Short, Jr." with a stylized flourish at the end.

ALONZO E. SHORT, JR.
Lieutenant General, USA
Director

certainly be true for those management systems that crossed two or more functional areas. The active role for the ASD(C3I) is currently advocated by staff members of the Office of the Director of Defense Information with respect to approving the funding of automated information systems. In that process, funding of automated information systems in support of business process management systems would be contingent on the ASD(C3I) approval of a functional economic analysis for the proposed business process management system itself.

**Principal Staff
Assistant, Military
Department &
Defense Agency
Interpretation**

The second and much more limited interpretation essentially follows the current authority and responsibility of the ASD(C3I). In that role, the ASD(C3I) serves as a facilitator of the development and implementation of automated information management systems that cross functional areas or contain data elements that are utilized by more than one functional area. All nine of the offices of the Principal Staff Assistants, including the five Principal Staff Assistants we interviewed personally, along with the functional managers of the Military Departments and Defense Agencies, believe the second role is the appropriate role for the ASD(C3I). Because the wording in the directive is vague, both schools are able to cite the directive as support for their interpretation.

**INFORMAL POLICY
HAS INCREASED
CONFUSION**

The confusion caused by inadequate planning and implementing policy has been increased by numerous informal CIM guidance documents that have been disseminated over the last 24 months. These include preliminary draft directives and instructions, informal draft manuals, and memoranda in draft form. In addition, newspaper and trade publication articles, along with speeches and presentations to industry groups and professional symposiums, have conveyed an inconsistent and partial picture of the CIM Initiative which has not been corrected by official directives.

The effect of the informal guidance and information on the implementation of the CIM Initiative can be illustrated using the earlier example of the guidance in DoD Directive 8000.1 regarding the role of the ASD(C3I) in functional area business process decisions. The confusion created by the significantly different interpretations of the role of the ASD(C3I) has been compounded by a number of previous documents that contained varying definitions of the

ASD(C3I) role and authority with respect to functional area programs and operations.

- In a Secretary of Defense memorandum, "Implementation of Corporate Information Management Principals," November 16, 1990, the ASD(C3I) was "assigned responsibility for establishing an organization to implement corporate information management throughout the Department and for ensuring proper integration of DoD computing, telecommunications, and information management activities." The memorandum further stated that "the operation of data processing centers will remain the responsibility of the various Department of Defense components."

The direction in the November 1990 memorandum has been revised a number of times, including the issuance of the Defense Management Report Decision 924, "Consolidate ADP Operations and Design Centers in DoD," fiscal years 1990/1991, and Defense Management Report Decision 925, "Develop Standard ADP Systems," fiscal year 1991. The revisions culminated in the recent Defense Management Report Decision 918, "Defense Information Infrastructure," September 15, 1992, which transfers control of DoD central design activities and data processing installations to the Defense Information Systems Agency. All of those documents contained different guidance regarding consolidation and management of data process installations, central design activities, and telecommunications.

- In an ASD(C3I) memorandum, "Major Automated Information Systems Review Council (MAISRC) Review of Corporate Information Management Programs," January 16, 1992, the ASD(C3I) states that "rather than focus the attention of the MAISRC on each automated information system designated as a CIM program, I propose to focus on the functional areas these CIM programs support. For instance, there are currently four automated information systems designated as CIM programs in the areas of military and civilian pay. Rather than review each of the four programs under the MAISRC process, we will review the contribution of the four programs to the functional area as a whole, emphasizing the functional responsibilities of information management."

An earlier version of this memorandum used terminology referring to the conduct by the ASD(C3I) of a "Functional MAISRC." This memorandum supports the broader interpretation of the role the ASD(C3I) will play in the management of the functional area business operations.

- In a Director of Defense Information memorandum, "Establishment of the Corporate Functional Integration Board," January 17, 1992, the Director of Defense Information established the Corporate Functional Integration Board to be cochaired by the Deputy Directors of Defense Information for Functional Information Management. The purpose of the board is "to identify issues or opportunities and identify actions that will accelerate the streamlining of business and mission operations and efficiency of the operations will be strengthened through aggressive implementation of the CIM methods, tools, and processes throughout the functional areas." This memorandum also supports a broad, but slightly different, role for the ASD(C3I) in the management of functional area business operations.

The preceding documents, including DoD Directive 8000.1, create confusion with respect to the roles of the Principal Staff Assistants, ASD(C3I), Director of Defense Information, Defense Information Systems Agency, and the DoD component functional managers in the implementation of the CIM Initiative. That confusion has translated into a pattern of delays by the Principal Staff Assistants, the Military Departments, and the Defense Agencies as they wait for clear formal policy and guidance on their respective roles and responsibilities.

**Major Participants
Rely on Unofficial
Publications for
CIM Information**

Early in our evaluation, we were asked by the Office of the Director of Defense Information to ascertain how well information on the CIM Initiative was being communicated to the DoD components in the Washington Metropolitan Area as well as in the field. Based on our interviews with DoD functional and technical area managers, we found that due to the lack of formal policy and guidance, a significant part of their knowledge of the CIM Initiative was derived from publications associated with Defense information management, automated data processing, and software industries. Those included such publications as Federal

Computer Week, Defense News, Government Computer News, and Datamation Magazine.

While those publications serve an useful purpose and are usually reasonably accurate, the amount of information they can convey is limited by what information and space is made available to them and the accuracy of their sources. They are at best secondary sources that serve to alert DoD managers to ongoing initiatives and programs. They are neither authoritative, nor do they contain the detailed information required to clarify and resolve issues raised by the proliferation of informal and draft guidance.

In the case of the CIM Initiative, authoritative information must come from formal DoD policy and guidance. Other than the DoD Directive 8000.1, the principal DoD guidance for the CIM Initiative, such as DoD Directive 8020.1, "Functional Process Improvement Program," and DoD Manual 8020.1-M, "Functional Process Improvement," is still in draft form. The only other approved directives, DoD Directive 5137.1, "Assistant Secretary of Defense (Command, Control, Communications and Intelligence)," and DoD Directive 8320.1, "DoD Data Administration," do not contain information directly related to the CIM Initiative.

CONCLUSION

The lack of clear DoD policy, guidance, and direction is severely hampering the acceptance and implementation of the CIM Initiative. The Principal Staff Assistants and the DoD components all demonstrated or expressed some level of confusion regarding the objectives the CIM Initiative and their respective roles and responsibilities in the implementation of the initiative. Such confusion cannot be accepted during the implementation of such a major initiative within the Department, an initiative which relies so heavily on the support of key managers for success.

The confusion stems from the lack of formal guidance and direction. This confusion is significantly compounded by the extensive number of informal documents, draft and final memoranda, and preliminary draft and draft directives and instructions that contain confusing and at times conflicting guidance and direction regarding the Initiative.

The confusion has led the DoD components to delay implementation actions while they wait or seek formal guidance and direction. Without such formal policy, guidance, and direction, the Principal Staff Assistants and

DoD functional area managers believe they lack the necessary justification to commit their limited resources to the implementation of the CIM Initiative.

Recommendation 2

The Director of Defense Information develop and issue, as soon as possible, the formal DoD policy and guidance required to fully implement the Corporate Information Management Initiative. Such policy guidance must clearly describe the technical and functional elements of the Initiative and the respective roles and responsibilities of the DoD components.

Recommendation 3

The Director of Defense Information develop a systematic and comprehensive means of ensuring that the DoD components are fully informed and involved in the development and implementation of DoD policy and guidance for the Corporate Information Management Initiative.

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C. THE DIRECTOR OF DEFENSE INFORMATION HAS NOT DEVELOPED EFFECTIVE CONSENSUS AND SUPPORT FOR THE CORPORATE INFORMATION MANAGEMENT INITIATIVE WITHIN THE DEPARTMENT

All 81 of the functional and technical managers interviewed, including the Principal Staff Assistants and members of the staff of the Director of Defense Information, agreed that the successful implementation and institutionalization of the Corporate Information Management (CIM) Initiative will require the full cooperation and support of the DoD organizational components. That is particularly true for the Military Departments and the Defense Agencies, because they have primary funding and organizational authority for the major functional activities of the Department. Lacking a clear plan, sufficient understanding of the CIM Initiative, and adequate direction and guidance from the Director of Defense Information, the managers we interviewed were reluctant to adopt or support the transfer of responsibility and authority for functional area management from the Military Departments and Defense Agencies to the Principal Staff Assistants.

We interviewed managers in the offices of nine Principal Staff Assistants, including five of the Principal Staff Assistants themselves. All stated the institutionalized distribution of responsibility and authority among the DoD components precludes the successful transfer of functional area management authority from the Military Departments and Defense Agencies to the Principal Staff Assistants. The institutional resistance has been exacerbated by attempts by the Director of Defense Information to accomplish the transfer through the Principal Staff Assistants. The Director of Defense Information has concentrated his efforts on convincing the Principal Staff Assistants that they should accept the role of the primary functional area manager. In that role the Principal Staff Assistants are expected to develop and implement improved functional business processes for all organizational levels (e.g., Military Service, major command, Defense Agency, installation) within their respective functional areas--organizational components for which, as noted above, the Military Departments and the Defense Agencies have funding and organizational authority.

The focus on the Principal Staff Assistants as the primary instruments of change, without sufficiently involving the Military Departments and the Defense Agencies, has effectively precluded the active participation and support of all of the components, including the Principal Staff Assistants. The Principal Staff Assistants are not active participants and supporters because they correctly perceive they lack the organizational and funding authority to effect the change. The Military Departments and the Defense Agencies are not active participants and supporters because they view the proposed change as a significant dilution of their current authority and because the Director of Defense Information has not brought them into the full dialog to convince them that such a change is required. The reservations expressed by the managers we interviewed are described in the following subsections on organizational, functional, and technical considerations.

ORGANIZATIONAL CONSTRAINTS

The CIM Initiative, as implemented by the Director of Defense Information, assigns responsibility for the management direction of DoD functional business processes and operations, including those currently managed by the Military Departments, to the Principal Staff Assistants in the Office of the Secretary of Defense (OSD). In that capacity, the Principal Staff Assistants, serving as functional proponents for their respective functional areas, will provide overall guidance and direction on the analysis, evaluation, organization, and funding of all business processes and organizations required to support DoD mission responsibilities within their functional area.

Responsibility for Organization and Funding

Assignment of those responsibilities to the Principal Staff Assistants requires a fundamental change in the way the Department conducts business. Under the current system, the organization and funding of functional area programs within the Military Departments are the responsibility of the Military Departments. The Military Departments prepare and defend their own program and budget submissions to the DoD Planning, Programming, and Budgeting System. Organization and funding of functional area programs are not subject to the authority and control of the Principal Staff Assistants. The only exception is the Assistant Secretary of Defense (Health Affairs) who was recently given organizational and funding responsibility and authority by legislative action. (Fiscal Year 1992 Defense Appropriations Act implemented by the Deputy Secretary of Defense

memorandum, "Strengthening the Medical Functions of the Department of Defense," October 1, 1991).

The CIM Initiative encompasses the programs and operations of all the major activities within the DoD components. As a result, we believe the Initiative can only achieve its primary objective of improving the Department's functional business processes and operations, with the active ownership and support of the Military Departments and the Defense Agencies. Those organizations are assigned funding and organizational authority for implementing such improvements. Further, the Military Departments and the Defense Agencies will remain the principal users of the automated information systems designed to support the Department's functional business processes and operations.

The need to develop consensus and support for the CIM Initiative among the DoD components can be illustrated by looking at the authority for acquiring automated data processing (ADP) equipment. The January 1991, CIM Implementation Plan required the ASD(C3I) to explore the need for ASD(C3I) to have additional authority to stop or redirect ADP equipment procurements to ensure that automated information systems which require the acquisition of ADP equipment are adequately analyzed and evaluated. In a March 20, 1992, memorandum, the ASD(C3I) asked the General Counsel for an opinion on the authority of the ASD(C3I) to stop or redirect automated information system procurements that were not in compliance with CIM policies. The Office of the General Counsel has not, to date, written a formal opinion in response to that request.

In research, the General Counsel staff has identified a number of laws and regulations that directly affect the authority of the ASD(C3I) to unilaterally stop or redirect the acquisition of hardware and software for automated information systems. Those laws and regulations assign what appears to be duplicative authority over the acquisition of automated information systems and associated ADP equipment and software to more than one DoD organizational component. In some cases, such authority is assigned to two or more DoD components as well as another agency, the General Services Administration.

Many of the primary rules and restrictions on the acquisition of automated information systems equipment and services are assigned to the General Services Administration by the Brooks Act, United States Code 759. Within the DoD, a number of organizations, including the Under Secretary of Defense for Acquisition, the ASD(C3I), and the Military Departments have been assigned various authorities with regard to the acquisition of automated information systems equipment and services.

Although the Office of the General Counsel has not issued a final opinion, the staff has preliminarily determined that any attempt to give the ASD(C3I) unilateral authority to stop automated information system acquisitions would require years of negotiation between the preceding organizations and the Congress and require the modification of existing laws and regulatory guidance. Because the regulatory picture is cloudy, the General Counsel staff believes that the only effective way to resolve the issue is through negotiations among the parties involved. Such negotiations must define and reach agreement on the conditions to be met before acquisitions of automated information systems acquisitions would be approved and processed by the agencies and offices involved. Further, the agencies and offices involved must reach a consensus on their respective roles and responsibilities and on procedures for adjudicating questions regarding unclear roles and responsibilities.

Other aspects of the ASD(C3I) acquisition authority that have raised some concern are the potential legal and policy issues associated with the process for selecting and implementing new standard or migratory systems. Those concerns are primarily associated with ensuring the selection process for new standard or migratory systems is in compliance with the legal and regulatory requirements for full and open competition embodied in such laws and regulations as: the Competition in Contracting Act of 1984 (Public Law 98-369); the Brooks Act (United States Code 759); the DoD Federal Acquisition Regulation Supplement to the 48 CFR, Part 201; and the Office of Management and Budget Circulars A-130 and A-11. The circulars establish agency-wide policies requiring multi-year strategic planning processes and budgets for the acquisition and implementation of information technology which have not to date been

addressed in the CIM Implementation Plan or in the selection process for migratory systems.

FUNCTIONAL CONSTRAINTS

The CIM Initiative is based on business process improvement by the Principal Staff Assistants in their role as functional area managers, rather than by the existing management components of DoD which currently develop, use and manage the functional systems. According to the CIM Status Report, April 1992, "the primary focus of the CIM Initiative is on the functional aspects of DoD. The DoD is organized according to functional areas that support the Department's overall defense mission. Accordingly, responsibility for implementing business process improvements is in the hands of the functional leadership for each area."

The Principal Staff Assistants and the Military Department managers we interviewed agreed with the primary objective of the CIM Initiative to improve DoD business processes. As functional managers, they have developed and implemented functional business process improvement initiatives in such areas as payroll and accounting (e.g., Defense Finance and Accounting Service), and health affairs (e.g., Composite Health Care System). Many of those programs have been identified with the CIM Initiative.

Implementation Climate Impeding CIM Initiative

While the Principal Staff Assistants and the Military Department managers we interviewed have initiated and supported individual efforts to improve functional business processes in the past, they mentioned the increasing air of suspicion and mistrust within the Department as an impediment to further centralization. That suspicion and mistrust has been reinforced by the incremental staffing of major changes in roles, responsibilities, and Departmental procedures without a comprehensive effort to define and publicize the end point envisioned by the CIM Initiative. Without an overall CIM plan and a comprehensive understanding of where the Initiative is heading, the DoD components are concerned that by concurring or not objecting to the large number and variety of individual draft and final directives, instructions, and memoranda, they may very well be agreeing to an overall policy with which they would otherwise nonconcur. In our opinion, the reluctance of the Director of Defense Information to clearly define, fully disclose, and openly advocate the true scope of the CIM

Initiative has hurt support from Departmental managers who agree, in principle, with the CIM objectives.

**Problems
Associated with
Restructuring**

The Principal Staff Assistants and the Military Departments expressed two primary concerns with the CIM Initiative as currently structured: 1) the change in fundamental management authority and operating procedures under CIM; and 2) the transfer of functional in-house technical support to a central organization and the mandated move to fee-for-service.

All five Principal Staff Assistants we interviewed personally stated that the CIM responsibilities, as defined in DoD Directive 8000.1, "Defense Information Management (IM) Program," October 27, 1992, represent a fundamental operational adjustment in the way the DoD manages and executes the Defense mission. Under CIM, the Military Departments are not included as a whole, but their component operations are accounted for within the functional areas for which the Principal Staff Assistants are the proponents, e.g., personnel, finance, logistics, and medical. In that operational model, the Principal Staff Assistants would dictate the functional processes and organizational structures of the Military Departments.

*Expertise of the
DDI & DISA Staff*

We found overall agreement on the ready availability of tools and technology to implement CIM, as discussed in the following subsection on technical considerations. However, we also found significant reservations regarding the capability of the headquarters staff of the Director of Defense Information and the Defense Information Systems Agency (DISA) to implement the CIM. Three out of four people we talked to in the functional and technical communities, including the DISA field activities, expressed some reservations about whether the headquarters staffs at the Director of Defense Information and DISA had the level of experience and expertise to implement a program of that magnitude. That lack of confidence is reflected in the many questions raised by the Principal Staff Assistants and the Military Departments regarding DISA's ability to execute the broad responsibilities detailed in Defense Management Report Decision 918, "Defense Information Infrastructure."

The expressed lack of confidence may only be the product of the field organizations' classic view of a headquarters activity, i.e., "out of touch and out of my

pocket." We did, however, observe some miscommunication about the number and type of DoD functions for which the Defense Information Technology Services Organization (DITSO) will provide data processing and management information services. The technical managers we interviewed cited several different estimates of the level of service to be provided by the DITSO. Further, they noted staffing estimates for DITSO ranged from 20,000 to 100,000 personnel. To the extent that it reflects a miscommunication about the implementation of technological support activities and erodes support for the Initiative, the expressed lack of confidence is an area of concern that should be explicitly addressed at every opportunity.

*Centralization of
Technical
Capability*

The second area of concern focuses on the proposed consolidation of information systems support activities and the mandated move to fee-for-service. Under the CIM Initiative, the DoD will consolidate all data processing centers and central design activities under the DISA. The OSD staff, Military Departments, and Defense Agencies will use those central design activities and processing centers to meet all of their requirements. Design and processing support will be provided on a fee-for-service basis. The functional managers, including the OSD staff, Military Departments, and Defense Agencies, have expressed reservations and concerns about that aspect of the CIM strategy. Part of their concern related to the credibility of the staff at the Director of Defense Information and the DISA, mentioned previously.

All of the functional proponents and managers we interviewed would like to retain some degree of in-house technical capability to relate technical solutions to functional requirements. They believe that the development of functional area business process improvements depends on the functional organization having a good resident understanding of the information management tools and technologies available, along with their attributes and limitations. They do not believe a DISA technical staff divorced organizationally, if not geographically, from a functional area will have enough functional experience and commitment to understand and respond to the functional user's needs. The managers we interviewed stated organizational and geographic separation will impact on the functional manager's ability to arrange and prioritize functional requirements to ensure the least impact on

fulfilling mission requirements. While many organizations resist transfers that move support functions outside of their control, the attempts by the Director of Defense Information to force such transfers without open acknowledgement and discussion of the mission concerns expressed by the users has added to the air of mistrust surrounding the CIM Initiative. The Director of Defense Information has not countered the questions of credibility and capability with personal visits to key managers or with a more explicit definition of the implementation controls required to ensure effective service to customers.

We found there is no clear picture of how the consolidated activities or the fee-for-service will work in practice. In particular, the Principal Staff Assistants and functional managers have reservations regarding the selection of DISA as the center for information technology with responsibility for all central design and data processing activities. With no alternative sources of supply to ensure competition, the Principal Staff Assistants and functional managers question DISA's incentive to maintain efficient and effective activities. They also are concerned that prioritization of design and processing support would now be outside of their control.

Efforts To Develop Functional Support For CIM

This is not to say that no attempts have been made to develop greater functional support. The Director of Defense Information and the ASD(C3I) have created Boards and Councils to increase communications, but in light of the preceding concerns, the Principal Staff Assistants have remained reluctant to actively undertake the level of involvement in the evaluation and streamlining of functional business processes envisioned by the CIM Initiative. Even as members of the Information Policy Council, the Principal Staff Assistants have not become active owners or supporters of the CIM Initiative. The Information Policy Council is a senior level board, chaired by the ASD(C3I), which was established to provide a forum for functional and information managers to exchange a full range of views about DoD information management policies. The Council was intended to facilitate the cross-function integration of information management functions, activities, information, and systems. But the Council meets infrequently, and does not include the Military Departments as participating members. As a result, the Principal Staff Assistants have deferred to the ASD(C3I) and the Director of Defense

Information as the active owners and supporters of the CIM Initiative.

In an attempt to precipitate more active participation, the ASD(C3I) established the Corporate Functional Integration Board in January 1992. However, the Board is composed of a lower level of functional representation than the Council and chaired by staff members of the Office of the Director of Defense Information--again, not the means to assure the active ownership and support of the CIM Initiative by Principal Staff Assistants.

TECHNOLOGY EXISTS TO IMPLEMENT CIM

We found no significant barriers to the development and availability of the necessary technical tools and capabilities for implementing the CIM Initiative as currently structured. In addressing the technical requirements of the CIM Initiative, we interviewed staff members of the ASD(C3I), Director of Defense Information, Defense Information Systems Agency, DISA field activities, the Information Technology Policy Board, selected military and functional headquarters, field activities, and private industry. Although specifically requested to identify a technological problem that would seriously impact on the implementation of CIM, none of the individuals we interviewed did so.

Concerns About Selection of Migration Systems

However, we did find an area of significant concern among the functional and technical managers in the field, as well as in the National Capital Region. The managers were concerned that migration systems are selected and implemented before a business process analysis and a functional economic analysis are completed and the technical alternatives available to meet functional requirements are evaluated. The managers we interviewed did not understand how a system can be selected before a supporting business case and economic analysis have been developed. Those managers, including representatives from the Principal Staff Assistants, DoD Agencies, and the DISA field agencies, believe that the DISA policy of developing or recommending systems before a functional business plan, technical analysis, and functional economic analysis are completed will result in wasted time and resources.

Viable Alternative Solutions May Be Overlooked

Because supporting analyses are not completed, the functional managers also believe that the DISA and Director of Defense Information select migration systems without an adequate effort to determine if there are alternative systems

available to support the requirement. The managers are concerned that viable alternative systems may be overlooked or canceled, also resulting in wasted time and resources.

*Existing Work
May Be
Duplicated*

We interviewed managers in a number of agencies who stated that the Director of Defense Information and the DISA are duplicating efforts by contracting for work that is completed or underway by other Defense Agencies. For example, the agencies cited instances where programs already in use are being re-developed under new names. Some of the examples they cited were: the CIM Information Technology Resource Utilization System versus the Automated Resource Management System; the CIM Technical Information Repository versus the rest of the technical repositories already in service; and the CIM Technical Integration Model and the CIM Data Model that copy other DoD models already in use. All those interviewed stated that an in-depth field survey is required to determine the number and types of existing acquisitions and contracts for DoD information systems to avoid duplication and wasted resources.

CONCLUSIONS

The Principal Staff Assistants, Defense Agencies, and the Military Departments endorse the overall goals and objectives of the CIM Initiative. That endorsement has not been translated into a supportive consensus or effective participation in the initiative for a number of reasons. The primary reason the Director of Defense Information has not been able to develop the necessary consensus and support for the Initiative has been the omission of the Military Departments and the Defense Agencies as primary participants in the development and implementation of the CIM Initiative.

The institutionalization of the CIM Initiative has been noticeably slowed by not including the Military Departments and the Defense Agencies in the development and implementation of the Initiative, given their responsibilities for funding and management of the functional business processes upon which CIM Initiative depends. The Director of Defense Information has not sufficiently countered the significant reservations expressed about the capability and credibility of the designated migration systems or the centralized support activities. Further, the Director of Defense Information has not demonstrated a strategy or

method to develop consensus and support needed to ensure long-term participation in the CIM Initiative by all DoD components. That consensus will be required even if statutory and regulatory restrictions on funding and management are removed because ultimately the quality of all data within the DoD systems relies on accurate input from the lowest organizational level.

Recommendation 4

The Assistant Secretary of Defense (Command, Control, Communications and Intelligence) solicit the support and approval of the Secretary of Defense to establish a Defense Corporate Management Board to serve as the overall director, implementor, and coordinator of the Corporate Information Management Initiative. The Board should be chaired by the Deputy Secretary of Defense, with the Secretaries of the Military Departments as members and the Director of Defense Information serving as an executive secretary. The Board should be supported by functional area working groups chaired by the appropriate Principal Staff Assistants in the Office of the Secretary of Defense, with representation from the Military Departments and Defense Agencies. The functional information managers within the Office of the Director of Defense Information, and the Defense Information Systems Agency will provide technical information and management support to the working groups.

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D. SAVINGS AND ASSOCIATED BUDGETING REQUIREMENTS ATTRIBUTED TO THE CORPORATE INFORMATION MANAGEMENT INITIATIVE ARE INADEQUATELY ANALYZED, DOCUMENTED AND REPORTED

The expectation of significant savings through improved management of DoD automated information systems and business processes was one of the major factors generating acceptance and support of the Corporate Information Management (CIM) Initiative from senior DoD managers and external organizations, such as the Office of Management and Budget and the Congress. Therefore, we believe if savings and associated management improvements are not adequately analyzed, documented, and achieved, internal and external organizational support and acceptance of the CIM Initiative will decline.

In January 1991, the Assistant Secretary of Defense (Command, Control, Communications and Intelligence) (ASD(C3I)) estimated that the CIM initiative would enable Defense Management Report Decisions to achieve cumulative savings of \$36 billion during fiscal years 1992 through 1997. Those savings estimates are still current, as reported in the latest Information Policy Council CIM Status Report, dated October 27, 1992.

NO ANALYSIS TO SUPPORT SAVINGS ESTIMATES

Our review of the derivation of those savings revealed that the analysis and documentation supporting savings estimates was either nonexistent or inadequate. For example, the largest single element of the projected \$36 billion in savings, \$17.3 billion for fiscal years 1991 through 1995, is attributed to the results expected from Defense Management Report Decision 901, "Reducing Supply Costs." We were unable to find any functional economic analysis, generic economic analysis, or supporting documentation to justify the \$17.3 billion in savings outlined in that Defense Management Report Decision.

From our discussions with the various offices involved in the Defense Management Report Decision process, we found that the estimated savings of \$17.3 billion for Defense Management Report Decision 901 were derived by assuming that management initiatives would result in an average annual increase in productivity of 3 percent in the

supply operations of the DoD. The 3 percent figure was chosen because "it was an industry standard," it was considered reasonable, and the Deputy Secretary of Defense accepted it.

We were unable to find any data or documentation to support either that 3 percent was an industry standard or that it was a reasonable industry estimate of productivity increases associated with expected improvements in the management of commercial supply operations. At the time of the estimate, there were no specific management improvement initiatives identified with the projected savings. The 3 percent increase in productivity was then translated into a 3 percent reduction in the total supply dollars contained in the DoD budget for each of the fiscal years 1991 through 1995, or an estimated savings of \$17.3 billion.

Potential for
Budget Shortfalls
or Qualitative
Reductions In
Operations

While it appears the reduction of \$17.3 billion did occur in the fiscal years 1991 through 1995 supply operation budgets, that reduction cannot be related or ascribed to the CIM Initiative without adequate supporting analysis and documentation. In addition, if the reduction is only an arbitrary budget cut, it may not generate any savings if the costs of supply operations remain unchanged in spite of the reduction. In effect, the reduction will have generated either a budget shortfall (as opposed to producing any savings) or it will result in a qualitative reduction in supply operations, e.g., longer lead times, less reliable service, or extended down time due to parts availability problems. The Military Departments, who expressed their general disagreement with most of the savings estimates associated with Defense Management Report Decision 901, are deeply concerned that the very real possibilities of budget shortfalls or qualitative reductions will impact on force readiness and sustainability.

FUNCTIONAL
ECONOMIC
ANALYSIS MODEL
PRODUCES
INCONSISTENT
RESULTS

To ensure the Corporate Information Management Initiative results in economically viable programs, current CIM policy requires the completion of a functional economic analysis before making changes in functional business processes and operations and before acquiring automated information systems to support such changes (reference Assistant Secretary of Defense (Command, Control, Communications and Intelligence) memorandum, "Functional Economic Analysis," undated). However, we were unable to find a functional economic analysis for the

CIM Initiative itself, or for any one functional area. We did find several functional economic analyses that were prepared to support single issues like hazardous medical waste disposal. Since those functional economic analyses supported a variety of functional areas and were completed one to two years ago, we could not determine their accuracy or completeness.

In one instance, we found the Military Departments and the Defense Logistics Agency (DLA) had completed independent functional economic analyses that covered a similar subject area, "The Consolidation of Automatic Data Processing Services and Central Design Activities." Those analyses were prepared in response to a letter, dated September 26, 1991, in which the Director of Defense Information asked the Military Departments and DLA to submit a functional economic analysis for consolidating automated data processing (ADP) operations and design centers. The Director of Defense Information asked the participants to submit their reports in accordance with the CIM functional economic analysis guidelines. The Army, Navy, Air Force, and DLA prepared and submitted their analysis to the Director of Defense Information using the Functional Economic Analysis Model developed by the Institute for Defense Analysis as the tool for preparing and presenting such analyses.

We acquired copies of functional economic analyses prepared by the Military Departments and the DLA and submitted to the Director of Defense Information, along with the computer disk and users manual (version 2.2(a)), for the Functional Economic Analysis Model. We evaluated the four functional economic analyses and the functional economic analysis model for operational requirements and consistency.

While versions of the Functional Economic Analysis Model exist for both IBM PC compatible and the Apple Macintosh computers, we found that the model was written in Microsoft Word for Windows. As a result, organizations and individuals who do not have Microsoft Windows are not able to use the Functional Economic Analysis Model.

Two kinds of input values are required to run the Functional Economic Analysis Model. One group of values includes variables that are specific to the individual

consolidation situation, such as personnel costs or operating and maintenance costs. Those variables are expected to differ among and between the Military Departments and DLA. The other group of values includes variables that are not situation-specific, such as assumed inflation and discount rates. Those should not differ among and between the Military Departments and DLA.

For the four economic analyses reviewed, the Military Departments and DLA used different values for both the situation-specific variables and the variables that were not situation-specific. They also used different methods for calculating payback periods and return on investment. As a consequence, the results of the functional economic analyses produced by the Military Departments and DLA are not comparable even though all used the computerized Functional Economic Analysis Model developed by the Institute for Defense Analysis. Therefore, direct comparisons or compilations using the estimated out-year savings from the four functional economic analyses submitted by the Military Departments and DLA would be misleading.

CREDIBILITY OF CIM SAVINGS IS QUESTIONABLE

We concluded that without adequate analysis and documentation, the credibility of the CIM savings estimates is highly questionable. The General Accounting Office and the House Armed Services Committee have both noted the lack of adequate documented analysis of projected and achieved CIM savings. In reviewing the fiscal year 1993 budget request for the information technology budget, the House Armed Services Committee specifically requested expanded information and documentation on the savings estimates reflected in Exhibit 43 of the submission.

Savings Not Monitored

The lack of adequate analysis and documentation to substantiate CIM savings estimates is compounded by the lack of an effective CIM savings tracking system. We could find no system or entity that was effectively tracking CIM related Defense Management Report Decision savings, except for those savings attributed to Defense Management Report Decision 925, "Develop Standard ADP Systems (CIM)." The \$2.8 billion savings associated with Defense Management Report Decision 925 were being tracked and documented by the Information Technology Resources Division, Deputy Assistant Secretary of Defense (Plans and Resources), Office of the Assistant Secretary of Defense (Command, Control, Communications and Intelligence).

However, we noted the effort was overtaken by the approval of the Defense Management Report Decision 918, "Defense Information Infrastructure."

Without an effective tracking system, it is impossible to verify that projected savings are, in fact, occurring even if they lack adequate analysis and documentation.

CONCLUSIONS

There is no adequate analysis or documentation to support the estimated \$36 billion in CIM-related Defense Management Report Decision savings. Further, there is no adequate, verifiable tracking of CIM Initiative savings and associated budget requirements. Inadequate analysis and documentation of CIM Initiative savings have reduced the credibility of those estimates and will eventually erode DoD and Congressional support for the Initiative, if not corrected.

Recommendation 5

The Assistant Secretary of Defense (Command, Control, Communications and Intelligence) and the Director of Defense Information conduct and document functional economic analyses to support Corporate Information Management Initiatives and their related budget requirements and savings.

Recommendation 6

The Assistant Secretary of Defense (Command, Control, Communications and Intelligence) and the Director of Defense Information establish and oversee, in coordination with the Comptroller, Department of Defense, a tracking system between the information technology budget, Defense Management Report Decisions, and other Corporate Information Management Initiatives to identify and track budget and savings information related to the Initiative.

APPENDIX A
EVALUATION TEAM MEMBERS

Jay W. Jarrett
Evaluation Director

Sally S. Goya
Assistant Evaluation Director

Neal Rosenquist
Evaluator

Vito G. Daino
Evaluator

Beverly Cornish
Evaluator

Nakita Pounds
Evaluation Coordinator

APPENDIX B
LIST OF DOCUMENTS REVIEWED

ASD(C3I) Memorandum, Subject: Program Plans for the Eight Strategies Identified by the Executive Level Group, July 31, 1991

ASD(C3I) Memorandum, Subject: Implementation of the Department of Defense Data Standards, September 16, 1991

ASD(C3I) Memorandum, Subject: DoD FY 1991 Federal Managers' Financial Integrity Act (FMFIA) Statement of Assurance, November 1, 1991

ASD(C3I) Memorandum, Subject: Major Automated Information System Review Council (MAISRC) Review of Corporate Information Management Programs, January 16, 1992

ASD(C3I) Report Status of the Department of Defense Corporate Information Management Initiative, April 1992

Corporate Information Management Implementation Plan, January 10, 1991

Defense Management Report Decision 901, "Reducing Supply Costs,"
Defense Management Report Decision 918, "Defense Information Infrastructure," September 15, 1992

Defense Management Report Decision 924, "Consolidation of Information Technology," September 15, 1992

Defense Management Report Decision 925, "Develop Standard ADP Systems"

Defense Management Report Decision 941, "Implementation of Electronic Data Interchange (EDI) in DoD," November 1992

Department of Defense Data Administration Strategic Plan, Fiscal Year 1992

Deputy Secretary of Defense Memorandum, Subject: Approval of the January 10, 1991, Corporate Information Implementation Plan, January 14, 1991

DoD Directive 5000.1, "Defense Acquisition," February 23, 1991

DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991

DoD Directive 5105.19, "Defense Information Systems Agency," June 25, 1991

DoD Directive 5137.1, "Assistant Secretary of Defense for Command, Control, Communications and Intelligence (ASD(C3I))," February 12, 1992

DoD Instruction 7041.3, "Economic Analysis and Program Evaluation for Resource Management," October 18, 1972

DoD Directive 7740.1, "DoD Information Resource Management Program," June 20, 1983

DoD Directive 7740.2, "Automated Information Systems Strategic Planning," July 29, 1987

DoD Directive 7920.1, (Draft) "Life Cycle Management of Automated Information Systems," undated

Draft DoD Directive 7920.2, (Draft) "Automated Information Systems Life Cycle Management Review and Milestone Approval Procedures," undated

DoD Directive 8000.1, "Defense Information Management," October 27, 1992

DoD Instruction 8020.1, (Draft) "Functional Process Improvement Program," October 1, 1992

DoD Manual 8020.1-M, (Draft) "Functional Process Improvement," April 8, 1992 and August 5, 1992

DoD Directive 8320.1, "DoD Data Administration," September 26, 1991

DoD Manual 8320.1-M, (Draft) "Data Administration Procedures," September 21, 1992

DoD Manual 8320.1-1, (Draft) "Data Element Development, Approval, and Maintenance Procedures," May 1992

DoD Manual 8320.1-M-1, (Draft) "Data Element Standardization Procedures," September 30, 1992

Executive Level Group Report to the Secretary of Defense on Corporate Information Management, September 1990

Secretary of Defense Memorandum, Subject: Approval of the Executive Level Groups' Corporate Information Plan Assigning Responsibility for Organization and Implementation to the ASD(C3I), November 16, 1990

Technical Reference Model for Corporate Information Management, Version 1.2, March 1, 1992

**APPENDIX C
SITES VISITED**

Office of the
Secretary of Defense

Assistant Secretary of Defense (Production and Logistics)

Assistant Secretary of Defense (Health Affairs)

Assistant Secretary of Defense (Force Management and Personnel)

Assistant Secretary of Defense (Program Analysis and Evaluation)

Comptroller, Department of Defense

Assistant Secretary of Defense (Special Operations and Low-Intensity Conflict)

General Counsel, Department of Defense

Inspector General, Department of Defense

Assistant Secretary of Defense (Command, Control, Communications and Intelligence)

Defense Agencies

Defense Information System Agency

Defense Logistics Agency

Defense Nuclear Agency

Defense Finance and Accounting Service

Army

Assistant Secretary of the Army (Financial Management)

Deputy Director, Information Systems for Command, Control, Communications and Computers

Deputy Chief of Staff for Personnel

Deputy Chief of Staff for Logistics

Surgeon General
U.S. Army Information Systems Command
U.S. Army Health Services Command

Navy

National Naval Medical Center
Naval Civilian Personnel Center
Office of Civilian Personnel Management
Naval Supply Systems Command
Naval Information Systems Management Center
Naval Computer and Telecommunications Command

Air Force

Assistant Secretary of the Air Force (Financial Management
& Comptroller)
Deputy Assistant Secretary of the Air Force
(Communications, Computers and Logistics)
Air Force Material Command
Air Force Military Personnel Center
Wilford Hall Medical Center
Air Force Communications Command

Contractors

Systems Technology Group, Incorporated, Arlington, Virginia

**General Accounting
Office**

National Security and International Affairs Information
Management and Technology Division

APPENDIX D

STATUS OF THE JANUARY 10, 1991 CIM IMPLEMENTATION PLAN

Section I - Purpose Plan to Execute the November 16, 1990 SECDEF Memo to Implement CIM.

⋮
No action required. This section is descriptive and contains no tasking.

Section II -
Organization And
Functions

Structure

TASK: 1. Establish a Director of Defense Information (DDI) with staff within ASD(C3I).

Lead: ASD(C3I).

Status: Action completed 22 May 1991.

Action: Director of Defense Information has been established. DoD Directive 5137.1, "ASD(C3I) Duties and Responsibilities," February 12, 1991, outlines the duties and responsibilities of the DDI.

TASK: 2. Establish a Director for Information Systems (DIS) with staff within ASD(C3I).

Lead: ASD(C3I).

Status: Action completed. Personnel action May 1991.

Action: Responsibilities include review and oversight of programs and information services involving automated data processing and equipment. Primary duties are administrative. DoD Directive 5137.1, "ASD/C3I Duties and Responsibilities," February 12, 1991, outlines the duties and responsibilities of the DIS.

TASKS: 3, 4 & 5. Establish Center for Information Management (CIM) within the DCA and rename the DCA the Defense Information Systems Agency (DISA).

Lead: ASD(C3I), DISA.

Status: Action completed.

Action: DEPSECDEF approval 14 January 1991 and DISA Notice 640-5-118, 5 March 1991, create the DISA/CIM. Formal name change became effective 25 June 1991.

Functional and Resource Transfers

TASKS: 6 & 7. Transfer functions, personnel and resources between ASD(C3I), DoD Comptroller and the Director of Administration and Management (DA&M) to support the CIM Implementation Plan.

Lead: ASD(C3I).

Status: Personnel action complete 18 March 1991.

Action: Transferred the Deputy DoD Comptroller IRM mission, less the Directorate of Systems and Services, to ASD(C3I). DA&M Transferred the WHS Data Administration functions to ASD(C3I).

**Section III -
Implementing Policy
and Programs**

Paragraph A

TASK: 8. Create within DISA a Center for Information Management (CIM).

Lead: ASD(C3I).

Status: Action complete 5 March 1991.

Action: DISA Notice 640-5-118 establishes DISA/CIM.

TASK: 9. DMRD 924, Consolidation of ADP Operations and Design Centers, directed the transfer of functions and resources to DCA/DISA.

Lead: DISA/HQ. DISA to report status by June 1, 1991.

Status: DISA reports action completed 4 September 1991.

Action: Follow-up action required. 1. The DDI needs to track the DMRD savings and start-up cost associated with the consolidation effort. 2. Credit savings reported under one issue may be duplicated by other issues. 3. Manning requirements for the DISA field activities have not been established.

Paragraph B

TASK: 10. Identify those information management functions, which require integration and oversight by a single office within each DoD component.

Lead: DDI(P), Mr. Pontius.

Status: Identification completed 15 July 1991.

Action: Identification of the eight functional groups has been completed. However, no CIM policy or procedures have been published. Draft policy and procedures have been developed, functional responsibilities are to be incorporated into the CIM DoD Directive and Manual 8020.1 and 8020.1M . No estimated date of completion.

Impact: Until DoD policy is coordinated and published no requirements for integration and oversight are mandated.

Paragraph C

TASK: 11. Take action to establish that the ASD/C3I in implementing CIM policy has authority for the development, acquisition and operation of all ADPE in the DoD (except for items which are an integral part of a weapon or a weapon system and related test equipment).

Lead: ASD (C3I).

Status: Complete 16 November 1990

Action: Policy authority assigned by SECDEF policy memo, November 16, 1990 and DoDD 5000.1. Policy in Draft DoD 8000.1 Defense Information Management Program.

Impact: Issue still not completely settled. However details and responsibility issues will be delineated when the DoD policy is finalized, signed and published.

Paragraph D

TASK: 12. Execute various policy responsibilities.

Lead: DEPSECDEF/ASD(C3I).

Status: Partially completed.

Action: Ongoing (See attachment 1 for recommended policy and functional changes). Some recommended functions will require new DoD policy. Other like the Information Collection Budget issue may be approved by the Comptroller. No estimated completion date available.

Impact: Impacts on organizational functions. Reassigns some duties for policy development and implementation. All these reorganizations must be in place if organizational responsibility is to be maximized.

Paragraph E

TASK: 13. Establish DoD Information Policy Council.

Lead: Director of Information Systems (DIS), Ms. Kendall.

Status: Action complete. Charter signed 8 August 1991.

Action: Council became known as the Information Technology Policy Board (ITPB). Chaired by the DDI and composed of the senior IRM officials in DISA/DCA, USA, USN/USMC, USAF, DLA, JCS, DIA and NSA.

**Recently the DDI established the Functional Information Council, chaired by the DDI for functional areas and the Data Administration Council, chaired by the Director, Center for Information Management (DISA/CIM) for data managers.

Paragraph F

TASK: 14. Formulate program plans to execute the strategies recommended in the ELG Plan for CIM.

Lead: DDI(P), Mr. Pontius.

Status: Action Cancelled 5 August 1991.

Action: Requirements contained in Tab B of the Implementation Plan folded into the CIM mission plans and policy.

Paragraph G

TASK: 15. Establish and centrally manage data and information systems standardization programs and DoD wide Data Administration Program.

Lead: C3I/DISA.

Status: Complete 3 September 1991.

Action: DISA named as Exec. Agent for DoD Information Standards. DoD Directive 8320.1, DoD Data Administration, published 26 September 1991.

TASK: 16. ASD (C3I) and ASD P&L jointly develop a plan by June 30, 1991 to transfer the functions of the CALS Test Network (CTN) and Electronic Data Interchange (EDI) to the DISA/CIM for management.

Lead: DDI(P), Mr. Newlin.

Status: Complete as of 28 August 1992.

Action: Memo prepared by the DDI to ASD P&L to transfer network by 1 October 1992. Issue not resolved. ASD P&L does not feel the DISA/CIM can manage the types of standards they need for engineering data. They have not been able to agree on the definitions of the standards. Issue is still in dispute. Follow-up action required.

Impact: This issue has no overall impact on the CIM implementation plan. It's more of a turf battle between ASD P&L and DDI as to who will determine standards for CALS.

Paragraph H

TASK: 17. Evaluate all DoD automated information systems development and modernization and ADP activities to determine if they are consistent with DoD policies. A review process for all relevant development/modernization funds will be complete by May 15, 1991.

Lead: DDI(P), Ms. Cornett.

Status: Ongoing.

Action: Recurring effort. Refers to the submission of Functional Economic Analysis (FEA) and Technical Migration Plan (TMP) from the functional groups. Follow-up continues at the DDI, DISA/CIM and Functionals.

Impact: Cornerstone of the CIM program. FEA's and TMP's are required to support requests to 'up date or procure ADPE in the future. Need format and procedures.

Paragraph I

TASK: 18. Implement an oversight process to oversee the consolidation of ADP operations centers and design activities, per DMRD 924.

Lead: DIS Information Services, Ms. S. Currey.

Status: Action complete.

Action: Steering group established for ADP consolidation oversight 11 May 1991.

Paragraph J

TASK: 19. Develop a plan for transition of DoD ADPE operations to Fee-For-Service basis.

Lead: DIS Information Services, Mr. Bill Beyer.

Status: Complete 28 August 1991.

Action: CIM no longer lead on this issue. Comptroller, DoD letter, 28 August 1991 transferred responsibility to Comptroller. Fee-For-Service concept subsumed within the DBOF.

Impact: May be critical. Since the Fee-For Service concept is an essential part of the CIM program it is in the best interest of the CIM to follow the developments of this program.

TASK: 20. Develop a comprehensive Fee-For-Service program proposal and plan with the Comptroller.

Lead: DIS Information Service, Mr. Bill Beyer.

Status: Complete.

Action: Program proposal and plan signed 28 August 1991.

Paragraph K

TASK: 21. Explore with the General Council (GC) and USD(A) the need for the ASD(C3I) to have additional authority to stop or redirect ADPE procurements to insure these procurements are in compliance with CIM policies.

Lead: DIS Policy, Col Rankin, USA.

Status: Incomplete.

Action: Memo from ASD(C3I) to the GC asking for position, 20 March 1992. DoD General Council said they would not respond to this tasking in writing. They consider this to be an issue to determine who is in charge of procurement. It also has the effect of asking the GSA to delegate their congressional authority for computers to the ASD(C3I).

Impact: May have serious impact on the CIM program. At present there are many DoD ADPE programs and contracts in-work. Many of those may be procuring systems and software which are proprietary. Some may be using technologies and standards that are not approved by the DDI. No one has a count on the number and types of contracts for hardware/software within the DoD. If this condition is not controlled it may never be possible to totally implement the CIM philosophy.

Paragraph L

TASK: 22. Establish procedures with the Comptroller to stop Components from obligating funds for information systems which conflict with the CIM policies.

Lead: DDI(P), Mr. Pontius.

Status: Complete.

Action: Comptroller and ASD(C3I) signed MOA 11 June 1991. However no CIM policy has been published. Draft developed, functions to be incorporated into the CIM DoD Directive and Manuals 8020.1 and 8020.1M . No estimated date of completion.

Paragraph M

TASK: 23. Provide management oversight of information management programs through the MAISRC.

Lead: DIS, Ms. Kendall.

Status: Action complete. Task cancelled.

Action: DIS is building a check list for the ASD(C3I) MAISRC to insure that ADPE procurements are in compliance with CIM policies. Still in coordination with Services.

Paragraph N

TASK: 24. Review and update Life Cycle Management of Automated Information Systems directives and practices.

Lead: DIS policy, Col Rankin.

Status: Incomplete.

Action: Interim policy published 9 April 1992. Draft DoDD 7920.1, Life Cycle Management (LCM) of Automated Information Systems (AIS) and DoDI 7920.2, AIS LCM Review and Milestone Approval Process are out for DoD coordination. No estimated date of completion.

Impact: Little. The documents for life cycle management are in draft and are in coordination. Just a matter of time before this task is completed.

Paragraph O

TASK: 25. ASD(C3I) and DDR&E cooperate to develop a process to advise MAISRC and DAB on suitability of software acquisition planning for programs reviewed by those committees.

Lead: DIS policy, Col Rankin.

Status: Incomplete.

Action: To be addressed in SWAP program.

Impact: Non-threatening. Issue of organization and process rather than technical. Discussion deals with developing guidelines for the MAISRC and DAB. Draft DoDD for CIM aligns the process with the requirements of DoDD 5000.1 acquisition process.

TASK: 26. ASD(C3I) to have responsibility for all software policies and practices for the use of Ada except those equipments which are integral part of a weapon system.

Lead: DDI (P), Mr. Pontius.

Status: Complete.

Action: Assignment approved by DEPSECDEF Memo 14 January 1991.

TASK: 27. Interface of a weapon, weapon system or related maintenance will be in accordance with ASD(C3I) information policy.

Lead: DDI (P), Mr. Pontius.

Status: Complete, but ongoing, 14 February 1992.

Action: Decision was made to issue policy inclusion in the Information Management Directive. Draft developed, functions to be incorporated into the CIM DoD Directive and Manuals 8020.1 and 8020.1M . No estimated date of completion.

TASK: 28. ASD(C3I) will submit requirements for information science and technology research through the DDR&E to the DoD research community.

Lead: DDI Tech, Mr. Bozek.

Status: Ongoing.

Action: Policy established 1 October 1991, On-going process. Deals with protocol.

Paragraph P

TASK: 29. Finalize actions with OPM to create a new Information Systems Management career series.

Lead: DIS, Mr. Sheppard.

Status: Complete.

Action: Disapproved by OPM 5 April 1991. No future action planned.

TASK: 30. Complete IRM career curriculum changes.

Lead: DIS, Mr. Sheppard.

Status: Complete.

Action: List approved 31 July 1991.

TASK: 31. Complete plan for IRM career program.

Lead: DIS, Mr. Luciano.

Status: Incomplete.

Action: ASD(C3I) and FM&P participating in study on work-force of the future. Completion date unknown.

Impact: Moderate. Personnel action to better define and identify the type of people and training needed for the CIM functions. Could have impact on implementation and service if people without the right kinds of experience and or expertise are selected for positions they are not equipped to deal with.

Paragraph Q

TASK: 32. Examine with the OSD staff ADP support activities for consolidation.

Lead: DISA.

Status: Complete.

Action: Project cancelled.

TASK: 33. Develop a plan for organizational placement or consolidation of IRM support activities.

Lead: DISA.

Status: Complete.

Action: Project cancelled.

TASK: 34. Complete Administrative changes in DoD Directives and Instructions by June 30, 1991.

Lead: DIS (P), Worthington.

Status: Not Complete. All of the 8000 Series Directives, Instructions and Manuals are either in coordination or have not been drafted.

Action: As of 3 June 1992 only DoD Directive, 5137.1, February 12, 1992, outlining the ASD(C3I) duties and responsibility and DoD Directive, DoDD 8320.1, September 26, 1991, Data Administration have been published.

Impact: Significant to implementation. Limited action takes place in the field without direction and guidelines.

TAB E

TASK: 35. 1. Complete Draft Data Administration Manual.

2. Release DoDD 5000.11, Data Administration.

Lead: DDI (T), Mr. Bozek.

Status: 1. Complete.

2. Complete.

Action: 1. Data Administration Manual (Draft) completed 30 June 1991, in review process.

2. DoDD 5000.11 and DoDI 5000.12 were cancelled.