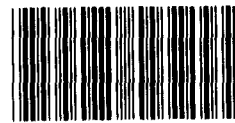


February 1991

DEFENSE ADP

Corporate Information  
Management Savings  
Estimates Are Not  
Supported



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**Information Management and  
Technology Division**

B-241969

February 22, 1991

The Honorable Earl Hutto  
Chairman, Subcommittee on Readiness  
Committee on Armed Services  
House of Representatives

Dear Mr. Chairman:

In response to your May 14, 1990, request, we have completed the first of a two-part review of the Department of Defense's Corporate Information Management (CIM) initiative. CIM was established in October 1989 to improve the standardization, quality, and consistency of data from Defense's multiple management information systems. The Department spends about \$9.2 billion annually to acquire, operate, and maintain automated information systems. Through CIM, the Department hopes to achieve \$2.2 billion in net savings over the next 5 years primarily by eliminating the development of duplicate systems and implementing standard systems.

As agreed with your office, our objectives were to (1) determine the basis for and validity of the savings the Department estimated to be derived from CIM and (2) assess its progress in implementing CIM. This report addresses the first objective. We will address the second objective in a separate report. Appendix I details our objectives, scope, and methodology.

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**Results in Brief**

The Department's estimate that CIM will save about \$2.2 billion over the next 5 years is not supported by analysis. The Department reasoned that it could achieve substantial savings by developing standard, Department-wide automated information systems for certain common business or functional areas, instead of multiple systems unique to each service.<sup>1</sup> Although the CIM goals are laudable, the estimated savings are not based on an analysis of the number of existing service-unique system developments that could be curtailed or the time or resources necessary to develop standard systems. Rather, the estimate relies on the managerial judgment that up to 25 percent of the amount annually allocated for systems development and modernization could be saved. The Department then reduced the services' fiscal year 1991 through

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<sup>1</sup>Service, as used in this report, refers to the Departments of Army, Navy, Air Force, and the Defense agencies.

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1995 budgets accordingly to encourage them to identify and curtail duplicative system developments. However, standard systems will take several years to implement and service officials question whether enough service-unique systems can be curtailed to account for the planned budget reductions. The Department has begun the analysis needed to determine which systems should continue and which should be curtailed. However, it does not yet know whether the budget reductions are having the intended effect or whether the \$2.2 billion savings estimate is reasonable.

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## Background

As a result of the President's request for management improvements in his February 1989 address to Congress, the Department completed a Defense Management Report in July 1989, which set substantial dollar savings targets for several management improvement initiatives. One of these initiatives, called CIM, was established by the Deputy Secretary of Defense in October 1989. Its objectives are to (1) ensure the standardization, quality, and consistency of data from the Department's multiple management information systems; (2) identify and implement management efficiencies throughout the information system life cycle; and (3) eliminate duplicate development and maintenance of multiple information systems designed for the same functional requirement.

To implement CIM, the Department established an Executive Level Group, composed of senior Defense officials and experts from the private sector, to recommend information management improvements. The Department also established functional groups consisting of senior-level Defense officials to examine business practices, identify management efficiencies, develop standard requirements and data formats, and determine how best to implement standard systems within common business or functional areas. As of November 1990, the Department had established groups for the following eight functional areas—distribution centers, civilian payroll, civilian personnel, financial operations, government-furnished material, medical, materiel management, and contract payment. The Department is considering establishing additional functional groups.

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## CIM Savings Estimates Are Based on Management Judgment, Not Analysis

The Department spends about \$9.2 billion annually to develop, operate, and maintain automated information systems. According to the Department, a significant amount of this spending is for multiple management information systems that perform the same or similar functions, but are unique to each service. The Office of the Secretary of Defense (OSD), Deputy Comptroller, Information Resource Management staff, responsible for implementing CIM,<sup>2</sup> estimated that the Department could save \$3.5 billion over a 5-year period by curtailing service-unique development efforts. OSD staff further estimated that about \$1.3 billion of this \$3.5 billion would be needed for investment in the design, development, and implementation of standard systems. Therefore, the net savings was estimated at about \$2.2 billion. These savings and investment estimates were, however, not based on analysis, but on the OSD staff's collective judgment.

According to OSD officials, in the fall of 1989, they were charged with estimating how much of the total \$9.2 billion automated information systems annual budget was used for development and modernization. The annual budget exhibits did not include a clear breakout of funds allocated to new systems development or modernization versus funds allocated to operating and maintaining existing systems. Thus, OSD had to first estimate how much of the Department's automated information systems budget was used for system development efforts before it could estimate how much could be saved. OSD's Office of Resources and Assessments staff developed a formula to segregate modernization and development funding from operations and maintenance funding. The formula was based on studies of automated information systems spending patterns. Using the formula, the Office concluded that about 43 percent or \$3.9 billion of the Department's annual \$9.2 billion automated information system budget was used for development and modernization.<sup>3</sup>

To derive CIM savings, the Office first assumed that the Department's annual expenditures for development and modernization would remain constant at about \$3.9 billion each year for the 5-year period ending fiscal year 1995. OSD's Information Resource Management staff, based on experience and management judgment, then estimated that an

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<sup>2</sup>In a November 16, 1990, memorandum, the Secretary of Defense transferred responsibility for implementing CIM from the Deputy Comptroller's office to the Assistant Secretary of Defense for Command, Control, Communications and Intelligence.

<sup>3</sup>The services do not agree with OSD's estimate. In line with the new budget reporting format, the services' fiscal year 1991 budget exhibits show that \$2.1 billion is required for system development and modernization efforts.

increasingly larger percentage of the Department's \$3.9 billion annual systems development expenditure could be saved each year if service-unique system developments were curtailed — 8 percent in fiscal year 1991, 16 percent in fiscal year 1992, and about 25 percent in fiscal years 1993 through 1995. OSD's plan is to reduce the services' automated information systems budgets accordingly.<sup>4</sup> These savings percentages or reductions were applied relatively evenly among the services and Defense agencies and totalled about \$3.5 billion over 5 years. (Appendix II shows the data used by OSD to derive CIM savings for the 5-year period.)

Given the urgency to project savings for the Defense Management Report, they did not have time to analyze the extent of system development duplication in specific functional areas or to identify specific service-unique system developments that could be curtailed. Rather, they expected each service to perform this type of analysis in determining how to apply the target budget reductions. Similarly, the amounts allocated to the CIM investment fund — an amount set aside to design, develop, and implement standard systems — were based on OSD's judgment that approximately one-third (\$1.3 billion) of the amount reduced from the services' and agencies' budgets would be needed over the 5-year period. No analysis was done to determine the time or resources needed to implement standard systems in specific functional areas. As of November 1990, no decisions had been made on specifically how the funds will be allocated or when they will be needed. According to OSD officials, functional groups are developing estimates of the resources necessary to design and implement standard systems. (Appendix III contains a breakout of the Department's estimated savings by service over the 5-year period.)

## CIM Reductions May Not Have the Intended Effect

OSD is working with the services to determine how the fiscal year 1991 budget reductions are being applied. However, early indications are that the reductions may not be having the intended effect — to reduce service-unique system development and modernization efforts.

Service officials doubt they can apply the budget reductions as OSD intended. They said that not all fiscal year 1991 CIM reductions are being

<sup>4</sup>In the Department of Defense Appropriations Act for 1991, Congress further reduced by about \$375 million the amount that the Department requested for modernization and expansion of automated data processing systems. In the Conference Report, the House and Senate conferees stated that they were centralizing within OSD the management of development, modernization, and procurement funds to assist in the development of standardized automated information systems.

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taken from system development funding in the eight CIM functional areas. Further, in the years after 1991, it may be even more difficult to curtail development and modernization efforts to the extent necessary to absorb the increasingly large CIM reductions. In general, they said that budget reductions will be taken first from specific system development efforts, then from other automated information system budget areas, such as that used for the operation and maintenance of existing systems. If cutbacks in these areas are not sufficient, the reductions may have to be taken in other areas of the budget such as personnel, facilities, or command and control systems. As of November 1990, OSD and service officials could cite only two system development projects that were cancelled outright because of CIM. However, both projects had been slated for termination prior to CIM.

According to service officials, the process of identifying, developing, and implementing standard systems could take several years and, until the process is further along, they cannot determine which system development efforts to curtail and which to continue. In essence, OSD officials contend that the services must decide which system development efforts to curtail, and service officials contend that they need more specific direction from OSD to make these decisions. As of November 1990, OSD was receiving additional information and analysis from the services on what systems are being developed by functional area. It then plans to work with the services to determine specifically how the budget reductions should be applied and how the investment fund will be used.

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## Conclusions

There is, as yet, no analysis to support the Department's estimate that \$3.5 billion can be saved by eliminating duplicate system development or that \$1.3 billion will be needed to develop standard systems. As a result, there is presently no basis for the Department's claim that CIM will save a net \$2.2 billion over the next 5 years. The Department has begun the analysis needed to support these estimates for the first eight of its many potential functional areas. However, it is misleading for decisionmakers to consider the \$2.2 billion as savings achievable through CIM until the Department can more clearly show what specific duplicate system development efforts will be curtailed and how and when standard systems will be implemented.

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## Agency Comments and Our Evaluation

We obtained official oral comments from Office of the Secretary of Defense officials on a draft of this report. The officials acknowledged that the CIM savings estimates, like many of the improvement initiatives

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stemming from the Defense Management Report, were based on management judgment. They added that, over the past year, they and the services have begun to analyze specific functional areas to determine how best to implement standard systems and what duplicate systems can be eliminated. As an outgrowth of these analyses, they expect to have a better basis for determining what savings are achievable.

We acknowledge that, because of the number, diversity, and complexity of automated system developments ongoing within the Department, it takes time to analyze and determine specifically how and when standard systems will be implemented. We support the goal of standardization and are encouraged by the Department's continuing analyses, but at present we do not believe that the Department has a valid basis for estimating CIM savings.

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As arranged with your office, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days after the date of this letter. We will then send copies to the Secretaries of Defense, Army, Navy, Air Force, the Director of the Defense Logistics Agency, and other interested parties, and will make copies available to others upon request. Should you have any questions or require additional information, please call me at (202) 275-4649. Major contributors to this report are listed in appendix IV.

Sincerely yours,



Samuel W. Bowlin  
Director, Defense and Security  
Information Systems



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## Abbreviations

CIM	Corporate Information Management
GAO	General Accounting Office
IMTEC	Information Management and Technology Division
OSD	Office of the Secretary of Defense



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# Objectives, Scope, and Methodology

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At the request of the House Committee on Armed Services, Subcommittee on Readiness, we reviewed CIM savings estimates. Our objective was to determine their basis and validity.

Accordingly, we met with senior OSD officials, including the Deputy Comptroller for Information Resource Management, the Director of CIM, and the Director of Resources and Assessments to discuss the derivation of CIM savings figures. We also met with senior information resource management and budget officials from the Air Force, Army, Navy, and Defense Logistics Agency to determine how they plan to apply the savings. We examined fiscal year 1991 budget estimates and documentation on the Department of Defense system development and modernization efforts and information developed for the Defense Management Report. Since little documentation exists on the derivation of CIM savings and investment figures, the bulk of the information obtained is based on testimonial evidence from Defense officials.

Our work was performed from July 1990 to November 1990 at the Office of the Secretary of Defense, Air Force, Army, Navy, and the Defense Logistics Agency in Washington, D. C., and Northern Virginia.

We obtained official oral comments from Department of Defense officials on a draft of this report and have incorporated their comments where appropriate. We conducted our review in accordance with generally accepted government auditing standards.

# Data Used by the Office of the Secretary of Defense to Estimate CIM Savings

Dollars in millions

Data	Fiscal Year					Total
	1991	1992	1993	1994	1995	
Automated Information Systems (AIS) budget	\$9,200	\$9,200	\$9,200	\$9,200	\$9,200	
Portion of AIS budget used for development modernization (42.6 percent)	3,920	3,920	3,920	3,920	3,920	
Approximate percentage of AIS development and modernization budget expected to be saved <sup>a</sup>	8.0%	16.1%	23.8%	24.2%	24.7%	
Original CIM savings figures	315	631	931	949	968	3,794
Air Force funding restored <sup>b</sup>	(27)	(53)	(80)	(81)	(83)	(324)
<b>Total savings</b>	<b>\$288</b>	<b>\$578</b>	<b>\$851</b>	<b>\$868</b>	<b>\$885</b>	<b>\$3,470</b>

<sup>a</sup>Actual percentages used to derive CIM savings figures are rounded.

<sup>b</sup>Some Air Force funds were restored after the original CIM cuts were calculated because Air Force showed that a larger percentage of its automated information system budget is used for command and control systems not subject to standardization.

# CIM Savings Estimates by Service by Fiscal Year

Dollars in thousands						
Service /Agency	Fiscal Year					Total savings
	1991	1992	1993	1994	1995	
Army	\$100,000	\$200,000	\$300,000	\$306,000	\$312,000	\$1,218,000
Navy	100,100	200,000	300,000	306,000	312,000	1,218,100
Air Force <sup>a</sup>	73,000	147,000	220,000	225,000	229,000	894,000
Defense Logistics Agency	8,000	16,550	16,550	16,200	17,000	74,300
Other Defense	7,000	14,450	14,450	14,800	15,000	65,700
<b>Total savings</b>	<b>\$288,000</b>	<b>\$578,000</b>	<b>\$851,000</b>	<b>\$868,000</b>	<b>\$885,000</b>	<b>\$3,470,100</b>
<b>Less CIM investment fund</b>	<b>(100,000)</b>	<b>(220,000)</b>	<b>(320,000)</b>	<b>(323,000)</b>	<b>(329,000)</b>	<b>(1,292,000)</b>
<b>Net savings</b>	<b>\$188,100</b>	<b>\$358,000</b>	<b>\$531,000</b>	<b>\$545,000</b>	<b>\$556,000</b>	<b>\$2,178,100</b>

<sup>a</sup>Originally Air Force's systems development budget was reduced by the same amount as the Army and Navy budgets. A total of \$324 million over a 5-year period was restored to the Air Force because a larger portion of its systems development budget is used for command and control activities.

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# Major Contributors to This Report

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