United States General Accounting Office

GAO

Accounting and Information
Management Division

March 1995

Information Resources Management-National Security and International Affairs Issue Area Plan

Fiscal Years 1995-97

GAO/IAP-95-4

Foreword

The Information Resources Management-National Security and International Affairs (IRM-NSIA) issue area is one of 35 issue areas for which GAO periodically develops multi year strategic plans. Relying heavily on input from congressional committees, as well as industry, academia, and agency officials and other experts, GAO develops strategic plans to ensure that our resources are focused on the most important concerns of the Congress.

For each issue area, GAO's strategic plan describes the significance of the issues, our objectives, and the focus of our work. GAO's goal is to serve as a source of timely, accurate information and unbiased analysis for decisionmakers in the Congress and executive agencies. Our work results in products such as reports, briefings, and testimonies.

The IRM-NSIA issue area covers information management and technology issues within the Department of Defense (DOD), National Aeronautics and Space Administration (NASA), the State Department, and the Agency for International Development (AID). These agencies spend about $40 billion annually—75 percent of the federal government's expenditure for computers and software—for everything from automated business and financial systems to computer systems embedded in space and weapons materials.

Our work covers a broad spectrum. For example, we focus on (1) business and financial systems, such as those used to manage DOD's nearly $100 billion inventory, maintain its weapons systems, or pay its 6 million military, civilian, and retired personnel; (2) the operation of the $77 billion Defense Business Operations Fund (DBOF), a key initiative to identify and reduce infrastructure costs; and (3) highly sophisticated computer systems, such as those used for the Air Force's F-22 fighter aircraft or NASA's Earth Observing System Data and Information System. We also examine how the State Department manages its financial and information management resources.

GAO's goals in the IRM-NSIA issue area are to help these agencies (1) maximize their investment in technology by effectively implementing systems that will support and streamline operations and provide a high rate of return to the taxpayer and (2) strengthen their financial management practices. The principal issues in the IRM-NSIA issue area are

- development of DOD's information infrastructure;
- management, development, and operation of DOD's automated business systems;
- improvement of DOD's financial management;
- design, development, operation, and support of computers and software embedded in weapons and command/control systems; and
- strategic information management planning and selected automation projects at NASA, State, and AID.

In the pages that follow, we describe our key planned work on these issues.

Because events may significantly affect even the best of plans, our planning process allows for updating the plan and responding quickly to emerging issues. If you have any questions or suggestions about this plan, please call me at (202) 512-6240.

Jack L. Brock, Jr.
Director
Information Resources Management -
National Security and International Affairs

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Table I: Key Issues

Issue	Significance
Defense information infrastructure: How can DOD develop an information infrastructure that adequately supports its operations and effectively uses its resources and technology?	DOD spends over $10 billion annually for computer and communication infrastructure needed to support and better integrate the Department's thousands of information systems. A sound information infrastructure is essential if DOD is to effectively use technology to improve operations. However, its efforts to implement an information infrastructure have been frustrated by ineffective DOD-wide strategic information management planning and technical policy implementation.
Defense business systems: What should be done to improve the management, development, and operation of DOD's business systems?	DOD spends over $9 billion annually to develop and operate thousands of redundant, overlapping, and incompatible business systems. It needs better business systems to provide credible information for supporting its business functions.
Defense financial management: How can DOD's financial management be improved to provide the type of information needed to effectively run the department?	Widespread financial management weaknesses have resulted in DOD being unable to accurately account for billions of dollars. It continues to struggle with implementing a viable financial management environment, which is having a crippling effect on management's ability to adequately monitor operations.
Defense weapons systems: How can DOD more effectively design, develop, operate, and support its embedded computer systems?	DOD spends about $20 billion annually on computers and software to enhance the capability of its sophisticated and complex weapons systems. There are nearly 100 major systems under development and many more in operation that all depend on software. However, it has had serious problems developing, acquiring, and supporting its embedded systems. Billions of dollars in development and support costs could be saved if the agency could improve its software engineering processes.
Other issues: How can State, AID, and NASA improve their strategic planning and management of information resources, technology, and financial systems?	State, AID, and NASA need to manage their operations strategically, taking advantage of information technologies where appropriate. These agencies should employ practices that can help improve their performance, productivity, and quality of service.

Table I: Key Issues

Objectives	Focus of work
Improve DOD's ability to achieve mission goals, downsize, and reduce costs through more effective strategic information management, planning, and implementation of management initiatives. Identify opportunities for savings from consolidating or eliminating installations, activities, and systems.	• Strategic information management and corporate information management (CIM) • "Migration" strategy • The Defense Information Systems Agency's efforts to consolidate data processing and telecommunications • DOD's electronic data interchange efforts • Budget/investment analysis
Ensure that improvement efforts for information systems are technically sound and economically justified. Improve management, performance, and systems support and identify opportunities for savings for key functional areas.	• Implementation of standard systems for logistics and transportation • Selected systems modernization • Budget investment/analysis
Enhance DOD's efforts to develop integrated budget and accounting systems as well as improved cost accounting systems. Identify actions DOD should take to improve existing systems' accuracy and reliability and identify opportunities for savings through management improvements.	• DBOF operations • Unmatched disbursements • Implementation of standard financial systems • Defense Finance and Accounting Service
Build GAO's capacity and technical capability to evaluate embedded computer systems. Identify and assess recurring or systemic embedded computer system development, acquisition, and support problems and opportunities for savings. Examine how DOD can improve its software engineering processes to reduce costs and improve quality.	• Embedded systems methodology • Joint AIMD-NSIAD reviews of computer- and software-intensive weapon systems • Software engineering processes • Cross-cutting technical issues • Budget/investment analysis
Recommend ways for State, AID, and NASA to improve their strategic planning and management of information resources, technology, and financial systems. Encourage State, AID, and NASA to implement IRM "best" practices.	• NASA strategic information management • Selected NASA systems and technology • State and AID strategic information management

Table II: Planned Major Work

Issue	Planned Major Job Starts
Defense information infrastructure	•CIM implementation issues
	•Viability of DOD's migratory systems strategy
	•Electronic commerce/electronic data interchange implementation
	•DOD's information technology investment strategy
	•DOD telecommunications/global command and control issues
Defense business systems	•DOD's maintenance systems modernization
	•DOD's materiel management systems modernization
	•DOD's transportation systems modernization
	•Information technology budget analyses
Defense financial management	•Pricing of DBOF services
	•DOD's efforts to identify and reduce cost of DBOF operations
	•Reengineering the defense disbursement process
	•Defense Finance & Accounting Service consolidation
	•Adequacy of DFAS debt management system
Defense weapons systems	•Methodology for assessing embedded systems
	•Assessment of selected Air Force systems/issues
	•Evaluation of software development activities and processes
	•Assessment of selected Navy systems/issues
	•Assessment of selected Army systems/issues
Other issue area work	•NASA's Earth Observing System Data and Information System
	•NASA information resource management
	•State Department and AID IRM issues
	•Post FTS 2000 Issues

Table III: GAO Contacts

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