Audit Report

OFFICE OF THE INSPECTOR GENERAL

ALLEGATIONS TO THE DEFENSE HOTLINE CONCERNING THE STANDARD PROCUREMENT SYSTEM

Report No. 96-219

September 5, 1996

Department of Defense

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Acronyms

CIM	Corporate Information Management
DPCSC	Defense Procurement CIM Systems Center
FASA	Federal Acquisition Streamlining Act of 1994
MAISRC	Major Automated Information Systems Review Council
SPS	Standard Procurement System
TEMP	Test and Evaluation Master Plan

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
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September 5, 1996

MEMORANDUM FOR ASSISTANT SECRETARY OF DEFENSE (COMMAND, CONTROL, COMMUNICATIONS, AND INTELLIGENCE)
DIRECTOR, DEFENSE PROCUREMENT
DIRECTOR, DEFENSE LOGISTICS AGENCY

SUBJECT: Allegations to the Defense Hotline Concerning the Standard Procurement System (Report No. 96-219)

We are providing this audit report for your review and comment. We performed the audit in response to a complaint to the Defense Hotline concerning the Standard Procurement System. We considered management comments on a draft of this report in preparing the final report.

DoD Directive 7650.3 requires that all recommendations and issues be resolved promptly. The comments we received were generally responsive, but some recommendations remain unresolved. As a result of management comments and to clarify our intent, we deleted, added, and revised recommendations. We request additional comment, as specified at the end of each finding, by November 5, 1996.

Questions on the audit should be directed to Ms. Mary Ugone, Audit Program Director, at (703) 604-9529 (DSN 664-9529) (electronic mail address MUgone@DODIG.OSD.MIL) or Mr. James Hutchinson, Audit Project Manager, at (703) 604-9530 (DSN 664-9530) (electronic mail address JHutchinson@DODIG.OSD.MIL). See Appendix G for the report distribution. The audit team members are listed inside the back cover.

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Office of the Inspector General, DoD

Report No. 96-219
(Project No. 5RE-8019)

September 5, 1996

Allegations to the Defense Hotline Concerning the Standard Procurement System

Executive Summary

Introduction. The DoD is acquiring the Standard Procurement System (SPS), an automated information system that is intended to implement a standard procurement process and to provide uniform support to all DoD procurement organizations. This acquisition is managed by the Defense Procurement Corporate Information Management Systems Center, a Defense Logistics Agency organization. The program manager plans to obtain commercially available software and to first install the software at organizations that have little or no automated procurement system support. Functional enhancements and interfaces with other DoD automated information systems will be accomplished in later software releases. When completed, the SPS will serve about 48,000 users at about 1,000 DoD procurement organizations. We performed the audit in response to a complaint to the Defense Hotline that the planned strategy to acquire the SPS contained major flaws. The specific allegations and audit results are shown in Appendix D, and audit results are discussed in Part I of this report.

Audit Objectives. The primary audit objective was to determine the validity of the allegations made to the Defense Hotline concerning the acquisition of the SPS. We determined whether some specific functional requirements would be met, evaluated the SPS acquisition strategy, and determined whether system testing plans were adequate. We also reviewed the adequacy of the management control program as it applied to the planning, development, and execution of the SPS.

Audit Results. The audit did not substantiate the allegations concerning specific functional requirements. Also, allegations regarding the SPS acquisition strategy and testing plans had limited merit (Appendix D). Although management has limited financial risks, other aspects of the SPS program involve substantial risk.

o The strategy for acquiring the SPS adds considerable risk to the program (Finding A). As a result, the needs of SPS users may not be met and actual costs could exceed proposed costs because vendors do not have well-defined requirements and will find it difficult to provide realistic and comprehensive cost proposals.

o Inadequate SPS testing strategies increased the risk that the SPS may not meet user requirements (Finding B).

The recommendations in Finding A should result in monetary benefits, but we could not quantify the amounts, which are dependent on future review results and associated management decisions.

Summary of Recommendations. We recommend obtaining Milestone Decision Authority agreement with the SPS program plan to mitigate risks related to the contract methodology and to determine whether the current SPS acquisition methodology or an alternative should be used to satisfy later SPS increments. We further recommend determining the most cost-beneficial deployment approach and incorporating Shared

Data Warehouse plans in the SPS Program Management Plan. We also recommend developing and validating operational performance requirements and amending testing schedules to include testing of the Shared Data Warehouse and to provide adequate time for test planning and review.

Management Comments. The Assistant Secretary of Defense (Command, Control, Communications, and Intelligence) generally agreed that the SPS program has acquisition risks and the lack of operational requirements increases the risk of user requirements not being met. The Director, Defense Procurement, did not specifically comment on the findings, but disagreed with several topical discussions. The Director, Defense Logistics Agency, partially concurred with the findings, but nonconcurred with most topical discussions.

Audit Response. As a result of management comments, we revised portions of the finding regarding the strategy for acquiring the SPS. We revised and added recommendations related to oversight of the SPS program because management has taken actions to limit financial risks. We also revised recommendations regarding SPS operational requirements to clarify our intent. A discussion of management comments and audit responses regarding the recommendations is in Part I of the report. A summary of management comments and audit responses on the findings is provided in Appendix E. The complete text of management comments is in Part III. We ask that the Assistant Secretary of Defense (Command, Control, Communications, and Intelligence); the Director, Defense Procurement; and the Director, Defense Logistics Agency, provide written comments on the final report by November 5, 1996.

Table of Contents

Executive Summary i

Part I - Audit Results

Audit Background 2
Audit Objectives 5
Finding A. Strategy for Acquiring the Standard Procurement System 6
Finding B. Standard Procurement System Testing Strategy 17

Part II - Additional Information

Appendix A. Audit Process
Scope and Methodology 26
Management Control Program 26
Appendix B. Summary of Prior Audits and Other Reviews 28
Appendix C. Other Matters of Interest 30
Appendix D. Allegations and Audit Results 31
Appendix E. Summary of Management Comments and Audit Response 35
Appendix F. Organizations Visited or Contacted 43
Appendix G. Report Distribution 45

Part III - Management Comments

Assistant Secretary of Defense (Command, Control, Communications, and Intelligence) Comments 48
Director, Defense Procurement, Comments 50
Defense Logistics Agency Comments 55

Part I - Audit Results

Audit Background

Purpose of the Standard Procurement System. DoD is acquiring the Standard Procurement System (SPS), an automated information system that is intended to provide uniform support to all DoD procurement organizations. The SPS program costs[1] are estimated to be about $330 million; the SPS will cost about $4.1 billion through FY 2010. The SPS program is managed by the Defense Procurement Corporate Information Management Systems Center (DPCSC), a Defense Logistics Agency organization.

The SPS will eventually replace about 70 legacy[2] automated information systems that cost about $300 million annually to operate and maintain. DoD Components use procurement legacy systems, including two migration[3] systems, to support contract award and contract administration functions. The two migration systems are the Defense Logistics Agency Pre-Award Contracting System and the Mechanization of Contract Administration Services System. The latter system will be needed until the SPS can interoperate with automated information systems for accounting and finance. As presently funded, the SPS is scheduled to replace the Mechanization of Contract Administration Services System by FY 2004.

SPS Program Evolution. To implement the Corporate Information Management (CIM) initiative throughout the DoD procurement community, in October 1991, the Director, Defense Procurement, formed the Procurement CIM Council (the Council). To provide user community representation, the Council is composed of senior procurement officials from the Military Departments and Defense agencies. The Council first focused on defining an improved DoD procurement process. In 1993, the Deputy Secretary of Defense[4] changed that focus to the designation and development of migratory automated information systems to support the contract award and contract administration functions throughout DoD.

After the migration systems were selected, the Council determined that development and funding projections would not support the enhancement and timely DoD-wide implementation of the migration systems. In 1994, hoping to

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[1]Program Costs are those expenditures directly related to SPS definition, design, development, and deployment. The costs include the cost for the Program Management Office and the costs to acquire, develop, and deploy each increment of the SPS.

[2]Existing.

[3]An existing or planned and approved automated information system that has been designated to support a functional process DoD-wide.

[4]Deputy Secretary of Defense Memorandum, October 13 1993, Subject: Accelerated Implementation of Migration Systems, Data Standards, and Process Improvement.

save time and money on internally developing a standard DoD procurement system, the Council gathered information about commercially available automated procurement systems. As a result of subsequent vendor demonstrations, the Council determined that commercially available automated information systems could meet most contract award requirements of DoD procurement organizations and that sufficient commercial capability existed to conduct a competitive acquisition.

In October 1994, the Director, Defense Procurement, accepted the Navy offer to conduct the SPS procurement and suggested specific nominees for appointment to the source selection organization. Those nominees reflect joint end user interests of the Office of the Secretary of Defense, Military Departments, and Defense agencies. Additionally, the Director, Defense Procurement, stated that the SPS acquisition should be conducted in accordance with the Federal Acquisition Streamlining Act of 1994 (FASA).

Established in November 1994, the DPCSC evaluated and compared alternatives for SPS development. Those alternatives were detailed in a DPCSC economic analysis, which showed that the acquisition of a commercially based alternative would be more cost-effective than DoD development of the SPS. The economic analysis did not consider any particular contracting methodology in obtaining a commercially based alternative.

Acquisition Approach. One objective of FASA is the Government use and acquisition of commercial products whenever possible. Also, FASA redefined "commercial item" to include a product that is not yet available in the commercial marketplace, but will be available in time to satisfy delivery requirements. Additionally, minor modifications may be made to that item to meet Government requirements. The SPS contracting officer determined that commercially available procurement software qualified as a commercial item; all SPS source-selection principals agreed with that determination.

While commercial software products could provide some basic procurement functionality, both SPS program and acquisition officials recognized that none of those products could meet all DoD procurement requirements. Accordingly, the selected vendor will have to alter its software to provide additional functionality, to interface with other DoD automated information systems, and to operate within the DoD information infrastructure. SPS program officials refer to that altered software as "commercially derived" software. The SPS acquisition approach has no precedent in DoD.

The SPS contracting officer issued a solicitation on October 30, 1995, and has received proposals on that solicitation. Responding vendors must demonstrate the capability of their software to meet functional requirements. Based on demonstrated results and other factors, the contracting officer will award a contract to "one or more" of those vendors for further evaluation, validation, and acceptance testing purposes. After the additional evaluation, DoD will select the final SPS contractor by exercising the next contract option with the best overall contractor. DoD has reserved the right to not exercise contract options with all potential SPS contractors.

Besides providing the necessary software, the selected vendor will also install and maintain the software and will provide training to about 48,000 procurement personnel at about 1,000 sites throughout the world. The DoD Components will have to provide the necessary computers and associated support software and all other necessary infrastructure parts, such as communications.

Changes to SPS Solicitation. The SPS contracting officer amended the SPS solicitation to reflect its intent to award an indefinite delivery, indefinite quantity contract rather than the requirements type of contract originally planned. Additionally, specific requirements unique to the Defense Contract Management Command were deleted from the solicitation in response to vendor concerns that those unique requirements could not reasonably be accommodated with a commercial software package without additional software development.

Oversight of the SPS. The SPS qualifies as a "major" automated information system and is subject to milestone review and approval by the DoD Major Automated Information Systems Review Council (MAISRC). The MAISRC Chair, the Assistant Secretary of Defense (Command, Control, Communications, and Intelligence), is also the SPS milestone decision authority and provides oversight of the SPS program. The MAISRC Chair approved the SPS for Milestone I on August 4, 1995, and must approve a Milestone II/III before each phase of SPS deployment.[5] The first deployment is scheduled to begin May 1997, after selection of the final SPS vendor.

DoD Guidance. DoD acquisition and life-cycle guidance and requirements applicable to the SPS program changed with the issuance of the DoD Directive 5000.1, "Defense Acquisition," March 15, 1996, and DoD Regulation 5000.2-R, "Mandatory Procedures for Major Defense Acquisition Programs (MDAPS) and Major Automated Information System (MAIS) Acquisition Programs," March 15, 1996. DoD Directive 5000.1 and DoD Regulation 5000.2 consolidated and replaced previous DoD guidance, which contained different acquisition and life-cycle management requirements and procedures for mission critical computer resources and automated information systems. Until March 15, 1996, the following DoD guidance applied to the SPS program:

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

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

o DoD Manual 5000.2-M, "Defense Acquisition Management Documentation and Reports," February 23, 1991;

o DoD Directive 8120.1, "Life-Cycle Management of Automated Information Systems (AISs)," January 14, 1993;

[5]Deployment refers to software installation, training of users, and all steps necessary to gain user acceptance of the SPS.

o DoD Instruction 8120.2, "Automated Information System (AIS) Life-Cycle Management (LCM) Process, Review, and Milestone Approval Procedures," January 14, 1993; and

o DoD Manual 7920.2-M, "Automated Information Systems Life-Cycle Management Manual," March 1990.

Audit Objectives

The primary objective of this audit was to determine the validity of the allegations in a complaint to the Defense Hotline concerning the SPS. Specifically, we:

o determined whether the SPS would meet some specific functional requirements,

o evaluated the SPS acquisition strategy, and

o determined whether system testing plans were adequate.

See Appendix A for a discussion of the audit scope and methodology and for the results of the review of the management control program. Appendix B contains a summary of prior coverage related to the audit objectives. Appendix C provides additional comments about the SPS acquisition program baseline and SPS advisory councils. Appendix D discusses the specific allegations and our audit results pertaining to each allegation.

Finding A. Strategy for Acquiring the Standard Procurement System

The strategy for acquiring the SPS adds considerable risk to the SPS program, estimated at a life-cycle cost of $4.1 billion through the year 2010. The fixed-price contracting methodology used for commercial items is risky because SPS functional requirements in the solicitation are too broad and because existing commercial software requires substantial software development to achieve full SPS functional capability. Also, the SPS solicitation does not sufficiently define site requirements. Further, the program manager did not quantitatively analyze alternative deployment approaches or stress the significance of the Shared Data Warehouse in program plans to assure the ultimate success of the SPS program. As a result, the needs of SPS users may not be met and actual costs could exceed proposed costs because vendors will have difficulty in providing realistic and comprehensive cost proposals without well-defined functional and site requirements.

Acquisition of Commercial Items

Federal Acquisition Streamlining Act of 1994 (FASA). The FASA establishes a streamlined approach to acquisition that more closely resembles the commercial marketplace and that encourages the acquisition of commercial items. Federal Acquisition Regulation part 12, "Acquisition of Commercial Items," implements FASA and prescribes the policies and procedures unique to the acquisition of commercial items. Part 12 requires that:

- o fixed-price contracts be used to acquire commercial items and
- o requirements be defined to optimize commercially available technology rather than to satisfy detailed technical specifications.

SPS Acquired as a Commercial Item. Contracting officials determined that the SPS could be acquired as a commercial item and that Federal Acquisition Regulation, part 12, procedures applied in relation to using fixed-price contracts to acquire commercial items. Acquiring the SPS as a commercial item using a fixed-price contract is risky because no known commercial software product meets all SPS requirements and operates in an environment as diverse as that of DoD.

The use of part 12 procedures to acquire a commercial item should involve little risk to the Government. For example, the purchase of computer hardware involves little risk when it is readily available in the commercial marketplace and when the performance specifications and capabilities are well established. The SPS requirements in the solicitation were deliberately broad to encourage competition, to satisfy part 12 requirements, and to provide flexibility for

vendor-unique solutions. However, generalized requirements increase the likelihood that the SPS will not meet specific user needs without substantial follow-on software development as SPS is progressively deployed to user sites.

Need for Software Development

SPS Software Development. No known commercial software product can meet total SPS requirements at contract award. Program management officials believe that vendor proposals will satisfy from 60 to 75 percent of SPS functional requirements. The program manager anticipates that potential bidders will develop the remaining functionality and that the negotiated licensing fees will include associated costs. The FASA permits minor changes to a commercial item so long as the commercial item will be available when needed.

Another indicator that substantial software development is anticipated is the requirement in the solicitation for potential bidders to submit a software process questionnaire to the contracting officer. Procurement officials will evaluate and establish the maturity of a bidder's software development and maintenance process. This requirement is not typical for commercial software acquisitions. In the commercial marketplace, the quality of software products is largely sustained through public acceptance. The requirement is a strong indicator that the Government anticipates substantial software development for the SPS to satisfy user requirements.

Software Engineering Support. The solicitation shows an estimate of 330,000 hours needed for software engineering support over the life of the SPS. Using a composite rate of $100 per hour, we estimated the cost of that support to be $33 million. The term software engineering often refers to a disciplined methodology for software design and development. Although the solicitation contains no contract line item for software development, the solicitation contains a line item for software engineering support. Software development needed for the SPS to comply with changes in regulations or laws is included in software engineering support. An example of needed software development is meeting the requirement to convert past performance data from numerous DoD systems, both automated and manual, into the SPS. This conversion effort will be charged to software engineering support and may require more than minor software development to achieve. Vendors will find it difficult to estimate the associated costs because the level of effort and extent of development are unknown.

Functional Requirements. SPS program officials anticipated that the SPS software proposed would not meet all requirements initially, but that the proposed software would need to be modified to meet the diverse requirements of the DoD procurement community. We believe the software will also require modification due to the vagueness of functional requirements as stated in the solicitation. The procurement community initially submitted about 700 detailed user requirements. To implement FASA provisions, the Source Selection

Advisory Council used part 12 procedures and consolidated those 700 requirements into about 300 broadly stated functional requirements in the SPS solicitation. In meeting the intent of FASA, the functional requirements in the solicitation contained few detailed specifications. However, the stated requirements may no longer accurately reflect user requirements. The evolution of the requirement for the SPS to provide past performance data illustrates how functional requirements may have become so vague that those requirements no longer reflect the full needs of the user.

Past Performance. The requirement for SPS to provide past performance data is one of the primary needs in the SPS Mission Need Statement, approved May 1995. The SPS solicitation contains at least two requirements relating to past performance: "perform contractor assessment" and "evaluate offers." The first draft solicitation, dated April 14, 1995, stated:

> The system [SPS] shall: (A21-D) Aggregate contract performance information into contractor performance summary reports. Use these summary reports, along with other Contractor information . . . to construct and populate a vendor rating system. Allow for review and editing by the authorized user prior to posting for general access. (A21-E) Permit authorized user to construct performance summary reports, as required, based on specific parameters. These reports will be stored as read-only access and indexed to multiple, applicable subject areas.

However, as subsequent versions of the solicitation were released, the requirement became less specific. The same requirement in the final solicitation, dated October 30, 1995, states: "The system [SPS] shall: (B) aggregate contract performance information into contractor performance summary reports, and use these summary reports along with other contractor information to create vendor rating summary reports."

The final solicitation deleted requirements to construct and populate a vendor rating system, to allow for user review and edit, to provide the capability to permit user-constructed performance summary reports, and to store those summary reports as read-only access that can be indexed to multiple, applicable subject areas.

Meeting Functional Requirements. Although FASA anticipates and allows for minor modifications to a commercial item, we believe the effort needed to achieve full SPS functionality is significant and, therefore, a risk factor. More importantly, the SPS requirements are too broad for potential SPS contractors to precisely estimate the costs involved in meeting stated procurement needs. As a result, the Government assumes greater program risk that those requirements will lead to additional software development. Further, we believe that because the procurement community and its user needs are so diverse, it may not be possible or desirable to meet those needs with a commercial product procured within the constraints of a fixed-price contract.

SPS Site Requirements

About 1,000 sites expect to use the SPS and each site has distinct requirements within which the SPS must operate. However, the SPS solicitation does not contain detailed requirements for each site that will receive the SPS. Therefore, vendors will have to develop their cost proposals based on their best estimates, because information about the sites is incomplete or unknown.

Needed SPS Interfaces. The solicitation requires that the SPS interface with numerous existing automated information systems as well as with systems not yet developed. The existing systems include other functional legacy systems of the DoD Components, procurement systems and statistical analysis software used at each procurement site, and the other DoD standard functional systems that have been developed. Most existing systems with which the SPS will have to interface have been identified, but those systems lack complete system documentation. Therefore, SPS bidders will be unable to rely on existing system documentation to identify all necessary SPS interfaces. The SPS will also have to provide interfaces with other evolving or future DoD and Government-wide systems. Accordingly, the effort to identify the necessary information for SPS interfacing purposes is not well-defined and may be extensive. The lack of well-defined interface information will further affect the vendors' ability to develop realistic estimates of the effort required.

Diversity of User Requirements. Each site varies by size, mission, work load, and assignments. To help meet those diverse requirements, the functionality of the SPS must be extremely flexible. For example, the SPS will provide standard templates to capture and store data values or text fields. Users at each site must be able to modify those templates to meet specific needs. The SPS will also have to adapt to varying work flows and automatic assignments, which will also vary by site. Although the need for SPS flexibility is known, the extent of that flexibility is not. Similarly, perspective bidders will be unable to determine whether inherent limitations in their software can accommodate specific needs at each SPS site.

Further, the SPS solicitation and initial analyses indicate that substantial programming will be required. Additionally, SPS requirements are very broadly stated and do not contain well-defined SPS site requirements. Consequently:

- sound and comprehensive cost proposals will be difficult to prepare,
- SPS user needs may not be met, and
- proposed costs may be exceeded.

SPS Acquisition Strategy

DoD Regulation 5000.2-R,[6] "Mandatory Procedures for Major Defense Acquisition Programs (MDAPS) and Major Automated Information System (MAIS) Acquisition Programs," March 15, 1996, requires that program managers shall

> . . . develop and document an acquisition strategy that shall serve as the roadmap for program execution from program initiation through post production support. A primary goal in developing an acquisition strategy shall be to minimize the time and costs of satisfying an identified, validated need, consistent with common sense and sound business practices. The acquisition strategy shall evolve through an iterative process and become increasingly more definitive in describing the relationship of the essential elements of a program. Essential elements, in this context include, but are not limited to, sources, risk management, cost as an independent variable, contract approach, management approach, environmental considerations, and source of support.

DoD Regulation 5000.2-R also directs program managers to use the acquisition strategy to meet the needs of the user community. Specifically,

> The acquisition strategy shall be tailored to meet the specific needs of individual programs, including consideration of incremental (block) development and fielding strategies. The benefits and risks associated with reducing lead time through concurrency shall be specifically addressed in tailoring the acquisition strategy.

Incremental Program Strategy. The SPS program manager defined an incremental program strategy for the SPS yet did not define discrete increments for delivery, implementation, and testing. The DoD Instruction 8120.2,[7] "Automated Information System (AIS) Life-Cycle Management (LCM) Process, Review, and Milestone Approval Procedures," January 14, 1993, characterized an incremental program strategy as "the acquisition, development, and deployment of functionality through a number of clearly defined system increments that stand on their own." The SPS program manager used the existing procurement systems that the SPS would replace to identify specific increments rather than identifying discrete functional increments. That approach considered the SPS priority to add automation to organizations with little or no current automation, thereby reducing SPS technical risk. Because those organizations have little or no automation and do not require interfaces to

[6]DoD Directive 5000.1, DoD Directive 8120.1, and DoD Instruction 5000.2 (which are all discussed later in the report) have been canceled and replaced with a revised DoD Directive 5000.1 and DoD Regulation 5000.2-R as of March 15, 1996. The SPS program documentation reviewed in this audit were covered by the earlier regulations.

[7]DoD Instruction 8120.2 was canceled and replaced with a revised DoD Directive 5000.1 and DoD Regulation 5000.2-R as of March 15, 1996.

other automated systems, that approach involves minimal technical risk. Although that approach should mitigate some technical risk, it does not assure that incremental functionality will be provided to the DoD procurement community.

Analysis of Alternative Deployment Approaches. The SPS program manager did not quantitatively analyze the costs and benefits of other deployment approaches. Instead, the only factors the program manager seriously considered were technical complexity and expected early benefits. Using those criteria, the program manager expected to install the SPS at organizations using manual or semi-automated procedures first. Those organizations do not require interfaces with other DoD systems and, therefore, pose less technical risk. Because those organizations have no or little automated support, they will benefit from the automation of whatever SPS functional capabilities exist at that time. The program manager quantified the expected benefits of the preferred deployment approach, but he did not closely examine the costs and benefits of alternative SPS deployment approaches. One alternative approach would be to focus on first replacing procurement legacy systems.

The program manager estimated that the procurement legacy systems cost about $300 million a year to operate. The SPS is projected to replace all those systems by FY 2004. If those systems are replaced by FY 2003, DoD could avoid legacy system expenditures of $300 million during FY 2004. We recognize that DoD may still incur costs associated with replacement of those legacy systems, but those costs have not been identified by the program manager. Because the SPS program manager has neither performed any quantitative analyses of the costs and benefits related to other deployment approaches nor determined the most effective development approach, the SPS may not represent the best value to DoD.

Risks Associated with SPS Deployment. The risks associated with the base year and option year 1 of the contract for the SPS are minimal. However, the risks associated with the SPS deployment in option years 2 through 4 are high. Table 1 shows the number of sites and users that will receive SPS for each option period.

Table 1. SPS Deployment Schedule

Contract Year	Sites	Users
Base Year	15	1,509
Option One	408	8,854
Option Two	357	14,369
Option Three	108	8,136
Option Four	102	14,945
Totals	**990**	**47,813**

Planned SPS Deployment. The preferred method for deploying the SPS is incremental, beginning with the base contract award. The risks associated with

the base award are minimal. In the base year, 15 candidate sites (with manual and automated systems) will act as the SPS test bed for demonstration and validation testing of two or more competitive vendors. The Source Selection Advisory Council will use those test results to recommend the vendor best qualified to meet SPS requirements. Any options exercised would be awarded to the winning vendor.

First Option Year. The Comptroller of the Department of Defense and program management officials believe that the SPS will help solve DoD problems with unmatched disbursements and negative unliquidated obligations. Because the SPS will automate manual systems, the SPS will also eliminate the need to reenter contract data, thereby eliminating most "keystroke" errors that have caused unmatched disbursements and negative unliquidated obligations throughout the DoD. In the first option year, the SPS will be installed at more than 400 manual and semiautomated organizations, primarily Navy organizations. Of the Military Departments, the Navy has the highest percentage of unmatched disbursements, which is attributed to its primarily manual systems. In the first option year, the SPS will provide those organizations with the capability to electronically send contract data to the Defense Finance and Accounting Service. To date, the Defense Finance and Accounting Service obtains that data in hardcopy format and must manually key the data into its own systems. The risks associated with this deployment for the SPS are minimal.

Option Years 2 through 4. Beginning with the second option year, we believe the functional and site requirement factors previously discussed will present high risks to the SPS program. The SPS will be required to replace 18 known automated information systems during option years 2 through 4. Additionally, differing site architectures, the need for multiple interfaces, and the diversity of user requirements increase the likelihood that software development will be needed. Further, the submitted proposals indicated that none of the bidders have the total desired functional capability in their commercial products. The SPS will not be installed at a site unless the SPS can provide that organization with functional capability at least equal to what already exists there.

SPS Program Options. Although the risks in option years 2 through 4 are high, the DoD is not obligated to incur that risk. The DoD has the following primary options:

o cancel the existing solicitation and recompete using a different contracting methodology or

o continue with the existing contract type through option year 1 and resolicit with a different contracting methodology to obtain option years 2 through 4 or

o continue with the SPS development as planned, fully knowledgeable of the risks involved.

The SPS solicitation does not obligate the Government to acquire the SPS for any minimum number of sites.

SPS Shared Data Warehouse

Importance of Shared Data. The SPS Program Management Plan did not adequately reflect the importance of the SPS Shared Data Warehouse to the ultimate success of the SPS program. The SPS mission need statement, dated May 1995, requires the SPS to "facilitate the DoD-wide integration of [standard data] through the implementation of standard processes, standard shared data, and electronic contracting." Further, the SPS is to "provide for improved data management and data integrity by electronic input of selected data to a logically shared data repository." To meet those basic needs, the SPS program manager plans to develop the SPS Shared Data Warehouse. The Shared Data Warehouse will essentially be the single DoD data base for storing standardized procurement data and will be designed and developed by the Defense Logistics Agency. The Shared Data Warehouse will be used on a cross-functional basis throughout DoD. For example, contract payment data in the SPS Shared Data Warehouse would be used by procurement activities and the Defense Finance and Accounting Service, which would use the data to make contract payment. Although vital to the overall success of the SPS program, the SPS Program Management Plan contains little discussion of plans to define and establish the SPS Shared Data Warehouse.

Shared Data Warehouse Plans. Although SPS program management officials stated that the timely implementation of the SPS Shared Data Warehouse was of major concern, the SPS Program Management Plan neither includes an implementation schedule for the SPS Shared Data Warehouse nor discusses factors that may impede its development. Initial design of the SPS Shared Data Warehouse has been completed, but substantial effort remains. Functional user requirements have not been established. Until those requirements are defined, development of the Shared Data Warehouse cannot begin. Additionally, because the data are to be shared among DoD functional areas, those functional areas must agree on data usage. Reaching agreement has been difficult, however, because the functional areas are at various stages in developing "standard" automated information systems. We believe integrating the Shared Data Warehouse plans into the SPS Program Management Plan would provide a clearer picture of the progress of the SPS and would help assure that all vital SPS components are considered. That integration would help lessen the risk that the SPS program may not meet the primary objectives of the mission need statement.

Conclusion

The acquisition of the SPS as a commercial item, which requires fixed-price contracting and broadly stated requirements, is risky. The SPS solicitation requirements are so broad that potential bidders may not be able to formulate accurate cost proposals. It is uncertain whether the diverse needs of all SPS users will effectively be met or whether contract costs will remain fixed. The SPS program manager needs to perform quantitative analyses of costs and benefits associated with different deployment approaches to help support the deployment strategy to be selected. The DoD should reexamine the SPS acquisition and program strategies to determine whether the inherent risks are still acceptable or, if deemed appropriate, use another contracting approach to reduce risks to the Government. In addition, the program manager needs to incorporate the SPS Shared Data Warehouse into the SPS Program Management Plan and schedule.

Management Comments on the Finding and Audit Response

Assistant Secretary of Defense (Command, Control, Communications, and Intelligence). The Assistant Secretary, as the Chair of the Major Automated Information Systems Review Council, generally concurred that the SPS program has acquisition risks. However, the Assistant Secretary stated that, through the normal MAISRC oversight process, SPS technical risks had been identified and that MAISRC staff assisted and supported the SPS Program Manager in developing risk mitigation strategies.

Director, Defense Procurement. The Director, Defense Procurement, did not specifically concur or nonconcur with the finding, but did comment on several topics discussed in the finding. See Appendix E for a summary of comments provided and the audit response.

Director, Defense Logistics Agency. The Director, Defense Logistics Agency, partially concurred with the finding, but nonconcurred with most topics discussed and provided extensive comments on the finding. A summary of Defense Logistics Agency comments and the audit response are provided in Appendix E.

Recommendations, Management Comments, and Audit Response

Deleted, Added, and Revised Recommendations. As a result of management actions to limit financial risks, we deleted draft Recommendation A.1.a. The final Recommendation A.1.a. was added to help ensure that an appropriate risk

mitigation plan is developed for later SPS increments. We also revised Recommendations A.1.b, A.2.a., and A.2.b. to clarify our intent or recognize extenuating circumstances. The complete text of management comments is in Part III.

A.1. We recommend that the Chair, Major Automated Information Systems Review Council, for the Standard Procurement System program:

a. Require the Program Manager to obtain Milestone Decision Authority agreement with the program plan to mitigate risks related to the contract methodology before the Program Manager authorizes any work to meet requirements of contract option years 2 through 4.

b. At each Milestone approval review preceding contract option years 2 through 4, reevaluate the contracting methodology as a specific item of interest and determine whether that methodology or an alternative will be used to satisfy contract option years 2 through 4.

Management Comments. The Assistant Secretary of Defense (Command, Control, Communications, and Intelligence) stated that the SPS Program Manager has and continues to establish appropriate processes for minimizing program risks. However, because of stated concerns, a MAISRC Working-level Integrated Product Team will again reexamine the contracting approach within 90 days of contract award.

Audit Response. The SPS solicitation was amended to reduce risks associated with the SPS contracting approach. Because DoD financial risk has been limited, we deleted the draft report recommendation that the MAISRC evaluate risks associated with the contracting methodology before contract award. However, we believe that the contracting methodology continues to present substantial risk to the SPS program for contract option years 2 through 4. Accordingly, we revised Recommendation A.1.b. to help ensure that those risks are recognized and appropriately evaluated. We also added Recommendation A.1.a. to help ensure that SPS program risk mitigation plans are appropriate. We ask that the Assistant Secretary provide comments on the revised and added recommendations in response to the final report.

A.2. We recommend that the Director, Defense Procurement Corporate Information Management Systems Center, Defense Logistics Agency:

a. In coordination with the Director, Program Analysis and Evaluation, quantitatively determine the most cost-beneficial deployment approach and, if applicable, justify deviations. If related costs and benefits cannot be soundly quantified, document the mitigating circumstances and factors considered in determining the best overall SPS deployment approach.

b. Include specific plans in the Standard Procurement System Program Management Plan to establish the Standard Procurement System Shared Data Warehouse. That description should include both known and anticipated risk factors and associated abatement plans.

Management Comments. The Defense Logistics Agency concurred with both recommendations. Regarding the deployment approach, management stated that, in accordance with existing DoD requirements, the most cost-beneficial deployment approach would be determined and provided in the SPS Economic Analysis, which is required for the SPS Milestone II/IIIA review scheduled for March 1997. Management will also update the SPS Economic Analysis to document subsequent deployment recommendations during the respective SPS Milestone II/III review required for each deployment phase. Regarding the Shared Data Warehouse, management stated that the SPS Program Management Plan would be amended before March 1997 to include the development of the Shared Data Warehouse.

Audit Response. Although the Agency concurred with the recommendation to determine the most cost-beneficial deployment approach, the associated plan of action is not fully responsive. Because the intended deployment is clearly set in the SPS solicitation, most vendor proposals are premised on that approach. As such, contract award and the subsequent "down select," both of which will occur before the scheduled Milestone II/IIIA review, are also likely to incorporate the intended deployment approach. By the time the Milestone II/III occurs, we believe it will be too late to seriously consider alternative deployment approaches. Until the associated costs and benefits of alternate approaches are developed and compared, potential financial savings remain undefined. We acknowledge that it is difficult, at best, to quantitatively determine some cost and benefit factors. In recognition of that difficulty, we have revised Recommendation A.2.a. We ask that the Defense Logistics Agency provide comments on the revised recommendation in response to the final report.

Agency comments regarding Recommendation A.2.b. are fully responsive and no further comment is required.

Finding B. Standard Procurement System Testing Strategy

The SPS program manager has not developed adequate developmental and operational test strategies for the SPS. The testing strategy is inadequate because:

o the Procurement Corporate Information Management Council has neither provided the SPS program management office and the test community with user-validated operational requirements nor defined the content of each functional increment,

o the compressed integrated program schedule does not allow sufficient time to ensure the development of comprehensive test plans, and

o the Council has not identified requirements to the program manager and test community for the Shared Data Warehouse portion of the SPS program to enable the development of a testing strategy.

As a result, the SPS program may not meet user requirements.

Mandatory Testing

DoD Directive 8120.1, "Life-Cycle Management of Automated Information Systems (AISs)," January 14, 1993, directs that developmental and operational tests for automated information systems be conducted according to the guidance in DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991. DoD Instruction 5000.2 prescribes the policy and procedures for testing. The format and content for the Test and Evaluation Master Plan (TEMP)[8] is in Draft DoD Manual 8120.2-M, "Automated Information System Life-Cycle Management Manual," March 1995.

The overall purpose of testing described in DoD Instruction 5000.2 is to provide decision makers with essential information for assessment of acquisition risk, verify attainment of technical performance objectives, verify that systems are operationally suitable and effective, and provide information to support decisionmaking. Specifically, the purpose of developmental testing is to identify potential operational and technological limitations of the alternative concepts and design options being pursued, to support the identification of cost-

[8]The Test and Evaluation Master Plan documents the overall structure and objectives of the test and evaluation program. The TEMP provides a framework within which to generate detailed test and evaluation plans and document schedule and resource implications associated with the test and evaluation program.

performance trade-offs, to support the identification and description of design risks, to substantiate that contract technical performance and manufacturing process requirement have been achieved, and to support the decision to certify the system as ready for operational test and evaluation. DoD Instruction 5000.2 states that operational testing should be structured to determine the operational effectiveness and suitability of a system under realistic conditions and to determine whether the minimum acceptable operational performance requirements, as specified in the Operational Requirements Document, have been satisfied.

Operational Requirements

The Critical Operational Issues, Minimum Acceptable Operational Performance Requirements, and Critical Technical Parameters in the December 1, 1995, SPS TEMP were not based on user-developed and validated operational requirements[9] as directed by DoD Instruction 5000.2. The lack of SPS user-based operational requirements impairs the ability of the developmental and operational testers to plan and execute a comprehensive test and may result in inadequate testing of technical and operational capabilities.

User-validated Requirements. The sources cited in the December 1, 1995, TEMP for the measures of technical and operational performance to be used in testing are the Test and Evaluation Working Group, the Mission Need Statement, and the Request for Proposal. Of those sources, only the Mission Need Statement is a source document for user requirements. DoD Instruction 8120.2, which was in effect at the time of the SPS program initiation and Milestone I review, did not require automated information systems to have an Operations Requirements Document.[10] The Operational Requirements Document was required by DoD Instruction 5000.2 for combat systems. The Operational Requirements Document is the source document for operational

[9]Operational requirements as referenced in this report refer to the users' operational performance requirements normally stated in an Operational Requirements Document or Acquisition Program Baseline. Those requirements are used in developmental and operational testing. Before March 1996, automated information systems were not required to have an Operational Requirements Document.

[10]The revised DoD Regulation 5000.2, "Mandatory Procedures for Major Defense Acquisition Programs (MDAPs) and Major Automated Information Systems (MAIS) Acquisition Programs," March 15, 1996, requires that an Operational Requirements Document be prepared for Automated Information Systems at Milestone I.

requirements used in determining the operational suitability and effectiveness of combat systems and is reflected in the technical and operational performance measures in the TEMP.

In lieu of the requirement for an Operational Requirements Document, DoD Instruction 8120.2 required that users document the critical operational test criteria that will be used as the basis for determining the effectiveness and suitability of the system. Specifically, DoD Instruction 8120.2 required that critical operational test criteria be established by the functional user, agreed to by the lead acquisition authority, and documented in the automated information system program baseline, in accordance with DoD 7920.2-M, "Automated Information Systems Life-Cycle Management Manual," March 1990.

The DoD Test Oversight Officials reviewed the SPS TEMP, dated October 20, 1995, and identified a need for user-validated requirements. On December 1, 1995, the Director, Test Systems Engineering and Evaluation, sent the memorandum, "Department of Defense (DoD) Standard Procurement System (SPS) Milestone I Test and Evaluation Master Plan (TEMP), Final Coordination Draft," October 20, 1995, directing that the users validate SPS user requirements before TEMP approval. The program manager submitted a second draft TEMP, dated December 1, 1995. That TEMP was approved by the Director, Operational Test and Evaluation, on February 14, 1996, to support the conduct of the Functional Capabilities Demonstration. This document still did not contain the user-validated operational requirements. The Director, Operational Test and Evaluation, directed that the TEMP be updated to include those operational requirements before the beginning of demonstration, validation, and acceptance and operational testing.

Effort to Identify Requirements. The SPS Test and Evaluation Working Group is attempting to get information on user operational requirements. The SPS test director developed a plan for going directly to a limited number of user sites to collect requirements from the users. The SPS program manager agreed to fund the effort in the interest of obtaining data needed to conduct testing. Although the testers and user representatives work together in developing the technical and operational performance measures reflected in the TEMP, the basis for developing those measures are the users' operational performance requirements. Those operational performance requirements should be determined by the users independently of the testers. Because the Council represents the user community, we believe the Council should provide validated operational performance requirements to the SPS testers.

Compressed Schedule

The Integrated Test Program Schedule shown in the December 1, 1995, version of the TEMP does not allow sufficient time for comprehensive test planning between the identification of the first increment of the SPS at contract award and the initiation of testing. Table 2 depicts the key test events and schedule.

Table 2. Program Events Affecting SPS Testing
(as of December 1, 1995)

Event	Schedule
Increment One Functional Capabilities Demonstration	November 15, 1995, through March 15, 1996
First stage Developmental Test and Evaluation	Last Stage Functional Capabilities Demonstration
SPS contract award (One or more contractors)	May 15, 1996
Increment One Validation and Acceptance Testing	June 17, 1996, through September 30, 1996
First stage Initial Operational Test and Evaluation	Last stage Validation and Acceptance Testing
Down select to one contractor	December 15, 1996
Increment One Initial Operational Test and Evaluation	January 6, 1997, through February 21, 1997
SPS Program Milestone II/IIIA Review (increment one)	March 31, 1997
Increment One deployment	May 15, 1997, through May 14, 1998

Source: Draft Test and Evaluation Master Plan, December 1, 1995.

Development Test and Evaluation Schedule. The testers will not have the complete list of functions of the SPS for the first increment until contract award, which is about 1 month before the beginning of formal developmental testing. Increment One consists of the functionality that is identified in the offeror's proposal for the Functional Capabilities Demonstration phase.

To mitigate risk associated with test planning under a compressed program schedule, the testers scheduled the initial phase of developmental testing for Increment One several months before contract award. That initial phase of developmental testing will occur during the last portion of the Functional Capabilities Demonstration. However, the final configuration of functions to be available from the vendors at the Functional Capabilities Demonstration will not be known until the contract is awarded to one or more vendors. In our opinion, 1 month between the identification of the functions for the first increment for the SPS at contract award and the beginning of the developmental testing is not sufficient to ensure that the test plan will reflect the full range of technical requirements.

Operational Test and Evaluation Schedule. We believe that the Integrated Test Program Schedule in the December 1, 1995, TEMP does not allow sufficient time between contract award and the beginning of operational testing and evaluation for the operational testers to comply with DoD Instruction 5000.2 requirements aimed at ensuring that testing is adequate. DoD Instruction 5000.2 requires the DoD Components to brief the Director,

Operational Test and Evaluation, on the concepts for testing and evaluation 120 days before testing begins and to submit the test plan to the Director, Operational Test and Evaluation, 60 days before the test.[11]

The December 1, 1995, schedule requires beginning the first stage of operational test and evaluation (the Operational Assessment) during the developmental test phase (Validation and Acceptance Testing).[12] The SPS program manager scheduled the Validation and Acceptance Testing to begin about 1 month after contract award. Part IV of the TEMP, Operational Test and Evaluation Outline, states that "The OT&E [Operational Test and Evaluation] for increment one will be defined no later than initiation of Increment One Demonstration/Validation Testing." That schedule would require that the operational testers brief the Director, Operational Test and Evaluation, on the test and evaluation concept before the completion of the Functional Capabilities Demonstration phase. The schedule would also require that the operational testers submit a copy of the detailed test plan to the Director, Operational Test and Evaluation about 1 month before contract award. The functions for the first increment of the SPS will not be known until contract award. Accordingly, we believe that the operational test plan may not be comprehensive enough to eliminate the considerable risk that the first increment will not be tested well enough to determine whether the SPS is operationally suitable and effective.

Testing for Capability to Share Data

The SPS TEMP does not define testing for the Shared Data Warehouse on the Integrated Program Schedule or in the discussion of planned developmental or operational testing. Although the Shared Data Warehouse is an integral part of achieving the full capabilities of SPS, the program strategy does not define the requirements for the first functional increment or subsequent increments.

Multiple Current and Evolving Systems. The shared data requirements within the DoD include the Corporate Information Management standard systems (for example finance, accounting, and logistics systems); specific Military Department systems; the evolving Defense Information Systems

[11]The requirement for the Components to brief 120 days before testing and to submit a test plan 60 days before testing is also in revised DoD Regulation 5000.2, "Mandatory Procedures for Major Defense Acquisition Programs (MDAPs) and Major Automated Information Systems (MAIS) Acquisition Programs," March 15, 1996.

[12]Demonstration/Validation Testing is used interchangeably with the term Demonstration, Validation, and Acceptance Testing in the TEMP to refer to the developmental testing phase.

Network; the evolving Defense Messaging Service; the existing DoD Electronic Commerce/Electronic Data Interchange standard architecture; and the evolving Defense Data Repository. In addition, the SPS is planned to share data with many systems outside the DoD to include the evolving Federal Central Contractor Registration System and the evolving Federal Acquisition Computer Network. However, the functional user has not fully defined the role of the Shared Data Warehouse in providing an information gateway to other DoD automated information systems and those outside the DoD.

Testing Strategy for Shared Data. The SPS TEMP does not identify the testing needed to ensure that the requirement for the Shared Data Warehouse is met and does not identify a strategy to ensure that the requirement is met in the future. The developmental and operational tester cannot develop a comprehensive test plan to ensure that the SPS achieves the goal of a Shared Data Warehouse until the Council and the SPS program manager define the requirements and how to achieve them.

Conclusion

The Council must develop and validate operational user requirements for the SPS to ensure testing adequacy. Without user-validated operational requirements, significant risk develops for inadequate testing and for accepting a system that will not meet the users' needs. In addition, the compressed time schedule in the Integrated Test Program Schedule does not allow enough time to ensure that testers can develop a comprehensive test plan that determines whether SPS fully meets user-defined operational performance requirements. The SPS will not be fully functional until the Shared Data Warehouse is achieved. The Council, as the functional user representative, must define requirements for the Shared Data Warehouse. The program manager can then develop the testing strategy for data sharing.

Recommendations, Management Comments, and Audit Response

Revised Recommendation. As a result of management comments, we revised Recommendations B.1.a. and B.1.c. to specify which requirements need to be identified and validated and to establish a schedule for identifying Shared Data Warehouse requirements, respectively.

B.1. We recommend that the Director, Defense Procurement, direct the Procurement Corporate Information Management Council as the functional user representative to:

a. Develop and validate the operational performance requirements for the Standard Procurement System.

b. Provide the operational performance requirements to the Director, Defense Procurement Corporate Information Management Systems Center, Defense Logistics Agency, for inclusion in the Standard Procurement System Integrated Test Program Schedule.

c. In coordination with the Standard Procurement System Program Management Office, establish a schedule to define the requirements for the shared data base portion of the Standard Procurement System and incorporate them into the functional requirement, Mission Needs Statement, and Operational Requirements Document and provide them to the program manager.

Management Comments. The Director, Defense Procurement, stated that Recommendation B.1.a. had been accomplished because the SPS solicitation had been amended to more clearly identify validated operational environments in which the SPS must operate and that the solicitation identifies the functions required of SPS. The Director concurred with Recommendation B.1.b., stating that the SPS Operational Requirements Document is being developed and will be available for Initial Operational Test and Evaluation, presently scheduled for February 24, 1997. The Director partially concurred with Recommendation B.1.c., stating that basic data warehousing requirements had been provided to the SPS Program Manager. However, more detailed requirements cannot currently be provided because factors beyond the Director's control will impact those requirements, such as changes to law or regulation and changes in user needs for data warehousing.

Audit Response. Because the draft recommendation was not well-phrased, the Director's comments regarding Recommendation B.1.a. does not address our primary concern. That concern is with the development and validation of SPS operational performance requirements, which should be in the Operational Requirements Document. Operational performance requirements are critical to the development of effective test criteria. We revised the recommendation to more clearly express our intent and ask that the Director, Defense Procurement, provide comments on the revised recommendation in response to the final report.

The Director's comments on Recommendation B.1.b were fully response and no further comment is required.

Regarding the Director's response to Recommendation B.1.c, we understand that firm, detailed user requirements of the Shared Data Warehouse cannot be provided at this time. However, as the user representative for the DoD procurement community, providing those requirements is a Council responsibility. Accordingly, we revised Recommendation B.1.c. to help enable that responsibility to be met in a timely and effective manner. We ask that the Director provide comments on the revised recommendation in response to the final report.

B.2. We recommend that the Director, Defense Procurement Corporate Information Management Systems Center, Defense Logistics Agency:

a. Establish an Integrated Test Program Schedule that allows sufficient time for detailed test planning and the required briefings and review by the Director of Operational Test and Evaluation.

b. Develop the testing strategy for shared data based on the requirements definition provided by the Procurement Corporate Information Management Council.

Defense Logistics Agency Comments. The Defense Logistics Agency partially concurred with Recommendation B.2.a., stating that the SPS Integrated Test Program Schedule provides sufficient time for test planning and necessary reviews. However, the Agency would make any changes deemed necessary to that schedule by the SPS Test Integrated Product Team. The Agency concurred with Recommendation B.2.b. and stated that the testing strategy for the SPS Shared Data Warehouse would be developed and integrated into the overall SPS testing plans by April 1999.

Audit Response. Although the Agency did not fully concur with Recommendation B.2.a., its response meets the intent of that recommendation. Agency comments regarding Recommendation B.2.b. are fully responsive. Accordingly, no further Agency comment is required .

Part II - Additional Information

Appendix A. Audit Process

Scope and Methodology

Allegations to DoD Hotline. To determine the validity of the allegations, we examined the system requirements in the functional description of the SPS draft and final solicitations, dated November 1994 through March 1996. We also reviewed program management office documentation related to the SPS acquisition planning and execution, cost-benefit analyses, and test and evaluation and discussed those subjects with SPS program management personnel. We interviewed personnel who provided oversight of the SPS program from the offices of the Under Secretary of Defense for Acquisition and Technology; Under Secretary of Defense (Comptroller); and Assistant Secretary of Defense (Command, Control, Communications, and Intelligence). We also interviewed members of the Procurement CIM Council and SPS Source Selection Advisory Committee. We did not rely on computer-processed data or statistical sampling procedures during the audit. We included tests of management controls considered necessary.

Audit Period, Standards, and Location. We performed this economy and efficiency audit from September 1995 through April 1996 in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD. The audit was primarily made at the Defense Logistics Agency, Fort Belvoir, Virginia. Appendix F lists the organizations we visited or contacted during the audit.

Management Control Program

DoD Directive 5010.38, "Internal Management Control Program," April 14, 1987, requires DoD organizations to implement a comprehensive system of management controls that provides reasonable assurance that programs are operating as intended and to evaluate the adequacy of the controls.

Scope of Review of Management Control Program. We evaluated DPCSC management controls over the planning, development, and execution of the SPS program. We focused on those controls applicable to the allegations submitted to the Defense Hotline. We did not review management's self-evaluation of the applicable controls because management did not perform a formal self-assessment.

Adequacy of Management Controls. We identified a material management control weakness in that the DPCSC did not establish policies and procedures to implement a comprehensive management control program for FY 1995.

However, during the audit, the DPCSC began restructuring internal policies and procedures to fully implement a management control program. The DPCSC Director stated that the management control program would be in full compliance with DoD Directive 5010.38 by May 31, 1996. We consider management actions to be appropriate. Accordingly, we made no recommendations regarding the management control program at the DPCSC.

Adequacy of Management's Self-Evaluation. Defense Logistics Agency officials did not identify the DPCSC as an assessable unit and, therefore, did not detect or report the material management control weakness identified by the audit. Although the DPCSC did not conduct a formal self-evaluation the DPCSC identified some of its susceptibility to fraud, waste, abuse, and mismanagement in the May 1995 SPS Risk Management Plan, which was prepared as part of the SPS Program Management Plan. The 1995 SPS Risk Management Plan did not identify the specific material management control weakness identified by the audit because that plan focused on external risk events that could delay the development and deployment of the SPS.

Appendix B. Summary of Prior Audits and Other Reviews

The SPS was not the subject of any previous audit coverage; however, the DoD published one technical report and one study that directly related to the SPS acquisition strategy to acquire and modify a commercial off-the-shelf software package.

Department of the Air Force

The Department of the Air Force Software Technology Support Center issued "Guidelines for Successful Acquisition and Management of Software Intensive Systems: Weapon Systems; Command and Control Systems; and Management Information Systems," in February 1995. Those guidelines recommended that DoD organizations planning to acquire commercial off-the-shelf software packages do so with no intentions of altering the software packages. According to the guidelines, purchasers of commercial off-the-shelf packages should not alter the software and should avoid having the software altered in order for the software to be compatible with subsequent commercial versions.

The guidelines did not contain specific recommendations, but instead listed several important commercial software products "facts of life," which should be used in decisionmaking for large enterprise systems. The "facts of life" included:

- o commercial products are not interoperable with other commercial products,
- o product literature overstates software capability,
- o products never exactly match their users' needs,
- o unique commercial off-the-shelf versions are costly, and
- o upgrades are frequent and asynchronous.

Defense Science Board

The Defense Science Board Task Force issued its report on "Acquiring Defense Software Commercially" to the Under Secretary of Defense for Acquisition and Technology in June 1994. The task force was to determine the "conditions under which procurement of defense software can use commercial practices"

and to define the "changes required to permit such use." The Task Force concluded that the DoD needed a more coordinated approach to oversight of diverse software capabilities and programs.

The Task Force report stated that DoD had not determined when to use commercial off-the-shelf software packages and that if a commercial software package is acquired, it should be used as is, without modification. The Task Force recommended that DoD identify the advantages and disadvantages of using commercial software and establish requirements for software architectures.

Appendix C. Other Matters of Interest

We noted that current DoD acquisition objectives and procedures do not accommodate the SPS strategy of acquiring a commercial software system. We also noted a unique organizational structure for two SPS advisory councils.

Acquisition Program Baseline. DoD Regulation 5000.2-R, "Mandatory Procedures for Major Defense Acquisition Programs (MDAPs) and Major Automated Information System (MAIS) Acquisition Programs," March 15, 1996, requires DoD acquisition programs to establish cost, schedule, and performance goals at program initiation. Those goals should be formally in an acquisition program baseline and should be stated in terms of threshold (minimum acceptable) and objective (desired) values. The differences between objective and threshold values represent the degree to which "trade-offs" can occur between cost, schedule, or performance goals. Trade-off decisions made early in the acquisition process can reduce total life-cycle costs.

The SPS program manager had not established an acquisition program baseline. The SPS acquisition approach deterred the development of an acquisition program baseline or a thorough evaluation of potential trade-offs early in the SPS acquisition cycle. Because the basic SPS acquisition strategy is to initially acquire an existing commercial system that best meets overall DoD requirements, SPS program cost, schedule, and performance factors will be largely dependent on the negotiated contract terms and specific capabilities of the system eventually selected. Accordingly, the SPS program manager will not have the information necessary to effectively formulate an acquisition program baseline or to perform meaningful trade-off analyses. That information will not be sufficiently defined until contract award, at best, or until the final SPS product is determined after selection of the successful vendor.

SPS Advisory Councils. The Goldwater-Nichols Department of Defense Reorganization Act of 1986 established a new reporting chain for DoD acquisition officials to clearly separate the requesting (user) community from the acquisition (procurement) organization. Congress established that Act to deter undue influence by the user community on the acquisition process. We noted that two SPS advisory councils were primarily composed of the same individuals, even though the councils have separate and distinct purposes.

The primary purpose of the Procurement CIM Council is to provide user requirements and perspective to the SPS program manager. Conversely, the main purpose of the Source Selection Advisory Council is to evaluate various procurement options and procedures and make related recommendations to the Source Selection Authority. Besides having a common majority membership, both councils are chaired by the same individual. SPS program management officials stated that it was sometimes unclear under which authority the advisory officials provided guidance and whether the guidance was appropriate. That confusion was compounded because the two councils did not routinely or fully document proceedings. The lack of documentation also contributed to a lack of accountability. However, we found nothing to prohibit both councils from having a common membership.

Appendix D. Allegations and Audit Results

From April through October 1995, four draft SPS solicitations were issued for comment; the final solicitation was issued on October 30, 1995. On July 31, 1995, 10 days after the second draft was issued, the complainant submitted allegations to the Defense Hotline. Those allegations expressed concerns about the SPS in three areas: functional requirements, acquisition strategy, and testing plans. The complainant chose to remain anonymous. Accordingly, we interpreted and evaluated the allegations based on documentation and other information the complainant may or may not have reviewed. The complaint contained 11 allegations. We grouped the allegations into the three areas of concern. Further, we separated some allegations into multiple parts. Accordingly, we evaluated 13 distinct allegations. The three general areas of concern, the 13 allegations, and the related audit results follow.

Concern 1: The strategy to acquire and deploy SPS is flawed.

Audit Result: The concern was partially substantiated because the SPS will initially be deployed to organizations having manual and semi-automated systems instead of to large volume users or to the Defense Contract Management Command. According to the SPS program manager, that deployment strategy will provide the greatest return on investment to the DoD. However, the costs and benefits of deployment alternatives were not analyzed. See Finding A for a complete discussion on the strategy to acquire SPS.

a. The SPS is being designed and developed to initially satisfy only "small dollar, small purchase" organizations. Based on that limited scope, an incomplete product may be developed and delivered, requiring increased expense and effort to achieve the goal of a shared data base.

Audit Result. The allegation was partially substantiated, but was the result of a conscious decision. The program manager decided to initially deploy the SPS to procurement organizations using manual or semi-automated systems. Those organizations include most small purchase or small volume users, but also include some large, high-volume procurement organizations, such as Headquarters, Space and Naval Warfare Systems Command. The SPS program manager clearly expects to deploy subsequent increments of the SPS to organizations that have more complex requirements. However, the SPS program manager did not perform a cost-benefits analysis of the different approaches considered for the development and deployment of SPS.

b. Defense Contract Management Command users will not get SPS software until late in the system development cycle. Accordingly, concurrent operations of the SPS and the Mechanization of Contract Administration Services System, which the Defense Contract Management Command uses, will be required, but will not be cost-effective. That major change in acquisition approach is contrary to the approach described to command users.

Audit Result. The allegation was partially substantiated, but was the result of a deliberate decision. According to the SPS deployment plans, which the MAISRC reviewed and approved, the Defense Contract Management Command will be one of the last organizations to receive SPS. One factor considered is that the Defense Contract Management Command has the most automated capability of any SPS-targeted user. However, the decision to delay deployment until late in the system development cycle will require the longest period of concurrent operations by the SPS and the Mechanization of Contract Administration Services System. Although the SPS development and deployment approach has several advantages, its cost-effectiveness has not been documented. We found no indication that the SPS program manager advocated any other deployment approach.

c. The SPS may be developed differently for each customer base in order to incorporate unique requirements.

Audit Result. The allegation was not substantiated. According to the program manager, the SPS will be developed incrementally based on industry's ability to meet overall DoD requirements and will not be based on the particular needs of any user. We found no evidence that different versions of the SPS would be developed for different users. The solicitation requires that the SPS be sufficiently flexible to establish and display contract information according to users' functions and to incorporate DoD Component or organization-unique procedures.

Concern 2: The SPS will not meet some specific functional requirements.

Audit Results. The overall concern generally had no merit. Two specific functional requirements allegedly omitted were not in any draft solicitation or the final solicitation. However, these capabilities could be provided through other functional requirements in the final solicitation. The remaining functional requirements allegedly omitted were specifically in draft and final solicitations.

a. The SPS will not provide the "alerts that are required to assure that the contractor is in compliance with the contract at the least cost to the Government."

Audit Result. The allegation was not substantiated. Each draft solicitation and the final solicitation included specific requirements to automatically alert appropriate users when contractor performance exceeded the pre-defined criteria.

b. The first release of the SPS does not include requirements for "closeout of contracts."

Audit Result. The allegation was not substantiated. The July 1995 draft solicitation and each subsequent solicitation included contract close-out requirements for the SPS.

c. The new system will not validate the "long line of accounting data."

Audit Result. The allegation was not substantiated. Each draft solicitation and the final solicitation included specific requirements to validate accounting classification data and to reject invalid data.

d. The SPS does not include requirements for "[on-line] help messages."

Audit Result. The allegation was not substantiated. The July 1995 draft solicitation and each subsequent solicitation include specific requirements for on-screen help messages and tutorials.

e. The SPS does not include requirements for "multiple payment offices."

Audit Result. The allegation was substantiated; none of the SPS draft solicitations or the final solicitation included a specific requirement for accommodating multiple payment offices. However, the final solicitation requires that SPS have templates that permit the user to describe and define user-created data elements. Accordingly, multiple payment offices, or any other needed data elements, could be designated and incorporated within the SPS as required.

f. The SPS does not include requirements for "currencies other than U.S. dollars."

Audit Result. The allegation was not substantiated. The July 1995 draft solicitation and each subsequent solicitation included specific requirements to allow unit prices and awards in currencies other than U.S. dollars.

g. The SPS does not include requirements to do multiple actions. For example, a modification adds money and a line item and changes the schedule for that one line item. That modification would take at least three changes using the SPS, but the Mechanization of Contract Administration Services System makes the modification with only one change with multiple screens.

Audit Result. The allegation was substantiated. Neither the draft solicitation nor the final solicitation specified a requirement for automatically performing multiple actions. However, the final solicitation requires a capability for implementing user-defined criteria. User-defined criteria could be used to designate the automatic linkage of actions associated with a particular function. Accordingly, the actions associated with contract modifications could be defined by the user and could be automatically executed whenever a particular contract is modified.

h. "It has been said that the Military Standard Contract Administration Procedures requirement may be scrapped because it is so difficult to program."

Audit Result. The allegation was not substantiated. Each draft solicitation and the final solicitation included specific requirements to generate, receive, validate, and record transaction sets using Military Standard Contract Administration Procedures.

Concern 3: Specific aspects of the SPS testing plans are inadequate.

Audit Result. The concern had limited merit because the December 1, 1995, TEMP did not include all parties potentially affected throughout the SPS testing process. Other aspects of the SPS testing plans are discussed in Finding B.

a. Early versions of the SPS "will not be tested for stress."

Audit Result. The allegation was substantiated; the Draft TEMP, dated May 8, 1995, made no provision for stress testing. However, the December 1, 1995, draft TEMP clearly indicates that SPS stress testing is planned. Although the description in the December 1, 1995, TEMP for the Initial Operational Test and Evaluation scenarios were not detailed, the description specifically stated that scenarios would include operations under surge conditions. The TEMP also states that testing of follow-on SPS increments will mirror those scenarios.

b. Defense Contract Management Command and Defense Finance and Accounting Service representatives will not be invited to all SPS testing; therefore, testing may not include necessary users.

Audit Result. The allegation was partially substantiated. The TEMP dated December 1, 1995, did not state that Defense Finance and Accounting Service personnel would be involved in any SPS testing. However, the Defense Finance and Accounting Service will have no critical interest in the SPS until the later increments. Further, a Defense Finance and Accounting Service representative is assigned to the DPCSC. The TEMP indicates that the Defense Contract Management Command will be involved in the operational testing of the SPS.

Appendix E. Summary of Management Comments and Audit Response

Management Comments on Finding A

The Assistant Secretary of Defense (Command, Control, Communications, and Intelligence) generally concurred with Finding A, "Strategy for Acquiring the Standard Procurement System," but provided no specific comments on the finding or discussion. The Director, Defense Procurement, stated that the report's findings and recommendations should be re-evaluated because the SPS solicitation was amended after the audit was completed. Additionally, the Director's comments, which discussed several topics in the report, indicated disagreement with Finding A. The Defense Logistics Agency partially concurred with Finding A, but nonconcurred with many of the topics discussed. The following summarizes management comments concerning the draft Finding A and provides the audit response.

Management Comments on Finding A, "Strategy for Acquiring the SPS." The Defense Logistics Agency (the Agency) stated that describing the SPS Program as a $4.1 billion program was misleading and incorrect because that amount is based on a period 5 years longer than the SPS Program's approved length and includes costs neither incurred nor controlled by the SPS Program Manager. Further, the $4.1 billion was cited merely to capture the attention of potential readers. Additionally, the finding did not reflect potential costs of $8.1 billion which DoD would risk by doing nothing to improve automated support to the procurement community.

The Agency did not agree that the risk factors associated with the SPS acquisition strategy may result in unmet user needs or unanticipated contract costs. The Agency stated that 3 years of effort was put forth to identify standard processes and procedures for future use by the procurement community and that the SPS will provide those standards to its users. Additionally, great effort had been taken to ensure that SPS cost projections were realistic. Offerors have demonstrated a good understanding of SPS requirements and feel confident that those requirements can be costed on a fixed price basis in the best and final offers. Additionally, the Agency stated that the report does not adequately recognize the role of SPS Program oversight bodies. In accordance with DoD policy, execution of the SPS Program is monitored by both the Agency and Office of the Secretary of Defense and any unanticipated cost growth would be quickly identified and appropriately dealt with.

The Agency could neither understand nor support the position that a commercial acquisition strategy adds risk to the SPS program. The Agency also cited several Federal Government- and DoD-stated preferences for acquiring commercial products over the in-house development of unique products. Further, the contracting method being used to acquire SPS is fair and open

competition to purchase a commercially available system. Because a commercially available system is being acquired, fixed prices are required by FASA and the Federal Acquisition Regulation.

Audit Response. The estimated SPS life-cycle cost, as shown in the SPS Economic Analysis prepared by the SPS program management office and submitted to the MAISRC to support the SPS Milestone I decision, was estimated at $4.1 billion. Further, that amount was based on a program life of 15 years and, in accordance with the definition of life-cycle cost, included all associated costs, including the cost of operations. Further, we specify SPS program costs in the report's background. However, we have clarified the finding to indicate that the $4.1 billion was an estimated life-cycle cost to avoid any confusion.

Contrary to Agency comments and inference, we are not opposed to the DoD acquisition and use of existing, commercially available products when those products will meet DoD needs. In fact, we have long advocated the use of commercial, off-the-shelf automation resources when appropriate. For instance, in Inspector General, DoD, Report 91-121, "Use of Mobile Computers - Army," September 23, 1991, we recommended that the Army use commercial, off-the-shelf microcomputers instead of computers built to unique DoD specifications. We made that recommendation because off-the-shelf computers, readily available in the commercial marketplace, met all Army established performance criteria at about one-third the cost. As discussed in this report, similar circumstances do not exist for SPS. Because no existing procurement software product or proposed combination of products will meet SPS requirements, all software proposed will have to be enhanced to meet SPS functional requirements. The amount of software development ultimately required will be directly related to how well the stated functional requirements fully reflect user needs.

We fully recognize that the SPS program is overseen by Agency and Office of the Secretary of Defense review boards. We also recognize that such oversight is no guarantee that SPS will be acquired on schedule or at originally anticipated costs. The contracting methodology being used to acquire SPS is new and no "lessons learned" exist to help reduce potential risks. Only time will ultimately define the methodology's effectiveness in meeting all DoD user requirements at a fixed price.

Since we performed the audit, the Agency has changed the type of contract it intends to use for SPS. Instead of a "requirements" type of contract, it now intends to issue an indefinite delivery, indefinite quantity contract, which limits the minimum obligation to DoD to less than $7 million. We have no doubt as to whether the SPS acquisition program is worth a $7 million investment. However, we continue to believe, as discussed in the report and in this appendix, that the contracting methodology selected to acquire SPS is risky.

Management Comments on SPS Functional Requirements. The Director, Defense Procurement, stated that the requirements in the SPS solicitation were distilled from those functional requirements originally defined by the user community and were reviewed by the Procurement CIM Council (now the SPS

Council) to verify that those requirements should be automated. Deliberately constructed to avoid dictating a specific solution or method of achieving DoD requirements, the solicitation contained a matrix that tied the solicitation requirements to the user-developed requirements. That matrix was reviewed by a functional community working group to verify that all user-defined requirements that should be automated were in the solicitation. Additionally, the Director, Defense Procurement, stated that the report's statement that functional requirements were consolidated to comply with FASA was incorrect because the Federal requirement to express agency needs in terms of performance specifications or functional requirements predates FASA.

The Agency commented that the original user requirements in the SPS Functional Description were provided to the SPS contracting officer for inclusion in the solicitation, but the Functional Description was determined to be similar to a "detailed" specification, describing "what" was required and "how" to provide the function. In accordance with DoD guidance and with the concurrence of senior representatives of the procurement community, the contracting officer rewrote the original user requirements to be more representative of a performance specification. The Agency also described the processes implemented to help ensure that the offerors fully understand the requirements of SPS. Through those processes, any misunderstanding of the requirements by an offeror will be resolved and validated solutions will be incorporated in the final contracts.

Audit Response. We agree with the process management described as to the evolution of the solicitation's requirements. We also agree that the requirements as stated in the solicitation were deliberately constructed as performance specifications to avoid dictating a specific solution or method of achieving DoD requirements. Our concern focuses on whether the performance specifications are specific enough to adequately convey the full needs of the user to the offerors. Further, that concern is heightened because software development is required to meet all stated requirements. Broadly stated requirements are not conducive to developing effective software. Although processes have been established to help make sure potential contractors well understand the requirements of SPS, the effectiveness of those processes is yet to be proven.

We question some Director, Defense Procurement, comments. We found no provision in the SPS Council charter for the Council to determine which functional requirements "should be automated." We believe the Council may have difficulty in convincing users of legacy systems that some automated support presently provided by those systems may not need to be provided by SPS. Also, the matrix of requirements in the solicitation does not directly tie to the original 700 user-developed requirements. Instead, it reflects the 300 requirement statements, which were distilled from the Functional Description. We agree that Federal and DoD guidance emphasized the use of commercial products before FASA. We cited FASA as the impetus for using performance specifications in the SPS solicitation because the Director, Defense Procurement, in the October 1994 memorandum initiating the SPS procurement process, stated that the procurement should be conducted in accordance with FASA.

Management Comments on SPS Software Development. The Director, Defense Procurement, stated that none of the commercial software products examined during market research in July 1994 could satisfy all DoD requirements. The Director inferred, however, that a combination of those products could meet all DoD requirements and that the combined product would be offered to DoD through anticipated teaming arrangements. The Director also stated that all SPS functional requirements do not have to be satisfied initially, but will be required about 2 years after contract award. The Director did not agree that the SPS solicitation's inclusion of software process questionnaires and required software capability evaluations indicated that substantial software development was anticipated. The questionnaires were included solely to evaluate an offeror's ability to manage the integration of multiple software products because teaming arrangements were anticipated. Similarly, the requirement for software engineering support is to provide for interfacing with other automated systems, a common and customary commercial practice.

The Defense Logistics Agency stated that the report failed to recognize DoD efforts to reduce the need for software development by the offerors and did not explain opportunities available for potential offerors to enhance their software to provide substantial amounts of the required SPS functionality. The Agency also cited aspects of the SPS procurement strategy that help to reduce the risks of a fixed-price contract. One risk mitigation factor is the "fly-off" between competing vendors preceding the final vendor selection. Another factor cited was the type of contract to be awarded. Because an indefinite delivery, indefinite quantity contract will be used, the selected vendor will have distinct financial incentives to deliver the functionality promised and in the manner promised.

Audit Response. While the Director, Defense Procurement, may have anticipated SPS proposals that would immediately and fully satisfy DoD functional requirements, such proposals were not made. Instead, the SPS proposals indicate that the commercial softwares proposed will have to be substantially enhanced to provide the functionality required. We continue to believe, as discussed in the report, that the solicitation indicated that a potential need for substantial software development was recognized from the onset. Accordingly, we have serious doubt that SPS should be acquired as a "commercial item," as defined by FASA. More importantly, a fixed-price contracting mechanism, as required when procuring a "commercial item," is risky when substantial software development is required. As previously discussed, that risk is compounded when user requirements are not well-defined.

As to the Director, Defense Procurement, comments on the purpose for requiring software process questionnaires, we believe an inappropriate tool may have been chosen to assess an offeror's ability to manage the integration of software packages. Addendum M of the solicitation clearly states that each offeror's software process will be evaluated by using the Software Capability Evaluation Method, a methodology developed by the Software Engineering Institute. Those evaluations will establish the relative maturity of each offeror's software development process. The focus of the evaluations will be on an offeror's ability to efficiently develop software of high quality, not on the ability to manage the integration of software packages. Also, we agree that SPS

will have to be interfaced with other automated systems and that interfaces are a common and usual requirement. The SPS solicitation clearly states that interface development will be provided through software engineering support taskings. However, software engineering support is not limited to interface development and could be used to develop software related to other SPS functional requirements. Accordingly, we believe that the requirement for software engineering support is an indicator that software development is anticipated.

We agree with Agency comments that the draft report did not recognize prior efforts to reduce the need for future software development. We have revised the report to recognize those efforts.

Management Comments on Site Requirements. The Director, Defense Procurement, stated that the recent conversion to an indefinite delivery, indefinite quantity type of contract permits orders to be placed for a variety of matrixed scenarios. Those scenarios, designed to accommodate varied site factors such as number of users, hardware, and networks, will substantially reduce the risk of fixed prices when the environments of individual sites are not well defined.

The Defense Logistics Agency stated that defining existing site requirements would waste Government and industry time. Regarding legacy system functional requirements, SPS is the designated "purple suit" solution: the DoD standard procurement system of the future. Accordingly, the procurement processes represented by the legacy systems have little applicability. Additionally, the development of system interfaces will be tasked as close to the actual time of need as practicable. Developing detailed interface requirements before that time would be impractical because these interfaces are constantly being changed. Further, the existing physical infrastructure at procurement sites is being upgraded to meet DoD-wide standards. Therefore, developing detailed descriptions of the present procurement physical operating environments would be meaningless. The SPS solicitation describes the operating and physical environment requirements for meeting DoD standards.

Audit Response. Based on the changes made to the SPS solicitation and other factors described in management's comments, we no longer believe that the lack of information describing physical site environments and architectures poses a material hindrance to developing a sound and reasonable fixed-price proposal. Accordingly, we deleted that portion of the draft report that discussed the differences in site architectures. However, we are still concerned that other vague, site-related SPS requirements, such as system interfaces, may prove extremely difficult to confidently cost and price. Regarding the Agency's comments on system interface requirements, we are not concerned about the timing of the tasks to develop those interfaces. We are concerned whether the estimate of allocated hours is sufficient to build interfaces to present and future systems about which relatively little is defined. The Agency also suggested that accommodating the unique processes used by differing sites would be irrelevant because SPS, as the "standard" DoD procurement system, would become the single, DoD-wide way of doing procurement business. We believe that outlook

is optimistic. If SPS does not equal or exceed the functionality presently provided through the various legacy systems, sites using those legacy systems will have little incentive to adopt SPS.

Management Comments on Alternative Deployment Approaches. The Defense Logistics Agency stated that although the SPS Program Manager has stated an intended deployment approach, execution of that intent has not been formally requested of, or approved by, the MAISRC. That stated approach is to initially field SPS to manual or semi-automated procurement sites. Early SPS implementation at those sites will:

- help reduce DoD problems with unmatched disbursements,

- exploit Electronic Commerce/Electronic Data Interchange capabilities as rapidly as possible, and

- obtain estimated procurement benefits of $76 million.

Those reasons will be presented at the SPS Milestone II/IIIA briefing to the MAISRC. The Program Manager believes the MAISRC will approve the intended approach and achieve early SPS benefit instead of waiting for interfaces to be developed, a necessity for fielding SPS at procurement organizations using legacy systems.

Audit Response. We agree that the intended deployment approach has advantages, as acknowledged in the draft report. However, management comments do not fully address our stated concern. The SPS Program Manager has not quantitatively established the associated costs and benefits of deploying SPS to legacy sites first. We believe that financial considerations should also be a factor, along with obtaining early benefits, in program planning and execution. The financial analysis of alternative deployment approaches should not be deferred until the Milestone II/IIIA review, now scheduled for mid-1997. Should the analysis provide financial reason to alter the deployment approach, it may not be practical to implement changes at that time.

Management Comments on SPS Shared Data Warehouse. The Defense Logistics Agency concurred that the significance of the SPS Shared Data Warehouse has not been stressed within existing documentation or project plans.

Management Comments on Finding B

The Assistant Secretary of Defense (Command, Control, Communications, and Intelligence) disagreed with draft Finding B, "Standard Procurement System Testing Strategy," as written, but provided no specific comments on the topics discussed. The Director, Defense Procurement, did not comment on the finding or discussion. The Defense Logistics Agency partially concurred with the finding and commented on the topics discussed. A summary of management comments on Finding B and the audit response follows.

Management Comments on Finding B. The Assistant Secretary of Defense (Command, Control, Communications, and Intelligence), with input from the Director, Operational Test and Evaluation, and the Deputy Director, Test, Systems Engineering and Evaluation, stated that the finding should be reworded to emphasize the criticality of validated user operational requirements to the formulation of a testing strategy that reasonably ensures user requirements will be met. The Assistant Secretary also stated that the SPS Council had formed an SPS Working Integrated Product Team to develop the SPS operational requirements document, upon which the TEMP for Increment One operational test and evaluation will be based.

The Defense Logistics Agency partially concurred, but cited on-going efforts, as described in the following topical summaries, to improve planned SPS testing. Those improvements will reasonably ensure that testing will identify unmet user requirements.

Management Comments on Operational Requirements. The Defense Logistics Agency stated that the SPS Council formed a Working Integrated Product Team to develop a SPS Operational Requirements Document. The Operational Requirements Document is the primary source from which operational performance requirements are normally derived. However, because the SPS testers needed user-validated performance requirements to test against and the procurement community had not provided those requirements, the SPS Program Manager gathered operational performance requirements, along with respective performance thresholds and objectives, from nine representative SPS sites. The SPS Program Manager is now working with Office of the Secretary of Defense test organizations, members of the user community, and developmental and operational test evaluators in iterative integrated product team meetings to facilitate the development of a user-validated Operational Requirements Document and derivative operational test requirements. The validated Operational Requirements Document will be provided no later than 60 days prior to the Operational Test Readiness Review and the validated operational performance requirements will be incorporated into the TEMP and the SPS Acquisition Program Baseline.

The Agency further stated that the functionality provided in each increment will not be defined until contract award. Contract award will be partially based on the amount of total SPS functionality currently available or presently being developed in the proposed commercial product. Also, negotiations will precede contract award to help determine the functionality to be provided in each SPS increment. Accordingly, the SPS Council does not need to define the functionality of each increment for testing purposes.

Audit Response. The SPS Program Management Office, in collaboration with the varied members of the testing community, has made commendable progress in strengthening testing plans and establishing test criteria since we completed the audit. We note the SPS program management office has embraced the integrated product team concept and convincingly demonstrated the advantages offered by that concept.

Management Comments on Compressed Schedule. The Defense Logistics Agency did not agree that the SPS testing schedule was compressed or that the schedule has insufficient test planning time or test execution time. Rather, the Agency feels that the SPS testing schedule is better described as being aggressive. Additionally, the Office of the Secretary of Defense testing community is now participating in all SPS test planning through the integrated product team approach and has voiced no dissatisfaction with the SPS testing approach or time lines.

Audit Response. If the testing community is genuinely satisfied that the SPS testing schedule provides for sufficient test planning and test execution time, then we agree that compliance with related DoD policy requirements is of less importance. It would be advisable for the testing community to endorse the test schedule explicitly, because silence is ambiguous.

Management Comments on Testing for Capability to Share Data. The Defense Logistics Agency concurred that the SPS Shared Data Warehouse test strategy needs to be developed and integrated into the overall SPS test strategy.

Other Management Comments

Management Comments on Other Matters of Interest. The Director, Defense Procurement, stated that the report was misleading: the responsibilities and duties of the SPS Council is considerably broader than providing user requirements and perspective to the SPS program manager. The Council's charter assigns the Council the responsibility for "planning, developing, coordinating, and recommending improved business practices." The Council also monitored the execution of Procurement Functional Steering Committee decisions and managed the Procurement CIM Functional Integration Management Organization. The Director stated that it is not a requirements generating body, but is responsible under its charter for assuring that requirements that should be automated are automated.

Audit Response. We agree with the Director's comments that the Council had extensive responsibilities. Additionally, we agree that the Council is not a requirements generating body; requirements come from the procurement community. However, upon initiation of the SPS acquisition, the primary role of the Council has been to represent the user and provide user requirements and other considerations of the user to the SPS Program Management Office. As previously stated, we found no provision in the charter that tasks the Council to determine which requirements should be automated or to assure that those requirements are automated.

Appendix F. Organizations Visited or Contacted

Office of the Secretary of Defense

Under Secretary for Acquisition and Technology
- Deputy Under Secretary of Defense (Acquisition Reform), Washington, DC
- Director, Defense Procurement, Washington, DC
- Director, Operational Test and Evaluation, Washington, DC
- Director, Test Systems Engineering and Evaluation, Washington, DC

Under Secretary of Defense (Comptroller)
- Director, Program Analysis and Evaluation, Arlington, VA

Assistant Secretary of Defense (Command, Control, Communications, and Intelligence)
- Deputy Assistant Secretary for Acquisition, Washington, DC

Department of the Army

Assistant Secretary for Research, Development, and Acquisition
- Deputy Assistant Secretary for Financial Operations, Washington, DC
- Deputy Assistant Secretary for Procurement, Washington, DC

Department of the Navy

Assistant Secretary for Research, Development, and Acquisition
- Deputy Assistant Secretary for Acquisition and Business Management, Arlington, VA
- Naval Information Systems Management Center, Arlington, VA

Naval Supply Systems Command
- Deputy Commander for Contracting Management, Arlington, VA

Department of the Air Force

Assistant Secretary for Acquisition
- Deputy Assistant Secretary for Contracting, Washington, DC

Other Defense Organizations

Defense Information Systems Agency
- Joint Interoperability Test Center
  - Developmental Test Organization, Washington, DC
  - Operational Test Organization, Washington, DC

Other Defense Organizations (Cont'd)

Defense Logistics Agency
- Defense Contract Management Command
  - Director for Contract Management, Fort Belvoir, VA
  - Director, Defense Procurement Corporate Information Management Systems Center, Fort Belvoir, VA

Appendix G. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition and Technology
  Director, Defense Procurement
  Director, Defense Logistics Studies Information Exchange
  Director, Operational Test and Evaluation
  Director, Test Systems Evaluation and Engineering
Under Secretary of Defense (Comptroller)
  Deputy Chief Financial Officer
  Deputy Comptroller (Program/Budget)
Assistant Secretary of Defense (Command, Control, Communications, and Intelligence)

Department of the Army

Assistant Secretary of the Army (Financial Management and Comptroller)
Assistant Secretary of the Army (Research, Development, and Acquisition)
Auditor General, Department of the Army

Department of the Navy

Assistant Secretary of the Navy (Financial Management and Comptroller)
Assistant Secretary of the Navy (Research, Development, and Acquisition)
Auditor General, Department of the Navy

Department of the Air Force

Assistant Secretary of the Air Force (Financial Management and Comptroller)
Assistant Secretary of the Air Force (Acquisition)
Auditor General, Department of the Air Force

Other Defense Organizations

Director, Defense Contract Audit Agency
Director, Defense Finance and Accounting Service
  Director, Defense Finance and Accounting Service Indianapolis Center
Director, Defense Information Systems Agency
Director, Defense Logistics Agency
  Commander, Defense Contract Management Command
  Director, Defense Procurement Corporate Information Management Systems Center
Director, National Security Agency
  Inspector General, National Security Agency
Inspector General, Defense Intelligence Agency

Non-Defense Federal Organizations and Individuals

Office of Management and Budget
Technical Information Center, National Security and International Affairs Division, General Accounting Office

Chairman and ranking minority member of each of the following congressional committees and subcommittees:

Senate Committee on Appropriations
Senate Subcommittee on Defense, Committee on Appropriations
Senate Committee on Armed Services
Senate Subcommittee on Acquisition and Technology, Committee on Armed Services
Senate Committee on Governmental Affairs
House Committee on Appropriations
House Subcommittee on National Security, Committee on Appropriations
House Committee on Government Reform and Oversight
House Subcommittee on National Security, International Affairs, and Criminal Justice, Committee on Government Reform and Oversight
House Committee on National Security

Part III - Management Comments

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

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
6000 DEFENSE PENTAGON
WASHINGTON, DC 20301-6000

COMMAND, CONTROL, COMMUNICATIONS, AND INTELLIGENCE

12 JUL 1996

MEMORANDUM FOR DIRECTOR, READINESS AND OPERATIONAL SUPPORT DIRECTORATE, DODIG

SUBJECT: Audit Report on Allegations to the Defense Hotline Concerning the Standard Procurement System (Project No. 5RE-8019)

We appreciate the opportunity to comment on this draft audit report. Our comments have incorporated inputs from the office of the Director, Operational Test and Evaluation and the office of the Deputy Director, Test, Systems Engineering & Evaluation, OUSD(A&T). We generally agree that major automated information system (AIS) programs, such as the Standard procurement System (SPS) program, have acquisition risks. Without approved user operational requirements, program testing strategies may not be appropriate for reducing the risk that user needs may not be met.

However, Major Automated Information System Review Council (MAISRC) staff oversight reviews focus on how major AIS programs are mitigating acquisition and program risks. Because MAISRC staff members have participated in SPS working-level integrated product teams, we believe the SPS Program Manager has and continues to establish appropriate processes for minimizing SPS program risks.

As requested, the attached comments address the conclusions and recommendations that involve the MAISRC. If you have questions regarding the attached comments, please contact my action officer, David Dore, at (703) 681-4989.

Anthony M. Valletta
Deputy Assistant Secretary of Defense
(C3I Acquisition)

Attachment

COMMENTS ON
DRAFT AUDIT REPORT CONCERNING THE
STANDARD PROCUREMENT SYSTEM (5RE-8019)

The draft report states the DODIG concern that the strategy for acquiring SPS adds considerable program risk (Finding A) and there is a need for DOD, before SPS contract award, to reexamine the SPS acquisition and program strategies to determine if the inherent risks are still acceptable. Reviews of acquisition and program risks are essential parts of the oversight process. In fact the MAISRC Milestone I decision memorandum directed the MAISRC be provided the SPS strategies for dealing with SPS technical risks. With MAISRC staff participation and support, the SPS migration strategies for managing program and technical risk were completed on November 15, 1995, and implementing actions continue. However, because of the DODIG concern, a MAISRC WIPT will again reexamine these strategies within 90 days of contract award.

The other DODIG finding states that inadequate testing strategies increased the risk that SPS may not meet user requirements. We do not agree that this is the case with the SPS, based on the information in the draft audit report. Instead, we agree that the lack of validated user operational requirements may result in an SPS testing strategy which increases the risk that the program may not meet user requirements. The SPS Council has established an SPS WIPT to develop the operational requirements document (ORD). This ORD will be approved prior to approval of the final TEMP supporting formal increment 1 operational test and evaluation.

Director, Defense Procurement, Comments

OFFICE OF THE UNDER SECRETARY OF DEFENSE
WASHINGTON, DC 20301

July 15, 1996

ACQUISITION

MEMORANDUM FOR INSPECTOR GENERAL, DEPARTMENT OF DEFENSE

SUBJECT: Draft proposed audit report on allegations to the Defense Hotline concerning the Standard Procurement System (Project No. 5RE-8019).

A response to recommendation B.1. of the draft proposed report is attached. Please note that the Standard Procurement System Request for Proposals was amended subsequent to performance of the Audit and, consequently, the report's findings and recommendations should be re-evaluated.

I have also attached some additional comments for your consideration.

Eleanor R. Spector
Director, Defense Procurement

Attachments

Final Report Reference

DDP Comments

DRAFT PROPOSED AUDIT REPORT dated May 15, 1996
Project No. 5RE-8019

Allegations to the Defense Hotline Concerning
the Standard Procurement System

Recommendations for Corrective Action

B.1.a.

Identify and validate the operational requirements for the Standard Procurement System.

Revised Page 23

DDP Response

Recommendation accomplished. Solicitation amendment No. 7 (April 22, 1996) re-states and more clearly identifies the operational environments in which the SPS software application must operate. The functions the software must perform in those environments are identified in the solicitation. The functions and environments were reviewed and validated prior to the amendment's release.

B.1.b.

Provide the operational performance requirements to the Director, Defense Procurement Corporate Information Management Systems Center, Defense Logistics Agency, for inclusion in the Standard Procurement System Integrated Test Program Schedule.

DDP Response

Concur. An Operational Requirements Document (ORD) is being developed and will be available for OPEVAL.

B.1.c.

Define the requirements for the shared data base portion of the Standard Procurement System and provide them to the program manager for incorporation into the Test and Evaluation Master Plan.

Revised Page 23

Final Report Reference

DDP Response

Partially concur. The SPS Program Manager has been advised that the data warehouse must: store and accurately retrieve on demand data needed by the procurement community; interface with other DoD functional area systems providing or requiring procurement related data; and, conform to the DoD procurement data standards. More specific direction cannot be provided currently because the Defense Data Repository System and procurement data modeling activities are iterative, continuous processes; the types of data stored will change as user needs, law, or regulation change; and, a firm identification of the types of data the software will be capable of inserting into the warehouse cannot be identified at this time because the solicitation contemplates the award of tailored contracts with tailored deliverables.

Other Comments

1. **Pages 3 and 4** (Page 4)

The acquisition approach discussion should be modified to reflect the contractual arrangement contemplated by the current Request for Proposals (RFP).

2. **Page 6, Finding A, "Strategy for Acquiring the SPS"**

The discussion alleges SPS functional requirements are too broad and will increase the likelihood that the SPS will not meet specific user needs.

The functional requirements contained in the solicitation were distilled from the user community developed functional requirements and reviewed by the SPS Council to verify that requirements that should be automated would be included in the solicitation. The solicitation was deliberately constructed to avoid dictating a solution or method for achieving DoD's requirements. In effect, the offerors were provided performance requirements rather than detail specifications. To assure that all user requirements were addressed in the solicitation, the solicitation contained a matrix that tied the solicitation requirements back to the user developed requirements. A functional community working group reviewed the matrix and verified that all user defined requirements that should be automated were addressed in the solicitation.

3. **Page 7, SPS Software Development**

a. The first subparagraph states "No known commercial software product can meet total SPS requirements at contract award."

Market research conducted in July 1994 suggested that while none of the products examined at that time could satisfy all DoD requirements, combinations of products could satisfy those requirements. Teaming arrangements were anticipated and some of the offerors have formed teams. The offerors do not have to satisfy the full SPS requirement at the time of initial contract award. The SPS delivery and deployment requirements are incremental processes that will be tailored to each offeror's product. The initial software release will provide at least the functionality contained in the offeror's current off the shelf product and will serve as the testing baseline. Each successive release will provide additional functionality or commercial enhancements. Full SPS functionality is required approximately two years following initial contract award.

b. The second subparagraph suggests that the software process questionnaires are not a typical commercial practice and indicate that substantial software development is anticipated.

It was anticipated that offerors would team or otherwise enhance existing software to satisfy the SPS requirement. Teaming might involve integrating two or more software packages. Therefore, it was considered prudent to obtain confidence in an offeror's software management processes. The questionnaires are intended solely for that purpose. They are not an indication that the successful offeror will have to perform substantial software development.

4. **Page 7, Software Engineering Support**

The SPS software application must interface with existing procurement legacy systems and automated systems that will be used by other functional communities. Several offerors have confirmed that commercial customers often ask to have a vendor's commercial product interface with the customer's existing systems. The development of those interfaces is not considered high risk effort and is a customary commercial practice.

Final Report Reference

Pages 7 and 8

5. **Page 8, Functional Requirements**

The allegation that functional requirements were consolidated to comply with the Federal Acquisition Streamlining Act of 1994 is incorrect.

The statutory requirement to express agency needs in terms of performance specifications or functional requirements (form, fit, or function) predates the Federal Acquisition Streamlining Act and the Federal Action Reform Act. The "Preference for non-developmental items" statute, 10 U.S.C. 2325 (repealed Oct 94), required DoD to state its requirements in terms of performance desired or functions to be performed. Similar authority is contained in 10 U.S.C. 2305.

See comment 3. For additional information.

Page 9

6. **Page 10, Diversity of User Requirements**

This paragraph suggests that the SPS solicitation does not contained well-defined site requirements.

The number of, and operating environment at, SPS sites is fluid (downsizing and consolidation) and is subject to change. The current solicitation recognizes that situation by providing a pricing matrix which describes typical scenarios (expressed in terms of users, hardware, networks, etc.) that might be encountered at deployment sites. The contract type has been converted to an IDIQ contract which permits orders to be placed for the matrixed scenarios. If actual conditions at a particular site vary from the matrixed conditions, an adjusted price would be negotiated. This procedure will substantially reduce contractor and Government risk.

7. **Appendix C., Other Matters of Interest, SPS Advisory Councils**

The statement that "the primary purpose of the Procurement CIM Council is to provide user requirements and perspective to the SPS program manager" is misleading.

The Procurement CIM Council (now titled the SPS Council) charter assigns the council general responsibility for "planning, developing, coordinating, and recommending improved business practices." The council was also directed to monitor the execution of Procurement Functional Steering Committee decisions and was directed to manage a Procurement CIM Functional Integration Management Organization (disestablished upon formation of the SPS Program Management Office). It is not a requirements generating body but is responsible under its Charter for assuring that requirements which should be automated are automated.

Defense Logistics Agency Comments

DEFENSE LOGISTICS AGENCY
HEADQUARTERS
8725 JOHN J. KINGMAN ROAD, SUITE 2533
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IN REPLY
REFER TO

DDAI

JUL 17 1996

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

SUBJECT: Draft Report on Allegations to the Defense Hotline Concerning the Standard Procurement System, 5RE-8019

Enclosed is our response to your request of 15 May 1996. If you have any questions please call Dave Stumpf, 767-6266.

JACQUELINE G. BRYANT
Chief, Internal Review Office

Encl

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AUDIT TITLE: Allegations to the Defense Hotline Concerning the Standard Procurement System, 5RE-8019

FINDING A: Strategy for Acquiring the SPS. The strategy for acquiring the SPS adds considerable risk to the $4.1 billion SPS program. The fixed-price contracting methodology used for commercial items is risky because SPS functional requirements in the solicitation are too broad and because existing commercial software requires substantial software development to achieve full SPS functional capability. Also, the SPS solicitation does not sufficiently define site requirements. Furthermore, the program manager did not quantitatively analyze alternative deployment approaches or stress the significance of the Share Data Warehouse in program plans to assure the ultimate success of the SPS program.

As a result, the needs of SPS users may not be met and actual costs could exceed proposed costs because vendors will find it difficult to provide realistic and comprehensive cost proposals without well-defined functional and site requirements.

DLA COMMENTS: DLA partially concurs with the finding. **DLA nonconcurs** with the following:

The strategy for acquiring SPS is commercial acquisition of software products and related services that when deployed on open systems platforms and integrated into a DoD Common Operating Environment, meet the full functional, technical, performance, security, and interoperability needs of the DoD Procurement Community. An acquisition strategy supporting commercial acquisition over government/DoD unique in-house development is in compliance with and supportive of National Performance Review, Defense Performance Review, and DoD objectives and directives for supporting dual use technologies, right-sizing of government, use of commercial off-the-shelf products, increasing government access to commercial state-of-the-art technology, and DoD 5000 series documents. DLA cannot understand nor support a position which states that a commercial acquisition strategy adds risk to DoD programs, and in particular, adds risk to the SPS program.

The statement that SPS is a $4.1B program is erroneous, implies this funding is under the SPS PM's control, and is cited merely to heighten senior management concern over potential risk to such a large dollar value. SPS is defined and approved as a 10 year program. The estimated 10 year program cost (FYs 95-05) of SPS is $327.9M. Total SPS funding (including maintenance and refresher user

training) potentially under the control of the PM during this 10 year period is estimated at $439M. The estimated 10 year Life Cycle Cost of SPS is $2.9B, which contains substantial operations and support costs contained within DoD Component budgets and outside the control of the SPS PM. The finding erroneously uses a 15 year cost estimate for SPS of $4.1B, which equates to full SPS operational capability (five years to attain) plus 10 years of operations and support costs. As such, the finding indicates costs which are five years beyond the life of the approved OSD program. The finding also fails to note the potential cost risk to DoD by stopping or delaying the SPS program and being forced to live with the status quo. The FY 95-05 estimated cost of the status quo is $4.4B and the FY 95-10 estimated cost of the status quo is $8.1B.

The contracting method being used under the SPS commercial acquisition strategy is fair and open competition for commercial items. Since SPS is purchasing a commercially available system, which may be modified or integrated with other commercial applications to satisfy full SPS requirements and is based upon a negotiated product delivery schedule, the commercial items requirements of FASA 94 and FAR Part 12 apply and require the use of fixed prices.

The finding states fixed pricing is risky because the SPS requirements are "too broad." The SPS requirements were taken directly from the SPS Functional Description, in as detailed a form as they existed, and submitted to the SPS Contracting Office. The SPS Contracting Office with the concurrence of the SPS Source Selection Advisory Council (SSAC) determined that the requirements stated in the SPS Functional Description were similar to a "detailed" specification, not only describing "what" was required, but quite often, in a duplicative and verbose manner, describing "how" to provide the functions. The SPS Contracting Office with the assistance of the SPS SSEB and other procurement functional users, used the functions from the Functional Description to create a statement of work more in line with a "performance specification", as required in DEPSECDEF memorandum of 29 Jun 1994, subject: Specifications & Standards - A New Way of Doing Business. In this re-write, every effort was made to remove duplications, wordiness, functions which could be provided via bundled or government provided COTS (e.g., RDBMs, word processors, spreadsheets, etc.), and statements which indicated the method in which a function was to be provided instead of the outcome of the function. The functional approval body which approved the SPS Functional Description also approved the more performance related statement of work which is currently in the SPS RFP. Although the finding states the

requirements are too broad, the DoD designated Senior Procurement representatives of the user community approved this re-write as a performance representation of the original requirements and DLA concurs with their position.

It should also be noted that the SPS SSEB and contract negotiations team are required to and are in the process of evaluating each offerors' proposal. Clarification and deficiency reports are issued on each requirement wherein the offerors appear not to understand or perform a requirement in their existing product or in their explanation of their approach toward providing a requirement within a designated software release. In addition, each offeror's proposal is subjected to a line-by-line review, face-to-face with the offeror to ensure that the requirements are understood and the proposed solution meets the requirements. No contract can be awarded to an offeror with an outstanding deficiency. Strengths/weaknesses of approaches provided to satisfying requirements will be part of the final evaluation/ selection process. Through these processes, any misunderstandings on the requirements are resolved and government validated solutions will be part of the final contracts.

The finding indicates that the fixed priced nature of the SPS contracting process is risky because "substantial software development" is required. The report and finding fails to indicate that prior to release of the final RFP, a review was conducted of the requirements and a number of requirements were removed where it was clear that substantial development was required. The report and finding failed to note that although no single commercial product reviewed a year before the RFP was released provided all required functionality, that industry continued to improve their commercial products during this period and the RFP did not preclude the commercial integration of multiple commercial products, COTs, and GOTs products which could provide substantial amounts of the required functionality. However, some software development is in fact indicated in each proposed solution.

As stated above, every effort is being taken to ensure each offeror understands the requirements, the government is negotiating the release schedule of functionality, and the offerors' approach to providing the functionality is being evaluated, as is each offerors' ability to develop and maintain software. In addition, a "fly-off" between vendors will be used during which time the first increment of additional functionality promised will be delivered and evaluated before a final downselect to a single vendor will be made. These efforts will greatly assist in fixed price risk mitigation for software development. The most effective risk mitigation technique

remains, however, the power of the purse. The SPS contract is an IDIQ contract. Following downselect, the winning vendor will only get future delivery orders for the software and upgrades that are accepted and meet the government's functional requirements. Since the government is buying licenses for software and upgrades, for the winning SPS vendor to succeed (i.e., make sales), he must provide that functionality promised, in the manner promised, or no future delivery orders will be issued.

The finding states that the SPS solicitation does not define site requirements. As was repeatedly discussed during the audit, stating the existing procurement site requirements in detail would be a waste of time for the government and industry from several perspectives. If the audit is referring to the legacy system functional requirements, the SPS represents a negotiated and Component Senior procurement official approved set of standard procurement processes and procedures; the approved way of doing procurement business in the future, DoD-wide. As such, the SPS requirement is to satisfy the standard way of doing procurement business, and the legacy system way of doing procurement business has little applicability. If the audit is referring to system interfaces, these interfaces are undergoing continual change and it would be inappropriate to state these requirements in detail now, only to have to change them later. As such, each interface will be tasked out for development to the winning SPS vendor under an interface control document and as close to the actual time of need as practicable. If the audit is referring to the individual sites physical makeup (e.g., PCS, LANs, servers, etc.), the existing physical environment at the DoD procurement sites is undergoing infrastructure upgrade to bring them into DoD compliance and in preparation for SPS. As such, the existing physical environment is meaningless. The SPS solicitation does describe the sites planned future environmental operating environment and physical requirements.

The finding states that the SPS PM did not "quantitatively analyze alternative deployment approaches." As was often discussed during the audit, this is merely a matter of timing and what is required at this point in the SPS life cycle management approval process. No deployment approval decision for SPS has yet been requested. The SPS PM did state that his intention was to deploy to manual/semi-automated sites first, but this intent has not been requested formally nor approved. The basis of this intention is three-fold. First, the manual/semi-automated sites are large contributors to the DoD unmatched disbursements issue, so early implementation of SPS at such sites helps reduce this major DoD problem area (i.e., $10B/month). Second, by putting SPS at manual/semi-automated sites,

EC/EDI capabilities are provided, which furthers another DoD goal of exploiting this capability as rapidly as possible within DoD. Third, the audit Team was provided the initial analysis of the cost benefits from deploying to manual/semi-automated sites versus awaiting the initial development of interfaces required to deploy at any existing legacy procurement site. Procurement benefits of $76M have been estimated from this action and is considered quantitative analysis. As such, the SPS PM sees the decision to deploy to manual/semi-automated sites as a binary decision which the MAISRC will make: afford DoD early benefits by deploying to manual/semi-automated sites or await the development of interfaces before any deployment. All of these reasons will be presented to the MAISRC Milestone Decision Authority when requesting deployment approval for SPS at the SPS Milestone II/IIIA decision briefing.

DLA nonconcurs with the statement that the "needs of the SPS users" may not be met. Three years of effort have gone into ensuring that the "agreed upon" standard processes and procedures to be used by the Procurement Community in the future are identified and these standards will be provided to the DoD Procurement user community through the SPS solicitation and program.

DLA nonconcurs that "actual costs could exceed proposed costs". Every effort has been taken to ensure that the cost projections for the SPS acquisition were realistic and even conservative in terms of costs for potential development that might be required. Initial cost proposals from the SPS offerors appear to validate this position. Through the solicitation and evaluation process in place for SPS, offerors appear to have and continue to gain a good understanding of the SPS requirements and feel confident they can cost it on a fixed price basis in their best and final offer(s). In the final analysis, the audit team has failed to credit the roles of the DLA DAISRC and OSD MAISRC processes in providing oversight to the SPS program. These bodies are monitoring the SPS program in accordance with the DoD 5000 series directives. As such, unanticipated cost growth, if any, would be quickly identified and the appropriate decision makers afforded the opportunity to decide if the additional costs are justified or the program re-directed/terminated.

DLA concurs with the finding that the significance of the SPS Shared Data Warehouse has not been stressed within existing documentation or project plans.

ACTION OFFICER: Capt. E.J. Case, SC, USN, AQAC
PSE APPROVAL: Gary S. Thurber, Deputy, Defense Contract Management Command
COORDINATION: Dave Stumpf, DDAI, 767-6266

DLA APPROVAL:

RAY E. McCOY
Major General, USA
Principal Deputy Director

Final Report Reference

AUDIT TITLE: Allegations to the Defense Hotline Concerning the Standard Procurement System, 5RE-8019

RECOMMENDATION A.2: Recommend that the Director, Defense Procurement Corporate Information Management Systems Center, Defense Logistics Agency:

Revised Page 15

a. Quantitatively determine the most cost beneficial deployment approach and if applicable, justify deviations.

b. Include in the Standard Procurement System Program Management Plan, specific plans to establish the Standard Procurement System Shared Data Warehouse. That description should include both known and anticipated risk factors and associated abatement plans.

DLA COMMENTS: Concur. Recommendation A.2.a. is considered an existing requirement under the DoD 5000 series directives. As such, it will be initially accomplished with the submittal and approval of the SPS Milestone II/IIIA Economic Analysis (EA) in March 1997 for initial deployment. Updates to the SPS EA documenting each additional deployment recommendation will be submitted prior to those MAISRC decisions. Subsequent SPS milestone decisions are not currently scheduled, but are anticipated at 12-to-18 month intervals after the Milestone II/IIIA decision.

Inclusion of plans for the Shared Data Warehouse in the SPS Program Management Plan will be completed prior to the SPS Milestone II/IIIA decision in March 1997 and updated as appropriate during each additional SPS deployment phase.

DISPOSITION: Ongoing. ECD: March 1997 and subsequently at 12-to-18 month intervals until the SPS Milestone IV decision in FY2001.

DATE BENEFITS REALIZED: Complete by FY 2001

ACTION OFFICER: Capt. E.J. Case, SC, USN, AQAC
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AUDIT TITLE: Allegations to the Defense Hotline Concerning the Standard Procurement System, 5RE-8019

FINDING B: SPS Testing Strategy. The SPS program manager has not developed adequate developmental and operational test strategies for the SPS. The testing strategy is inadequate because:

the Procurement Corporate Information Management Council has neither provided the SPS program management office and the test community with user-validated operational requirements nor defined the content of each functional increment,the compressed integrated program schedule does not allow sufficient time to ensure the development of comprehensive test plans, and the Council has not identified requirements to the program manager and test community for the Shared Data Warehouse portion of the SPS program to enable the development of a testing strategy.

As a result, the SPS program may not meet user requirements.

DLA COMMENTS: **Partially concur.** The SPS Council has chartered a Working Integrated Product Team (WIPT) to develop a SPS Operational Requirements Document (ORD). Those portions of the ORD which define operational requirements needed by the test community are the highest priority and will be made available to the test community in time for completion of all test planning. Prior to the ORD charter, the SPS PM had funded and supported the gathering of operational performance requirements for testing the objective system. The operational performance requirements along with their respective performance thresholds and objectives were gathered from users at nine (9) representative Service and Agency procurement legacy sites. The operational performance requirements were discussed and refined at an April 1996 SPS Test and Evaluation Working Group (TEWG) meeting by functional users. The SPS Operational Test Authority (OTA) was present during these discussions and have been provided a copy to support their test planning. The refined user operational performance requirements were staffed by the Service and Agency representatives of the SPS Council. These user validated operational performance requirements will be included in a Test and Evaluation Master Plan appendix and the Acquisition Program Baseline. Validated operational performance requirements will be used in support of testing each increment upon contract award. The SPS PM is working with OSD (DOT&E & DTSE&E) in refining these user validated operational performance requirements in the interest of facilitating ORD development for SPS under the new DoDD 5000.2 guidance. The ORD is planned to be provided by 15 Nov 96, but no later than sixty days prior to the Operational Test Readiness Review (OTRR). Both the ORD

and the operational test requirements will be user validated. The OSD testing community is now participating in all SPS test planning in accordance with DoD 5000 series Integrated Product Team (IPT) directions and has voiced no dissatisfaction with the tailored approach and time lines SPS is using to meet DoD AIS test requirements. The OSD Major Automated Information Systems Resource Council (MAISRC) will not grant deployment approval for SPS until all required testing is completed as certified by the OSD test community.

The SPS Source Selection Advisory Council directed that the full SPS requirement not be segmented into functional increments in the solicitation. This was done so that industry could propose and obtain evaluation credit for the most functionality that their existing commercial product has or which is currently in development. Each offeror is being afforded the opportunity to propose what functionality they will provide in up to four releases, but government/offeror negotiated contracts will determine the final functionality to be provided in each. In this manner, at contract award, the government will be fully aware of what functionality will be available in each release in order to plan both testing and deployments. As such, there is no need for the SPS Council to provide functional increments.

The SPS Test WIPT feels that they are working an aggressive testing schedule, but not a compressed one nor one which has insufficient test planning time or test execution time. The SPS DEM/VAL Test Plan has gone through multiple iterations and reviews by the test site community, and the next version will be ready for review at the July 10, 1996, SPS Test WIPT. The Operational Test & Evaluation Plan (OTEP) is currently in development by the Operational Test Authority (OTA) at JITC Ft. Huachuca. Additional T&E Integrated Product Team (IPT) meetings are scheduled between now and the commencement of DEM/VAL testing, which include participants from DOT&E, DTSE&E, DT and OT Test/evaluators, DLA DAISRC/Test Community, and NSA (Security) to discuss the Milestone II/IIIA TEMP focusing on increment 1 testing.

Given the above, the stated result that the SPS program may not meet users requirements due to inadequate testing is not seen as a probable outcome, for the functionality currently defined for SPS.

DLA concurs that additional requirements definition and test planning are required for the Shared Data Warehouse.

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DLA APPROVAL:

RAY E. McCoy
Major General, USA
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AUDIT TITLE: Allegations to the Defense Hotline Concerning the Standard Procurement System, 5RE-8019

RECOMMENDATION B.2: Recommend that the Director, Defense Procurement Corporate Information Management Systems Center, Defense Logistics Agency:

a. Establish an Integrated Test Program Schedule that allows sufficient time for detailed test planning and the required briefings and review by the Director of Operational Test and Evaluation.

b. Develop the testing strategy for shared data based on the requirements definition provided by the Procurement Corporate Information Management Council.

DLA COMMENTS: Partially concurs. DLA does not concur with the recommendation that the SPS Integrated Test Program Schedule (ITPS) has insufficient time for test planning, briefings and reviews by Director of Operational Test and Evaluation. However, the SPS Test IPT will be afforded an opportunity to again review the SPS ITPS and will make changes indicated as necessary by the IPT. **ECD: 31 August 1996.**

DLA concurs that the SPS Shared Data Warehouse test strategy needs to be developed and integrated into the overall SPS test strategy.

DISPOSITION: Ongoing. ECD: April 1999, at the SPS Milestone II/IIIC review by OSD

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