
March 12, 2003



Information Technology Management

The Development of the Navy
Standard Integrated Personnel
System
(D-2003-061)

Department of Defense
Office of the Inspector General

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Acronyms

ASD(C3I)	Office of the Assistant Secretary of Defense (Command, Control, Communication, and Intelligence)
COTS	Commercial Off-The-Shelf
DIMHRS	Defense Integrated Military Human Resources System
DSB	Defense Science Board
EFSR	Electronic Field Service Record
FOC	Full Operating Capability
JR&IO	Joint Requirements and Integration Office
MDA	Milestone Decision Authority
MAISRC	Major Automated Information Systems Review Council
NSIPS	Navy Standard Integrated Personnel System



INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-4704

March 12, 2003

MEMORANDUM FOR NAVAL INSPECTOR GENERAL

SUBJECT: Report on the Development of the Navy Standard Integrated Personnel System (Report No. D-2003-061)

We are providing this report for review and comment. The Navy Program Executive Office-Information Technology did not respond to the draft report.

DoD Directive 7650.3 requires that all issues be resolved promptly. Because management did not respond to the draft report, both the recommendation to discontinue further spending on the program and the issue related to the management control program remain unresolved. We request that Navy Program Executive Office-Information Technology provide comments on the recommendation, management controls, and potential monetary benefits by April 14, 2003.

If possible, please provide management comments in electronic format (Adobe Acrobat file only) to auidfs@dodig.osd.mil. Copies of the management comments must contain the actual signature of the authorizing official. We cannot accept the / Signed / symbol in place of the actual signature. If you arrange to send classified comments electronically, they must be sent over the SECRET Internet Protocol Router Network (SIPRNET).

We appreciate the courtesies extended to the staff. Questions should be directed to Mr. David F. Vincent at (703) 604-9109 (DSN 664-9109) or Ms. Barbara A. Sauls at (703) 604-9129 (DSN 664-9129). See Appendix B for the report distribution. The team members are listed inside the back cover.

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Report No. D-2003-061

(Project No. D2002FH-0135)

March 12, 2003

The Development of the Navy Standard Integrated Personnel System

Executive Summary

Who Should Read This Report and Why? Managers who plan, develop, or oversee DoD automated information systems should be interested in this report because of the issues of coordination of ongoing legacy system development with replacement systems.

Background. In 1995, the Navy began developing the Navy Standard Integrated Personnel System to replace four legacy systems. The Navy declared that it needed a standard, single point-of-entry system for personnel and pay data collection at the field-level, ashore and afloat. On July 10, 1995, the Major Automated Information Systems Review Council (Council) approved Milestone 0 for the Navy System. While approving the milestone, the Council also stated that the Navy System should incorporate the core capabilities of a common DoD-wide military personnel system. This common system, which has also been referred to as the objective system, subsequently was designated as the Defense Integrated Military Human Resources System. In the following year, the Defense Science Board Task Force on Military Personnel Information Management further recommended requirements for the objective system. Concurrently, the Defense Science Board report recommended that the Navy redirect its efforts and develop its new system by broadening the development of the Navy System to encompass the objective system requirements and subsequently become the field-level entry system for the Defense Integrated Military Human Resources System.

By the time the Navy System reaches full operating capability in second quarter FY 2003, the Navy will have spent \$265 million on development. Further, the Navy intends to spend an additional \$201.8 million on the system after it reaches full operating capability. Of this later amount, almost \$33.4 million will be spent from the Research, Development, Test, and Evaluation appropriation, which in accordance with budget guidelines, is to be used for software development, while the Operation and Maintenance appropriation is to be used to operate the system and maintain the software.

Results. The Navy continues to program and spend funds to enhance the Navy Standard Integrated Personnel System (System) even though the Defense Integrated Military Human Resources System is scheduled to replace the System in FY 2005. Because the Defense Integrated Military Human Resources System will replace the System in FY 2005, the \$33.4 million that the Navy has programmed for further development of the System after it achieves full operating capability could be put to better use. We recommend that the Navy not expend any more money developing the System after achieving full operating capability in second quarter FY 2003. See the Finding section of this report for the recommendation details. We identified a material weakness in that neither the Program Executive Office-Information Technology nor the Navy Standard Integrated Personnel System Program Management Office had established a management control program, and no annual assessments had been done.

Management Comments. We issued a draft report on November 29, 2002, in which we requested that the Navy Program Executive Office-Information Technology comment on the draft report by January 29, 2003. No management comments were received and we request that the Navy Program Executive Office-Information Technology comment on this final report by April 14, 2003.

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Background

The Navy Standard Integrated Personnel System. The Navy developed the Navy Standard Integrated Personnel System (NSIPS) to replace four legacy systems. In early 1995, the Navy published a mission need statement for NSIPS. It declared that a standard, single point-of-entry system was needed for personnel and pay data collection at the field-level, ashore and afloat. Further, it identified the four Navy legacy systems that NSIPS would replace, which are the Source Data System, Diary Management Reporting System, Uniform Microcomputer Disbursing System, and the Reserve Standard Training, Administration, and Readiness Support for Manpower and Personnel. NSIPS combines the functionality of the four legacy systems into one standard field personnel and pay input/collection system with standard business processes for active and reserve personnel, ashore and afloat. NSIPS interfaces with 11 Navy corporate systems and the Defense Joint Military Pay System (Reserve Component). With Release 1, it will also interface with the Defense Joint Military Pay System (Active Component). In the mission need statement, the initial estimated cost for developing NSIPS to full operating capability (FOC) was \$92.7 million. By the fifth version of the Acquisition Program Baseline, August 8, 2001, the cost estimate was \$234.1 million to FOC. In a draft Acquisition Program Baseline, October 2002, the estimated cost to FOC was \$265.0 million. The Defense Integrated Military Human Resources System (DIMHRS) is scheduled to replace NSIPS in FY 2005.

The Defense Integrated Military Human Resources System. The Under Secretary of Defense for Personnel and Readiness approved a mission need statement for a single, fully integrated, all-Service, all-Component, military personnel and pay management system on February 24, 1998, that is, DIMHRS. DIMHRS is intended to be a joint personnel and pay system that is expected to replace about 80 legacy personnel systems, including NSIPS, and to provide personnel and pay services for all DoD military personnel. DIMHRS will consist of core business processes common to all Services and may be supplemented by Service-specific needs. The core system will collect, store, transmit, process, and report personnel and pay data for all DoD active duty, Reserve, National Guard, and retired military personnel. Service-specific functionality will be provided by DIMHRS for any pay and personnel management processes that were supported by the Services legacy systems but will not be included in the core system. The estimated cost of developing DIMHRS is \$529 million in FY 2001 dollars.

Objectives

The initial overall objectives were to determine whether NSIPS met Navy-defined functional requirements as well as requirements needed to be fully interoperable with DIMHRS and the future Financial Management Enterprise Architecture. In addition, we planned to evaluate NSIPS compliance with DoD criteria for data security. We also planned to review the management control program as it relates to the audit objective. Based upon a decision of the Office of the Assistant

Inspector General for Auditing of the Department of Defense management, we established a new objective. The objective was to determine whether the Navy should continue the expenditure of funds to enhance NSIPS. The initial objectives, except for the management control program, are not discussed in this report. See Appendix A for a discussion of the scope and methodology and the review of the management control program.

Replacement of the Navy Standard Integrated Personnel System

DIMHRS is scheduled to replace NSIPS in FY 2005, yet the Navy continues to program and expend funds to enhance NSIPS beyond the date at which NSIPS will achieve FOC. NSIPS will be replaced by DIMHRS because the Navy did not comply with the Major Automated Information System Review Council (MAISRC) agreement to ensure that NSIPS included the core capabilities required to support joint requirements for the objective (DIMHRS) field-level data collection personnel system. As a result, at least \$33.4 million will be spent on NSIPS that could be put to better use.

The Milestone Decision Authority

On July 10, 1995, the MAISRC¹ completed a Milestone 0 review of the NSIPS program. The MAISRC endorsed an evolutionary program strategy with NSIPS providing near-term operational capabilities to meet the Navy's current need and "...core capabilities to build toward a common DoD-wide military personnel system." [emphasis added]. The common DoD-wide military personnel system was subsequently designated as DIMHRS.

The System Decision Memorandum² for the NSIPS Milestone 0 decision, dated July 25, 1995, stated that the Navy had agreed to ensure that NSIPS would include the core capabilities required to support joint requirements of the single, objective system. The memorandum also stated that the MAISRC had agreed to ask an independent group, such as the Defense Science Board (DSB), to conduct a study of the Departments requirements.

The Defense Science Board. In 1996, a DSB Task Force (Task Force) on Military Personnel Information Management was convened at the request of the Under Secretary of Defense (Personnel and Readiness) and the Office of the Assistant Secretary of Defense (Command, Control, Communication, and Intelligence) (ASD[C3I]) to address specific issues and to make recommendations to the Department regarding the development and maintenance of its automated systems for military personnel and pay management. Following a period of study from February 1996 to August 1996, the Task Force unanimously concluded that the manner in which the Services developed and maintained multiple Service-unique military personnel and pay systems had led to significant functional

¹ The MAISRC was eliminated by memorandum dated July 28, 1998, but ASD (C3I) continues as the Milestone Decision Authority for the Acquisition Category IA programs.

² At the time of the milestone decision, this document was required by DoDI 8120.2, "Automated Information System (AIS) Life-Cycle Management (LCM) Process, Review, and Milestone Approval Procedures," January 14, 1993, for issuing decisions and direction to the DoD Component.

shortcomings and excessive costs. The Task Force identified three principal problem areas in the military's automated personnel management:

- functional shortcomings in the existing capabilities,
- excessive costs in developing and maintaining largely redundant capabilities, and
- the inadequacy of the current infrastructure relative to required operational capabilities.

The DSB recommended that the Department move to a single all-Service and all-Component, fully integrated personnel and pay system with common core software built on a commercial off-the-shelf (COTS) (or modified COTS) human resources software application base. The Task Force report stated that the Navy should refocus its primary effort on developing the objective system, DIMHRS, without delaying its accelerated development and deployment schedule for NSIPS. Further, the Navy was to broaden NSIPS to encompass the objective system requirements as developed by the Joint Requirements and Integration Office (JR&IO).³ Wherever possible, NSIPS requirements were to be satisfied through early incremental fielding of objective system modules. The Navy was to continue its role as executive agent for the field-level⁴ component of the objective system. Customization of the software began in February 1998 and the first NSIPS release, Release 0, was made in February 2000. Release 0.2 became operational in September 2001, and Release 1 is scheduled to become operational in second quarter FY 2003.

The Major Automated Information System Review Council. Both NSIPS and DIMHRS are Major Automated Information System programs for which the Milestone Decision Authority (MDA) ASD(C3I)/DoD Chief Information Officer. DoD Instruction 5000.2, "Operation of the Defense Acquisition System," April 5, 2002, states that the MDA shall review each technology project or acquisition program at each milestone and other points in the process. At each milestone and at the Full-Rate Production Decision, the MDA has the option to continue the project or program, modify the project or program, terminate the project or program, or proceed into the next phase. The MDA may hold other reviews to adjust plans, review progress, or determine how to proceed to production.

NSIPS Development

All of the requirements originally established for NSIPS, such as incorporating the functionality of the four legacy systems, will be incorporated in Release 1,

³ A recommendation to establish the JR&IO, which did not exist when the report was published, was also included in the report. The JR&IO was officially established by memorandum dated July 1997.

⁴ The term field-level component was not defined in the report except to note that the objective system (DIMHRS) was to be composed of a field-level and corporate-level component. We understand the term field-level to mean that portion of the system used at the installation rather than a centralized or headquarters level and used to enter pay and personnel data for individual military personnel.

which is scheduled for initial operating capability in second quarter FY 2003 and FOC in second quarter FY 2003. Yet the Navy continues to develop NSIPS, even though NSIPS Release 1 will satisfy the original Navy requirements and DIMHRS is scheduled to replace NSIPS in FY 2005. Although NSIPS was supposed to incorporate joint requirements and the DSB recommended that NSIPS be developed as the field-level component of DIMHRS, this did not occur because of the strategy used for developing NSIPS. Therefore, the ongoing development of NSIPS will not directly benefit the DIMHRS program as was envisioned by the DSB.

Use of Commercial Off-the-Shelf Software. Following the recommendation of the DSB, NSIPS was developed using COTS. However, subsequent modifications to the PeopleSoft Human Resources software largely eliminated the perceived advantages of using COTS. In June 1997, the Naval Reserve Information Systems Office reported that the PeopleSoft Human Resources Software had a 64 percent data fit and a 78 percent functional fit out of the box. However, by September 1997, Lockheed Martin, the principal contractor, completed its design analysis and concluded that the PeopleSoft product only had a 35 percent fit. Notwithstanding the 35 percent fit, the Navy decided to move forward with the COTS. Later, when Release 0 was fielded in February 2000, only 4 percent of NSIPS was attributed to unchanged COTS; that is, 96 percent of the COTS applications were changed.⁵

Although the current release (Release 0.2) of NSIPS manifests little resemblance to the PeopleSoft Human Resources software, the Navy asserts that each future release of NSIPS will move closer to the “out-of-the-box” configuration of the PeopleSoft software. This will require the Navy to reengineer its business processes to adapt to the business processes built into the PeopleSoft product. In its haste to field NSIPS, the Navy did not do this in its previous releases of NSIPS even though the Clinger-Cohen Act requires that the function be examined and redesigned or reengineered before applying new technology.

Current Navy Efforts. Although the operating future of NSIPS is limited, the Navy continues to program and spend money on developing the system. Both past and future spending on NSIPS is shown on Figure 1. The amounts shown for Pre-FOC are from the program’s beginning and extend to second quarter FY 2003. The amounts for Post-FOC extend from the end of the Pre-FOC period through FY 2009.

⁵The report that analyzed the changes to the COTS products did not separately present the extent of the modifications to the three major COTS applications that comprise NSIPS.

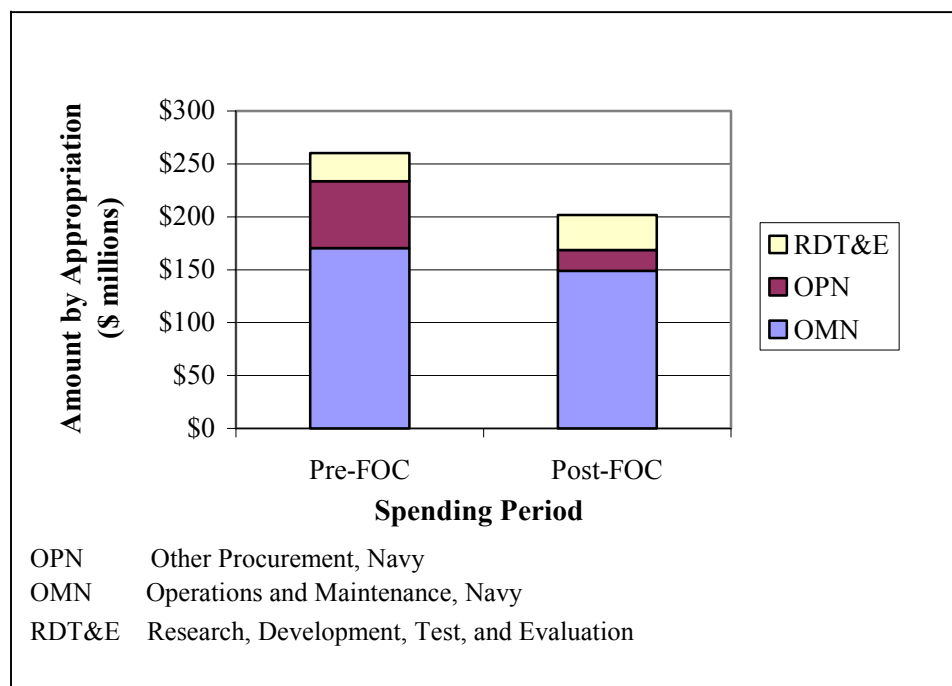


Figure 1. NSIPS Expenditures Before and After FOC

Although the Navy continued development of Release 1 during FY 2002, little of the FY 2002 spending, which is included in the Pre-FOC amounts, was for development of Release 1. Most of the FY 2002 spending for system development, approximately \$10 million of the \$12.4 million, was for developing an electronic field service record (EFSR) to replace the current paper personnel files for sailors.⁶ During FY 2003, the Navy has another \$4 million budgeted to complete the EFSR development. An additional \$10 million is budgeted to buy equipment for fielding of EFSR. The EFSR is being developed without consideration of joint requirements for an EFSR; that is, the JR&IO was not providing the Navy with joint requirements. Therefore, the Navy is spending money to develop its own EFSR without input from JR&IO on joint requirements, and it is not clear how this spending will help achieve the Department's goal of an integrated military pay and personnel system.

FY 2003 and Beyond

Although Release 1 of NSIPS will be fielded in second quarter FY 2003, the Navy intends to spend almost \$33.4 million on NSIPS development that could be put to better use after FOC. Table 1 shows the amounts programmed beyond FOC in second quarter FY 2003 for NSIPS by appropriation. Of particular note is

⁶ The Navy might add that the EFSR was part of a plan for pre-planned product improvement; however, it was not part of the requirement established in the Operational Requirements Document for Milestones I and II.

the \$33.4 million programmed for Research, Development, Test, and Evaluation, which is the appropriation used for financing software development according to the DoD Financial Management Regulation. Additionally, the Navy has budgeted \$148.9 million in the Operations and Maintenance appropriations, which is the appropriations used for financing the operation and maintenance of systems, not for system enhancements.

Table 1. NSIPS Post-FOC Budget as of End of FY 2004 Program Objective Memorandum Cycle								
	(\$ millions)							
	FY 03 Post FOC	FY 04	FY 05	FY 06	FY 07	FY 08	FY 09	Total Post FOC
OMN	\$15.6	\$28.8	\$23.7	\$22.0	\$19.3	\$19.6	\$19.9	\$ 148.9
OPN	8.1	0.4	0.3	5.2	5.4	0	0	19.4
RDT&E	7.7	4.8	4.5	4.2	4.2	3.9	4.1	33.4
Total	\$31.4	\$34.0	\$28.5	\$31.4	\$28.9	\$23.5	\$24.0	\$201.7
OMN	Operations & Maintenance, Navy							
OPN	Other Procurement, Navy							
RDT&E	Research, Development, Test & Evaluation							

The merits of the individual future NSIPS enhancements or the value of each future release of NSIPS notwithstanding, NSIPS is scheduled for replacement in FY 2005 by DIMHRS. Meanwhile, the Navy continues to enhance a program destined for replacement rather than meeting the original objective of incorporating joint requirements into NSIPS so that NSIPS would be the field-level component of the objective system, now DIMHRS. To avoid spending funds unnecessarily, the Navy should stop spending money for any NSIPS enhancement or releases other than to complete Release 1.

Recommendation

We recommend that the Navy Program Executive Office-Information Technology direct the Navy Standard Integrated Personnel System Program Management Office to discontinue further spending for the Navy Standard Integrated Personnel Systems development.

Appendix A. Scope and Methodology

At the conclusion of our survey fieldwork, the audit objectives were revised to limit our focus to why the Navy continues to spend money on NSIPS when DIMHRS is going to replace NSIPS. Furthermore, we wanted to determine why the MDA did not make decisions about NSIPS and DIMHRS within the context of a broad multi-program rather than as single unrelated programs.

Our primary fieldwork was conducted at the NSIPS program management office located in New Orleans, Louisiana. We also met with representatives of Assistant Secretary of Defense (Command, Control, Communications, and Intelligence); the Joint Requirements and Integration Office; the Naval Reserve Command; the Defense Finance and Accounting Center; and the Navy Total Force Programming, Manpower, and Information Management Division. We reviewed NSIPS requirements documents including the mission need statement, several versions of the Operational Requirements Document, the report of the Defense Science Board Task Force on Military Personnel Information Management, and budget and programming documents. We reviewed five versions of the Acquisition Program Baseline and budget and program documents. We also reviewed the Operational Requirements Document for DIMHRS. Finally, we conducted a number of interviews with the program management staff and others to obtain information about the history, current development work, and future plans for NSIPS.

We performed this audit from May through November 2002 in accordance with generally accepted government auditing standards.

Use of Computer-Processed Data. We did not use computer-processed data to perform this audit.

General Accounting Office High-Risk Area. The General Accounting Office has identified high-risk areas in DoD. This report provides coverage of the DoD Systems Modernization high-risk area.

Management Control Program Review

DoD Directive 5010.38, "Management Control (MC) Program," August 26, 1996, and DoD Instruction 5010.40, "Management Control (MC) Program Procedures," August 28, 1996, require 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 the Review of the Management Control Program. We had intended to limit our review to an evaluation of the management control program and management's self-evaluation. We determined that the Navy Program Executive Officer for Information Technology did not have an operating management control program nor did the Program Management Office. Because management had not performed a self-evaluation, we were unable to review the evaluation.

Adequacy of Management Controls. We identified material management control weaknesses for the program management office, as defined by DoD Instruction 5010.40. The lack of a management control program and the ensuing lack of a self-evaluation constituted a material management control weakness in the program management office. Management took the first step toward complying with DoD Instruction 5010.40 in June 2002 when the Program Executive Office-Information Technology established assessable units including the NSIPS program management office. A copy of the report will be provided to the senior official responsible for management controls in the Navy Program Executive Office-Information Technology.

Adequacy of Management's Self-Evaluation. Management had not performed a self-evaluation of management controls. A management control program has not been established for NSIPS.

Prior Coverage

No prior coverage has been conducted on the NSIPS program during the last 5 years.

Appendix B. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition, Technology, and Logistics
Under Secretary of Defense (Comptroller)/Chief Financial Officer
 Deputy Chief Financial Officer
 Deputy Comptroller (Program/Budget)
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 Director, Joint Requirements and Integration Office
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Assistant Secretary of Defense (Command, Control, Communications, and Intelligence)
 Deputy Assistant Secretary of Defense, Deputy Chief Information Officer
 Director, Investments and Acquisitions

Department of the Army

Auditor General, Department of the Army

Department of the Navy

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Assistant Secretary of the Navy (Research, Development, and Acquisition)
 Deputy Assistant Secretary of the Navy (Command, Control, Communications,
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House Subcommittee on Technology and Procurement Policy, Committee on Government Reform

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