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

REPORT
NO. 91-046

February 13, 1991

MEMORANDUM FOR ASSISTANT SECRETARY OF THE NAVY
(FINANCIAL MANAGEMENT)
ASSISTANT SECRETARY OF THE NAVY
(RESEARCH, DEVELOPMENT AND ACQUISITION)

SUBJECT: Final Quick-Reaction Report on Full-Scale Development of Enhanced Modular Signal Processor (Project No. 0AB-0068.01)

Introduction

The Naval Sea Systems Command (NAVSEA) is planning to award three sole source contracts to American Telephone & Telegraph (AT&T) for full-scale development of the Enhanced Modular Signal Processor (standard signal processor). NAVSEA planned to award the first contract in January 1991. We found that signal processors are available that may meet the Navy's requirements and result in cost savings through reduced procurement and life cycle costs. Therefore, the Assistant Secretary of the Navy (Research, Development and Acquisition) should direct NAVSEA to defer award of further contracts until alternate signal processors are evaluated for capability and cost-effectiveness. We are issuing this quick-reaction report as part of the overall audit of Foreign Weapons Evaluation. The audit's purpose is to evaluate the effectiveness of DoD's evaluation of foreign weapon systems, subsystems, and related equipment in reducing duplication of weapons research and development efforts, expediting schedules to field systems, improving performance, reducing unit cost of systems, and enhancing the commonality and interoperability of military equipment among NATO allies and other friendly nations.

Background

The Navy started developing the standard signal processor in the late seventies to provide the next generation standard processor, which would replace the processor in use and save life cycle support costs. NAVSEA was designated the developing command for this processor. The Navy has identified seven programs for airborne and sea based platforms that need signal processors and has directed that those programs use the standard signal processor under development. NAVSEA awarded the development contract to AT&T for two sizes of the processor, but halted development on the larger version after a 1989 Naval Audit Service report recommended the Navy switch to a smaller, more capable processor. Delivery of the first production unit was scheduled for 1988, but the delivery date has slipped to 1992.

Since the initial contract award in 1981, AT&T has received five contracts totaling about $600 million. The estimated procurement cost for the first unit will be between $2 million and $3 million. In addition, programs identified as users will each have to pay between $7 million and $20 million in nonrecurring engineering costs to configure the signal processor for their platform.

In 1986, the Naval Air Systems Command (NAVAIR) needed a signal processor for the SH-2G helicopter program. Because the Navy standard signal processor was not yet available, existing domestic and foreign signal processors were evaluated. NAVAIR determined that two foreign signal processors exceeded their requirements and procured the least expensive of the two. The 1990 contract price for those processors is approximately $240,000 each.

Discussion

NAVSEA plans to award AT&T three contracts for continued development of the standard signal processor. The first contract, scheduled for late January 1991, will start the engiheering and design required to configure cabinets and backplates for four users, including the Airborne Low Frequency Sonar. The other contracts, both scheduled for award before May 1, 1991, are for the fabrication of service test models and related integrated logistics support.

NAVAIR released a Request for Proposal (RFP) for the development of the Airborne Low Frequency Sonar with the standard signal processor as a Government furnished component in February 1990. Because initial bidder responses indicated that significant life cycle cost savings from the use of alternate signal processors were possible, NAVAIR amended its RFP to accept bids using alternate signal processors instead of the standard Navy signal processor. NAVAIR plans to evaluate the impact on life cycle costs and will report the results to the Assistant Secretary of the Navy (Research, Development and Acquisition) in March 1991. Also, the Center for Naval Analysis is studying the life cycle costs of alternative strategies for providing embedded signal processors to Navy programs. The results of this study should be released in February 1991.

NAVSEA estimates that the three pending processor development contracts will cost approximately $119 million. Obligation and expenditure of these funds may be unnecessary if the Center for Naval Analysis and NAVAIR analyses recommend not using the standard signal processors. Also, NAVSEA estimates that it will spend approximately $1 billion to procure 398 standard signal processors. At the 1990 NAVAIR contract price for the foreign signal processors, 398 processors would cost about $95.5 million. This is not to imply that the foreign processor, as contracted, would satisfy all of the Navy's requirements. However, other processors are available to meet the Navy's needs.

Recommendation

We recommend that the Assistant Secretary of the Navy (Research, Development and Acquisition) direct the Commander, Naval Sea Systems Command, to defer award of any further contracts for development or engineering and design efforts on the Enhanced Modular Signal Processor until alternate signal processors are evaluated for their capability to meet the Navy's needs and potential life cycle costs for signal processors are analyzed.

The draft report was provided to the Assistant Secretary of the Navy (Research, Development and Acquisition) on January 18, 1991, with comments requested by February 4, 1991. We had received no comments as of February 8, 1991. We request that the Assistant Secretary of the Navy (Research, Development and Acquisition) respond within 10 days of the date of this report indicating concurrence or nonconcurrence in the finding and recommendation. If you concur, describe the corrective actions taken or planned, the completion dates for actions already taken, and the estimated dates for completion of planned actions. If you nonconcur, please state your specific reasons. If appropriate, you may propose alternative methods for accomplishing the desired action. This report contains no monetary benefits (Enclosure 1). Recommendations are subject to mediation and possible elevation to more senior DoD management levels in the event of nonconcurrence or failure to comment.

The cooperation and courtesies extended to the audit staff are appreciated. If you have any questions regarding this report or need additional information, please contact Mr. Raymond A. Spencer at (703) 614-3995 (AUTOVON 224-3995) or Mr. J. Steven Hughes at (703) 693-0362 (AUTOVON 223-0362). The audit team members are listed in Enclosure 2. The planned distribution of this report is listed in Enclosure 3.

Edward R. Jones
Deputy Assistant Inspector General
for Auditing

Enclosure

cc:
Secretary of Navy

SUMMARY OF POTENTIAL MONETARY AND OTHER BENEFITS RESULTING FROM AUDIT

Recommendation Reference	Description of Benefit	Amount and/or Type of Benefit
1.	Economy and Efficiency. Defer awarding contracts on the Enhanced Modular Signal Processor until analyses on alternate processors are complete to avoid unnecessary development effort, contract termination costs, and high life cycle costs.	Nonmonetary.

AUDIT TEAM MEMBERS

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