Audit Report

OFFICE OF THE INSPECTOR GENERAL

FOREIGN WEAPONS EVALUATION IN THE DEPARTMENT OF DEFENSE

Report Number 92-049

February 19, 1992

Department of Defense

The following acronyms are used in this report.

EMSP.....Enhanced Modular Signal Processor
FCT .....Foreign Comparative Test
NATO.....North Atlantic Treaty Organization
NDI .....Nondevelopmental Items
RDT&E .....Research, Development, Test and Evaluation
SURTASS.....Surveillance Towed Array Sonar System
TOW.....Tube-Launched, Optically-Tracked, Wire-Guided Missile
USD(A)..... Under Secretary of Defense for Acquisition

INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-2884

February 19, 1992

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION
ASSISTANT SECRETARY OF THE ARMY (FINANCIAL MANAGEMENT)
ASSISTANT SECRETARY OF THE NAVY (FINANCIAL MANAGEMENT)
ASSISTANT SECRETARY OF THE AIR FORCE (FINANCIAL MANAGEMENT AND COMPTROLLER)

SUBJECT: Audit Report on Foreign Weapons Evaluation in the Department of Defense (Report No. 92-049)

We are providing this final report for your information and use. Comments on a draft of this report were considered in preparing the final report.

DoD Directive 7650.3 requires that all audit recommendations be resolved promptly. Therefore, the addressees must provide comments on the unresolved recommendations and monetary benefits by April 20, 1992. See the "Status of Recommendations" section at the end of the finding for the recommendations you must comment on and the specific requirements for your comments. If you nonconcur with the estimated monetary benefits, or any part thereof, you must state the amount you nonconcur with and the basis for your nonconcurrence. Recommendations and potential monetary benefits are subject to resolution in accordance with DoD Directive 7650.3 in the event of nonconcurrence or failure to comment. We also ask that your comments indicate concurrence or nonconcurrence with the material internal control weakness highlighted in Part I.

The courtesies extended to the audit staff are appreciated. If you have any questions on this audit, please contact Mr. Raymond A. Spencer at (703) 614-3955 (DSN 224-3955) or Mr. J. Steven Hughes at (703) 693-0362 (DSN 223-0362). The planned distribution of this report is listed in Appendix E.

Robert J. Lieberman
Assistant Inspector General
for Auditing

Enclosure

cc:
Secretary of the Army
Secretary of the Navy
Secretary of the Air Force
Director, Defense Research and Engineering

Office of the Inspector General

AUDIT REPORT NO. 92-049 February 19, 1992
(Project No. 0AB-0068)

FOREIGN WEAPONS EVALUATION IN THE DEPARTMENT OF DEFENSE

EXECUTIVE SUMMARY

Introduction. Foreign Weapons Evaluation is the formal consideration and testing of already developed foreign items against established military requirements. The Defense Appropriations Act and U.S.C., title 10, section 1103, Public Law 99-145 (the Nunn amendment) provide funds specifically for the test and evaluation of foreign produced items. This funding averaged about $50 million each year from FY 1987 through FY 1990. During this period, the Military Departments initiated testing on 121 foreign items and completed testing on 66 items.

Objective. The audit objective was 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 North Atlantic Treaty Organization allies and other friendly nations.

Audit Results. The Military Departments have not taken full advantage of foreign Nondevelopmental Items to meet U.S. military needs. The Military Departments were not expeditiously fielding state of the art equipment and will unnecessarily spend about $305 million in development and procurement costs from FY 1991 through FY 1997.

Internal Controls. Controls were in place to prevent the abuse that would arise from spending funds unwisely on the testing of foreign items where the Military Departments did not intend to purchase the item, but were merely assessing technology. However, the audit identified a material internal control weakness in that controls were not effective to ensure that foreign items were properly considered, tested, and procured when feasible. A description of the controls assessed is in Part I.

Potential Benefits of Audit. The audit identified examples of how the acquisition of foreign systems or subsystems can expedite the fielding of state of the art equipment; enhance weapons performance; and reduce research, development, and procurement costs by approximately $305 million (Appendix C).

Summary of Recommendations. We recommended establishment of internal control procedures to ensure that all acquisition program managers adequately consider, test, and procure foreign Nondevelopmental Items when appropriate.

Management Comments. The Deputy Director, Defense Research and Engineering (Test and Evaluation), and the Assistant Secretary of the Navy (Research, Development and Acquisition) concurred with Recommendations 1., 2.a. and 2.b. The Assistant Secretary of the Air Force (Acquisition) nonconcurred with Recommendations 2.a. and 2.b. The Assistant Secretary of the Army (Research, Development and Acquisition) did not provide comments. Additional comments are required from the Assistant Secretaries of the Army and Navy (Research, Development and Acquisition) and the Assistant Secretary of the Air Force (Acquisition) by April 20, 1992. See Part II for a full discussion of management comments and Part IV for a complete text of managements' comments.

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This report was prepared by the Acquisition Management Directorate, Office of the Assistant Inspector General for Auditing, DoD. Copies of the report can be obtained from the Information Officer, Audit Planning and Technical Support Directorate, (703) 693-0340.

PART I - INTRODUCTION

Background

Foreign weapons evaluation is the consideration and testing of foreign items against established military requirements. DoD and Congress have encouraged the consideration of foreign systems to meet U.S. needs and avoid development costs since the early 1980's. Defense acquisition regulations require that the Military Departments consider Nondevelopmental Items (NDI) from foreign countries to meet U.S. military needs before starting a development effort. These regulations are briefly discussed in Appendix A. The Defense Appropriations Act and U.S.C., title 10, sections 2341 to 2350, provide funds specifically for the test and evaluation of foreign produced items. For FYs 1980 through 1985, testing was funded under one appropriation, Foreign Weapons Evaluation. In FY 1986, a second appropriation was added, the North Atlantic Treaty Organization (NATO) Comparative Test Program. In FY 1990, the two programs were combined into the Foreign Comparative Test (FCT) Program, which was intended to test and evaluate foreign weapons, equipment, and technologies to determine their potential use by DoD Components. From FY 1980 to FY 1990, the Military Departments, under the auspices of the FCT Program, conducted 258 tests of foreign items, completed 201 tests, and purchased 45 items. In many procurements of foreign items, the foreign company teamed with a U.S. company to set up a production facility in the United States, if economically feasible. This minimizes the impact on the domestic industrial base and promotes the transfer of technology to U.S. companies.

Objective

The audit objective was 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. We initially included in our audit objective an evaluation of the use of cooperative research and development ventures with friendly nations to meet U.S. military needs while reducing costs and increasing commonality and interoperability with allies. That objective will be addressed in follow-on Project No. 1AB-0055, "International Cooperative Research and Development."

Scope

We considered all research and development program elements in the Program Objectives Memorandum to be candidates for foreign weapons evaluation. We selected a random statistical sample of 82 projects from the OSD Program Objectives Memorandum for FYs 1992 through 1997. For each of these projects, we planned to assess the potential for a cooperative research and development venture and the consideration given to evaluating foreign items. We did not completely review all programs because the cooperative research and development objective was dropped from this audit. Accordingly, we did not project our results to the universe of research and development programs. We then reviewed active and complete foreign weapons evaluations conducted between FYs 1987 and 1990. We obtained detailed data on all programs completed during this time by sending a questionnaire to program managers. The Technical Assessment Division of the Audit Planning and Technical Support Directorate provided engineering and technical support in evaluating system technical requirements and related test data obtained from the questionnaires.

This economy and efficiency audit was performed from April 1990 to March 1991 in accordance with auditing standards issued by the Comptroller General of the United States as implemented by the Inspector General, DoD, and accordingly included such tests of internal controls as were considered necessary. The activities visited or contacted during the audit are listed in Appendix D.

Internal Controls

We evaluated internal controls over the selection, funding, and tracking of foreign comparative test programs, as funded by DoD and managed by the Military Departments. We also evaluated internal controls in the acquisition process to determine if acquisition programs were properly considering foreign NDI to meet Military Department requirements. Internal controls were effective in preventing the use of Nunn amendment funds for testing foreign systems that the Military Departments did not intend to procure. However, the audit identified a material internal control weakness as defined by Public Law 97-255, Office of Management and Budget Circular A-123, and DoD Directive 5010.38. Controls were not effective to ensure that foreign items were properly considered, tested, and procured when feasible. The recommendations in this report, if implemented, will correct the weakness. The senior officials responsible for internal controls within each of the Military Departments will be provided a copy of this report.

Prior Audits and Other Reviews

There were no audits of Foreign Weapons Evaluation in the last 5 years.

Other Matters of Interest

During this audit, we issued two Quick-Reaction Reports: Report No. 91-046, "Full-Scale Development of Enhanced Modular Signal Processor [EMSP]," February 13, 1991, and Report No. 91-092, "Sight Improvement Program for the Tube-Launched, Optically-Tracked, Wire-Guided Missile [TOW]," June 10, 1991. In Report No. 91-046, we recommended that the Navy not award pending contracts on the EMSP until alternate signal processors were evaluated. The results of these evaluations, and their effect on EMSP, are further discussed in Part II of this report. The Navy disagreed with the finding but agreed to take the recommended action.

In Report No. 91-092, we recommended that the Army suspend action on proposals received on the TOW Sight Improvement Program until it evaluates and tests specific foreign items identified by the program office. The report stated that foreign systems were available that could satisfy the Army's requirement and avoid spending $172 million in Research and Development funds. The Assistant Secretary of the Army (Research, Development and Acquisition), Deputy for Systems Management, nonconcurred with the draft report findings and recommendations. We provided additional information in the final report and asked the Assistant Secretary of the Army (Research, Development and Acquisition) to reconsider his position. Subsequently, the Department of the Army canceled plans for the TOW Sight Improvement Program.

PART II - FINDING AND RECOMMENDATIONS

Foreign Weapons Evaluation

The Military Departments had not taken full advantage of foreign NDI to meet U.S. military needs. This occurred because the Military Departments did not provide sufficient oversight of acquisition programs to determine if program managers adequately researched and considered foreign NDI before initiating new development. Additionally, acquisition regulations did not clearly specify procedures for considering foreign NDI on nonmajor programs. As a result, the Military Departments were denying the United States numerous benefits and will unnecessarily spend about $305 million in development and procurement costs from FY 1991 through FY 1997.

DISCUSSION OF DETAILS

Background

The Under Secretary of Defense for Acquisition (USD[A]) has overall policy and management authority for acquisitions in DoD. The Deputy Director, Defense Research and Engineering (Test and Evaluation), has policy and management responsibility for the test and evaluation of weapon systems, subsystems, and equipment. The consideration and testing of NDI is funded by DoD as the FCT Program. The Military Departments also use their own Research, Development, Test and Evaluation (RDT&E) funds for testing foreign NDI. The test and evaluation of NDI in production, or in the late stages of development, receives priority for FCT funding.

At the DoD Component level, the Military Departments have established an international programs office to coordinate with OSD in implementing the FCT Program. FCT projects approved for funding will provide either a solution to a valid DoD operational requirement or an alternative to a U.S. system under development that could offer a significant cost, schedule, or performance advantage over the U.S. system.

Taking Full Advantage of Foreign NDI

The Military Departments were not pursuing all opportunities to meet their requirements through the acquisition of foreign NDI. Selective procurement of items already developed or produced by allied countries may offer the best value to DoD. To determine

the Military Departments' commitment to using NDI to meet their requirements, we reviewed acquisition strategies from a random selection of 20 programs contained in the Military Departments' Program Objectives Memorandum for FYs 1992 through 1997 and the viability of the 61 FCT projects completed by the Military Departments from FY 1987 to FY 1990.

Foreign NDI in acquisition strategies. Of the 20 randomly selected acquisition programs reviewed for consideration of foreign NDI, management tested and procured a foreign item for only 1 program. Most of the program managers were aware of potential foreign NDI but did not include them in their acquisition strategies. The most frequent justifications given for not including foreign NDI were protecting sensitive technology and maintaining the prime contractor's responsibility for the complete system.

Military Department program managers often contended that technology was sensitive and not releasable to foreign contractors. This determination was made without scrutinizing the technology to determine how it can be protected and released. Through the use of security agreements, information can be released to foreign contractors on a case by case basis. With truly sensitive technology, a U.S. contractor can integrate the proven foreign capability into the weapon system. Either alternative would permit the consideration of foreign development to satisfy DoD needs.

Program acquisition strategies usually plan for prime contractors to provide all subsystems and components, releasing the Military Departments from responsibility for acquisition, storage, and integration, which may adversely affect program milestones. This simplifies the process and relieves DoD of responsibility for providing defective material. However, this risk can be minimized either by having a U.S. contractor test the subcomponent before installation or by holding the foreign contractor responsible through warranty agreements.

Nominating viable candidates. The testing of foreign NDI was not fully productive because the Military Departments were not always nominating viable candidates. Instead, 33 of the 61 evaluations reviewed involved either technology assessments, low-priority programs that were canceled, or programs with uncertain requirements. Tests for these programs did not provide tangible results, such as products, technical data packages, or increased competition. Instead, strained relationships with foreign governments and industry may result if DoD is portrayed as operating in bad faith. To alleviate these concerns, OSD

published guidance in 1988 that mandated firm requirements' documents and the commitment of procurement and support funds before submission of the Candidate Nominating Proposal.

The Military Departments procured 12 of the 61 foreign items tested and benefited by fielding items not available, increasing performance, and avoiding research and development costs of at least $15 million. They also benefited when they did not procure the foreign items by qualifying more sources, increasing competition, and stimulating domestic technology.

Oversight

Each Military Department has an International Program Office that reviews Candidate Nominating Proposals on programs requesting FCT funds and monitors the status of those programs receiving funds. These Offices did not have the authority to recommend procurement of proven tested items and did not have purview over the programs that did not request FCT funds. The authority and responsibility to determine if all program managers have adequately researched and considered foreign NDI had not been given to any Office. Therefore, appropriate decision authorities do not have an independent report on the availability of foreign systems before they approve a new development program.

Regulations. DoD Directive 5000.1 and DoD Instruction 5000.2, stated that the policies, principles, and objectives for major acquisition programs applied to nonmajor programs but did not clearly state which procedures were required. The Military Departments perpetuated this confusion by not clarifying procedures for nonmajor programs within their acquisition processes. For instance, the Navy and Air Force acquisition regulations implemented DoD guidance for major programs only, while the Army's acquisition regulations provided clear guidance for both major and nonmajor programs to follow when considering NDI alternatives. The DoD acquisition regulations were revised and reissued on February 23, 1991. The revised regulations require consideration of NDI for major, nonmajor, and highly sensitive classified programs. The regulations further instruct the Military Departments to keep implementing directives to the minimum consistent with the directive. The new regulations should resolve the question of applicability of procedures and eliminate the need for a recommendation at this time.

Program Benefits

The Military Departments' reluctance to acquire foreign NDI to meet Defense requirements denies numerous benefits to the United States. These benefits include expeditious fielding of equipment, improved weapon performance, reduced research and development costs, and enhanced commonality and interoperability with our allies. A discussion of these benefits follows.

Expeditious fielding. Using foreign NDI can eliminate the time involved in duplicating research and development efforts, thereby expediting delivery to troops. For example, the Army tested a German Chemical Biological Decontaminate (C-8) from FY 1986 to FY 1988, at a cost of $1.1 million. The decontaminate met the Army's requirements and was immediately available. However, the Army opted to continue a development effort initiated in FY 1982 because its study rated the untested formula higher than C-8. In December 1990, the developers changed the original formula type, even though the requirements had not changed. The new formula is scheduled for delivery to troops in FY 2000. The Army has budgeted $22.5 million through FY 1997 for this development.

Improved performance. The Military Departments can increase system capabilities with foreign NDI. For example, the Navy tested British composite main rotor blades for the SH-3H helicopter. The Navy program office wanted to procure the composite blades and prepared a performance and cost analysis on the foreign composite blades because the initial cost of new composite blades exceeded the cost of metal blades. The analysis determined that composite blades cut maintenance time in half, increased fuel savings by 6 percent, and extended flight hour intervals between inspections fivefold, which made the composite blades superior to existing metal blades. The program office concluded that procurement of the British composite blades would improve performance over the remaining 20 years the SH-3H helicopter would be in use and reduce life-cycle costs by $45 million. The Naval Aviation Supply Office stated in March 1990 that the inventory of metal blades was sufficient, and no future procurement of metal blades was expected. However, our review showed that in March 1991, the Aviation Supply Office was trying to buy used metal blades from the same British firm that produces the composite blades.

The evaluation of foreign NDI benefits DoD even when the Military Departments do not purchase the foreign items. The Navy evaluated a foreign helicopter engine, the Rolls-Royce Turbomeca 322 (RTM-322), to determine its suitability for future helicopter

engine procurements and as an alternative to the General Electric engine used on Sea Hawk and Black Hawk helicopters. The RTM-322 was developed by Rolls-Royce (United Kingdom) and Turbomeca (France) and sized for the Sea Hawk and Black Hawk helicopters. The engine successfully met the helicopter engine requirements for the Army and the Navy. As a result of this evaluation, the Navy identified an alternate source for engines, thereby increasing competition for future procurements. The U.S. contractor, responding to the new competition, improved warranty, and contractual guarantees, made needed engine performance improvements on the original engine and reduced the unit cost on each engine by $47,000. The overall combined savings for the Sea Hawk and Black Hawk helicopter programs exceeded $53 million.

Reduced research and development costs. The potential for cost avoidance in research and development and procurement, by acquiring foreign NDIs is significant. We identified two programs, the TOW Missile Sight Improvement Program and the EMSP, for which available foreign NDI had not been considered. We reported on these systems in separate Quick-Reaction Reports. The issue addressed by the TOW Sight Improvement Program report is moot since the Program has been canceled and will not be discussed here. Since the issuance of Quick-Reaction Report No. 91-046 on the EMSP, several events that bear on the continuation of the EMSP program have occurred.

The Center for Naval Analysis completed a study of the life-cycle costs of the EMSP standard versus nonstandard processors. The study, which included foreign signal processors, determined that maintaining EMSP as the Navy standard signal processor was not cost-effective and that terminating the EMSP would save the Navy approximately $1 billion in life-cycle costs.

In April 1991, the Navy recommended that the USD(A) terminate the EMSP because of the shrinking market for EMSPs, the high unit cost, and the availability of a cheaper signal processor for all users. The USD(A) agreed that it was not feasible to continue development if the Navy did not intend to advance the EMSP into production. The Navy then notified the House Appropriations Committee of the proposed EMSP program termination. The Committee Chairman requested that the Navy review a revised procurement proposal submitted by the EMSP developer. The proposal offered a significantly reduced unit cost but limited the quantity available and imposed a multiyear procurement requirement. The Navy delayed terminating the EMSP to review the revised proposal.

On November 26, 1991, Congress passed the FY 1992 Defense Appropriations Act, Public Law 102-172, which included language authorizing the award of a multiyear procurement contract for EMSP. Legal counsel from the Office of the Inspector General reviewed Public Law 102-172 and stated that the language contained therein does not bind DoD or the Navy to award the contract. The law does satisfy the requirement that only Congress can award or authorize the award of a multiyear procurement contract and that development of upgrades to the Surveillance Towed Array Sensor System (SURTASS) must include EMSP. OSD personnel stated that no planned upgrades to SURTASS were scheduled to be reviewed by the Defense Acquisition Board. Further, the SURTASS requirement for 21 signal processors accounted for only 14 percent of the Navy's proposed EMSP procurement.

Analyses indicate that there are substantial potential cost benefits if the Navy does not use EMSP as the standard signal processor. For example, a unit cost comparison showed that the reduced EMSP costs were still 2 to 5 times greater than the costs for alternate signal processors.

EMSP VERSUS ALTERNATE UNIT COSTS

	Processor Unit Costs (Millions)	
Program	EMSP[1/]	Alternate[2/]
P-3 Update IV	$2.0	$0.4
BSY-2	$1.9	$1.1
SURTASS/LFA	$1.6	$0.5
SQQ-89B/SQY-1	$1.5	$0.6

1/ Cost figures were obtained from an AT&T letter to the Assistant Secretary of the Navy (Research, Development and Acquisition) dated June 13, 1991. The price most advantageous to the Navy, from market 1 and market 2 analysis, was selected.

2/ Cost figures were obtained from an Assistant Secretary of the Navy (Research, Development and Acquisition) memorandum to the USD(A) dated April 22, 1991.

At the proposed prices, 150 EMSPs for potential users will cost between $218 million and $239.7 million, depending on the mix of

configurations. The cost of alternate signal processors ranges from $76.2 million to $91.3 million, depending on the mix of configurations. Thus, the achievable cost savings ranges from $126.7 million to $163.5 million (Appendix B). Further, the planned $119 million in research and development funds identified in the Quick-Reaction Report would be avoided.

In addition to the significant cost disparity, the Navy acknowledged that the EMSP's wide variety of configurations conflicted with the definition of a standard processor. Further, the rapid turnover in computer technology could quickly render any standard signal processor obsolete. Therefore, we believe the USD(A) and the Navy should immediately terminate all EMSP development and production plans.

Commonality and interoperability. It is the goal of the United States and its allies to field weapon systems that, when jointly deployed, can communicate easily and be maintained with a common stockpile of spare parts and supplies. Procurement of NDI by the United States and its allies promotes this concept and will help to solve the current commonality problem and enhance the economies of both the United States and its allies.

Conclusion

The requirement and rationale for considering and testing foreign NDI is set forth in congressional language and DoD regulations. DoD has not taken full advantage of foreign items because the Military Departments have not provided oversight of acquisition programs to ensure that program managers adequately research and consider foreign NDI before initiating development of new items. During this audit, we reviewed a relatively small number of acquisition programs and found several opportunities for the Military Departments to meet their needs through foreign NDI. These opportunities offer a potential financial benefit of about $305 million from FY 1992 through FY 1997. The financial benefits consist of $141 million in RDT&E costs on the C-8 and EMSP programs and $164 million in EMSP procurement costs. By the conscious efforts of Military Department and DoD managers, DoD can realize the full benefit of the program to field needed capabilities sooner and reduce research and development and procurement costs.

RECOMMENDATIONS, MANAGEMENT COMMENTS, AND AUDIT RESPONSE

1. We recommend that the Under Secretary of Defense for Acquisition terminate the Enhanced Modular Signal Processor Program.

Deputy Director, Defense Research and Engineering (Test and Evaluation), Comments. The Deputy Director, Defense Research and Engineering (Test and Evaluation), partially concurred with the recommendation, saying that unless a new acquisition strategy for EMSP proves to be cost-effective and is approved by the Defense Acquisition Board, OSD continues to concur with the Navy recommendation to terminate the EMSP program. The Deputy Director pointed out that the statement in the draft report that 2 alternate processors could perform the processing functions for the P-3 Update IV program was technically in error: the P-3 would require 14 alternate processors. However, this technical error did not change the OSD position.

Navy comments. The Assistant Secretary of the Navy (Research, Development and Acquisition) nonconcurred with the finding but conditionally concurred with the recommendation. The Navy disagreed with the statement that two alternate signal processors could perform the processing function for the P-3 Update IV program and recommended that cost data in the report be corrected. The Navy stated that its recommendation to the Defense Acquisition Board on termination of the EMSP program was based on an unexecutable acquisition strategy. The Navy was evaluating other strategies including a multiyear procurement offer from AT&T, which was addressed by the Congressional Conference Committees on the Defense authorization and appropriation bills. The Assistant Secretary stated the Navy would recommend a final course of action when the Conference results were known. The Navy acknowledged that commercial signal processors may be more cost-effective than EMSP, but EMSP represents the least technical and schedule risk for user programs that need powerful signal processing now. Nonetheless, the trend in the Navy is to move toward commercial "open systems," which offer obvious cost savings and performance advantages.

Audit response. We agree that the audit finding in the draft report contained a technical error and have deleted the discussion on specific alternate signal processors for the P-3 Update IV program. After the Navy issued its comments, Congress passed the FY 1992 Defense Appropriations Act containing language authorizing the award of a multiyear EMSP procurement contract. However, the AT&T EMSP multiyear

procurement offer exceeds the costs of using alternate processors by at least $126.7 million and is contingent upon two key factors. First, the offer is for a fixed order of 150 processors in set configurations, which eliminates the option of adjusting the order quantity to meet changing requirements. Second, the offer assumes that the $119 million for the Acoustic System Integration Program, which provides for the design, configuration and fabrication of backplates, test models, and related integrated logistics support for four identified EMSP users is completed. Thus, selecting EMSP over alternate processors would increase the cost to the Navy by at least $245.7 million. Finally, our legal counsel interpreted the FY 1992 Defense Appropriations Act as authorizing, but not binding, DoD to a multiyear EMSP contract. Therefore, we still believe that the EMSP program should be terminated. We request that the Under Secretary of Defense for Acquisition and the Assistant Secretary of the Navy (Research, Development and Acquisition) consider the additional information and provide comments to our final report.

2. **We recommend that the Service Acquisition Executives:**

a. Designate an office, such as the International Programs Office, with the authority and responsibility to review acquisition plans to ensure that adequate consideration has been given to foreign Nondevelopmental Items and to report results to appropriate decision authorities.

b. Require that program managers purchase existing domestic or foreign systems, subsystems, or components that meet Military Department requirements, instead of initiating or continuing development.

Deputy Director, Defense Research and Engineering (Test and Evaluation), comments. The Deputy Director, Defense Research and Engineering (Test and Evaluation), concurred with both recommendations and stated that DoD would publish guidance directing the Military Departments to designate specific offices to review validated requirements, coordinate with the Joint Staff, and conduct market surveys to identify foreign and domestic NDIs that might satisfy requirements and preclude entering unnecessary research and development efforts.

Audit response. Although the recommendation was not directed to OSD, we included the Deputy Director's comments to acknowledge the planned initiative to issue guidance to the Military Departments. We consider the Deputy Director's

comments to be responsive. However, the intent of the recommendation was not to relieve the program manager of the responsibility to conduct market surveys but to give the acquisition decisionmakers an independent, informed opinion on the adequacy of the consideration and the availability of foreign NDIs to meet the Military Departments' requirements.

Army comments. The Army did not provide comments to the draft report. We request that the Army provide comments to the final report. See the Status of Recommendations chart for the requirements of those comments.

Navy comments. The Assistant Secretary of the Navy (Research, Development and Acquisition) nonconcurred with the recommendations because existing directives provide adequate guidance for the consideration of NDIs, and acquisition principals already have the resources to perform those reviews. The Navy position is that another layer would be inefficient and contrary to the Defense Management Review. The Navy believes the guidance in DoD Directive 5000.1 clearly indicates that use of an existing commercially developed or allied system is preferred over a new Service-unique development program. The Navy was revising Secretary of the Navy Instruction 5420.188C, "Navy and Marine Corps Program Decision Meetings (PDM)," to require that the program manager brief joint/international program potential issues for all acquisition programs at every milestone program decision meeting. The Navy also stated that it was considering strengthening Department of the Navy Instruction 5000.2 to emphasize the requirement for considering foreign and domestic NDIs for all acquisition programs in any category.

Audit response. We consider the comments from the Assistant Secretary of the Navy (Research, Development and Acquisition) to be responsive. Incorporating requirements for nonmajor acquisition programs to consider foreign or domestic NDIs into Navy acquisition regulations will ensure that nonmajor program managers understand the requirement. If Navy program decisionmakers also review the consideration of NDIs before passing on a new development program, the intent of the recommendation will be met. These decisionmakers would then benefit from an independent, knowledgeable assessment of the program manager's market survey on the availability of foreign items. We request that the Assistant Secretary of the Navy (Research, Development and Acquisition) provide a time frame for issuance of the revised Secretary of the Navy Instructions 5000.1 and 5420.188C.

Air Force comments. The International Programs Division in the Office of the Assistant Secretary of the Air Force (Acquisition) nonconcurred with Recommendation 2.a. because the International Programs Office does not have the authority, manpower, or technical expertise to review all acquisition plans and know what foreign NDI is available; system program offices or sponsors have the best knowledge of technical area and potential sources; and Air Force staff oversight was sufficient to ensure that program managers gave adequate consideration to NDIs and reported their results to the Service Acquisition Executive. In response to Recommendation 2.b., the International Programs Division stated that the Air Force followed DoD guidance in requiring that program managers consider foreign and domestic NDIs before initiating development.

Audit response. We consider the comments from the International Programs Division to be nonresponsive. We agree that the program office or sponsor has the best technical capability to perform a market survey of NDIs. However, the audit demonstrated that Air Force staff oversight was not sufficient to ensure that program managers adequately consider foreign NDIs and report their results to the Air Force Acquisition Executive. Air Force programs accounted for 13 of the 20 acquisition program offices visited during the audit. Only one of those offices provided a Cooperative Opportunities Document, and several were unaware of the requirement in DoD Directive 5000.1. We feel that the recommendation is still valid and ask that the Assistant Secretary of the Air Force (Acquisition) reconsider his position when responding to the final report.

STATUS OF RECOMMENDATIONS

			Response Needed on:		
Number	Addressee	Concur/ Nonconcur	Proposed Action	Completion Date	Related Issues *
1.	USD(A)		x	x	M
2.a.	ASA(RDA)	x	x	x	IC
	ASN(RDA)			x	IC
	SAF/AQ	x	x	x	IC
2.b.	ASA(RDA)	x	x	x	M
	ASN(RDA)			x	M
	SAF/AQ	x	x	x	M

* M= Monetary benefit; IC = material internal control weakness.

PART III: ADDITIONAL INFORMATION

Appendix A - Criteria Governing the Testing of Foreign NDI
Appendix B - Procurement Cost Savings Achievable Using Alternative Signal Processors Over EMSP by Mix
Appendix C - Summary of Potential Benefits Resulting from Audit
Appendix D - Activities Visited or Contacted
Appendix E - Report Distribution

APPENDIX A. CRITERIA GOVERNING THE TESTING OF FOREIGN NDI

Nunn amendment. U.S.C., title 10, section 1103, Public Law 99-145 (the Nunn amendment), was passed in 1986 to foster international cooperation between the United States, NATO, and other major allies. The Amendment authorized $250 million for NATO research and development and testing and waived certain laws prescribing contract procedures and U.S. preference requirements.

Buy American Act. The Secretary of Defense has authorized the DoD Components to restrict procurement of particular products or items of Defense equipment to domestic sources. Although this restriction does not prohibit buying from foreign sources, it provides the discretion to selectively restrict procurement and exclude foreign competition. The Defense Federal Acquisition Regulation Supplement, subpart 225.103, waives the Buy American Act for NATO and other qualifying countries, except for a few specific items.

Defense acquisition regulations. DoD Directive 5000.1, "Major and Nonmajor Acquisition Programs," September 1987, and DoD Instruction 5000.2, "Defense Acquisition Program Procedures," September 1987, provided policies and procedures for major acquisition programs and required an assessment of alternative approaches to satisfy military needs or requirements. To accomplish the assessment, the program manager should identify alternatives during the early concept exploration phase and report the results to program decisionmakers that decide between the need for a new development program versus buying or adapting existing commercial systems.

These acquisition regulations were revised on February 23, 1991, and apply to major, nonmajor, and highly sensitive classified programs. DoD Directive 5000.1, "Defense Acquisition," provides a hierarchy of alternatives for decisionmakers to consider before initiating a new development program. The use or modification of a commercial or allied system that fosters a NDI approach is preferred to starting a Military Department development program. DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," delegates responsibility to the heads of the DoD Components to ensure that the prescribed policies and procedures are followed by their respective Components. The revised regulations prohibit the Military Departments from providing supplemental guidance.

DoD Manual 5000.3-M-2, "Foreign Weapons Evaluation and NATO Comparative Test (FCT) Programs Procedures Manual," August 1988, provides policy guidance and procedures for distributing funds and testing under the FCT Program. The Manual assigns the responsibility of coordinating OSD policy guidelines for the DoD Components and reviewing FCT candidate nominations from the DoD Components to the Deputy Director, Defense Research and Engineering (Test Evaluation). The Deputy Director requires that the DoD Components prepare quarterly reports on the status of funds and testing for all FCT programs. The Military Department program managers are responsible for identifying, evaluating, and procuring alternate foreign weapon systems for testing and evaluation against U.S. needs.

Military Department acquisition regulations. Before the issuance of the new DoD acquisition regulations, the Military Departments' acquisition regulations implemented DoD guidance for nonmajor programs. Army Regulation 70-1, "Systems Acquisition Policy and Procedures," October 10, 1988, applies to both major and nonmajor programs and states all programs are to consider allied NDI in all phases of the acquisition process. Secretary of the Navy Instruction 5000.2, "Major and Nonmajor Acquisition Program Procedures," November 1, 1988, outlines procedures solely for major acquisition programs and requires that acquisition review boards consider allied systems before developing a new system.

Air Force Regulation 800-1, "Acquisition Management Air Force Acquisition System," February 16, 1990, applies to all Air Force activities and defines Air Force acquisition responsibilities, authority, structure, and tools for major system acquisitions. The Regulation does not provide any further guidance as to what procedures from DoD Instruction 5000.2 apply to nonmajor programs.

APPENDIX B. PROCUREMENT COST SAVINGS ACHIEVABLE USING ALTERNATIVE SIGNAL PROCESSORS OVER EMSP BY MIX

(Dollar Figures in Millions)

AT&T Proposed Mix

Program	Quantity	Unit Cost EMSP	Unit Cost Alternative	Program Cost EMSP	Program Cost Alternative	Cost Savings
P-3 Update IV	5	$2.0	$ .4	$10.0	$ 2.0	$ 8.0
BSY-2	25	1.9	1.1	47.5	27.5	20.0
SURTASS/LFA	3	1.6	.5	4.8	1.5	3.3
SQQ-89B/SQY-1	84	1.5	.6	126.0	50.4	75.6
OTHER	33	.9	.3	29.7	9.9	19.8
TOTALS	150			$218.0	$ 91.3	$126.7

Navy Required Mix

Program	Quantity	Unit Cost EMSP	Unit Cost Alternative	Program Cost EMSP	Program Cost Alternative	Cost Savings
P-3 Update IV	40	$2.0	$ .4	$80.0	$ 16.0	$64.0
BSY-2	10	2.0	1.1	20.0	11.0	9.0
SURTASS/LFA	21	1.6	.5	33.6	10.5	23.1
SQQ-89B/SQY-1	50	1.6	.6	80.0	30.0	50.0
OTHER	29	.9	.3	26.1	8.7	17.4
TOTALS	150			$239.7	$ 76.2	$163.5

APPENDIX C. SUMMARY OF POTENTIAL BENEFITS RESULTING FROM AUDIT

Recommendation Reference	Description of Benefits	Amount and/or Type of Benefit
1.	Economy and Efficiency. Terminate the EMSP Program.	Funds put to better use of $282.5 million $119 million (Navy RDT&E Appropriation, FYs 1991 and 1992) and $163.5 million (Navy APN, OPN, SCN appropriations FYs 1992-1997).
2.a.	Internal Controls. Designate a central office with authority and responsibility for reviewing acquisition documents, determining the adequacy of consideration foreign NDIs, and reporting to appropriate decision authorities.	Undeterminable.*
2.b.	Economy and Efficiency. Require that program managers that purchase existing domestic or foreign systems that meet Military Department requirements instead of initiating or continuing development.	Funds put to better use-- $22.5 million (Army RDT&E appropriation, FY 1991-1997).

* Monetary benefits attainable from establishing internal controls over the evaluation and consideration of foreign NDI was undeterminable at the time of audit because the value and character of future acquisitions is uncertain.

APPENDIX D. ACTIVITIES VISITED OR CONTACTED

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition:
  Deputy Under Secretary of Defense for Acquisition (International Programs), Washington, DC
  Deputy Director, Defense Research and Engineering (Test and Evaluation), Washington, DC
Under Secretary of Defense for Policy:
  Deputy Under Secretary of Defense for Security Policy, Washington, DC
Assistant Secretary of Defense (Production and Logistics), Washington, DC

Department of the Army

Assistant Secretary of the Army (Research, Development and Acquisition), Washington, DC
Deputy Chief of Staff for Operations and Plans, Washington, DC
Deputy Chief of Staff for Intelligence, Washington, DC
Army Materiel Command Office for International Cooperative Programs, Aberdeen, MD
U.S. Army Missile Command, Redstone Arsenal, AL
Chemical Research, Development and Engineering Center, Aberdeen, MD
U.S. Army Chemical School, Fort McClellan, AL
Communications Electronic Command, Fort Monmouth, NJ
Natick Research, Development and Engineering Center, Natick, MA
Tank-Automotive Command, Warren, MI
Army National Guard Bureau, Washington, DC
U.S. Army Aviation Systems Command, St. Louis, MO

Department of the Navy

Naval Inspector General, Washington, DC
Assistant Chief of Naval Operations (Air Warfare), Washington, DC
Assistant Chief of Naval Operations (Surface Warfare), Washington, DC
Director of Navy Requirements for Research and Development, Test and Evaluation, Washington, DC
Naval Air Systems Command, Washington, DC
Naval Sea Systems Command, Washington, DC
Naval Space and Warfare Systems Command, Washington, DC

APPENDIX D. ACTIVITIES VISITED OR CONTACTED (cont'd)

Department of the Navy (cont'd)

Naval Coastal Systems Center, Panama City, FL
Naval Ordnance Station, Indian Head, MD
Naval Underwater Systems Center, New London, CT
Naval Air Development Center, Warminster, PA
Naval Air Systems Command Detachment, Pensacola, FL
Navy International Programs Office, Washington, DC

Department of the Air Force

Deputy Assistant Secretary of the Air Force (Acquisition Management and Policy), Washington, DC
Air Force Systems Command, Andrews Air Force Base, MD
Armament Division, Eglin Air Force Base, FL
Warner Robins Air Logistic Center, Robins Air Force Base, GA
Rome Laboratories, Griffis Air Force Base, NY
Aeronautical Systems Division, Wright-Patterson Air Force Base, OH
Air Force National Guard Bureau, Washington, DC
Sacramento Air Logistics Center, McClellan Air Force Base, CA
Ballistic Missile Organization, Norton Air Force Base, CA
Space Systems Division, Los Angeles, CA

Non-DoD Organizations

General Accounting Office, Washington, DC
North Atlantic Treaty Organization, Brussels, Belgium

Non-Government Activities
Embassy of Great Britain, Washington, DC
Embassy of Sweden, Washington, DC
Embassy of France, Washington, DC
Embassy of Portugal, Washington, DC
Vitro Corporation, Washington, DC
Defense Technology Incorporated, Washington, DC
British Aerospace, Washington, DC
Selenia, Washington, DC
Robert Basil International, Washington, DC
Naval Investigative Service, Washington, DC
Naval Surface Warfare Center, Dahlgren, VA

APPENDIX E. REPORT DISTRIBUTION

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition
Under Secretary of Defense for Policy
Director, Defense Research and Engineering
Assistant Secretary of Defense (International Security Affairs)
Assistant Secretary of Defense (Program Analysis and Evaluation)
Comptroller of the Department of Defense
Deputy Under Secretary of Defense for Acquisition
(International Programs)
Deputy Under Secretary of Defense for Security Policy
Deputy Director, Defense Research and Engineering
(Test and Evaluation)
Deputy Director, Defense Research and Engineering
(Tactical Warfare Programs)

Department of the Army

Secretary of the Army
Assistant Secretary of the Army (Financial Management)
Assistant Secretary of the Army (Research, Development and
Acquisition)
Headquarters, Training and Doctrine Command
Headquarters, Army Materiel Command
U.S. Army Chemical School
Army Materiel Command International Cooperative Program Office
Chemical Research, Development and Engineering Center
Auditor General, Army Audit Agency
Inspector General, Public Affairs Office

Department of the Navy

Secretary of the Navy
Assistant Secretary of the Navy (Financial Management)
Assistant Secretary of the Navy (Research, Development and
Acquisition)
Assistant Chief of Naval Operations, Air Warfare
Comptroller of the Navy

APPENDIX E. REPORT DISTRIBUTION (cont'd)

Department of the Navy (cont'd)

Navy International Programs Office
Naval Air Systems Command
Naval Sea Systems Command
Space and Naval Warfare Systems Command
Naval Surface Warfare Center
Auditor General of the Navy

Department of the Air Force

Secretary of the Air Force
Assistant Secretary of the Air Force (Financial Management and Comptroller)
Assistant Secretary of the Air Force (Acquisition)
Headquarters, Air Force Systems Command
Space Systems Division

Office of Management and Budget
U.S. General Accounting Office,
NSIAD Technical Information Center

Congressional Committees:

Senate Subcommittee on Defense, Committee on Appropriations
Senate Committee on Armed Services
Senate Committee on Governmental Affairs
Ranking Minority Member, Senate Committee on Appropriations
House Committee on Appropriations
House Subcommittee on Defense, Committee on Appropriations
Ranking Minority Member, House Committee on Appropriations
House Committee on Armed Services
House Committee on Government Operations
House Subcommittee on Legislation and National Security, Committee on Government Operations

PART IV - MANAGEMENT COMMENTS

Under Secretary of Defense for Acquisition comments
Department of the Navy comments
Department of the Air Force comments

Under Secretary of Defense for Acquisition Comments

OFFICE OF THE DIRECTOR OF
DEFENSE RESEARCH AND ENGINEERING

WASHINGTON, DC 20301

4 October 1991

MEMORANDUM FOR DIRECTOR, ACQUISTION MANAGEMENT DIRECTORATE,
OFFICE OF THE DOD INSPECTOR GENERAL

THROUGH: CAIR DIVISION PR 10/7/91

SUBJECT: Comments on Draft Report, "Audit of Foreign Weapons Evaluation in DoD," (Project No. 0AB-0068)

Subject draft report has been reviewed. I concur that the Military Departments have not taken full advantage of the opportunities presented by foreign and domestic non-developmental items (NDI) to meet U.S. Services' military requirements. Better use of the Foreign Comparative Testing (FCT) Program (which, incidentally, in 1989 consolidated the Foreign Weapons Evaluation (FWE) and NATO Comparative Testing (NCT) Programs) could save additional millions of dollars now programmed for duplicative R&D.

Comments on the report's specific recommendations are provided in the enclosure.

RR Ledesma

RICHARD R. LEDESMA
Acting Deputy Director
(Test and Evaluation)

Enclosure

cc: TWP/NW&M

DEPUTY DIRECTOR RESEARCH AND ENGINEERING
(TEST AND EVALUATON)

COMMENTS ON

DOD IG DRAFT AUDIT REPORT
"FOREIGN WEAPONS EVALUATION IN THE DEPARTMENT OF DEFENSE"
PROJECT NUMBER OAB-0068

Comments on the draft report are keyed directly to the recommendations for corrective action.

RECOMMENDATIONS

REPORT RECOMMENDATION 1:

1. We recommend that the Under Secretary of Defense for Acquisition terminate the Enhanced Modular Signal Processor Program.

COMMENT: PARTIALLY CONCUR. At Congressional request, further discussions between the Navy and AT&T could provide potentially beneficial acquisition strategies for the EMSP. However, unless a new acquisition strategy is determined to be cost effective and is approved by the DAB, OSD continues to concur with the Navy that the EMSP program should be terminated.

The draft IG report contains a technical error when computing the projected benefits of replacing the EMSP with alternate processors. The processor used for the SH-2G is the AN/UYS-503. It would take 14 (not 2) of these processors to perform the function required by the P3 Update IV Program, even if we decide to accept a reduction in processing capability. The processor cost of the total number of AN/UYS-503's would be 40% more than the cost of the EMSP (rather than 80% less, as claimed in the report). This would change the monetary benefit of using the EMSP significantly. (Without access to the exact data used in the IG report we cannot calculate a new monetary benefit.)

This specific error does not change the previously stated OSD position. Because of the broad application of the EMSP to several ASW systems which need signal processing capability, a comprehensive evaluation of the cost effectiveness of any new acquisition strategy would be required prior to a change of the Navy and DAB position.

REPORT RECOMMENDATIONS 2.a and 2.b:

2. We recommend that the Service Acquisition Executives:

a. Designate an office, such as the International Programs Office, with authority and responsibility to review acquisition plans to ensure that adequate consideration has been given to foreign Non-developmental Items and to report results to appropriate decision authorities.

COMMENT: CONCUR. The functions described are being done already by the Services, but not to the degree needed. A central office is needed in each Service to critically review Operational Requirements Documents, coordinate them through the Joint Staff, and ensure that a thorough market survey is conducted. Every attempt must be made to ascertain whether other U.S. Services, or allies, have similar requirements or programs underway, and to identify any off-the-shelf, NDI equipment, both domestic and foreign (U.S. allies), that might satisfy the requirement. Until these actions have been taken, followed by a rigorous cost-benefit analysis of the viable alternatives, no funds should be committed for development of new items.

b. Require program managers to purchase existing domestic or foreign systems, subsystems, or components that meet Military Department requirements, instead of initiating or continuing development.

COMMENT: CONCUR.

MILESTONES

EVENT	DATE
Navy submission of acquisition strategy to USD(A), based on Conference guidance	Two weeks after issuance of Conference guidance
Publish DoD guidance, directing the Services to designate specific offices to review Service-validated requirements, coordinate with the Joint Staff, and conduct market surveys to identify off-the-shelf, non-developmental foreign and domestic items that might satisfy the requirements, to preclude entering into unnecessary R&D efforts.	March 31, 1992
Services establish appropriate offices.	July 31, 1992

OTHER COMMENTS

Some editorial comments are provided on the following page.

Editorial Comments on Draft Report: IG Audit of FWE

1. P. 8, line 1. Insert an ampersand between "Test" and "Evaluation."

2. P. 12, paragraph "Regulations," first line. The specific regulations should be mentioned here: DoDD 5000.1 and DoDI 5000.2.

3. P. 13, paragraph "Expeditious Fielding," 4th line. Correct word is "Decontaminant," not "Decontaminate."

4. P. 25, last paragraph, line 3. Change sentence to read "DoD Directive 5000.1, entitled Defense Acquisition and dated 23 February 1991, provides ...." In lines 7-8, change sentence to read "DoD Instruction 5000.2, entitled Defense Acquisition Management Policies and Procedures and dated 23 February 1991, delegates ..."

5. P. 26. Comment: With the publication of new DoD acquisition regs, are the Services' regulations still relevant?? If not, use past tense to describe their provisions. If they are still relevant, keep them in this section, but give each Service a separate paragraph. Move the paragraph concerning DoD Manual 5000.3-M-2 out of the section on Military Department acquisition regulations and into the preceding section on Defense Acquisition Regulations.

6. P. 26, last paragraph, lines 7-8. Add comma between "Director" and "Defense," and change "Test Evaluation" to "Test and Evaluation." In line 11, change "programs" to "projects."

7. P. 29, Appendix C, Dept of the Army, 6th entry. Delete comma after word "Chemical." In 7th and 8th entries, delete the periods after "FT," or spell out "Fort."

8. P. 30, Appendix C, Dept of the Navy, 4th entry. "Warminster" not "Warminister." Under Dept of the AF, 5th entry, "Rome Air Development Center" name was changed to "Rome Laboratories" about six months ago.

9. P. 31, Appendix D, OSD, 9th entry. Add "and" between "Test" and "Evaluation." Also, under Department of the Army, 7th entry,. spell "materiel," not "material."

10. P. 32, Appendix D, Dept of the Air Force, 4th entry: "Aeronautical Systems Division" is part of HQ, AFSC, and should not be treated as a separate entity.

11. P. 32, Appendix D, Congressional Committees, 1st entry. Change word "of" to word "on".

Department of the Navy Comments

THE ASSISTANT SECRETARY OF THE NAVY
(Research, Development and Acquisition)
WASHINGTON, D C 20350-1000

OCT 18 1991

MEMORANDUM FOR THE DEPARTMENT OF DEFENSE ASSISTANT INSPECTOR GENERAL FOR AUDITING

Subj: DRAFT REPORT ON THE AUDIT OF FOREIGN WEAPONS EVALUATION IN THE DEPARTMENT OF DEFENSE (PROJECT NO. 0AB-0068) - ACTION MEMORANDUM

Ref: (a) DODIG memo of 12 Aug 91

Encl: (1) DON Response to Draft Audit Report

I appreciate the opportunity to review and comment on the DOD Inspector General's draft audit report, forwarded by reference (a), on Foreign Weapons Evaluation.

The Department of the Navy response is provided at enclosure (1). It includes a detailed response to the recommendations and other questions raised by the report.

In brief, the Navy understands and, in part, agrees with the DODIG position on the Enhanced Modular Signal Processor (EMSP) program. The final decision on EMSP is still outstanding, however, and all factors must be considered before such a decision is made.

The Navy does not support establishing or designating an office to review acquisition plans to ensure that adequate consideration has been given to foreign Nondevelopmental Items, since acquisition principals already have the resources to perform the function and creating another layer would be inefficient and contrary to the Defense Management Review.

Finally, the Navy believes that there are existing directives and instructions providing adequate guidance to program managers about considering the purchase of existing domestic or foreign systems to meet defense requirements instead of initiating new development.

Because of the sensitivity of, and some misinformation surrounding, EMSP and the decision on helicopter blade procurement, the response includes specific comments on those programs.

Gerald A. Cann

Copy to:
NAVINSGEN
NAVCOMPT (NCB-53)

Department of the Navy Response

to

DODIG Draft Report of 12 August 1991

on

FOREIGN WEAPONS EVALUATION
IN THE DEPARTMENT OF DEFENSE
Project No. 0AB-0068

TABs: (1) DOD 5000.1, "Defense Acquisition", Part I, Paragraph B.4, dtd 23 Feb 91
(2) DOD 5000.2-M, "Defense Acquisition Management Documentation and Reports", Part 4, Section H, dtd 23 Feb 91
(3) SECNAV 5420.188C, "Navy and Marine Corps Program Decision Meetings (PDM)"

Recommendation 1:

We recommend that the Under Secretary of Defense for Acquisition terminate the Enhanced Modular Signal Processor Program.

DON Position:

Non-concur with the findings, but conditionally concur with the recommendation.

The Navy does not concur with the finding in the draft report that claims that the foreign signal processor currently used in Navy's SH-2G helicopter program could, if used in pairs, meet the demanding processing requirements of the P-3 Update IV program. The requirement to process 54 DIFAR sonobuoys simultaneously would require fourteen rather than two of these signal processors, and still forfeit many of the unique processing capabilities required in Update IV. In those quantities, the cost savings presented in the report could not be achieved for the P-3, since a fourteen processor configuration would cost an estimated $3.5M per platform rather than $2.5M for EMSP. Navy recommends that the EMSP cost data be corrected in the final report.

A recommendation made earlier this year to OSD -- that the most prudent course of action Navy could take is to terminate EMSP -- was based largely on an unexecutable acquisition strategy. The Navy delayed the decision to evaluate other acquisition strategies. A reevaluation led to a multiyear procurement offer by AT&T and is expected to be addressed in the Congressional Conference Committee consideration of the FY-92

Encl (1)

DON COMMENTS ON DODIG DRAFT AUDIT REPORT NO. 0AB-0068, "AUDIT OF FOREIGN WEAPONS EVALUATION IN THE DEPARTMENT OF DEFENSE," 12 AUGUST 1991

Defense Appropriation and Authorization bills. When the Conference results are known, Navy can fairly recommend the proper course of action for EMSP and its designated users to the Defense Acquisition Executive.

There are other commercial signal processors that have emerged in recent years that may actually be more cost effective than EMSP, but it must be noted that EMSP still represents the least technical and schedule risk for the programs that need powerful signal processors now. Nonetheless, the trend within the Navy is moving rapidly toward the use of commercial "open systems" approaches to buying equipment, with the obvious cost savings and performance advantages that can be achieved.

Recommendation 2(a):

We recommend that the Service Acquisition Executives designate an office, such as the International Programs Office, with authority and responsibility to review acquisition plans to ensure that adequate consideration has been given to foreign Nondevelopmental Items and to report results to appropriate decision authorities.

DON Position:

Non-concur. The Navy does not support establishing or designating a single specific office to review acquisition plans to ensure that adequate consideration has been given to foreign Nondevelopmental Items (NDI), since acquisition principals already have the resources to perform the function and creating another layer would be inefficient and contrary to the Defense Management Review (DMR). Such an action would be counter to the DMR effort to eliminate service advocacy offices and the statutory requirement for a streamlined acquisition chain of command. Rather, DON believes that the audit report should underline the need for acquisition principals to utilize existing offices to facilitate their review of such issues.

Recommendation 2(b):

We recommend that the Service Acquisition Executives require program mangers to purchase existing domestic or foreign systems, subsystems, or components that meet Military Department requirements, instead of initiating or continuing development.

DON COMMENTS ON DODIG DRAFT AUDIT REPORT NO. 0AB-0068, "AUDIT OF FOREIGN WEAPONS EVALUATION IN THE DEPARTMENT OF DEFENSE," 12 AUGUST 1991

DON Position:

Non-concur. DOD Instruction 5000.1, Part 1, Section B, Paragraph 4, requires program mangers to ensure that a full range of alternatives is considered prior to deciding to initiate a new acquisition program. It specifically states: "A hierarchy of potential materiel alternatives must be considered prior to a decision to commit to a new start acquisition program." The specific order of preference for materiel alternatives is also stated:

> (1) Use or modification of an existing U.S. military system. (2) Use or modification of an existing commercially developed or Allied system that fosters a nondevelopmental acquisition strategy. (3) A cooperative research and development program with one or more Allied nations. (4) A new joint-Service development program. (5) A new Service-unique development program.

It is clear, therefore, that the use of an existing commercially developed or Allied system is preferred over a new Service-unique development program. (see TAB 1)

As directed by Title 10 of the U.S. Code, Section 2350a.(e), and the DOD Manual 5000.2-M, Part 4, Section H, Annex G (see TAB 2), Acquisition Category (ACAT) I programs have a requirement to document NDI considerations by the preparation and submittal of the Cooperative Opportunities Document (COD). The COD is submitted to OSD with other program documentation, is reviewed at Milestone I, and is updated as necessary at subsequent milestones.

A COD is not statutorily required for the ACAT II, III, and IV programs. The same section of the DOD Manual 5000.2-M, however, states that "Cooperative opportunities should be investigated as part of the acquisition strategy for these programs." In order to ensure that the existing requirement is followed more fully, the audit report should emphasize the necessity to adhere to the requirements stated in Title 10 and in DOD Instruction 5000.1. In the current draft DON Instruction 5420.188C (see TAB 3), which deals with the Program Decision Meeting process for all ACAT I, II, III, and IV programs, Checklist item 17 requires the Program Manager to brief any and all joint/international program potential issues at all Milestone Program Decision Meetings for ACAT I, II, and III programs, which includes appropriate consideration and discussion of cooperative

DON COMMENTS ON DODIG DRAFT AUDIT REPORT NO. 0AB-0068, "AUDIT OF FOREIGN WEAPONS EVALUATION IN THE DEPARTMENT OF DEFENSE," 12 AUGUST 1991

NDI issues, concerns, and potential applications.

The DON is already making adjustments to Instruction 5420.188C, which covers procedures to be used during Program Decision Meetings (PDM), to encourage more consideration of potential NDI type items in the evaluation and review of programs at Milestone decision points. Additionally, the Navy is considering strengthening DON Instruction 5000.2, which is also currently being updated, to emphasize the DOD stated requirement applicable to ACAT I programs and to stress the importance of similar consideration and review for the other acquisition programs. The DON does not, however, see a reason to go beyond the statutory requirements stated in Title 10, United States Code, Section 2350a. (e), "Cooperative Opportunities Document." If a change to the existing statute is required, OSD should take the necessary initiating action.

Implied Finding:

On page 14 of the draft audit, under Improved Performance relating to the Navy SH-3H helicopter, it is stated: "The Navy program office wanted to procure the composite blades and prepared a performance and cost analysis on the foreign composite blades because the initial cost of new composite blades exceeded the cost of metal blades. The analysis determined that composite blades cut maintenance time in half, increased fuel savings by 6 percent and extended flight hour intervals between inspections fivefold, which made the composite blades superior to existing metal blades. The program office concluded that procurement of the British composite blades would improve performance over the remaining 20 years the SH-3H helicopter would be in use and reduce life-cycle costs by $45 million. The Naval Aviation Supply Office (ASO) stated in March 1990 that the inventory of metal blades was sufficient, and no future procurement of metal blades was expected. However, our review showed that in March 1991, the Aviation Supply Office was trying to buy used metal blades from the same British firm that produces the composite blades."

DON Position:

DON concurs, with following clarifying comments.

After the Foreign Weapons Evaluation (FWE) analysis, the Naval Air Systems Command requested funds for the retrofit to the new composite rotor blades. The Chief of Naval Operations

declined to fund the retrofit in FY-90/91 due to higher priorities within the aircraft procurement account for retrofits (AP,N - 5), and the CNO's projection of the deactivation of the total SH-3H active force by the year 2000. Replacement metal blades were expected to be available from the aircraft being deactivated (SH-3Ds/3Gs) in the intervening years. In consequence, composite blades were not made an approved configuration item for the SH-3H. The point is an important, since ASO can only procure approved configuration items.

The DON, including ASO in March 1990, anticipated no further spares procurements of the metal blades, as the report states. Subsequently, fleet requirements to continue service of the SH-3H in a utility/logistics roll to the year 2010 were identified. In addition, inspections of main rotor blades with the cuffs removed -- a new procedure at the NADEPs -- revealed serious corrosion problems. The program office became concerned and asked ASO to investigate the availability, delivery, and pricing data on spare rotor blades. In March 1991, the ASO requested budgetary and delivery information from the metal blade manufacturers since the metal blades are still the only ones approved for the SH-3H.

The DON will address the performance improvement, maintainability, and reliability, and life cycle cost savings in comparison with the acquisition costs during development of the FY-94/95 budget. The acquisition cost of the composite blades is $58.209 million over four years, which would outfit the 101 active and 12 reserve aircraft.

Secretary of Defense for Acquisition or the DoD Component Head as appropriate.

(1) To facilitate delegation, the Under Secretary of Defense for Acquisition shall establish acquisition program decision categories that are directly relatable to the streamlined acquisition chain of authority and accountability established by this Directive.

(2) These categories should also permit a clear correlation with program implementation and reporting requirements imposed by statute.

4. New Start Acquisition Programs. A full range of alternatives must be considered prior to deciding to initiate a new acquisition program. In support of this:

a. Studies shall be conducted of promising alternative materiel concepts that could satisfy an identified mission need prior to a decision to commit to a new start acquisition program. The Under Secretary of Defense for Acquisition shall coordinate the funding of such studies for mission needs that could potentially result in new start major defense acquisition programs.

b. A hierarchy of potential materiel alternatives must be considered prior to a decision to commit to a new start acquisition program. The order of preference for materiel alternatives generally is:

(1) Use or modification of an existing U.S. military system.

(2) Use or modification of an existing commercially developed or Allied system that fosters a nondevelopmental acquisition strategy.

(3) A cooperative research and development program with one or more Allied nations.

(4) A new joint-Service development program.

(5) A new Service-unique development program.

c. The Deputy Secretary of Defense shall approve funding for the initiation of new major defense acquisition programs and all highly sensitive classified programs and shall establish affordability planning constraints for those programs approved.

5. Sensitive Information and Technologies. Sensitive information and technologies shall be identified early and protected from inadvertent or unauthorized disclosure. The identification of such information and technologies, and decisions on their transfer to foreign governments and foreign contractors in support of cooperative programs, foreign contracting and foreign sales, shall be accomplished early in the acquisition process and shall be reassessed at each milestone decision point.

TAB A

PART 4

SECTION H

INTEGRATED PROGRAM SUMMARY

ANNEX G

COOPERATIVE OPPORTUNITIES DOCUMENT

References: (a) Under Secretary of Defense for Acquisition Memorandum, "Cooperative Opportunities Documents," May 21, 1990 (canceled)
(b) Title 10, United States Code, Section 2350a.(e), "Cooperative Opportunities Document"

1. PURPOSE

   a. This section supersedes the Under Secretary of Defense for Acquisition memorandum, "Cooperative Opportunities Documents" (reference (a)).

   b. The provisions of this annex satisfy the statutory requirements of Title 10, United States Code, Section 2350a.(e), "Cooperative Opportunities Document" (reference (b)).

   c. These provisions are designed to ensure that opportunities for cooperative research and development projects are considered at an early point in the formal review process of major defense acquisition programs.

2. PROCEDURES

   a. Acquisition Category I Programs. A Cooperative Opportunities Document in the format attached shall be: prepared at Milestone I; approved and forwarded by the DoD Component Acquisition Executive or designated Component Official as part of the Integrated Program Summary; and updated as necessary at subsequent milestones.

   b. Acquisition Category II, III, and IV Programs. A Cooperative Opportunities Document is not statutorily required by reference (b) for non major defense acquisition programs. Cooperative opportunities should be investigated as part of the acquisition strategy for these programs.

Attachment - 1

1. Cooperative Opportunities Document Format

TAB B

SECNAV INSTRUCTION 5420.188C

From: Secretary of the Navy

Subj: NAVY AND MARINE CORPS PROGRAM DECISION MEETINGS (PDM)

Ref: (a) SECNAVINST 5000.33B
(b) Navy Acquisition Procedures Supplement
(c) DOD Directive 5000.1
(d) DOD INST 5000.2
(e) DOD 5000.2-M
(f) DOD INST 7920.2 of 7 March 1990
(g) DOD Directive 7920.2M
(h) DOD Directive 7920.1 of 20 June 1988
(i) SECNAVNOTE 5430 of 12 March 1990
(j) SECNAVINST 5231.1B (latest revision)

Encl: (1) Weapon System Acquisition Program Review PDM Briefing Guidelines
(2) Automated Information System PDM Briefing Guidelines
(3) Weapon System ACAT I, II, and III PDM Attendance
(4) Automated Information System PDM Attendance

1. Purpose. To streamline the Department of the Navy (DON) acquisition program and automated information system (AIS) Life Cycle Management (LCM) review process, and provide procedures for conducting Navy and Marine Corps Program Decision Meetings (PDMs). The PDM is the review and/or decision forum for ACAT I, II, and III programs and AIS Level I and II projects at the Department of the Navy level. This instruction is a substantial revision and should be reviewed in its entirety.

2. Cancellation. SECNAVINST 5420.188B and SECNAVINST 5231.3A.

3. Applicability. All DON weapon system acquisition and AIS programs.

4. Definition of Terms. For purposes of this instruction the term "weapon system acquisition programs" will refer to all tactical systems and weapon programs which are of an Acquisition Category of I, II, III, or IV. The term "AIS programs" will refer to all AISs requiring Information System Approval at Level I or II as defined by ref (j).

5. Policy and Procedures

a. The PDM is the DON forum for weapon system acquisition program milestone decisions, weapon system acquisition program reviews, AIS LCM milestone decisions, and AIS program reviews

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TAB C

SECNAVINST 5420.188C
OASN(RD&A)

	MILESTONES				
	0	I	II	III	IV
15. Acquisition strategy (historical, current and future) (include initiatives to reduce development, procurement and support cost, concurrency and T&E)		X	X	X	X
16. Dual-sourcing issues	X	X	X	X	
17. Joint/international program potential		X	X	X	
18. Procurement total, unit costs			X	X	
19. ILS status		X	X	X	X
20. Program execution status (satisfaction of exit criteria and financial management status)		X	X	X	X
21. Legal Issues	X	X	X	X	X
22. Documentation status		X	X	X	X
23. Funding profile		X	X	X	X
24. Safety risk assessment including options		X	X	X	
25. Environmental impact assessment		X	X	X	
26. Net risk assessment		X	X	X	
27. Manpower Estimate (Major defense acquisition programs)			X	X	
28. DOT&E BLRIP report (OSD Oversight programs)				X [illegible]	
29. OSD Live Fire Test Report (if appropriate)				X	
30. Disposition of displaced equipment				X	X
31. Affordability and life cycle costs (reliability, maintainability and operational availability achieved)			X	X	X

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Department of the Air Force Comments

DEPARTMENT OF THE AIR FORCE
WASHINGTON DC 20330-1000

OFFICE OF THE ASSISTANT SECRETARY

18 OCT 1991

MEMORANDUM FOR DOD INSPECTOR GENERAL, ACQUISITION MANAGEMENT DIRECTORATE (MR DONALD REED)

SUBJECT: Comments on Audit of Foreign Weapons Evaluation Draft Report (Project No. 0AB-0068) - ACTION MEMORANDUM

We have reviewed the attached draft audit report and request that the comments which follow be considered prior to final publication of your findings.

We do believe that the Air Force expeditiously fields state of the art equipment and we get the most from our development investments. We do not have a separate office to review all acquisition plans for consideration of Non-Developmental Items (NDIs) and report results to higher authorities. However, internal controls within SAF/AQ are effective in ensuring that domestic and foreign NDI is properly considered, tested and procured when feasible. The Service Acquisition Executive (SAE) holds each program manager accountable and progression from Milestone I to Milestone II hinges on this.

In reference to the finding (2a), *"Designate an office, such as the International Programs Office, with authority and responsibility to review acquisition plans to ensure that adequate consideration has been given to foreign NDI and to report results to appropriate decision authorities":* The Air Force International Program Office (really SAF/AQXI, International Programs Division) does not have the authority, manpower or the technical expertise to review all acquisition plans and know what foreign NDI is available for each AF program. The system program office or program sponsor is in the best position to do this since he knows the technical area and potential sources. Air Staff (AQ & XO) oversight is sufficient to ensure that program managers give adequate consideration to NDI and report their results in the Cooperative Opportunities Document (COD) to the SAE for his final decision. The US Air Force has taken maximum advantage of the Foreign Comparative Test (FCT) Program (ref AFR 57-1), consistent within our manpower resource commitment.

In response to the finding (2b), *"Require program managers to purchase existing domestic or foreign systems, subsystems, or components that meet Military Department requirements, instead of initiating or continuing development":* We do follow the guidelines in DOD Directive 5000.1 and DOD Instruction 5000.2 in requiring program managers to consider the use of domestic or allied NDI components prior to initiating a new development program. The HAVE NAP program, begun as an FCT project, is an excellent example of how this process works.

We will continue to seek and test additional domestic and foreign Non-Developmental Items which meet AF needs and can be procured for our operational use.

GEORGE W. CRISS III, Col, USAF
Chief, International Programs Division
Asst Secretary of the Air Force
(Acquisition)

cc: SAF/AQX
SAF/AQXA
SAF/AQT (Mr Flynn)
AF/XORJ (Lt Col Chapman)

AUDIT TEAM MEMBERS

Donald E. Reed, Director, Acquisition Management Directorate
Raymond Spencer, Program Director
Steve Hughes, Project Manager
Marie Beima, Team Leader
James Casey, Team Leader
Belinda Finn, Team Leader
Jenniffer Wilson, Auditor
Jackie Wicecarver, Auditor
David Cole, Auditor