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UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D C 20548

MISSION ANALYSIS AND
SYSTEMS ACQUISITION DIVISION

B-210019

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The Honorable Drew Lewis
The Secretary of Transportation

JANUARY 28, 1983

Dear Mr. Secretary:

Subject: The Coast Guard Needs Navy Weapon Systems to Meet Wartime Mission Requirements (GAO/MASAD-83-13)

We examined the Coast Guard's planning and management for the $163.4 million computer-based Command, Display, and Control (COMDAC) system being installed on 13 new 270-foot medium endurance cutters. We reviewed and analyzed records and data concerning the Coast Guard's and the Department of Transportation's (DOT's) acquisition guidance and the Coast Guard's justification for COMDAC. We also discussed various aspects of the COMDAC program with Coast Guard officials; the shipbuilding contractor in Tacoma, Washington; COMDAC contractors located in the Washington, D.C., metropolitan area; and the Navy's Operational Test and Evaluation Force Headquarters in Norfolk, Virginia.

The first COMDAC-equipped cutter was delivered in January 1983; yet, the Coast Guard is uncertain when or if it will receive Navy weapon systems to help fulfill the Coast Guard's wartime mission. We believe the Coast Guard should determine when the Navy will provide these weapon systems for the cutter.

We also identified limitations in the Coast Guard's justification for COMDAC, as well as positive actions planned and underway by DOT and the Coast Guard to improve acquisition planning for future programs. In addition, we have substantially revised an earlier draft of this report based on comments received from DOT.

DESCRIPTION AND STATUS OF THE COMDAC PROGRAM

The Coast Guard is buying 13 new 270-foot medium endurance cutters to replace part of their aging cutter fleet. The new cutters will have sensors and weapon systems to perform peacetime and wartime missions. COMDAC is being installed on the new cutters to automate many ship control functions performed manually

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on older vessels. COMDAC capabilities range from simple data reception, display, retention, and reproduction to sophisticated data analysis, alternatives evaluation, and integrated sensor and weapon system control and employment.

The current estimated total acquisition cost of the COMDAC system is $163.4 million. Nearly $100 million has been committed to procure COMDAC hardware for all 13 cutters. The first vessel equipped with COMDAC hardware was delivered on January 19, 1983. Delivery of COMDAC's peacetime software package, originally planned to be completed by the delivery of the first cutter, is now estimated for March 1984. The Coast Guard has not yet contracted for the software needed for the military missions. Without such software, COMDAC will not be able to perform as intended.

CURRENT UNCERTAINTY ABOUT AVAILABILITY OF NAVY WEAPON SYSTEMS

The Coast Guard is uncertain whether Navy weapon systems will be available for the COMDAC-equipped cutter, yet it is expected to perform military missions. Although the first cutter was recently delivered, its capability to perform in a wartime environment largely depends on future delivery and installation of Navy weapon systems and future development of COMDAC military software.

During wartime the cutter is expected to be assigned to the Navy for such duties as antisubmarine warfare, convoy escort, coastal defense surveillance, and search and rescue. The Navy is to provide the weapon systems for the cutters. COMDAC is intended to provide rapid and accurate management of weapon systems because the Coast Guard believes that an automated weapons control system is necessary if the new cutters are to operate and survive in the warfare environment projected to evolve through the turn of the century.

The Coast Guard is uncertain when or if it will receive the Navy weapon systems originally proposed for the cutters in 1975. Due to Navy budgetary constraints the only weapons currently being delivered for use onboard the cutters are the MK75 76mm. gun, the MK92 gun fire control system, and the SLQ-32 electronic warfare system. Other Navy weapon systems identified for the cutters include the LAMPS MK I helicopter system, TACTAS (a towed array sonar detection system), the NIXIE torpedo decoy system, the HARPOON missile system, and the PHALANX close-in weapon system. Although not yet budgeted for by the Navy, the Coast Guard has reserved space and weight for these systems on the cutters. A cutter project official said that military software will not be integrated into COMDAC until delivery of the weapon systems is assured. According to DOT and the Coast Guard, the availability of military hardware and software has not been determined.

LIMITED JUSTIFICATION FOR COMDAC

The Coast Guard did not fully justify and support the COMDAC procurement before committing the agency to acquire the system. The Coast Guard decided to automate the cutters with COMDAC without demonstrating that COMDAC (1) would result in anticipated personnel reductions or operating cost savings or (2) was the most cost-effective way to fulfill the Coast Guard's peacetime and wartime missions.

Since the COMDAC acquisition was approved in 1976, DOT and the Coast Guard have taken actions to improve planning for future acquisition programs. For example, a draft project management manual supplements Office of Management and Budget Circular A-109 and requires a determination of a proposed system's mission needs and life-cycle costs--tasks that were not required when the Coast Guard decided to buy COMDAC.

CONCLUSIONS

Even though the first COMDAC-equipped cutter has been delivered, its capability to perform in a wartime environment has yet to be proven. Effective mission performance largely depends on the installation of Navy weapon systems and future development of COMDAC military software. We agree with the Coast Guard that delivery of the weapon systems should be assured before integration of weapon system control functions into COMDAC. Therefore, we believe the Coast Guard should determine when the Navy will commit adequate resources to allow the COMDAC-equipped cutter to effectively perform its wartime mission requirements.

The Coast Guard did not fully justify the COMDAC acquisition before committing the agency to acquire the system. The Coast Guard should better plan and justify future systems before committing the agency to an acquisition. We are encouraged, however, by actions planned and underway by DOT and the Coast Guard to improve such planning for future systems.

RECOMMENDATION TO THE SECRETARY OF TRANSPORTATION

We recommend that you direct the Commandant of the Coast Guard to work closely with the Navy to establish definitive timetables for delivery of Navy weapon systems.

. . . . .

As you know, 31 U.S.C. 720 requires the head of a federal agency to submit a written statement on actions taken on our recommendations to the House Committee on Government Operations and the Senate Committee on Governmental Affairs not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for

appropriations made more than 60 days after the date of the report.

Copies of this report are being sent to the cognizant House and Senate Legislative and Appropriation Committees; the House and Senate Committees on Armed Services; the Director, Office of Management and Budget; the Secretaries of Defense and the Navy; and the Commandant of the Coast Guard.

Sincerely yours,

W. H. Sheley, Jr.
Director