



UNITED STATES GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548

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DEFENSE DIVISION

MAY 4 1971

B-165613

The Honorable  
The Secretary of Defense



Attention: Assistant Secretary of Defense  
(Comptroller)

Dear Mr. Secretary:

We have completed a review of the [U. S. Army marine maintenance program in Southeast Asia.] We compared the cost of the Army's practice of supplementing depot level maintenance by contract with the cost of performing the same type of maintenance at the Naval Ship Repair Facility, Subic Bay, Philippines. We also compared the efficiency of the Army contractors and the Navy repair facilities in performing maintenance assignments.

As a result of a reduction in 7th Fleet maintenance requirements, the Naval Ship Repair Facility at Subic Bay can now perform Army depot marine maintenance presently being performed under contract at commercial shipyards. Our review showed that, if the Army contract maintenance was transferred to the Navy repair facility, marine maintenance costs in Southeast Asia could be reduced by approximately \$2 million for fiscal year 1972. Other benefits would accrue to the Department, such as improved operational efficiency and use of resources, as well as a reduced flow of dollars to foreign countries.

Army officials in Okinawa responsible for the contract maintenance program agree with our findings and have stated that it would be both feasible and economical to shift the Army contract maintenance workload to the Naval Repair Facility at Subic Bay. Their only reservation to the use of the Navy shipyard was that the Army vessels would be given a lower priority than Navy ships. Navy officials acknowledged that top priority would be given to fleet vessels; however, they stated that, with good planning, the Army watercraft maintenance program could be accomplished without compromising Navy requirements. Navy officials believe that the additional Army workload would result in more effective use of resources.

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Because of potentially significant dollar savings, we propose that you authorize study of the findings disclosed in this letter. If you agree that they have merit, we recommend that you reassign Army watercraft maintenance presently accomplished by contract to the Navy Repair Facility at Subic Bay, Philippines. Additional details are presented below.

STATUS OF THE ARMY WATERCRAFT  
MAINTENANCE PROGRAM, PACIFIC AREA

The Army watercraft fleet numbers over 2,000 vessels of which over 750 are located in the Pacific area. Approximately 500 of these watercraft are assigned to U. S. Army, Vietnam activities.

Prior to 1966, most marine vessel maintenance and overhaul was accomplished in Vietnam by the Army and by contract. Early in 1966, it was recognized that additional capability was required in Vietnam for general maintenance and limited depot maintenance. A marine maintenance facility at Cam Ranh Bay was established for this purpose.

It became apparent that overhaul of the Army fleet in Vietnam would require extensive drydock and other shipyard facilities that could not be provided at Cam Ranh Bay. In November 1966, backup support for major overhaul of these vessels was given to the 2nd Logistical Command, Okinawa. The facilities at the 2nd Logistical Command, as well as those of local contractors in Okinawa, proved insufficient to handle the volume of marine craft from Vietnam within a satisfactory time limit, so, contracts for depot level maintenance were awarded to commercial shipyards in the Philippines, Singapore, and Taiwan.

The Directorate of Marine Maintenance, 2nd Logistical Command, was given responsibility for direction of this program. The Army Procurement Office, Okinawa, was given contracting responsibility. Field offices were established in Manila and Poro Point in the Philippines, Singapore, and Taipei, Taiwan, to administer and monitor the contract program. We were told the Taiwan Field Office would be closed by the first of April 1971, and that vessels would no longer be scheduled for depot level maintenance in Taiwan.

CAPABILITY OF NAVY TO  
OVERHAUL ARMY VESSELS

We found that the Naval Ship Repair Facility possesses the shop capability, capacity, logistical support and flexibility to accomplish Army depot overhaul requirements. Due to the Vietnam phase-down, the productive workload declined from 9.9 million direct labor

hours in fiscal year 1969 to the projected workload in fiscal year 1972 of 6.1 million hours. Navy officials told us there were no plans to reduce the Naval Ship Repair Facility capability below that required to perform vessel repairs for the Army.

Officials at the Naval Ship Repair Facility said similar Army vessels had been repaired there without difficulty. They believe that adequate logistics can be provided and that administrative and clerical effort would not necessitate additional staff.

#### COMPARISON OF CONTRACT AND NAVY FACILITY MAINTENANCE COSTS

##### Cost by contract

At the time of our review, the fiscal year 1972 Army maintenance program had not been finalized. However, for planning purposes, the Directorate of Marine Maintenance had an approved fiscal year 1972 budget of about \$5.8 million for overhaul of 102 U. S. Army vessels, 93 of which were scheduled for contract repair. From an analysis of the Army's estimate of the number of man-hours required for contract overhaul of vessels in the fiscal year 1971 program, we estimated that the 93 vessels in the fiscal year 1972 program would require about 1.4 million contractor man-hours. Fiscal year 1972 requirements for overhaul of Vietnamese vessels, which were budgeted at \$900,000 in fiscal year 1971, were not known at the time of our review.

On its fiscal year 1971 contracts, the Army was charged \$1.56 per man-hour by its major contractor in the Philippines and \$1.50 per hour in Singapore. These costs do not include the Army's cost of contract administration, which we estimated would amount to about \$1,150,000 in fiscal year 1972. Based on the estimated 1.4 million contractor man-hours, the Army's administrative cost would amount to \$.82 per hour. Assuming that contract prices remain the same, we estimate the total cost to the Army would be about \$2.38 and \$2.32 per hour in the Philippines and Singapore, respectively. Using an average of \$2.35 per hour, we estimate the cost to the Army of contracting for these services would amount to about \$3.3 million.

##### Cost by Navy facility

The Naval Ship Repair Facility has estimated the fiscal year 1972 Navy workload at 6.1 million production hours and the cost per man-hour at \$2.01. This amount includes \$1.06 fixed cost, 29 cents variable cost, and 66 cents direct labor cost.

If the projected Army workload of 1.4 million man-hours is added to the projected Navy workload, Navy officials told us the

rate per productive hour would be reduced to about \$1.81. This amount includes 91 cents fixed cost, 24 cents variable cost, and 66 cents direct labor cost. Since the Naval Ship Repair Facility's overhead rate is dependent on the number of productive labor hours worked, the decrease of 20 cents (\$2.01 to \$1.81) per productive labor hour resulting from the projected Army requirements would result in savings to the Navy of about \$1.2 million on its existing workload of 6.1 million hours.

In addition, savings would accrue to the Army. Using the projected Navy plant rate of \$1.81 per hour, Army cost to accomplish the proposed contract work at the Subic Bay facility would amount to about \$2.5 million. This is about \$800,000 less than if accomplished by contract, including the cost of contract administration. If the benefits to the Navy resulting from an input of the Army's requirements into the Subic Bay Facility were to be passed on to the Army in the form of a lower plant rate, the Army would be able to realize even greater savings.

To summarize, our computations show that overall savings to the Government would amount to about \$2 million in reduced maintenance and administrative costs to the Army and Navy in fiscal year 1972, if contract maintenance for the Army in Southeast Asia is transferred to the Naval Ship Repair Facility at Subic Bay, Philippines.

ADDITIONAL COSTS INCURRED BY THE ARMY  
DUE TO CONTRACTORS EXCEEDING TIME LIMIT

The Army incurred additional costs because of lengthy delays in contract repair and return of vessels to Vietnam. Time-consuming award of contracts and lack of repair parts in Taiwan created critical shortages of tugboats in Vietnam which had to be filled by leasing tugboats from commercial firms. During fiscal years 1969 and 1970, approximately \$1.3 million was spent each year to lease tugboats to replace those in depot overhaul more than 90 days.

Repair time for vessels overhauled by contractors in the Philippines and Taiwan far exceeded the time limit permitted in the contracts. The average delivery time for vessels repaired by the Philippine contractors was 143 to 466 days (depending on the type of vessel repaired), or 94 to 358 days after delivery dates specified in the contracts. In Taiwan, the actual delivery date exceeded the date specified by an average of 257 days. Army officials stated the delays in the Philippines were caused by

- (1) needed materials not furnished to contractors on time and
- (2) inaccurate preliminary visual inspections of work required.

In contrast, the Navy repaired the same types of vessels much faster. For example, the average time for mechanized landing craft was 75 days; 66 days for utility landing craft; and 70 days for Y-tankers.

The Ship Repair Facility at Subic Bay maintains a warehouse for small craft repair parts, and no significant problems concerning parts has arisen nor is any anticipated if the Army work is undertaken, Navy officials said.

Our analysis of the cost for Army vessels repaired recently by Army contractors in the Manila area showed that actual contract costs were significantly higher than the initial contract cost, as shown in the following table.

<u>Contractor</u>	<u>Number of vessels</u>	<u>Contract cost</u>	<u>Actual cost</u>	<u>Increase</u>
El Varadero	6	\$167,739	\$302,814	\$135,075
Nassco	9	157,146	372,796	215,650
Luzon Stevedor	<u>2</u>	<u>130,345</u>	<u>190,468</u>	<u>60,123</u>
Totals	<u>17</u>	<u>\$455,230</u>	<u>\$866,078</u>	<u>\$410,848</u>

We believe that actual contractor costs, plus Army administrative costs, far exceed the cost which would be incurred if the Navy were to perform the work at its Subic Bay Facility.

#### CONCLUSIONS AND RECOMMENDATION

The Naval Ship Repair Facility at Subic Bay, Philippines, appears to have resources to handle the Army's depot watercraft maintenance at lower cost and in less time than is presently the case through use of commercial contractors. We believe that other benefits would accrue to the Government through more efficient utilization of U. S. Government resources.

Accordingly, we recommend that the Army depot maintenance requirements for watercraft be reassigned to the Naval Ship Repair Facility.

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Your comments on our conclusions will be appreciated, as well as information about plans concerning matters disclosed in this letter.

Your attention is invited to Section 236 of the Legislative Reorganization Act of 1970 which requires that you submit written statements of the action taken with respect to the above recommendation. The statements are to be sent to the House and Senate Committees on Government Operations not later than 60 days after the date of this report, and to the Committees on Appropriations in connection with the first request for appropriations submitted by the Department of Defense more than 60 days after the date of this report.

Copies of this letter are being sent to the House and Senate Committees on Government Operations, the Committees on Appropriations, and to the Secretaries of the Army and the Navy.

Sincerely yours,

A handwritten signature in cursive script that reads "E. M. Bailey". The signature is written in dark ink and is positioned above the typed name "Director".

Director