



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

MNR 116099

PROCUREMENT, LOGISTICS,
AND READINESS DIVISION

B-204107

JULY 27, 1981

The Honorable Caspar W. Weinberger
The Secretary of Defense



116099

Subject: [Defense Can Save Time and Money By
Exploring Alternatives to Construction
of New Cargo Ships for the Rapid Deployment
Force] (PLRD-81-55)

Dear Mr. Secretary:

This report summarizes the results of our review of the sealift requirements for the Rapid Deployment Force as of May 1981 and highlights opportunities to effect management improvements which could result in substantial savings. Because of congressional interest in this area, we have assignments in progress concerning the maritime prepositioning concept and rapid sealift ships.

We believe significant cost savings and mission benefits might be achieved by acquiring and converting existing Roll-On/Roll-Off (RO/RO) ships for the Maritime Prepositioning Ships (MPS) fleet. These ships are currently in the Merchant Marine or are under construction. By doing this, the Department of Defense could reduce the number of ships slated for new construction and satisfy its mission requirements much earlier than would be possible under the current plan at substantially lower costs.

MARITIME PREPOSITIONING SHIPS

Initial Navy requirements called for the construction of 15 new RO/RO ships for the MPS fleet. Because of cost considerations, the Navy subsequently decided to build eight new ships and convert four existing RO/RO ships of the Maine class. After considerable interaction between the Congress and the Navy, the Navy adopted the current proposal for construction of six ships and conversion of six.

Our analysis of the existing RO/RO ships in the U.S. Merchant Marine and those under construction indicated that 17 ships could be converted to meet the Navy's minimal capacity requirements. Six of these ships--the four existing Maine class ships and two of three Waterman RO/RO ships currently under construction--have been selected by the Navy for acquisition and conversion. In addition to these six ships, the third Waterman RO/RO ship and the Atlantic Bear are available and should be considered by the Navy for

(943352)

116099

017836

acquisition and conversion. The acquisition of any of the remaining nine ships would be subject to the willingness of the owners to sell them to the Navy. In view of the savings available and the Navy's expressed urgency to acquire ships for the MPS fleet, we believe the Navy should consider the acquisition and conversion of these ships as an alternative to new construction.

We recognize that other factors should also be considered, such as life-cycle costs (costs of acquiring and operating the ships over their expected life of 25 years) and logistical support requirements (spare and replacement parts for the life of the ships).

Navy officials have determined that, at the present time, life-cycle costs and logistical support requirements for the conversion of the Waterman ships would be less than those for new construction. They feel, however, that with the cost of fuel increasing every year, this may not always be the case.

Although we did not independently develop life-cycle comparisons, we acknowledge that with regard to future costs of day-to-day operations, there may be differences in economies due to existing powerplants versus designing more efficient ones in new ships. However, these ships are to be prepositioned at one location and will seldom move. Therefore, any efficiencies through fuel conserving powerplants should be minimal.

On several occasions during our review, we discussed our concerns with Navy officials and briefed and provided issue papers to the staff of the Subcommittee on Defense, House Committee on Appropriations.

Numerous changes have been made in the composition of the MPS fleet, and in turn, the Navy's budget requests and acquisition scheduling for these ships. For example, funding for constructing the first new MPS was not approved by the Congress in the fiscal year 1981 budget. However, funding was made available for the purchase and conversion of existing ships or ships under construction.

In accordance with congressional guidance, the Navy restructured its fiscal year 1981 acquisition and conversion program for the MPS fleet. It requested that \$53 million be committed to long lead advance procurement items and detail design of a new ship. It also requested \$7.6 million for charter/purchase options on existing RO/ROs which will be converted to a MPS design.

The Senate Committee on Appropriations approved the fiscal year 1981 funding requests, whereas the House Committee on Appropriations disapproved the \$53 million on the basis of its use. The House Committee on Appropriations believes that the Navy should acquire and convert all suitable existing RO/RO ships before beginning new construction.

In hearings on the fiscal year 1982 budget, the Navy proposed acquiring six new ships and converting six ships for the MPS fleet. Included in this proposal was a request for fiscal year 1982 funds for the construction of one of the six new ships at a cost of \$195 million and the acquisition and conversion of two of six selected existing RO/RO ships at a cost of \$197 million.

We believe that these actions by the Navy and the Senate and House Committees on Appropriations lend credence to our position on the MPS program and that additional conversion opportunities still exist. In our opinion, at least two existing RO/RO ships mentioned earlier also have conversion potential and should be considered by the Navy for purchase and conversion in lieu of new construction. These considerations should include detailed analyses of all costs and benefits, including life-cycle costs and plans for effectively supporting these ships when acquired.

Cost advantages of conversion

According to available estimates by the Navy, the Maritime Administration (MARAD), and maritime industry, converted ships would be less costly than new construction. Officials of the Naval Sea Systems Command estimate the cost of acquisition and conversion of each Waterman ship, currently under construction, at \$95 million. The Waterman Steamship Company estimates the costs at \$91 million each. MARAD estimates the cost for acquisition and conversion of the Altantic Bear at \$131 million. Based on the Naval Sea Systems Command and MARAD estimates, the combined acquisition and conversion cost for the remaining Waterman ship, not chosen by the Navy, and the Atlantic Bear totals \$226 million. ^{1/} This compares to an estimated cost of \$456 million (\$228 million per ship) to construct two new ships. Thus, if the acquisition and conversion of existing ships were chosen over new construction, the potential savings would be \$230 million.

Waterman also is willing to charter its RO/RO ships to the Navy. This can be done through the Military Sealift Command and would not require appropriation of ship construction funds unless options to purchase were included and exercised. Therefore, if the third ship were chartered to the Navy during construction, it could be converted earlier and at less cost than if construction had been completed.

^{1/}These estimates do not include MARAD's construction differential subsidy of about \$34 million for each of the Waterman ships. The question of whether MARAD or Navy would finally pay the subsidy would have to be resolved by them. At this time, however, it cannot be determined whether or not the resulting decision will affect the savings as projected. There was no subsidy on the Atlantic Bear.

Had Defense and the Navy chosen the first two Waterman ships 1 year ago, the cost to modify the ships to meet the Rapid Deployment Force requirements could have been substantially less, since construction had not yet reached an advanced state. Construction of the third ship, however, has been delayed by the owner; thus, prompt action by the Navy to acquire and convert this ship could still avoid additional costs and provide an earlier capability than the current plan to build new ships.

As in the case of the Waterman ships, we believe the Atlantic Bear may be a viable alternative to new construction. This ship is still available, but the Navy would have to act promptly because negotiations are in progress for its sale to shipping interests.

Time advantages of conversion

Acquisition and conversion of additional ships could save time over the Navy's proposed new ship construction program. Based on Navy and maritime industry data, we estimate that the Navy could acquire and convert the two ships we identified by July 1984. The following schedule shows that these two ships could be converted and available 1 month before construction of the first new ship and 8 months before construction of the second.

| <u>Ship number</u> | <u>Construction of ships</u> | | <u>Conversion of ships</u> | |
|--------------------|-----------------------------------|-----------------|-----------------------------------|-----------------|
| | <u>Start</u> (<u>note a</u>) | <u>Delivery</u> | <u>Start</u> (<u>note a</u>) | <u>Delivery</u> |
| 1 | Nov. 1981 | Aug. 1984 | b/May 1982 | July 1984 |
| 2 | Nov. 1982 | Mar. 1985 | c/June 1982 | June 1984 |

a/Contract award dates.

b/Waterman ship--assumes sole-source conversion contract awarded to Sun Ship, Inc.

c/Assumes competitive bidding for conversion of Atlantic Bear.

This schedule also shows that it would take about 33 months to construct the first new MPS ship and about 28 months for the second. Converting the third Waterman ship would take about 26 months, while the Atlantic Bear conversion would take about 25 months.

RECOMMENDATION

We recommend that you direct the Secretary of the Navy to carefully examine the feasibility of acquiring and converting existing ships and those currently under construction as an alternative to new construction. This examination should include detailed analyses of all costs and benefits, including

life-cycle costs and plans for effectively supporting the ships when acquired.

SCOPE OF REVIEW

We reviewed the military services' plans for the acquisition of cargo ships for the MPS and fast sealift program. We examined available data on sealift requirements and interviewed officials of Defense, Navy, Army, Air Force, Marine Corps, Rapid Deployment Joint Task Force, MARAD, and maritime industry.

Our review included visits to shipyards and ships of the maritime industry, Navy, and National Defense Reserve Fleet. We obtained construction schedules, conversion schedules, and cost estimates from the Navy, MARAD, and maritime industry for the pre-positioning program. The information on existing ships was compared and analyzed relative to the requirements established for new ships.

With regard to fast sealift ships, we have monitored the program from its inception and have discussed various aspects with Defense and maritime industry personnel. We have discussed the apparent lack of specific requirements during acquisition of these ships with both Defense and the staff of the Subcommittee on Defense, House Committee on Appropriations. We are continuing our efforts in this area as part of a request from the Chairman of the Subcommittee on Defense, House Committee on Appropriations.

We discussed the contents of this report with various officials of the Navy, the Rapid Deployment Joint Task Force, the Military Sealift Command, and MARAD. Their comments were considered and have been incorporated where appropriate.

- - - -

As you know, section 236 of the Legislative Reorganization Act of 1970 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. We would appreciate receiving a copy of these statements.

We are sending copies of this report to the Director, Office of Management and Budget; the Secretary of the Navy; the Chairmen, House and Senate Committees on Armed Services; and the Chairmen of the above-mentioned committees.

Sincerely yours,

A handwritten signature in cursive script that reads "Donald J. Horan".

Donald J. Horan
Director