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A review was conducted of the capabilities of the National Defense Reserve Fleet (NDRF) to meet contingency shipping requirements. This fleet is the only source of reserve dry cargo shipping available during a military or commercial shipping crisis. During the past two decades the fleet performed satisfactorily but Department of Defense (DOD) requirements now depend on faster reactivation. Findings: The number of fleet vessels has been reduced and ships are not kept in condition for activation in time to meet DOD needs. A program has been sponsored to improve 30 Victory ships for faster readiness to satisfy immediate needs. Conclusions: Greater reliance on NDRF to respond to future contingencies will require additional funding. Recommendations: Review the fleet on a continuing basis to assure timely activation; consolidate data into a single NDRF profile; identify spare parts sources and maintain an inventory system; and develop long-range plans for acquiring ships. (HTW)

00079

REPORT TO THE CONGRESS

*BY THE COMPTROLLER GENERAL
OF THE UNITED STATES*

The National Defense Reserve Fleet—Can It Respond To Future Contingencies?

**Department of Defense
Department of Commerce**

The National Defense Reserve Fleet is the only source of break-bulk shipping capacity available in the United States during a military or commercial shipping crisis. The Department of Defense considers it to be vital in contingency planning; but the fleet, which is aging and steadily declining in numbers, cannot at present meet the demands of a national emergency effectively.

If the fleet is to remain a viable asset, capable of providing shipping capacity in a timely manner, then some upgrading is imperative.



COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20541

B-118779

To the President of the Senate and the
Speaker of the House of Representatives

This report discusses the National Defense Reserve Fleet's importance in the time of national emergency. We reviewed the status of the fleet as part of our continuing effort to evaluate the adequacy of U.S. sealift transportation capabilities to meet contingency requirements.

We made our examination pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

We are sending copies of this report to the Director, Office of Management and Budget; and the Secretaries of Defense, Commerce, and the Navy.

A handwritten signature in black ink, reading "James A. Stacks".

Comptroller General
of the United States

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ABBREVIATIONS

GAA	General Agency Agreements
MARAD	Maritime Administration
MSC	Military Sealift Command
NDRF	National Defense Reserve Fleet
DOD	Department of Defense

D I G E S T

The National Defense Reserve Fleet provides supplemental merchant shipping capacity that the United States relies upon during a military or commercial shipping crisis. (See p. 21.)

If this fleet of World War II cargo ships is to be available for callup and use during contingencies, additional financing will be needed not only to condition the ships so that they can respond readily to Department of Defense sealift requirements, but also to acquire newer ships to maintain the useful life of this national asset beyond the 1980s. (See p. 14.)

This fleet is the only source of reserve dry cargo shipping capacity that the United States can turn to during a crisis. Because of the declining number of commercial break-bulk type ships--in contrast to newer "containerized" cargo ships--the Department of Defense has recognized that a greater reliance must be placed on the reserve ships.

On a number of occasions during the 1950s and 1960s the reserve fleet supplemented existing commercial and military sealift capacity performing in a satisfactory manner. (See p. 3.)

In these earlier callups, breakout time--time required to get the ships ready for sea--was not a dominating consideration. Sufficient time was available to put the ships into service in an orderly and planned manner over a period of months. (See p. 3.)

Today, however, Department of Defense planning requires the supplementary sealift to be ready in a much shorter time--within the first 10 to

15 days of a commitment of U.S. Forces or materiel. (See p. 3.)

At present, ships in the reserve fleet are merely maintained and preserved in the condition they were in when deactivated and delivered to the fleet sites at James River, Virginia; Suisun Bay, California; and Beaumont, Texas. The time required to reactivate the ships in this state of preservation could not possibly meet present day Department of Defense needs. (See pp. 3 and 5.)

For example, at the Beaumont, Texas, site, the estimated time required to activate a Victory ship ranged from 18 to 36 days. (See p. 8.)

After GAO's fieldwork on this report had been completed, the Departments of Defense and Commerce jointly sponsored a program to improve the condition of 30 reserve fleet Victory ships so that they can be made ready for service with 5 to 10 days' notice. This program should satisfy immediate needs for emergency supplemental shipping. However, attention also should be given to the remainder of the fleet for future use. (See p. 19.)

To maintain the reserve fleet in a condition ready for emergency service under present requirements, GAO recommends that the Secretaries of Defense and Commerce jointly:

--Review the reserve fleet on a continuing basis to be sure that an adequate number of merchant ships can be activated and deployed within the time required by Defense. (See p. 21.)

GAO further recommends that the Secretary of Commerce direct the Maritime Administration to:

--Consolidate available information on the ships to allow for a quick determination of the condition and status of the fleet. (See p. 21.)

--Identify sources of critical replacement parts to insure their availability at

reactivation and maintain an accurate and up-to-date accountable inventory system for these parts. (See p. 21.)

- Determine which reactivation specifications can be accomplished as a part of the regular maintenance program. (See p. 22.)
- After considering Defense's supplemental shipping needs, develop long-range plans for consideration by the Congress to acquire newer ships for the reserve fleet. (See p. 22.)
- Review reserve fleet funding to determine the level necessary to make sufficient ships responsive to Defense's military needs. (See p. 22.)

The Department of Defense and the Department of Commerce agreed with GAO's findings and the intent of its recommendations. Both wanted to be sure, however, that GAO's report gave full recognition to the joint program to upgrade the 30 ships of the reserve fleet. (See pp. 19 and 20.)

CHAPTER 1

INTRODUCTION

At the end of World War II the United States owned approximately 4,900 war-built ships of over 1,000 gross tons. The Merchant Ship Sales Act of 1946 provided for the disposal of this fleet through the sale of ships to private individuals--first to American citizens, then to noncitizens. The act also created a National Defense Reserve Fleet (NDRF) wherein those ships not sold would be layed up.

The 1946 Merchant Ship Sales Act vested responsibility for the preservation and maintenance of NDRF ships in the U.S. Maritime Commission, a responsibility later transferred to the Maritime Administration (MARAD) of the U.S. Department of Commerce. After consulting with the Department of the Navy, MARAD was to retain those ships which were determined to have a national defense purpose. This included not only ships originally placed in NDRF, but older ships of subsidized operators traded to the Government as a credit toward the cost of a new ship.

The act creating NDRF did not limit the use of reserve fleet vessels to defense purposes. Ships can be chartered to private companies if, after public hearings, it is determined that such charters are necessary to provide an essential service and that privately owned U.S. flagships are not available for charter at reasonable rates and under reasonable conditions.

During military emergencies, as in the case of the Vietnam conflict, NDRF vessels are withdrawn at the request of the Department of Defense (DOD), assigned to the Military Sealift Command (MSC), and are operated by private ship operating firms under general agency agreements to carry DOD cargoes. The private firm is responsible for overseeing repairs, providing crews and stores and, in general, performing those duties necessary to maintain a vessel in active status. MARAD reimburses the ship operators for all the ship's expenses plus a fixed fee to the firm operating the vessel.

Since the end of World War II ships from the reserve fleet have been called into service a number of times. In the 1950s, ships were activated to support American and United Nation Forces in Korea and to continue American aid shipments to friendly nations. Ships were withdrawn again

when the Suez Canal was closed and were later used for grain storage when land facilities became overloaded.

More recently, when the United States became militarily involved in Southeast Asia, one of the first needs was for additional merchant shipping since the number of privately owned, American flagships was insufficient to serve both the military requirements and the Nation's overseas foreign trade. In 1965 ships in NDRF were activated to meet this shortage. The importance of these ships can be seen from the fact that 40 percent of the materiel moving to Vietnam in 1967 was transported by NDRF ships. The availability of this Government-owned reserve shipping prevented a serious disruption of U.S. flag commercial service on many world trade routes.

Over the years the number of NDRF fleet sites and vessels have been reduced. Aging ships no longer considered essential to the national defense were scrapped. At present there are three fleet sites located at James River, Virginia; Beaumont, Texas; and Suisun Bay near San Francisco, California.

NDRF at January 31, 1976, included 130 break-bulk 1/ Victory ships retained by MARAD and an additional 130 military auxiliary ships maintained for the Navy's use. This report addresses only the readiness of the 130 Victory ships retained by MARAD with dry-cargo, break-bulk shipping capabilities. The gradual decline in the availability of commercial ships of this type makes them critical in a contingency where ports lack the sophisticated handling gear required to handle modern container ships.

The Victory ship discussed in this report is a steel-hulled freighter, propelled by a steam turbine with electrically powered auxiliary, deck and cargo machinery. Depending upon the size of the engine room plant--either 6,000 shaft horsepower or 8,500 shaft horsepower--the ship can maintain a sustained speed of 15 or 17 knots. Photographs of a Victory ship are included as appendix I.

1/Break-bulk cargo (including outsized) consists of many units or unitized packages of general cargo requiring a considerable amount of movement and handling for each loading and unloading and for each transportation mode. This is in contrast to containerized cargo which is loaded in a container and moved (often mode to mode) without further handling.

CHAPTER 2

FASTER REACTIVATION NEEDED

TO MEET DOD REQUIREMENTS

During the past two decades the reserve fleet has served the Nation satisfactorily on a number of occasions by supplementing existing commercial and DOD sealift capacity. However, in these earlier callups of NDRF ships, breakout time was not a dominating consideration. Ships were broken out in an orderly and planned manner over a period of months or years. Sufficient time was available in which to make any necessary repairs.

Current DOD contingency planning, however, calls for supplementary sealift in a much shorter time--within the first 10 to 15 days of a commitment of American Forces or materiel. Consequently, if the reserve fleet is to serve as a part of this surge capability it is imperative that these ships be ready to provide transportation support on a much shorter notice than in previous contingency situations. In this context, the value of NDRF is measured in the time-responsiveness of the fleet to meet contingency sealift requirements.

Under the present program, MARAD interprets its basic mission as that of maintaining and preserving retention ships in the condition they were in when deactivated and delivered to the fleet sites. The time it would take MARAD to reactivate ships would not be responsive enough to DOD needs.

NDRF--A VITAL ASSET

Over the past 4 years the Secretary of Defense, the Joint Chiefs of Staff, and other ranking DOD officials have stressed the importance of rapid deployment in the event of a contingency. It follows that a rapid deployment of American Forces and materiel will require a rapid breakout of NDRF Victory ships should they be needed.

Because of the shortage of break-bulk ships, the 130 Victory ships presently maintained by MARAD in NDRF represent a capability that is considered vital in DOD contingency planning. This type of ship has several important characteristics. First, it has the capability of loading and unloading cargo with its own gear as contrasted with the majority of American flag containerships which depend upon highly sophisticated shoreside equipment for loading and discharging. Second, it can accept most types of

outsized military cargo, such as the M-60 main battle tank, self-propelled guns, and large trucks--essential military cargo that cannot be containerized. Third, this break-bulk freighter can carry ammunition. Commercial containers have not been approved for transportation of ammunition. Until the containers are approved, the break-bulk ship must be relied on to transport ammunition.

In the last few years DOD officials have become increasingly concerned with the gradual decline in the numbers of this type of U.S.-flag merchant ship. In 1975 there were no privately owned break-bulk ships less than 5 years old operating under U.S. flag. New dry cargo construction has been of the intermodal type--principally the non-self-sustaining containership.

MARAD'S PRESERVATION PROGRAM

Retention ships at the three reserve fleet sites are maintained and preserved through a program of dehumidification and contact preservation. Schedules showing the name, age, and operating time of the Victory ships at each site as of January 1975 are included as appendix II.

Dehumidification preservation is a process of sealing portions of a ship's interior to prevent the ingress of moisture. Equipment is installed to maintain a relative humidity of about 35 to 40 percent. This dry atmosphere prevents corrosion and deterioration of equipment and materials located in the dehumidification zone.

Contact preservation is a process of coating equipment and metal surfaces with preservation materials, such as special oils, to arrest corrosion. Although this form of preservation is the older of the two processes, MARAD has proven that the dehumidification method is the most effective in preserving the condition of ships in the reserve fleet. The underwater portion of the ship is protected from corrosion by the cathodic protection system which uses the application of an electrical current through the water to the metallic hull. The electricity renders the hull steel inert, so that it will not combine with oxygen to form rust.

Present preservation techniques require that major shipboard systems be disconnected. For example, the ship's cargo winches and attendant gear are stowed below deck. As a result, gear and equipment have not been used and/or tested since the time the ships were deactivated--at least 5 years ago.

In fiscal year 1974 \$1.4 million was spent to preserve the MARAD retention ships. Expenditures included direct preservation, overhead, and indirect costs at the three preservation locations. The average preservation cost per ship was \$7,984 at James River, \$11,081 at Beaumont, and \$12,431 at Suisun Bay.

BREAKOUT TIME WOULD NOT BE RESPONSIVE TO DOD NEEDS

Our review showed that MARAD's estimated time to re-activate a Victory ship varied among the three MARAD fleet locations and in general exceeded the breakout time needed to supplement DOD shipping in the early stages of a contingency. Moreover, the MARAD estimates may be unduly optimistic.

In fiscal year 1972 MARAD partially activated a Victory ship from the James River Reserve Fleet in a test to determine the time and cost to return such a ship to active service. Based on the results obtained it was estimated that the average Victory ship could be reactivated and at berth in 22 days. MSC, the Navy command responsible for providing sea transportation for DOD, felt that this estimate was unduly optimistic because of crowded shipyards, the probable difficulty in obtaining a crew, and the fact that many replacement parts for Victory ships were no longer in inventory. It was also stated that obtaining drydock spaces was a potentially serious bottleneck.

At the three fleet sites we questioned MARAD officials regarding the time it would take to break out the Victory ships and the cost which may be incurred in bringing the ships to an active status. In addition, we asked fleet site officials to provide us with their estimate of the time it would take to break out the vessels and the costs which may be incurred. We also obtained estimates from privately owned shipyards at the fleet sites to get an idea of the reasonableness of current estimates to break out ships. Information on reserve fleet reactivation programs at each site follows.

Beaumont, Texas

Although the Beaumont site had not prepared estimates of the time required to complete standard work specifications on the Victory ships, the regional ship management office estimated that standard drydock work would require 3 days and the topside work 15 days. This would constitute the minimum because problems with machinery could not be

identified until power equipment and engines were activated. The 18 days total does not include contract award, towing to a shipyard, sea trials, and delivery of the ship to a loading berth.

At our request the regional ship management officer prepared time estimates on five hypothetical ships. Estimates started at the time the central region received instructions to activate the ships and included time for posting bid specifications to all master lump sum repair contractors, awarding of contracts on a competitive basis, the 18-day specification work estimates, and other factors cited previously. Estimated times ended when the ships arrived at a loading berth at the New Orleans Port of Embarkation.

When submitting his estimates to us the regional ship management officer added the caveat that:

"* * * if an immediate situation arose that would require the reactivation of a ship out of the Reserve Fleet it would be more than likely accomplished on a negotiated basis. There are many extenuating circumstances which would affect any reactivation that I will not attempt to explain in these paragraphs; however, our normal response to this type of request would be to immediately notify the Fleet Superintendent of the ships to be broken out, and at the same time we would be canvassing the various drydock facilities for reservations to drydock these ships."

Two estimates were provided for each of the following hypothetical situations. One estimate assumed a competitive contract award requiring 6 days to process and the other assumed a negotiated contract requiring one day to process.

Ship A - would be towed from the Beaumont fleet to a drydock in Beaumont, towed to a separate Beaumont shipyard for topside repairs, then sailed to the New Orleans Port of Embarkation (sea trial).

Ship B - would be towed from the Beaumont fleet to a drydock in Galveston, Texas; towed to a separate Galveston shipyard for topside repairs, then sailed to the New Orleans Port of Embarkation (sea trial).

Ships C, D, and E - would be towed from the Beaumont fleet to drydocks in New Orleans; towed to separate New Orleans shipyards for topside repairs; and then subjected to 1-1/2 days of sea trials before movement to the New Orleans Port of Embarkation.

The following table shows the reactivation time estimates resulting from the above:

	<u>Competitive award</u>	<u>Negotiated</u>
Ship A	25-1/2 days	20-1/2 days
Ship B	26 days	21 days
Ships C, D, and E	28 days	23 days

The average reactivation time for the hypothetical ships is at least 27 days assuming competitive contract awards and at least 22 days assuming negotiated contracts.

The only cost estimates available at the central region for standard topside and drydock work were from 2 to 4 years old. These estimates showed that the total reactivation costs for the specifications work would range from \$302,079 to \$495,957.

We requested updated estimates on five selected ships based on wage and price scales in effect at the time we initiated our review in December 1974. The updated estimates and the degree to which estimated reactivation costs have increased are shown below.

<u>Name of ship</u>	<u>Old estimate</u>	<u>Revised estimate</u>	<u>Percent of increase</u>
Linfield Victory	\$373,904	\$664,882	78
Minot Victory	336,540	594,300	77
Beaver Victory	369,974	673,410	82
Princeton victory	302,079	590,549	95
Allegheny Victory	495,957	785,811	58

As shown above, minimum reactivation costs have increased an average of at least 78 percent since the last MARAD estimates were prepared. Central region officials advised us that costs have continued to increase since December 31, 1974. We noted that in the reactivation program during the Vietnam era a significant amount of unanticipated work was required to reactivate the Victory ships.

Consequently, these estimates represent the minimum costs to break out a ship.

We also obtained reactivation time and cost estimates from privately owned shipyards in the Beaumont and New Orleans areas, using the standard topside and drydock specifications and the repair specifications for the Princeton Victory. The following table compares the old and revised MARAD estimates for the Princeton Victory with the estimates furnished by the shipyards.

	<u>MARAD estimates</u>		<u>Estimates by Beaumont area private shipyards</u>
	<u>Old</u>	<u>Revised</u>	
Standard topside	\$223,179	\$481,411	a/ \$ 865,385
Standard drydock	31,955	54,980	93,930
Repair	<u>46,945</u>	<u>54,158</u>	<u>130,593</u>
Total	<u>\$302,079</u>	<u>\$590,549</u>	<u>\$1,089,908</u>

a/A New Orleans area shipyard estimated 484,300 for this cost.

MARAD estimated 15 days for topside work and 3 days for drydocking; one Beaumont area contractor estimated 25 days for topside work, and another estimated 6 days for drydocking. The New Orleans area contractor estimated 30 days for the topside reactivation work. It is apparent from the above that reactivation would cost somewhere between \$591,000 and \$1.1 million, and require between 18 and 36 days to accomplish.

James River, Virginia

In addition to the standard topside and drydock specifications, the James River Fleet site had prepared written work specifications for repairs peculiar to 13 individual ships. Based on these specifications the eastern region had prepared man-hour estimates to perform the minimum amount of work required.

The ship management officer estimated that towing time from the fleet site could be up to 5 days. He noted that in general the reactivation time would depend on the amount of funding and the availability of shipyards. He estimated that at the very earliest the eastern region could break out a Victory ship, from fleet to berth, in 20 days.

In the November 1974 inspection of the James River Fleet, the Norfolk Shipbuilding and Drydock Co., acting as a consultant, estimated that 30 days would be required to re-activate a Victory ship and noted the following bottlenecks:

1. Due to age, extensive steel renewals would be required.
2. Drydock schedules are tight.
3. Shortage of some shipyard labor skills.
4. Renewal parts are scarce or unavailable.

MARAD officials felt the 30-day estimate to be excessive since it was based, to a great degree, on extensive steel renewals. The James River Fleet Victorys were audio-gauged about 5 years ago with minimal deficiencies. Some topside steel was audio-gauged in the 1974 inspection and no appreciable change had taken place. Since the submerged hulls are under cathodic preservation, underwater plating should be in substantially the same condition as when laid up. Regional officials recognize that tight drydock schedules and shortages in some shipyard labor skills could be a problem if those conditions exist at reactivation. In addition, obtaining replacement parts is known to be difficult and will become more difficult as time passes.

Regional officials had not prepared reactivation cost estimates of their own. However, as part of their reactivation evaluation program they developed man-hour estimates to perform work specifications on 13 of the James River Victorys. Depending on the condition of the ships these estimates ranged from 32,000 to 38,500 hours. At our request, officials estimated the current shipyard rates at about \$12 to \$16 per man-hour and we applied this against the reactivation evaluation program man-hours. These rates are presently about \$21 per man-hour. To this we added region estimates of materials and drydock costs.

At our request, an official from the office of domestic shipping provided cost estimates for reactivation. He identified the number of man-hours needed to perform the work in the standard drydock and topside specifications and applied the average labor rate found in the current market for such costs. An overhead rate, the current cost of materials, and a percentage for profit were added. The regional ship management officer said he believed the office of domestic shipping estimates to be accurate. The two estimates are set forth below:

<u>Source of estimate</u>	<u>Reactivation cost</u>
Office of domestic shipping	\$550,000 to 675,000 and up
Eastern region	\$490,000 to 630,000

Suisun Bay, California

At the Suisun Bay Fleet site we found survey reports and individual work specifications on 17 of the 54 ships, survey reports on 25 additional ships, and an individual work specification on 1 ship. Files containing reactivation information were not centrally located. MARAD's personnel could not tell us for certain where the files were. We discovered most were located at the administrative offices at Suisun Bay, some were at the Federal Archives in San Bruno, California, and some were aboard the Pan American Victory at Suisun Bay.

MARAD's western region had assigned an activation sequence to its 54 retention ships. All ships had ultrasonic hull thickness reports from tests conducted during deactivation in 1969-70, and 27 of the 54 ships had gear teeth impression reports for the main reduction gears.

At our request the western region's supervisory marine surveyor made an estimate of time and costs to reactivate a Victory ship based on the standard basic reactivation specifications. He informed us that the basic specifications work would, on the average, comprise 75 percent of the time and cost needed to complete reactivation. He estimated the basic specification work would cost about \$587,209 for topside and drydocking work and would take 20 working days to complete.

These estimates, when projected to 100 percent, give approximately \$783,000 and 27 working days to completely activate a Victory ship from the Suisun Bay Fleet.

UNAVAILABILITY OF SPARE PARTS COULD HAMPER REACTIVATION

The MARAD regions have two basic types of spare parts inventories available to support the fleet--(1) a general warehouse inventory of major equipment and machinery components and (2) a basic spare parts allowance on board each ship. These inventories at June 30, 1974, were as follows:

<u>Fleet location</u>	<u>Major equipment</u>		<u>Shipyard allowances line items</u>
	<u>Line items</u>	<u>Value</u>	
Beaumont	a/ 425	\$ 943,429	6,900
Suisun Bay	283	1,402,320	3,000
James River	<u>1,522</u>	<u>1,798,544</u>	<u>-</u>
Total	<u>2,230</u>	<u>\$4,144,293</u>	<u>9,900</u>

a/In addition to these line items, the central region has 24 parts with an acquisition value of \$145,187 at various locations along the Gulf Coast.

Major inventory components include items such as rotor turbines, steam turbines, generators, booms, and cargo winches. These items are stored under dehumidification in barges at the fleet site or in onshore warehouses. In general our inventory checks of these items were positive; i.e., they were onhand and apparently in good condition.

Basic spare parts allowances are carried on board each ship to meet contingency repairs. At the Beaumont location physical inventories had not been taken since the ships were deactivated around 1970. An inspection of five randomly selected ships in the fleet showed that onboard spare parts were unlabeled and stored in numerous places throughout the ships. Moreover, we could not determine from the inventory records how many of the basic allowance items should be onhand.

Basic spare parts inventories at the other two locations were in a similar condition--generally unlabeled, in loose stock, and stored in numerous places throughout the ship. These parts are a valuable asset to the Fleet because they could be difficult to purchase. Some are out of stock and would require special manufacturing which would be time consuming and very costly.

MARAD Headquarters and regional officials are aware that spare parts shortages could seriously delay efforts to reactivate Victory ships. However, no studies have been made to determine if critical spares are available, how quickly they could be obtained, or if some critical items would have to be machined by the shipyards as they are no longer available off the shelf.

In addition to Victory cargo ships, there are about 47 Victory troop ships at MARAD fleet sites. Most of these ships have been preserved and recently downgraded to a

nonretention status. As these vessels have registered very little running time, it appears they represent a valuable source for acquiring spare parts for the remaining Victory ships in the fleets.

CREWING COULD BE A PROBLEM IN LATE 1970s

One question which has not been resolved is whether ship crews will be available upon reactivation of the Victory ships. When the Victory ships were broken out in support of the Vietnam war there were shortages of skilled seafaring personnel, with shortages of licensed marine engineers and deck officers being the principal cause of delayed and short-handed sailings. A total of 135 NDRF sailings experienced a cumulative delay of 649 days during fiscal year 1969, for an average of 4.8 days delay per ship affected as reported in MARAD's 1969 Annual Report. In fiscal years 1967 and 1968 there were 201 delayed sailings with a respective average of 3.3 and 3.6 days delay per ship affected. To assist in crewing these ships, local, State, and national units of the Selective Service System cooperated by considering occupational deferments for categories of seamen in short supply.

To find out whether shortages of qualified ship personnel may occur in the event of a contingency callup of the reserve fleet, we talked with seafaring union representatives to get their opinions on the availability of crews. Officials in three unions informed us that there is no problem at the present time, nor would they expect any problem in the future. All three unions interviewed operate training programs which could be augmented and expedited to produce greatly increased numbers of qualified men. We were told that many American ships, especially tankers, have been laid up within the past few years leaving many seamen jobless. A 1974 MARAD study, however, indicates that at current levels of new officer development, including their commitment to seafaring careers, a shortage may occur by the end of the 1970s.

The total number of seafaring personnel has declined over the years. Consequently, the availability of crews at any one time could depend to a large degree on economic conditions in the industry.

PRIOR STUDIES ON REACTIVATION

MARAD prepared a study entitled "Analysis of the Requirement for a National Defense Reserve Fleet," revised to September 28, 1973. This study contained the latest projections by MARAD's office of domestic shipping for reserve fleet reactivation. These projections were based on past experience, general condition of the ships, shipyard

manpower availability, shipyard availability and other conditions affecting breakout.

The study projected that all the Victory ships could be reactivated in 8 months on an orderly basis and in 3 months on a crash basis (see app. III). The study defined orderly basis as no great increase in shipyard manpower and having 40 percent of the manpower available for reactivation. It defined crash basis as an increase in shipyard employment to three 8-hour shifts, 30 days a month, with 40 percent of the manpower available for reactivation. (Reactivation time starts upon delivery of the ships to drydock and ends upon completion of sea trials.) The study did not consider the time to award contracts, time to move a ship from the fleet site to drydock, and time for delivery of the ship to a loading berth after sea trials. The study predicted that the acquisition of replacement machinery and spare parts will become a serious problem in the event of a large scale reactivation program.

In November 1974 MARAD issued a study entitled "James River Reserve Fleet Mid-Year Inspection Report." Based on an inspection of the James River Fleet, the report concluded the current preservation procedures "have been sufficient for maintaining the integrity of a basically sound ship structure (hull, main deck) and arresting further deterioration in the dehumidification zone (machinery, boilers, piping, etc.)" but deterioration persists in secondary areas (hull fittings, outfit-ladders, and railings.) The report concluded that overall it has not been possible to achieve a level of preservation needed for these older ships. And like the 1973 study it stated that difficulties obtaining replacement parts could be encountered since Victory ship spare parts are no longer shelf items and only limited replacements are now available from the warehouse inventory. The passage of time can only aggravate the availability of spare parts. This could develop into a formidable bottleneck.

CHAPTER 3

ADDITIONAL FUNDING NECESSARY

IF NDRF IS TO REMAIN A VIABLE ASSET

If NDRF is to remain a viable national asset available for callup and use during contingencies, additional funding will be needed not only for maintaining fleet upkeep so that it could readily respond to DOD sealift requirements, but also to acquire newer break-bulk ships to maintain the useful life of the NDRF beyond the 1980s. The reserve fleet may very well remain one of the primary sources of surge sealift capability for the foreseeable future. Consequently, MARAD and DOD should jointly explore the alternatives available for maintaining all or a predetermined number of vessels at a high level of readiness, as well as consider means to upgrade the fleet with newer ships.

CAN CURRENT FUNDING MAINTAIN STATUS QUO OF SHIPS?

NDRF is presently a valuable national asset in that it can provide shipping in contingencies requiring sealift capacity over and above available commercial and Defense Department shipping. Under present funding, however, the MARAD preservation program can do little more than maintain the status quo of ships in its custody.

For example, the ratio of preservation personnel to ships has remained about the same since 1969 even though a higher level of services presumably is needed to stem accelerated deterioration as the ships become older. Given the increasing age of NDRF, there is a question whether or not the status quo can be sustained in future years at present staffing ratios.

LONG-LEAD MAINTENANCE COULD EXPEDITE REACTIVATION

One consideration in reducing the number of days required to activate fleet vessels would be a program for accomplishing certain long-lead maintenance at the fleet sites. A long-lead maintenance program carried out at the sites would provide for making selected structural or machinery repairs, such as rigging the ships handling gear and activation of the propulsion system. As a consequence these maintenance items would not require the attention of the shipyards during the hectic time of final reactivation.

An official of the Norfolk Shipbuilding and Drydock Co., told us that reactivation time for the Victory ships could be shortened to about 15 days provided certain long-lead maintenance was done before the ship was reactivated. This initial long-lead maintenance could be done in 10 days at the shipyard and would cost about \$200,000. Afterwards, annual maintenance costing about \$15,000 a year could be done on the ship at the James River. This work would allow the Victory ships to be reactivated in about 15 days.

A MARAD Headquarters official confirmed this by saying long-lead maintenance work could speed reactivation time. He added, however, that such work would be costly.

The James River Fleet superintendent told us that while much of the reactivation work could be done at the fleet site, it would not be feasible to do all the work there. The primary reason is that the ships' water intake openings on the bottoms are welded shut with steel plates. To safely remove these plates drydocking is necessary.

The consensus of those involved is that long-lead maintenance would expedite reactivation, but would require additional funding.

NDRF COULD BE UPGRADED WITH NEWER SHIPS

MARAD Victory ships, on the average, are 30 years old (see app. II). At some time in the future, perhaps by the mideighties, it may prove too costly to maintain some or all of these ships in a quick breakout status. One alternative is to upgrade the fleet with newer ships.

At present there are several possible sources of newer break-bulk ships for NDRF in the merchant ship inventory:

"Mariner"-type vessels	16
Break-bulk ships 5 to 19 yrs. old	120
Break-bulk ships 25 yrs. or older	<u>22</u>
Total	<u>158</u>

The Mariner vessels were built by the Government in the early 1950s specifically for national defense purposes and later sold to U.S. flag operators. These 20-knot, 13,400 deadweight ton vessels are considered excellent ships for DOD purposes. The Mariner Bill, passed by the Congress in 1974, authorizes the Secretary of Commerce to acquire Mariner vessels in exchange for vessels in NDRF. (See details under Mariner vessels below.)

Another source of newer break-bulk ships would be those owned by foreign interests.

The availability of any of the above categories for present inclusion in NDRF depends entirely on whether the ship can still earn a profit for its owner. However, the use of break-bulk ships in world trade has been steadily declining. A 1971 U.S. Department of Commerce study prepared for the Office of Naval Research estimated that by 1985 conventional break-bulk freighters would number 30 out of a total projected U.S. flagfleet of 291 ships. In 1975 there were 158 break-bulk ships out of a total of 307 general cargo ships under American registry.

The likelihood of acquiring newer ships for NDRF is discussed below.

Mariner vessels

Under special legislation in 1951, 35 Mariner vessels were built by the Government. Five were turned over to the Navy and the remaining 30 were sold to private U.S. flag operators.

In 1974 the Congress passed a bill (H.R. 12427) which would allow the Secretary of Commerce to acquire Mariner-type vessels in exchange for NDRF obsolete vessels that were scheduled for scrapping. In essence, the owner of a Mariner vessel who contemplated scrapping his ship would be given approximately equal scrap tonnage from NDRF and the Mariner vessel would be preserved as a national defense asset. The bill was signed into law on January 2, 1975, and was to be operative for 2 years. To date no vessels have been acquired under this bill.

Present break-bulk fleet

There are presently 120 break-bulk ships less than 20 years old being operated under the U.S. flag. Seventy-seven are between 10 to 14 years of age. Ships in this latter group are excellent candidate ships to upgrade NDRF.

At present one of the largest break-bulk fleets under the American flag is operated by MSC with ships chartered from American operators. However, D^o overseas cargo movement has declined from a high of 28 million long tons 1/ in

1/A long ton is 2,240 pounds.

1968 to approximately 15 million long tons in 1975. It is, therefore, questionable whether there will be sufficient DOD cargo shipped to justify MSC's continued charter of these ships. Given the further decline of DOD cargo shipments with the American disengagement from Vietnam, it is likely that some of these vessels will be returned to their owners.

Foreign flagships

As of June 30, 1974, there were over 10,000 oceangoing freight type ships of 1,000 gross tons and over in the world fleet inventory. A large number are break-bulk, some of which may be suitable candidates for NDRF.

CONVERSION OF PRESENT GOVERNMENT-OWNED SHIPS TO BREAK-BULK CONFIGURATION

Another possibility for upgrading NDRF is to convert some old--but little used--Government-owned (laid up) troop ships to break-bulk type vessels. At present there are 16 P-2 type transport and 44 AP-5 attack transports in the reserve fleet that would be eligible for conversion.

PREVIOUS ATTEMPTS TO UPGRADE NDRF

Before the Mariner Bill was passed there was an earlier attempt to upgrade NDRF. This was made by the Maritime Administration when it sought \$33 million to purchase 10 newer break-bulk cargo ships for layup in NDRF. The request was twice denied by the Office of Management and Budget in 1972 and 1973 on the grounds that NDRF's role is military in nature and that any determination for improving the reserve fleet should be made by DOD. In essence, the Office of Management and Budget said that if funds were to be requested for this purpose they should be included in the Defense budget.

UPGRADING NDRF IS MOST COST-EFFECTIVE WAY TO PROVIDE DOD WITH BREAK-BULK CAPABILITY

Alternative sources of candidate ships for a continuing NDRF were enumerated above; i.e., American-flag break-bulk ships, foreign-owned break-bulk ships and the conversion of Government-owned troop carriers to a break-bulk configuration. The cost of building a new general cargo ship, having equivalent cargo capability to that of a Victory ship is currently estimated at \$20 to \$20.5 million. When contrasted with the cost of building a new general cargo ship and the likelihood of the Government having to provide an operating

differential subsidy, the alternative of indefinitely maintaining an NDRF by continually upgrading retention ships is probably the most cost-effective method of providing DOD with a break-bulk sealift surge capability. 1/

From May 1972 to November 1974 the ownership of 14 Mariner-type ships exchanged hands. The average net book value of these ships at the time of sale was \$1,286,000. The average sale price was about \$1,639,000.

At present it is estimated that the price for a ship of this type would be about \$2.3 million depending upon current market conditions. It is also reasonable to assume the above figure is a fair estimate of the price for similar ships from foreign sources which may be candidates for NDRF.

The Maritime Administration's Office of Ship Construction estimates that to fully convert a P-2 transport to break-bulk would cost \$11,368,000 and the cost to convert a VC2-S-AP5 attack transport would be \$6,944,000.

The contract price for five new break-bulk ships built in the early 1960s was \$52,866,275; the price of a single ship is \$10,573,255. At today's cost of \$20.5 million each for a Victory ship equivalent, the cost of five such vessels would be \$102,500,000--a cost increase of nearly 100 percent.

The first and second alternatives--adding American flag-ship or foreign ships--would probably be the most economical, particularly with respect to the purchase of American ships since many have national defense features incorporated into their design. Adding Mariner-type ships to the retention list could extend NDRF as a viable source of reserve shipping into the late 1980s. Adding break-bulk ships built in the 1960s would maintain this viability into the 1990s.

The alternative of converting World War II troop carriers--no matter how few--is the most costly option and should probably be considered only after the other alternatives, including purchase of foreign flagships, are fully explored.

1/In fiscal year 1974, the Maritime Administration paid out \$258 million in operating differential subsidies on a total of 173 ships.

CHAPTER 4

AGENCY COMMENTS AND OUR EVALUATION

DEPARTMENT OF DEFENSE

In a letter dated June 15, 1976, the Principal Deputy Assistant Secretary of Defense (Installations and Logistics) stated that DOD concurred in principle with the report's conclusions and recommendations (see app. IV). DOD considered the report to be valuable, constructive in nature and indicated that it should be most useful in addressing mutual matters of interest with the Maritime Administration.

DOD pointed out, however, that the report does not recognize joint efforts currently underway to improve NDRFs' capability to meet DOD contingency requirements. One such effort is the jointly sponsored DOD/Commerce program to upgrade the responsiveness of a portion of NDRF. This effort, initiated after our fieldwork was completed, calls for developing a time-phased activation plan designed to enable 30 selected Victory ships to be fully operational and ready to carry cargo with 5 to 10 days notice. The program includes three phases.

1. Initial preactivation to bring the vessels to a ready status.
2. Preservation activities to maintain the ships in a ready status.
3. A short final reactivation to make the ships fully operational.

In line with DOD's needs for emergency shipping, the plan will provide a high state of readiness for small, fast-breaking contingency situations where it is not feasible to mobilize or requisition existing U.S. flagships in operation. Based on past reactivation requirements and the expected availability of shipyards to undertake final reactivation, 12 ships were selected from each of the James River and Suisun Bay Reserve Fleets and 6 from the Beaumont Fleet.

DOD agreed that crewing of NDRF ships is a potential problem and noted that the report does not comment on the aversion of today's mariners to sail on ships with habitability standards of World War II rather than the comforts of modern carriers. As stated on page 12, we were told by maritime union representatives that crewing of the ships

upon reactivation is not expected to be a problem. The Department of Commerce, which is responsible for administering the agreements for operating the ships, concurs in this.

The Victory ships in NDRF fall far short of habitability facilities provided by modern merchant vessels. We believe that some basic improvements, which could be installed just prior to the ships being placed in service, could materially improve living accommodations on the ships. These would include (1) air-conditioning, (2) better lighting and furnishings for improved crew comfort, and (3) upgraded galley and other facilities.

DEPARTMENT OF COMMERCE

The Assistant Secretary for Maritime Affairs, Department of Commerce, agreed in general with the report findings and the intent of the recommendations (see app. V). He also suggested that the report include coverage of the current DOD/MARAD program to upgrade the readiness of 30 NDRF ships. This program, previously discussed in our evaluation of DOD comments, is being funded in the Department of the Navy budget for fiscal year 1977.

The Assistant Secretary for Maritime Affairs suggested that the report also mention the availability of ships through MARAD requisitioning or under the provisions of the Navy's Sealift Readiness Program. Under the provisions of the Merchant Marine Act of 1936, the Secretary of Commerce can requisition or purchase ships owned by citizens of the United States or under construction when the President proclaims that the security of the national defense makes it advisable or during any national emergency. The Sealift Readiness Program, which is included as a part of DOD's annual competitive procurement of ocean transportation, provides for a time-phased commitment of U.S. flagships to be available for callup to augment DOD's sealift capability during less than full mobilization contingencies.

The Department of Commerce made several suggestions for revisions of specific report segments. These comments have been considered and revisions made in the report where appropriate.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

Currently, NDRF is the only source of reserve dry cargo shipping capacity that the United States can turn to for supplemental transportation during a military or commercial shipping crisis. Because of the declining number of break-bulk-type ships in the commercial fleets and the decrease in the size of the MSC-controlled fleet, DOD has recognized that a greater reliance must be placed on NDRF to respond to future contingencies.

DOD and MARAD have jointly sponsored a program to upgrade a portion of NDRF. This program should satisfy the immediate need for supplemental shipping. However, attention should also be given to the remainder of the fleet for future use.

RECOMMENDATIONS TO THE SECRETARIES OF DEFENSE AND COMMERCE

To maintain NDRF in a condition that would enable it to respond to shipping augmentation requirements, we recommend that the Secretaries of Defense and Commerce jointly:

--Review the reserve fleet on a continuing basis to be sure that an adequate number of merchant ships can be activated and deployed within the time required by DOD.

We further recommend that the Secretary of Commerce direct the Maritime Administration to:

--Consolidate all available data into a single NDRF profile so that the condition and status of the fleet is more easily determined and determine if other pertinent data needs to be included in the profile.

--Identify critical spare parts and replacement sources to insure their availability at the time of activation. Cannibalization of NDRF Victory troop ships scheduled to be scrapped is one such source.

--Implement and maintain an accurate and up-to-date accountable inventory system for basic spare parts. This should include regularly scheduled physical inventories and a method of spare parts identification,

including labeling and/or specific storage location.

- Determine which reactivation specifications can be accomplished as a part of the regular maintenance program.
- After considering DOD's supplemental needs for shipping capability, develop a long-range plan for consideration by the Congress to acquire newer ships for NDRF as they become available. This plan should identify and recommend solutions to any past or future problem areas in this regard.
- Review NDRF funding to determine the level necessary to make enough ships responsive to DOD's military needs.

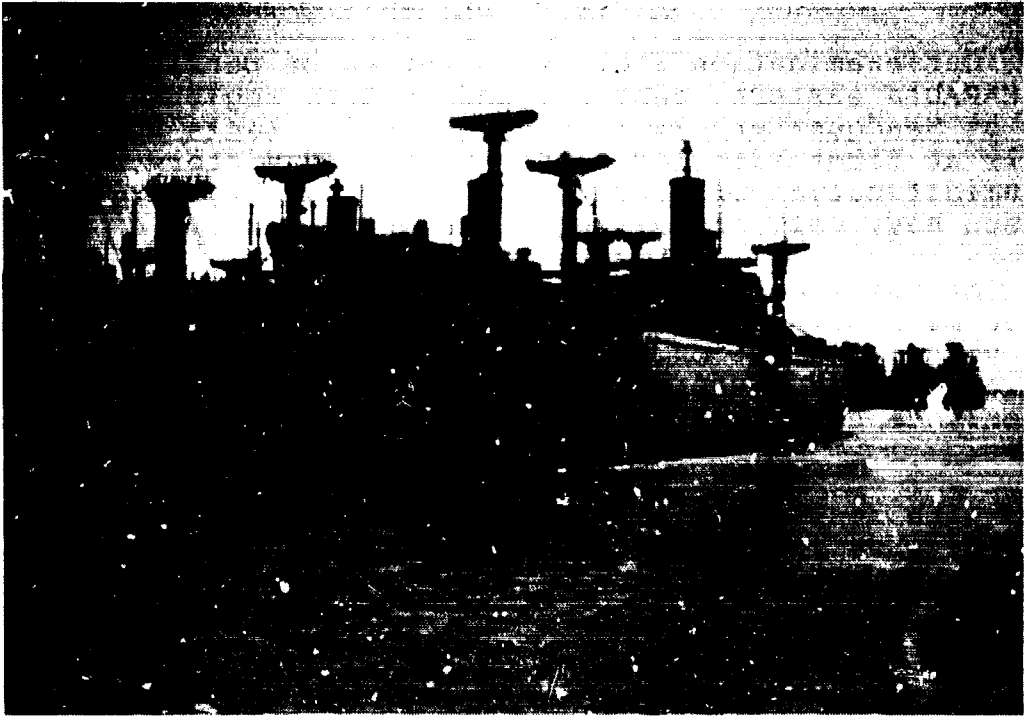
CHAPTER 6

SCOPE OF REVIEW

Our examination included a review of pertinent records at MARAD's eastern, central, and western regional offices and at Headquarters in Washington, D.C. We talked with officials at fleet site locations and toured Victory ships under dehumidification preservation at James River, Virginia; Suisun Bay, California; and Beaumont, Texas.

At the fleet sites we inspected ship inventories of major machinery and equipment components held in reserve for vessel activation. In connection with ship activation, we interviewed MARAD officials at the sites and officials of private shipyards located in the vicinity of fleet sites.

With respect to past and present NDRF policies and programs, we interviewed officials at MARAD Headquarters in Washington, D.C.



VICTORY SHIPS

JAMES RIVER RESERVE FLEET SHIPS' HISTORIES

<u>Victory ship</u>	<u>Age as of Jan. 1975 (years)</u>	<u>Total operating time</u> (years) (months)	
Greeley	29	10	0
American	30	8	8
Gretna	30	11	4
Catawba	29	8	8
Beatrice	30	7	10
Carroll	30	14	0
Sharon	30	10	6
Lawrence	30	14	11
Joplin	31	12	2
Loma	30	11	6
Hobart	29	8	4
Durango	30	9	4
Burbank	29	8	11
Tulane	30	11	0
Rice	29	8	10
Brigham	30	11	4
Duke	30	11	1
Elko	30	11	1
Lynn	29	10	0
Britain	31	12	2
Cornell	30	8	8
Anchorage	30	9	1
Laredo	30	10	5
Oshkosh	29	9	4
Santa Clara	30	13	7
Vanderbilt	30	8	9
Wayne	30	11	5
Manderson	30	9	7
Bessemer	29	13	2
CCNY	29	8	10
Drury	29	13	0
Kenyon	30	10	0
Lafayette	30	7	10
Newcastle	30	9	9
Rutgers	30	12	10
Albion	30	10	3
Clarksville	30	9	2
Denison	30	10	0
Green Bay	30	12	4

APPENDIX II

APPENDIX II

<u>Victory ship</u>	Age as of Jan. 1975 (years)	Total operating time	
		(years)	(months)
Halaula	30	8	10
Harvard	30	9	8
Oberlin	30	11	9
Selma	30	11	1
Southwestern	30	9	6
Wesleyan	30	10	4
Roswell	30	<u>Not available</u>	
	<u>1,372</u>	<u>452</u>	<u>226</u>

Average age: 29.8

Range: 29 years to 31 years

Average operating time: 10 years, 6 months

Range: 7 years, 10 months to 14 years, 11 months

SUISUN BAY RESERVE FLEET SHIPS' HISTORIES

<u>Victory ship</u>	<u>Age as of Jan. 1975 (years)</u>	<u>Total operating time</u>	
		<u>(years)</u>	<u>(months)</u>
Hunter	30	10	10
Red Oak	30	7	6
Lane	30	9	1
Council Bluffs	29	8	0
Hannibal	30	7	9
Bucknell	30	9	4
Hamilton	29	6	6
Loyola	30	12	0
Las Vegas	30	5	11
Elmira	31	9	8
Nashua	29	6	7
Winthrop	30	7	0
Earlham	29	7	8
St. Augustine	29	9	8
Alfred	30	7	4
Mercer	30	7	5
Occidental	30	7	10
Pacific	29	7	7
Sioux Falls	30	9	3
Rider	30	13	4
Meredith	29	10	0
Barre	29	6	7
Mayfield	30	7	4
Central	30	9	3
Berkely	30	8	11
Queens	30	9	10
Pan American	29	12	8
Ocala	30	7	6
North Platte	29	9	5
Brazil	31	9	6
DePauw	30	7	8
Massillon	30	7	11
Mublenberg	29	7	10
Purdue	30	10	2
Barnard	30	7	3
Grove City	30	11	8
Lindenwood	29	7	6
Hope	30	9	7
Lakewood	30	8	1
Malden	30	12	2
Great Falls	29	10	7

APPENDIX II

APPENDIX II

<u>Victory ship</u>	<u>Age as of Jan. 1975 (years)</u>	<u>Total operating time</u>	
		<u>(years)</u>	<u>(months)</u>
Lahaina	30	9	6
Berea	30	10	2
Swarthmore	30	10	4
Clearwater	30	8	9
Morgantown	30	11	8
Navajo	31	15	9
Crieghton	30	10	1
Adelphi	30	7	3
Fenn	30	8	8
Frontenac	30	8	9
Xavier	30	7	5
Clarksburg	29	10	5
Bowdoin	30	10	6
Woodstock (note a)	30	-	-
Provo (note a)	30	-	-
Boulder (note a)	30	-	-
Carleton (note a)	31	-	-
Valdosta (note a)	31	-	-
	<u>1,761</u>	<u>465</u>	<u>316</u>

Average age: 29.8

Range: 29 years to 31 years

Average operating time: 9.1 years

Range: 5 years, 11 months to 15 years, 9 months

a/These ships are maintained under contact preservation and will be used as a source of critical and basic spare parts for the remaining 54 Victory ships.

BEAUMONT RESERVE FLEET SHIPS' HISTORIES

<u>Victory ship</u>	<u>Age as of Jan. 1975 (years)</u>	<u>Total operating time</u> (years) (months)	
Linfield	29	13	1
Belgium	31	12	2
Gainesville	30	11	9
Meridian	31	11	10
Minot	30	9	8
Cuba	30	11	7
Canton	29	12	2
Princeton	30	9	6
Asbury	29	8	11
Enid	30	14	10
Hattiesburg	29	9	0
Battle Creek	29	9	6
Amarillo	29	9	5
Citadel	30	10	1
Pine Bluff	29	13	8
High Point	29	9	4
Drake	30	9	1
San Mateo	29	15	8
Tucson	29	11	7
Whittier	30	9	8
Allegheny	29	11	7
Grinnell	30	8	3
Anniston	30	9	1
Beaver	30	11	3
Cedar Rapids	<u>30</u>	<u>4</u>	<u>11</u>
	<u>741</u>	<u>256</u>	<u>139</u>

Average age: 29.6

Range: 29 years to 31 years

Average operating time: 10 years, 8 months

Range: 4 years, 11 months to 15 years, 8 months

MARAD'S ESTIMATED REACTIVATION RATESSEPTEMBER 19781. Orderly Basis

<u>Period</u> <u>(months)</u>	<u>Eastern</u> <u>region</u>	<u>Central</u> <u>region</u>	<u>Western</u> <u>region</u>	<u>Total</u>
1	7	4	5	16
2	7	4	5	16
3	9	5	7	21
4	9	5	7	21
5	10	5	9	24
6	4	2	9	15
7	-	-	9	9
8	-	-	8	8
	<u>46</u>	<u>25</u>	<u>59</u>	<u>130</u>

2. Crash Basis

<u>Period</u> <u>(months)</u>	<u>Eastern</u> <u>region</u>	<u>Central</u> <u>region</u>	<u>Western</u> <u>region</u>	<u>Total</u>
1	17	10	14	41
2	23	11	20	54
3	<u>6</u>	<u>4</u>	<u>25</u>	<u>35</u>
	<u>46</u>	<u>25</u>	<u>59</u>	<u>130</u>



ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

15 JUN 1976

INSTALLATIONS AND LOGISTICS

Mr. F. J. Shafer
Director, Logistics and Communications Division
U.S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Shafer:

The Secretary of Defense has requested that I respond to your letter of April 16, 1976, transmitting a draft report on the ability of the National Defense Reserve Fleet (NDRF) to respond to future contingencies (Code 943238) (OSD Case #4342).

The conclusions and recommendations contained in the report are concurred with in principle. Several joint efforts are currently under way to improve the capability of the NDRF to meet DoD contingency requirements, among which is the jointly initiated Department of Defense and Department of Commerce program to upgrade the responsiveness of a portion of the NDRF. This program, not presently addressed in the report, is now funded in the Department of the Navy budget in FY 77, is included in future budget planning, and should provide a NDRF Ready Reserve Force (RRF) of 30 ships in a 5-10 day readiness status when complete. It is recommended that the report be modified to include recognition of this joint DoD/Commerce program.

The relative importance of the NDRF will be determined by the specific requirements of a contingency. Comparison of the delivery capability of shipping available from the MSC controlled fleet, the NDRF and the SRP indicates that while the NDRF contains 49% of the number of ships available, these ships represent only 25% of the overall delivery capability. However, while the NDRF ships are relatively slow, small and unproductive by comparison with today's more modern merchant ship designs and would take time to activate, they represent an important asset. As pointed out in the study, the gradual decline in the availability of commercial conventional break bulk ships makes them a key element

in a contingency where ports lack the sophisticated handling equipment required to handle modern container ships, and for cargo not amenable to containerization. In this respect, we would emphasize our agreement with the recommendation for acquiring newer ships for the NDRF.

It is concurred that crewing of NDRF ships is a potential problem area. A most important aspect, not noted in the report, is the aversion of today's mariners to sail on ships with habitability standards of World War II rather than the comforts of modern carriers. Without further analysis or knowledge of the availability of licensed officers and seamen at some future date, or an established agreement with the maritime unions, the assurances of union officials that there would be no problems in manning the ships may be over-optimistic.

The Department of Defense shares the concern of the GAO and MARAD authorities with respect to the availability of critical replacement and spare parts. This matter is currently being examined by both the Maritime Administration and the Navy to determine what measures can be taken to ensure parts on stricken ships can be salvaged and retained for use in NDRF ships which may be activated to support future sealift contingencies.

We consider this to be a valuable report, constructive in nature, which should prove most useful in addressing mutual matters of interest with the Maritime Administration.

Sincerely,



JOHN J. BENNETT
Principal Deputy Assistant Secretary of Defense
(Installations and Logistics)



UNITED STATES DEPARTMENT OF COMMERCE
The Assistant Secretary for Administration
Washington, D.C. 20230

JUL 12 1976

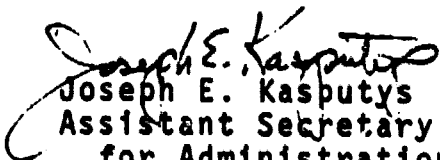
Mr. Victor L. Lowe
Director, General Government Division
U. S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Lowe:

This is in reply to your letter of April 16, 1976, requesting comments on the draft report entitled "The National Defense Reserve Fleet - Can It Respond To Future Contingencies?"

We have reviewed the enclosed comments of the Assistant Secretary for Maritime Affairs and believe they are responsive to the matters discussed in the report.

Sincerely,


Joseph E. Kasputys
Assistant Secretary
for Administration

Enclosure



UNITED STATES DEPARTMENT OF COMMERCE
The Assistant Secretary for Maritime Affairs
Washington, D.C. 20230

July 2, 1976

Mr. Victor L. Lowe
Director
General Government Division
U.S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Lowe:

This refers to your letters of April 16, 1976, to the Secretary of Commerce and to me requesting our comments on your draft report entitled, "The National Defense Reserve Fleet - Can It Respond to Future Contingencies?" (Code 943238). The Secretary of Commerce has authorized me to comment on his behalf.

We consider this to be a useful and constructive report, and we concur, in general, with the intent of its recommendations. However, we feel that the report would be more informative if it were to include coverage of the Navy/MarAd program, initiated early in 1975, to increase the readiness of 30 NDRF ships. The objective of that program is the same as the objective of the program suggested in the draft report's first recommendation to the Secretaries of Defense and Commerce.

The other seven recommendations to the Secretary of Defense and the Secretary of Commerce refer to actions that actually lie exclusively within the statutory purview of the Secretary of Commerce. We would suggest that they be directed to him alone. We agree basically with their objectives and we intend to continue, within the limits of available funding, to work towards the accomplishment of those objectives.

If sufficient funds were available, all of the Reserve Fleet ships could be placed in the same high state of readiness that is currently planned for the 30 that are to be included in the noted Navy/MarAd upgrade program. However, on the basis of contingency needs currently anticipated by DOD and MarAd, there is not a requirement for appreciably more than 30 ships in the planned 5-10 day readiness status. Thus, more deliberate reactivation, and correspondingly less costly maintenance, continue for now to be appropriate for the remainder of the NDRF ships.

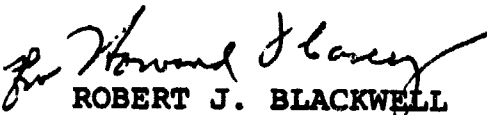
We understand the concern expressed in the draft report regarding the crewing of reactivated NDRF ships. However, our contacts with the maritime unions confirm the information in the report; i.e., that the unions will respond in emergencies. Furthermore, we do not foresee a shortage of seagoing personnel for this purpose because the number of seamen in the active labor force exceeds the number of billets on operating U.S.-flag vessels by more than two to one. Thus, at any time, more than half of the seagoing labor force is ashore. There are more than 20,000 seamen in this category now, far in excess of the requirement for NDRF manning, and the number is not expected to decline appreciably in coming years.

We fully agree with the draft report's conclusion that the NDRF is this country's only readily available source of reserve dry cargo shipping capacity. However, it would probably be useful if the report were to include mention of the emergency availability of ships from the commercial fleet either through requisitioning by MarAd or under the contractual provisions of the Navy's Sealift Readiness Program. The time-phased availability of commercial ships has considerable bearing on the time phasing that is necessary in NDRF reactivation.

Some suggestions for specific additions, deletions, and modifications to the draft report are offered in the enclosure hereto.

I appreciate the opportunity to comment on this useful and constructive draft report. If I can be of further assistance, please let me know.

Sincerely,


ROBERT J. BLACKWELL
Assistant Secretary
for Maritime Affairs

Enclosure

PRINCIPAL OFFICIALS RESPONSIBLE FOR
ACTIVITIES DISCUSSED IN THIS REPORT

Tenure of office
From To

DEPARTMENT OF DEFENSE

SECRETARY OF DEFENSE:

Donald Rumsfeld	Nov. 1975	Present
James R. Schlesinger	July 1973	Nov. 1975
William P. Clements, Jr. (acting)	Apr. 1973	July 1973
Elliot L. Richardson	Jan. 1973	Apr. 1973
Melvin R. Laird	Jan. 1969	Jan. 1973

DEPUTY SECRETARY OF DEFENSE:

William P. Clements, Jr.	Jan. 1973	Present
Kenneth Rush	Feb. 1972	Jan. 1973

ASSISTANT SECRETARY OF DEFENSE
(INSTALLATIONS AND LOGISTICS):

Dr. John J. Bennett	Apr. 1975	Present
Arthur I. Medolia	June 1973	Mar. 1975
Barry J. Shillito	Feb. 1969	Feb. 1973

DEPARTMENT OF THE NAVY

SECRETARY OF THE NAVY:

J. William Middendorf, II	Aug. 1973	Present
John W. Warner	May 1972	Aug. 1973
John H. Chafee	Jan. 1969	Apr. 1972

ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS AND LOGISTICS):

Jack L. Bowers	June 1973	Present
Charles L. Ill	July 1971	May 1973
Frank Sanders	Feb. 1969	July 1971

MILITARY SEALIFT COMMAND:

R. Adm. Sam H. Moore	Jan. 1975	Present
V. Adm. John D. Chase	Nov. 1971	Jan. 1975
V. Adm. Roberts Gralla	Mar. 1970	Nov. 1971
V. Adm. Lawson P. Ramage	Nov. 1967	Mar. 1970

DEPARTMENT OF COMMERCE

SECRETARY OF COMMERCE:

Elliot L. Richardson	Feb. 1976	Present
Rogers C. B. Morton	Mar. 1975	Jan. 1976
Frederick B. Dent	Feb. 1973	Mar. 1975
Peter G. Peterson	Feb. 1972	Feb. 1973

ASSISTANT SECRETARY FOR MARITIME
AFFAIRS - MARITIME ADMINISTRATOR:

Robert J. Blackwell	July 1972	Present
Andrew E. Gibson	Mar. 1969	July 1972