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BY THE COMPTROLLER GENERAL

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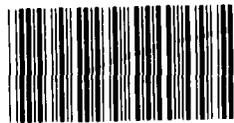
# Report To The Congress

OF THE UNITED STATES

## Observations On The Fleet Support Provided By The Navy's Shore Installations In The Western Pacific And Indian Ocean

This report is the unclassified version of GAO's SECRET, NOFORN report LCD-78-426. It addresses the key questions that GAO believes should be answered as part of the Navy's requirements determination for shore-based ship maintenance support in the Western Pacific and Indian Ocean. For example:

- What is the Navy's wartime role in the Pacific and Indian Ocean?
- Do U.S. Navy forces in the Pacific exceed contingency requirements?
- Can the Navy afford to continue to retain extensive Western Pacific shore facilities to meet all contingencies?
- Has the Navy adequately determined wartime and peacetime ship maintenance requirements for the Western Pacific?



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LCD-78-426A  
JANUARY 26, 1979





COMPTROLLER GENERAL OF THE UNITED STATES  
WASHINGTON, D.C. 20548

B-133170

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

*CWO 44491*

This report discusses the key questions that should be answered as part of the Navy's requirements determination for shore-based ship maintenance support in the Western Pacific and Indian Oceans. Specifically, what will the wartime ship maintenance requirements be, and what level of peacetime capability should be maintained to meet these requirements?

We conducted this review because the answers to these key questions should better enable the Congress to determine the essentiality of these facilities in setting funding priorities for the Navy's logistic support and construction requirements in the Western Pacific and Indian Oceans and in discussing future base rights agreements. The need for all of the Navy's shore-based logistics support facilities in the Western Pacific should be based on indepth studies of the Navy's wartime requirements. However, because of the congressional concern about increasing costs for ship maintenance, and our recent work on the Navy's intermediate and depot level ship maintenance programs, we focused on the Navy's ship repair activities in the Western Pacific.

We made our review pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), the Accounting and Auditing Act of 1950 (31 U.S.C. 67), and 10 U.S.C. 2313(b).

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

*Thomas A. Stearns*  
Comptroller General  
of the United States



D I G E S T

Has the Navy adequately provided for its fleet maintenance support needs in the Western Pacific and Indian Ocean? Has the Navy properly responded to force level and strategy changes in establishing these needs? These are the key questions GAO set out to answer. Although GAO was not provided the specific data needed for a more complete analysis to answer these questions, GAO did gather sufficient data to conclude that the Navy's fleet maintenance resources in the Western Pacific and Indian Ocean are not soundly based.

The purpose of this report is to provide an analytical framework, setting forth the key questions that bear on fleet maintenance readiness. The Seventh Fleet consisted of about 160 ships during peak operations in Southeast Asia. Today the fleet consists of about 50 ships. In spite of this, the Navy continues to maintain an extensive shore establishment to provide the reduced fleet logistics support. (See pp. 1 and 3.) The fleet reduction has led to idle capacities and has increased costs at the ship repair facilities.

(The Navy continues to operate ship repair facilities at Subic Bay, Yokosuka, and Guam in the Western Pacific at substantially reduced workloads and employment levels. This is in addition to an extensive ship maintenance capability available through commercial contractors in Japan and Singapore.)

Positive action has been taken, however, to reduce overhead costs as much as possible. But Navy officials believe the primary contributors to increased costs are worldwide

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required and available U.S. Navy force level for meeting these contingencies.

--the Defense policy for Asia, (see p. 9)

--the potential contribution from Japan, (see p. 13)

--base negotiations in the Philippines, (see p. 16)

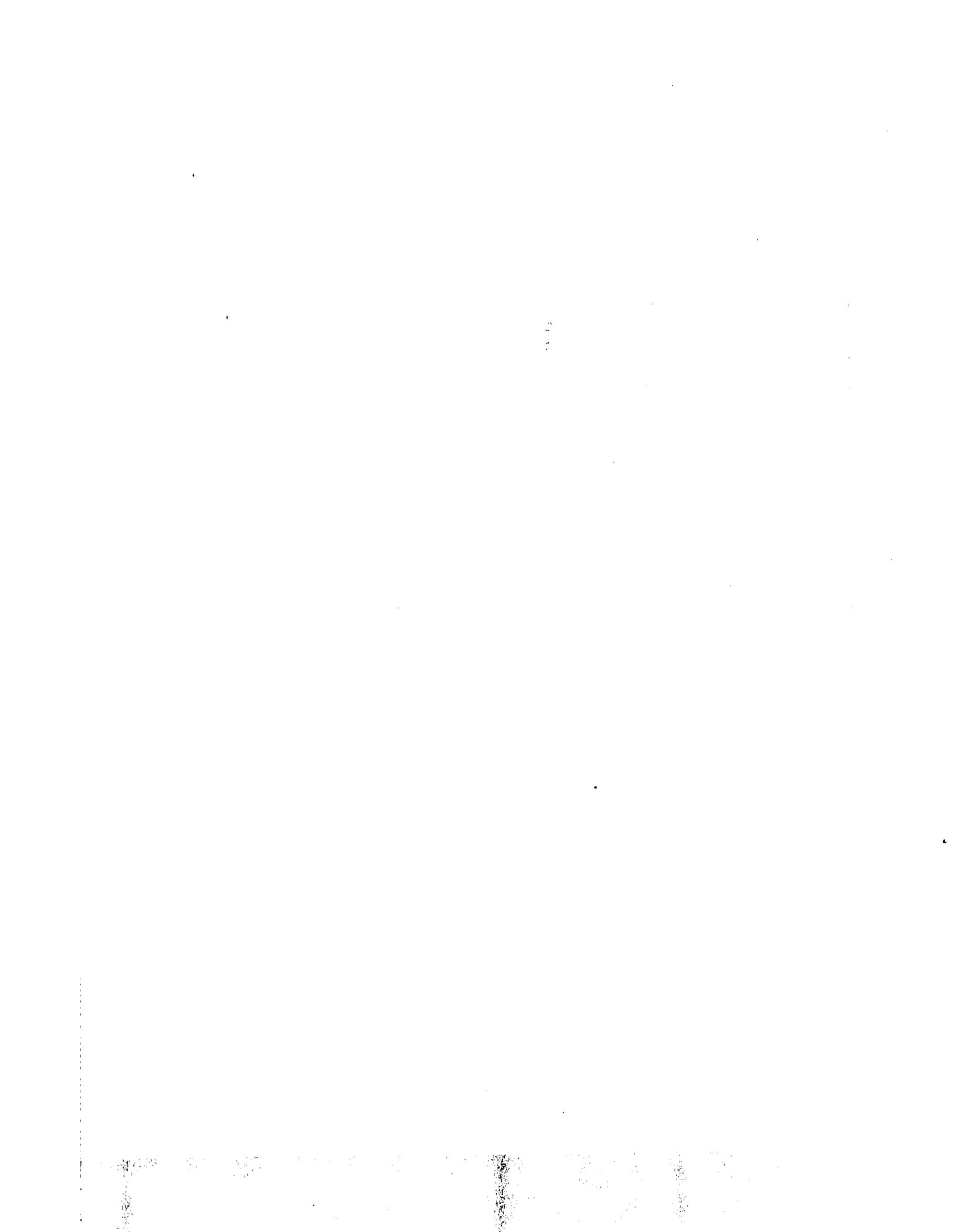
--possible deployment of U.S. Pacific Fleet forces for a NATO contingency, (see p. 17) and

--the potential for increasing the contribution of land-based air to the Navy war. (See p. 20.)

The Congressional Budget Office has said that (1) the Soviet Pacific Fleet could have difficulties sustaining operations from its bases in East Asia and (2) the U.S. contribution to a conflict in Korea should be primarily logistics and tactical air support. According to the Budget Office, Navy forces currently deployed in the Pacific appear to exceed the requirements of either a conflict in Korea or the threat from the Soviet Pacific Fleet. (See pp. 11, 12, and 21.) Representatives from the Brookings Institution have concurred with the Congressional Budget Office statements.

GAO is concerned with the level of U.S. Navy forces because it is the primary factor in determining wartime ship maintenance requirements. (See p. 38)

The size of Pacific Theater Navy deployment for these scenarios has been questioned. Since the definition of peacetime ship maintenance support requirements should include consideration of wartime deployment requirements, the level of ship maintenance resources also needs to be questioned. (See p. 38.)



FACILITY CONSTRUCTION REQUIREMENTS  
SHOULD BE BASED ON WARTIME NEEDS

The Navy has identified peacetime construction requirements for its Western Pacific shore activities that cost \$100 million. The need for this construction should be related to the wartime requirements of these activities. When these have been determined, the Navy will be better able to assure that only essential facilities are modernized. (See p. 46.)

NAVY COOPERATION AND RESPONSIVENESS

Navy officials were cooperative in providing information on peacetime operations. However, because of policy decisions to not release wartime planning data, the basic questions remain: What are the wartime ship maintenance requirements for Western Pacific and Indian Ocean operations? What level of peacetime capability should be maintained to meet these requirements? (See p. 50.)

GAO is continuing to work with DOD, the Joint Chiefs of Staff, and all of the services on the release of information GAO needs to completely evaluate wartime logistics support requirements. GAO's role is not to develop the scenarios and the logistics support requirements, but to identify potential problems and work with DOD and the services to resolve problems in meeting these requirements. GAO hopes that in the future the information GAO requires will be complete and received more rapidly.

The Navy is working toward identifying its ship maintenance requirements and the staff needed to accomplish them. (See pp. 41 and 49.)

If properly developed, these efforts could help determine wartime maintenance and staffing requirements.

RECOMMENDATIONS

The Secretary of Defense should reassess the requirements for ship maintenance in the

inflation and a reduction in the value of the U.S. dollar. (See p. 27.) GAO believes these developments provide even more reasons why the Navy should review its ship maintenance practices to assure that key economical approaches have been considered. (See p. 29.)

Defense officials stated that the primary justification for retaining the depot maintenance capacity is that it meets contingency requirements. Although the Navy had computed wartime maintenance requirements for these activities, their determinations were not current, nor were they systematically developed. GAO believes that determinations of the maintenance resources needed in peace and war requires the following steps.

- Establishing wartime deployment requirements and, from this, the expected wartime maintenance requirements.
- Matching the wartime requirements with refined peacetime requirements.
- Determining the most appropriate peacetime capability that will minimize excess capacity and provide the base needed for wartime requirements. (See p. 26.)

Defense and the Navy should be prepared to answer GAO's key questions raised in chapters 2 and 3 to the appropriate congressional committees. The answers to these questions should help the Congress determine the essentiality of these shore-based facilities when setting funding priorities for the Navy's logistic support and construction requirements in the Western Pacific and Indian Ocean, as well as when any base rights negotiations are considered.

#### WHAT ARE THE NAVY FORCE REQUIREMENTS FOR PACIFIC AND INDIAN OCEAN CONTINGENCIES?

Possible contingencies in the Pacific and Indian Ocean could include a worldwide war with the Soviets, a conflict in Korea, or a smaller brush fire conflict. Many issues must be considered when determining the

prompt and sustained combat operations during wartime and to meet peacetime operations. GAO also recognizes that ship repair activities contribute to these goals.

However, GAO's concern is the level of peacetime capability that is necessary for meeting essential peacetime needs and for providing the base needed for wartime requirements. GAO believes that the Navy must first determine the current wartime requirements before it establishes the most appropriate peacetime ship maintenance capability.

Costs are increasing at the ship repair facilities. Further, balance of payments considerations regarding continued ship repair work in Japan and the results of base negotiations in the Philippines are important issues that will need to be addressed when determining where ship maintenance should be performed. Reasonably accurate predictions of wartime ship maintenance requirements are important for identifying what capacity is needed, where it is needed, and how much peacetime capacity should be maintained to meet these requirements.

These difficult analyses may take several years to complete. GAO will monitor the implementation of its recommendations to determine whether effective corrective actions are taken.

CAN THE NAVY AFFORD TO CONTINUE ITS  
EXTENSIVE WESTERN PACIFIC SHORE  
FACILITIES TO MEET ALL CONTINGENCIES?

Pacific Fleet officials stated that an extensive shore-based logistics support structure is needed in the Western Pacific.

The Navy believes that its forces must be as self-sufficient as possible. However, the self-sufficiency concept can duplicate support activities, increase costs, and cause inadequate consideration of alternatives. (See p. 30.)

One alternative that deserves more consideration is the increased use of commercial ship repair facilities in the Western Pacific. Increased reliance on these facilities could reduce the Navy's wartime capability needs and the peacetime capacities that should be maintained to meet these requirements. (See p. 33.)

SYSTEMATIC ANALYSES OF  
WARTIME SHIP MAINTENANCE  
REQUIREMENTS ARE NEEDED

The Navy has planned for an increase in activity and staffing at the Western Pacific ship repair activities during war. However, this increase in activity has not been systematically developed from a detailed analysis of the probable workload from modern war conditions.

Wartime staffing requirements at the ship repair facilities are, according to officials, based on the best estimates of the facilities' commanding officers. However, GAO believes that the wartime staffing requirements may not be based on the best available maintenance data and staffing criteria because these are still being developed by the Navy through the Ship Support Improvement Project and the staffing standards program. (See pp. 40 and 44.)

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Western Pacific and Indian Ocean and direct the Navy to:

- Quantify total wartime and peacetime ship maintenance requirements for Western Pacific and Indian Ocean operations.
- Define specifically how much maintenance should be performed by ships' forces, intermediate maintenance activities, depot level activities, and commercial contractors.
- Match these refined wartime ship maintenance requirements with refined peacetime needs to determine what peacetime capability should be retained and modernized. (See p. 49.)

#### AGENCY COMMENTS AND GAO'S EVALUATION

GAO met with Defense, Joint Chiefs of Staff, and Navy officials to discuss the issues raised in this report. Their comments regarding these issues have been included in the report where appropriate.

Officials initially told us that the wartime requirements have been computed based on ship deployments and that these requirements were further translated into who would perform the tasks, ships' forces, intermediate maintenance and depot activities. Upon further questioning GAO found that these requirements were not current nor were they based on a systematic analysis of needs. This lack of maintenance requirement specificity including who should perform this maintenance, and what level of peacetime capability should be retained and modernized to meet potential wartime needs has been previously addressed in other GAO reports (See p. 41.)

However, the officials stressed that the ship repair facilities currently perform a vital peacetime role by providing ship repair that keeps Navy ships in a high state of readiness for potential contingencies.

GAO agrees that Navy ships should be maintained in a high state of readiness to conduct

## CHAPTER 1

### INTRODUCTION

The U.S. Seventh Fleet supports U.S. interests in the Western Pacific and Indian Oceans. With 50 ships, 450 Navy and Marine aircraft, and 50,000 Navy personnel, it is a formidable fighting force. Keeping this fighting force combat ready requires a large expenditure of funds for maintenance and material support. As indicated on the map on the following page, the Navy maintains an extensive shore establishment in the Western Pacific to provide this support. For example, with about 3,400 direct labor employees, the ship repair facility (SRF) at Subic Bay compares in size with U.S. Navy shipyards in Portsmouth, Philadelphia, Charleston, and Pearl Harbor. SRF Subic has a large capability and, during the height of Vietnam operations, serviced an average of 110 ships per month. Another capability is SRF Yokosuka. Since establishment in 1947, SRF Yokosuka has been modernized and its scope of operations has been increased to that comparable to Navy shipyards. Ship repair is also performed at SRF Guam, at Navy tenders, and at contractor activities in Japan and Singapore. Pictures of the ship repair facilities at Subic Bay, Yokosuka, and Guam are shown on pages 4, 5, and 6.

In addition to these ship repair facilities, there are three naval supply depots in the Western Pacific. The depot at Subic Bay, with 148,000 line items valued at \$137 million, is almost twice the size of the Naval Supply Center at Pearl Harbor, which carries about 85,000 line items valued at about \$60 million.

Other shore-based logistics support activities include naval air stations, aircraft repair facilities, and ammunition storage facilities. The Navy also maintains a support facility at Diego Garcia in the Indian Ocean. Fiscal year 1977 operating costs for these activities and the support activity at Diego Garcia were:



<u>Facility</u>	<u>Fiscal year 1977</u> <u>Operating costs</u> <u>(note a)</u>  (millions)
The Philippines:	
Ship Repair Facility, Subic Bay	\$ 14
Naval Supply Depot, Subic Bay	8
Naval Magazine, Subic Bay	2
Naval Air Station, Cubi Point	6
Japan:	
Ship Repair Facility, Yokosuka	33
Naval Supply Depot, Yokosuka	21
Naval Ordnance Facility, Sasebo	9
Naval Air Facility Misawa	4
Naval Air Facility Atusqi	11
Naval Air Facility Kadena, Okinawa	8
Guam:	
Ship Repair Facility, Guam	18
Naval Supply Depot, Guam	8
Naval Magazine, Guam	2
Naval Air Station, Guam	5
Diego Garcia:	
Navy Support Facility, Diego Garcia	2
Total	<u>\$151</u>

a/Figures do not include costs for military salaries and benefits.

Appendix I provides more information on the logistics support provided by these activities.

#### DEPLOYMENT TRENDS AND SUPPORT REQUIREMENTS

During the peak tempo of operations in Southeast Asia in 1972, the Seventh Fleet included about 160 ships. Today the fleet consists of about 50 ships. Even though there has been a reduction of over two thirds in the ships requiring support, the Navy still maintains an extensive Western Pacific shore establishment to provide support to the reduced fleet.

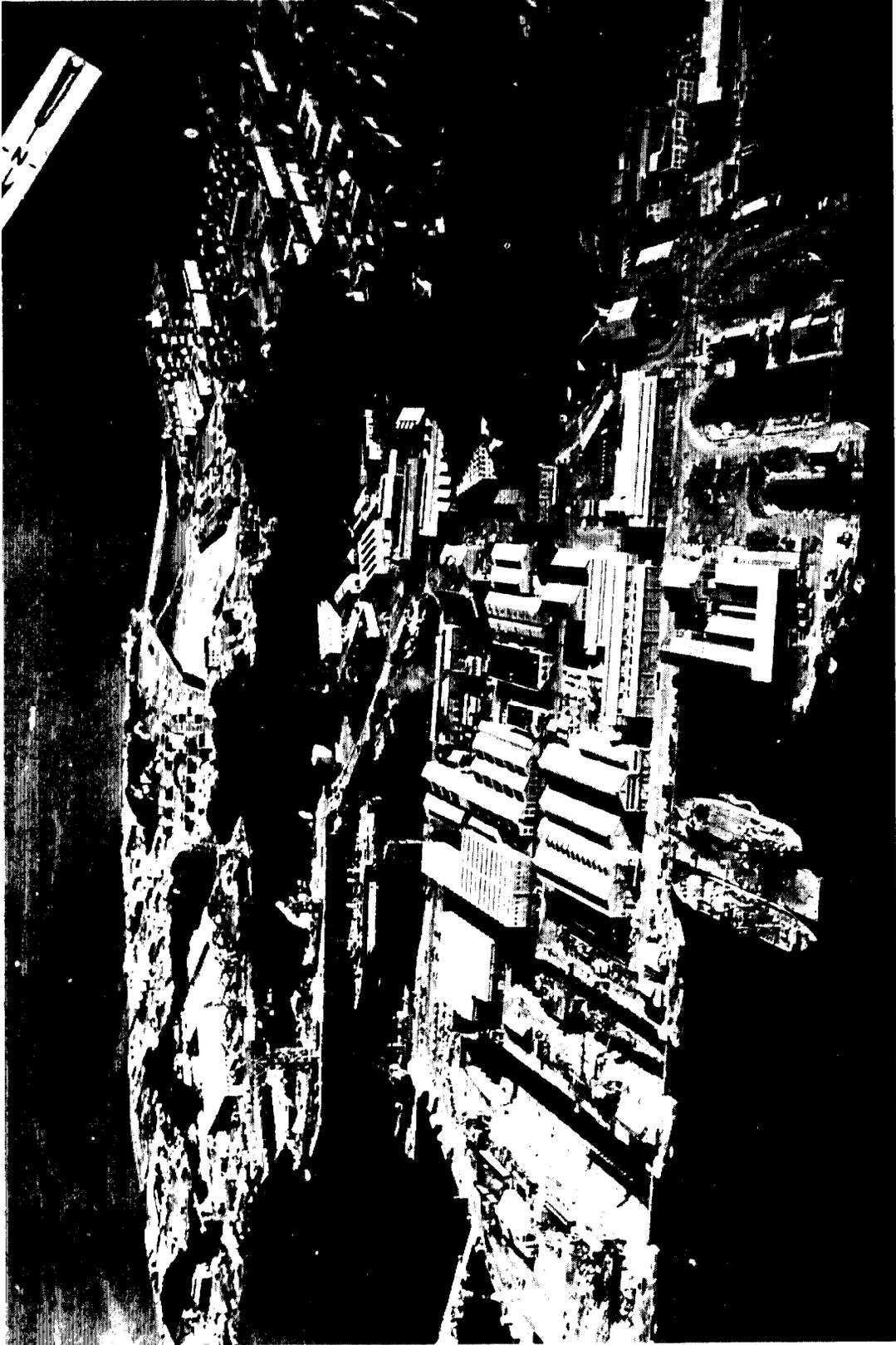
Specifically, the Navy continues to operate, at substantially reduced workloads, three ship repair facilities in the Western Pacific. (See pictures on following pages.) This is in addition to a contract ship maintenance capability available in Japan and Singapore. This has led to idle capacity

APPENDIX

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II	List of activities visited	54
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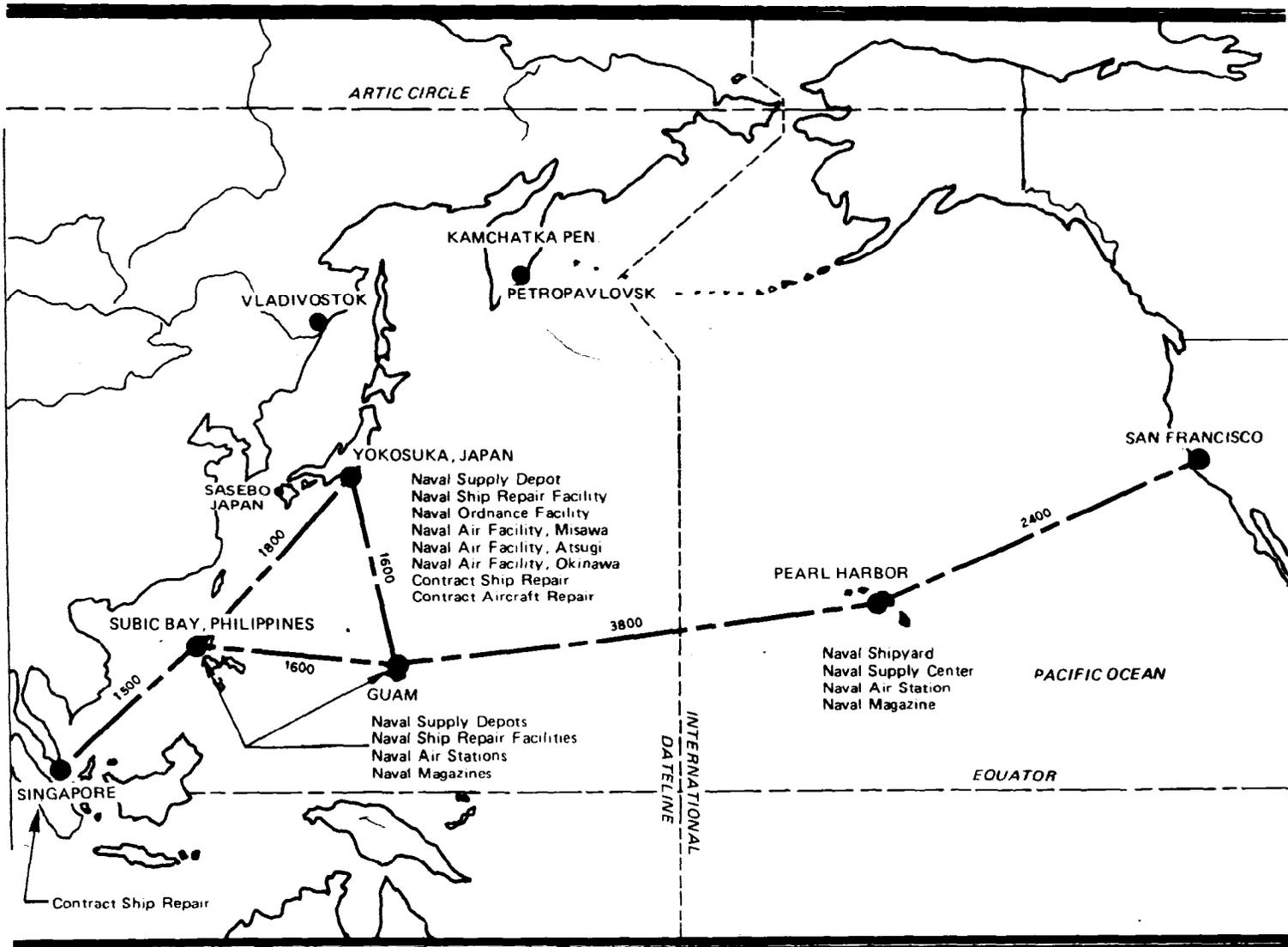
ABBREVIATIONS

DOD	Department of Defense
GAO	General Accounting Office
MLSF	mobile logistics support force
NATO	North Atlantic Treaty Organization
NSD	Navy supply depot
PRC	People's Republic of China
SRF	ship repair facility



SHIP REPAIR FACILITY, YOKOSUKA, JAPAN

MAP SHOWING RELATIVE DISTANCES BETWEEN NAVY SHORE INSTALLATIONS IN THE WESTERN PACIFIC



and contributed to increased staff-day rates. (See ch. 3 and app. III.)

Some shore-based ship maintenance capacity is needed for essential peacetime requirements and to provide the base needed for wartime ship maintenance requirements. The key questions are: What will the wartime ship maintenance requirements be? What level of peacetime capacity should be maintained to meet these requirements? The many factors that must be considered and the Navy's progress toward answering these questions are discussed in chapters 2 and 3.

### SCOPE

The need for all of the Navy's shore-based logistics support facilities in the Western Pacific should be based on indepth studies of the Navy's wartime requirements. However, because of congressional concern about increasing costs for ship maintenance and our recent work on the Navy's intermediate and depot level ship maintenance programs, <sup>1</sup>/ our work was focused on the Navy's ship repair activities in the Western Pacific.

During our fieldwork from May 1977 to May 1978 (a list of activities visited is in app. II), we attempted to determine what the Navy's wartime ship maintenance requirements are for Western Pacific and Indian Ocean operations and what they are based on. Because of a lack of access to specific details, we could not completely assess what the Navy's wartime ship maintenance requirements are for Western Pacific and Indian Ocean operations. However, based on the information we were provided and our prior work on the Navy's wartime requirements for ship maintenance, we do not believe they are based on any systematic requirements determination that fully considers such important factors as expected battle damage, ship losses, capability at friendly ports, and deferring nonessential maintenance. The problems we experienced in obtaining access to the information we needed to more fully assess the Navy's wartime ship maintenance requirements are discussed further in chapters 3 and appendix VI.

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<sup>1</sup>/"The Navy's Intermediate Ship Maintenance Program Can Be Improved," LCD-77-412, Sept. 23, 1977; "Naval Shipyards-- Better Definition of Mobilization Requirements and Improved Peacetime Operations Are Needed," LCD-77-450, March 31, 1978; and "The Navy's Ship Support Improvement Project," LCD-78-433, Sept. 12, 1978.



**SHIP REPAIR FACILITY, SUBIC BAY, PHILIPPINES**

- the requirement for Navy facilities in the Philippines,
- possible redeployment of U.S. Pacific Fleet forces for a North Atlantic Treaty Organization contingency,
- the potential for increasing the contribution of land-based air to the Navy war.

Defense policy trends for Asia  
and Navy force requirements

The Department of Defense (DOD's) fiscal year 1979 annual report states that it has significantly altered Asian deployments, base structures, and Asian defense posture policies. These policy changes have occurred in response to a number of major developments in East Asia over the last several years. For example, the report noted:

"The Sino-Soviet dispute and the focusing of PRC [People's Republic of China] forces on the Soviet problem have led to a reassessment on our part of the likelihood of a U.S.-PRC conflict. As a result, we no longer plan forces on the basis of a U.S.-PRC conflict, although a responsive conventional force structure as well as nuclear forces provide hedges against a potentially threatening China. To the extent that our forces are adequate to deal with security requirements in Northeast Asia, they should be sufficient to protect U.S. interest elsewhere in the region.

"North Korean forces have been substantially modernized since 1968. However, South Korea has been growing in strength as well. She now has twice the population and several times the gross national product of the North. This expansion and the continuing Sino-Soviet split have led us to begin a further modification of the U.S. deployment in South Korea."

According to Navy officials the withdrawal of Army troops from Korea should not be viewed as an indication that the United States is withdrawing from Asia. They stated that the Secretary of Defense addressed this issue in his February 20, 1978, speech before the Los Angeles World Affairs Council when he said:



SHIP REPAIR FACILITY, GUAM

that a war in Europe could be accompanied by war or the threat of war in Asia with the principal danger coming from Soviet attacks on our naval forces and our lines of communications."

However, how much of a threat does the Soviet Pacific Fleet pose and what difficulties would it have in supporting operations in the Western Pacific? A recent Congressional Budget Office report 1/ provided the following details regarding the Soviet forces in Asia including, the Soviet Pacific Fleet:

"The Soviet Union maintains significant forces in East Asia and the Pacific. About 25 percent of Soviet ground force divisions and frontal tactical aviation are in the Soviet Far East and along the Sino-Soviet border. About 30 percent of the Soviet Navy is in its Pacific fleet. This fleet has grown gradually; further qualitative improvements are expected. The threat these forces pose to U.S. interest is limited, however, by several considerations:

The bulk of Soviet ground and air forces in the region is directed at the People's Republic of China, not at the United States or its allies. Even in a NATO/Warsaw Pact war, a substantial part of those assets might well remain deployed against a hostile People's Republic of China.

The Soviet Pacific Fleet (excluding ballistic missile submarines) is much less active than other Soviet fleets or the U.S. Pacific Fleet. It is also the last of the Soviet fleets to receive new types of vessels.

The Soviet Pacific Fleet's two main bases are both less than ideal: Vladivostok (see map on page 2) opens on the Sea of Japan whose narrow exits might be mined or contested; Petropavlovsk on the remote Kamchatka peninsula is notably difficult to support and resupply."

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1/"Planning U.S. General Purpose Forces: Forces Related to Asia," Congressional Budget Office, June 1977.

## CHAPTER 2

### ISSUES TO BE CONSIDERED IN DETERMINING THE NAVY'S SHORE-BASED FLEET SUPPORT REQUIREMENTS FOR WESTERN PACIFIC AND INDIAN OCEAN OPERATIONS

Accurate assessments of the Navy's wartime logistics support requirements for the Western Pacific and Indian Oceans are needed to determine the level of effort required. Detailed analysis of the Navy's wartime deployment and logistics support requirements should be the starting point. Once needs are determined, how can they best be satisfied? This would include determining how much of the support requirements should be mobile, how much should be shore based, and where the shore-based facilities should be located. From this analysis determinations can be made regarding the quantity of peacetime logistics support capacity that should be maintained to meet wartime requirements.

The Navy maintains extensive shore-based ship repair facilities in the Western Pacific. How much of this capability would be needed in wartime and how much peacetime capacity should the Navy maintain to meet wartime requirements? Answers to this question in specific terms are needed so that the Congress can determine the importance of these facilities when setting funding priorities for the Navy's logistic support and construction requirements in the Western Pacific and Indian Oceans, as well as when any base rights negotiations are considered.

#### WHAT IS THE NAVY'S WARTIME ROLE IN THE PACIFIC AND INDIAN OCEANS?

The Navy's wartime ship maintenance requirements for Western Pacific and Indian Ocean operations should be based on a realistic assessment of possible contingencies that could occur in these areas and the quantity of Navy forces that would be required and available to overcome these contingencies, including: a worldwide war with the Soviets, a war in Korea, or a smaller brush fire conflict. This assessment must consider several issues, including

- defense policy trends for Asia,
- the potential contribution of Japan,

A conflict in Korea is another possible Pacific theater contingency. In discussing this contingency, the Congressional Budget Office report noted:

"In the case of a North Korean attack on South Korea without combat support from either the Soviet Union or the People's Republic of China, the U.S. assessment has been that the U.S. contribution should be primarily in tactical air support and logistical support, along with some air defense and intelligences command/control, and communications.

"A major rationale for U.S. aircraft carriers in the Western Pacific has been to provide tactical air support to U.S. and South Korean forces in response to a North Korean attack. However, U.S. ability to deploy quickly land-based tactical air units from the continental United States into South Korea was demonstrated in August 1976 in the case of an F-111 squadron deployed from Idaho. F-4 and other land-based U.S. tactical air assets in the Western Pacific, which have been augmented since late 1975 with redeployments from Thailand to the Philippines and Japan, could also be deployed rapidly to South Korea."

Given these considerations, what level of Navy forces would be required for a conflict in Korea? The Navy's views on this issue are discussed further in chapter 3.

#### Potential contribution of Japan

Japan is a major maritime nation and has progressed under the security provided by the U.S. defense umbrella to become an economic superpower with the world's third largest economy. In a prior report, <sup>1</sup>/ we noted: "U.S. security commitments and force deployments contribute significantly to Japan's most immediate security concerns-- open sea lanes and a stable Korea."

How much of a contribution to the defense of freedom in the Western Pacific is Japan willing to make, and how

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<sup>1</sup>/"The United States and Japan Should Seek a More Equitable Defense Cost-Sharing Arrangement," ID-77-8, June 15, 1977.

"I have just returned from several days visiting the Pacific Fleet and reviewing our defense posture in the Pacific and East Asia with our senior military commanders there. Like them, I am concerned with what can only be termed a misconception about our policy--that is, the belief, expressed sometimes at home and sometimes abroad, that the United States is withdrawing from Asia.

"That perception is, quite simply, wrong. We are and will remain a major force in the Pacific. It cannot be otherwise. We were involved in Asia even when, two hundred years ago, this West Coast of North America was Spanish, British, and Russian. We continue to have deep and extensive political, economic, security, and cultural ties with Asia.

"Clearly our defense posture in Asia must be based on protecting these interests and those of our friends and allies and on helping preserve peace and stability. Our military forces in Asia make a vital contribution to these ends.

"Equally important, however, is the fact that our Asia defense policy is part of our global policy. We cannot be strong in Europe and weak in Asia. Indeed, our strength in Asia supports our strength in Europe, and vice versa. They are two sides of a coin. We are a global power faced with a global challenge. We must be prepared to meet that challenge in Asia just as we are prepared to meet it elsewhere."

What is the challenge in Asia and how does it translate into Navy force deployments and the associated shore-based logistics support requirements?

The threat posed by the Soviet Pacific Fleet is a matter of continuing concern to DOD. The annual report noted:

"The Soviet Union has continued to improve its Pacific Fleet, and our defense policy for Asia increasingly emphasizes the need to counter the Soviet naval threat. Specifically, we believe

the magazine pointed out that Japanese perceptions of their defense needs have changed and this is reportedly based on

- a reduction in the U.S. Pacific Fleet following Vietnam,
- the announcement of the intended withdrawal of U.S. ground forces from Korea, and
- increasing concentration of U.S. power and interest on the NATO central front in West Germany.

"The Economist" pointed out that the Japanese are already upgrading their forces, including 100 F-15 tactical fighters and 45 Orion antisubmarine patrol aircraft GOJ will be buying over the next 10 years. It also noted that the Japanese Minister of Defense was to release toward the end of July 1978 a white paper 1/ on defense, which apparently calls for increased defense spending.

In our prior report on defense burden sharing we noted that Japan does provide financial support for the U.S. presence in Japan by paying land rental for areas occupied by U.S. forces, constructing agreed upon replacement facilities, and making payments to Japanese communities near U.S. bases. However, we did point out that opportunities existed for seeking additional Japanese support for common defense costs, including labor cost sharing. We understand that negotiations on this issue resulted in GOJ agreeing to pay certain indirect labor costs estimated to save DOD \$26 million annually.

We are not suggesting that Japan should provide for its own defense. However, Japan is a strong ally and any discussion of U.S. defense planning for Asia, including requirements for U.S. Navy forces and associated logistics support, should include consideration of what the Japanese are willing and able to contribute.

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1/A copy of this white paper on defense was not available at the time we completed our review.

The report also noted that the Soviet Pacific Fleet could have difficulty supporting combat operations where it would not have sustained air cover from land-based aircraft.

The views expressed by the Congressional Budget Office are supported by other officials involved in evaluating U.S. and Soviet defense capabilities. During 1977 hearings before the Joint Economic Committee, Subcommittee on Priorities and Economy in Government, representatives of the Brookings Institution noted:

"Fortunately, compared to Soviet naval capabilities elsewhere, the maritime threat in the Pacific is a relatively small one. There has been an increase in the Soviet Pacific Fleet's strength since 1968, but this reflects the initiation of Soviet naval operations in the Indian Ocean. These deployments are supported by the Pacific Fleet, which has received additional resources to carry out this task. Even so, the Soviet Navy in the Pacific remains relatively weak as compared to the fleets that deploy forces into the Atlantic and Mediterranean.

"On balance, the task of countering the Soviet Navy in the Pacific does not seem excessively difficult. Most of the Soviet Pacific Fleet's operations originate in Vladivostok; ships from this naval complex must pass through one of several straits bounded by Japanese territory before reaching open waters. The straits are choke points that can be mined or blockaded bottling up Soviet submarines and warships caught inside the Sea of Japan and isolating those already deployed. To circumvent the restricted access from Vladivostok to the open ocean, the U.S.S.R. has expanded operations at Petropavlovsk on the Kamchatka peninsula, but this has not solved the problem. Petropavlovsk does not have adequate road or rail links with the mainland and must be supplied by ship, a vulnerable link."

A recent media source 1/ indicated that the strategic significance of the U.S. bases in the Philippines is open to question. For example, the Philippines could be defended under the current Mutual Defense Treaty from other U.S. bases. Also, retention of the U.S. bases might involve the United States in internal and external Philippine affairs that the United States may not otherwise want to be involved in. Further, there are alternatives, such as using bases in Australia and having American contractors provide logistics and repair functions at facilities in the Philippines.

We understand that negotiations covering the U.S. bases in the Philippines are continuing and it could be some time before they are completed. Certainly, the impact of many important issues will have to be fully analyzed during these negotiations. If final proposals are too costly or too restrictive, alternatives may have to be selected.

Possible redeployment of U.S. Pacific  
Fleet forces for a NATO contingency

DOD's fiscal year 1979 annual report states that the most demanding contingency for U.S. conventional forces is a Warsaw Pact attack on NATO. In commenting on this contingency the report noted:

"To a large degree, the current U.S. force structure has been derived from anticipated requirements for this contingency. Consequently, in the event of a NATO war, we expect to employ the vast majority of our conventional forces in Europe or at sea in supporting activities. Most of the programs which improve the General Purpose Forces enhance our capabilities for a NATO contingency.

"Recognizing the importance of NATO, this administration has placed particular emphasis on improving our capabilities for the deterrence of a war in Europe, without diminishing our ability to respond to threats elsewhere in the world."

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1/See the Washington Post "Outlook" section for Sunday, August 27, 1978.

should this influence U.S. Navy force deployments in peacetime and wartime?

Our prior report noted that Japanese defense expenditures are limited by several factors, and the United States has not asked Japan to be responsible for an increased regional security role. For example, we stated:

"Political, constitutional, and psychological constraints limit Japan's ability to expand or use military power. National policy prohibits the manufacture, possession, or introduction of nuclear weapons into Japan. Its constitution prohibits any overseas security role. The GOJ [Government of Japan] faces political difficulties in increasing the size of the Self Defense Force or increasing defense spending much beyond a self-imposed limit of approximately 1 percent of its gross national product.

"The U.S. Government has agreed with the GOJ that a security posture focusing on the defense of Japanese territory is appropriate for Japan. The State Department has not pressed Japan to undertake regional security responsibilities, believing that such a role would be politically impossible for Japan and extremely disquieting to most of its neighbors. The Department of Defense (DOD) has encouraged Japan to improve the capability of its forces, particularly in the areas of antisubmarine warfare, airborne early warning, air defense, and ground force modernization, and the GOJ is reportedly addressing this issue."

There are recent indications that GOJ may be increasing its defense efforts.

The July 29, 1978, issue of "The Economist" noted that until recently Japan has lived behind an American defense shield and has spent less than 1 percent of its gross national product on defense. Now Japan is building its defense capability, and this should proceed quite rapidly. "The Economist" attributes this to two reasons: (1) 1 percent of Japan's gross national products mounts up when the gross national product grows quickly enough and (2) Japanese perceptions of their defense needs. For example,

sea to support this contingency. What portions of the U.S. Pacific Fleet would be redeployed to the Atlantic to support this contingency, and what would the impact be on Pacific theater operations? The Navy's fiscal year 1979 posture statement discussed this issue:

'If Pacific Fleet assets were to be shifted to the European theater in a NATO conflict, the U.S. forces remaining in the Pacific would be sufficient to protect the sea lanes from the continental United States to Hawaii and Alaska, but only the military lines of communication to our allies in the Western Pacific.'

The Navy's fiscal year 1979 posture statement did not discuss how many Pacific Fleet ships could be redeployed to the Atlantic during a NATO contingency.

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Also, an October 1977 study prepared for the Navy on its requirements for an intermediate maintenance capability noted that

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[Redacted] forces deployed in the Pacific could be redeployed to the Atlantic and Mediterranean areas during a worldwide war with the Soviets. In a prior report by us <sup>1/</sup> on naval force requirements, we noted that the United States has committed [Redacted] Deleted

[Redacted] ships Deleted  
[Redacted] to NATO.  
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<sup>1/</sup>"Implications of the National Security Council Study, U.S. Maritime Strategy and Naval Force Requirements on the Future Naval Ship Force," PSAD-78-6, Dec. 19, 1977.

Base negotiations in the Philippines

In a prior report, <sup>1/</sup> we noted that the United States has two major military installations in the Philippines-- Clark Air Base and Subic Bay Naval Complex (including Cubi Point Naval Station)--and several smaller ones, including the San Miguel Naval Communications Station, Wallace Air Station, and John Hay Air Base.

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We reported that Philippine negotiations were seeking greater control over U.S. operations.

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Also, changes in the present agreement would likely reduce U.S. operational control, decrease the bases' value for contingencies, and increase costs. Regarding compensation for the bases, we reported:

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A U.S. proposal for a 5-year, billion dollar compensation package divided evenly between military and economic assistance was rejected by the Philippine Government in December 1976. Philippine officials have indicated a desire for all military assistance or direct rental payments."

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<sup>1/</sup>"Observations on U.S. Military Presence and Base Negotiations in the Philippines," ID-77-5, July 1, 1977.

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These factors could constrain the contribution of land-based aircraft to the sea war. However, complete analyses of several factors, including base availability--there are a number of Air Force and Navy air bases in the Pacific Theater--tactical air requirements for the land war, and mission priorities, are needed to determine the impact of these factors.

Navy comments on the use of land-based aircraft

Navy officials stated that

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these officials believe that

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We did not evaluate how the Navy has included land-based aircraft in its contingency plans. However, the Naval Force Level Review and the National Security Council study have outlined a number of contributions land-based aircraft could make to a war at sea. We believe these contributions and their effect on Navy force requirements should be considered in developing Navy contingency plans.

DO U.S. NAVY FORCES IN THE PACIFIC EXCEED CONTINGENCY REQUIREMENTS?

The U.S. Pacific Fleet including reserve forces contains 6 carriers, 87 surface combatants, 34 amphibious ships, 73 <sup>1</sup>/ combat support and auxiliary ships, and 44 submarines. Is this level of Navy deployments consistent with possible Pacific theater contingencies and the current emphasis being placed on the defense of Europe? The Congressional Budget Office report noted that:

"The United States appears to have forces deployed in East Asia and the Pacific that exceed considerably the needs generated by either a North Korean attack, assuming no

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<sup>1</sup>/Includes six ships from the Military Sealift Command.

In the speech before the Los Angeles World Affairs Council, the Secretary of Defense compared the threats in Europe and Asia as follows:

"In short, the situation we find in Asia is significantly different from that in Europe. In Europe the alignments are clear, with Soviet forces and their allies on one side, the U.S. and its allies on the other. The military balance is more easily measured. While in Europe Soviet military capabilities are immense and focused; in Asia the threat to us and to our allies, though real, is more diffuse. Enemies are not always clearly distinguishable. The interplay between the powers is more fluid. Consequently, our defense requirements are less demanding than they are in Europe but in many ways more complex because of the political factors."

The European/Atlantic portion of a possible worldwide conflict with the Soviets and their allies has received increasing emphasis. However, no detailed rationale has been given explaining how the U.S. forces in the Pacific, especially Navy forces (including the Seventh Fleet), would be involved in this contingency. In discussing the Pacific portion of a worldwide conflict with Soviet forces, the Congressional Budget Office report stated:

"That region could be a 'second front' in a worldwide conventional conflict with the Soviet Union. Both the United States and the Soviet Union might hesitate to initiate hostilities in East Asia and the Western Pacific, but both might wish to 'tie down' the other's forces in the region to constrain or prevent redeployment to the more demanding European/Atlantic conflict."

However, what Pacific Fleet forces would be required and be available to prevent redeployment of Soviet Pacific Fleet forces to the Atlantic?

As noted above, the most demanding contingency for U.S. conventional forces is a Warsaw Pact attack on NATO countries, and the United States would expect to employ the vast majority of its conventional forces in Europe or at

The Congressional Budget Office's concern about the imbalance in Navy force deployments is shared by others. During the 1977 hearing discussed above, representatives from the Brookings Institution also stated:

"Thus, fewer forces are needed to counter the Soviet Navy in the Pacific than elsewhere; the Soviet Pacific Fleet is less capable and the geography of the region places the Soviet Navy at a distinct disadvantage. In all likelihood, the forces the United States now maintains in the region are larger than required by a realistic assessment of needs. Hence, from a military standpoint, shifting some U.S. naval forces from the Pacific to the Atlantic to help counter the threat to U.S. interests in the Middle East seems sensible."

The Secretary of Defense's speech did not specifically address what level of Navy forces is needed to meet possible threats in Asia. However, in the following comments from his speech, the Secretary of Defense believes that U.S. forces (including the Seventh Fleet) are needed to maintain peace in the region, and other forces could be deployed to Asia in an emergency.

"The situation in Asia thus is more favorable to our interests than in the past. We want to ensure that this environment continues. We therefore maintain major military forces in the Western Pacific. They include B-52s, ballistic missile submarines, nine U.S. Air Force tactical fighter squadrons, two aircraft carriers, two amphibious ready groups, twenty cruisers and destroyers, two-thirds of a Marine division, and a Marine air wing.

"The President has decided that, except for the planned withdrawals from Korea, the United States will maintain this current level of combat forces in Asia. Nor are we neglecting the possibility that many forces stationed in the west could be deployed to Asia in an emergency, just as they could to Europe. This is why we program general purpose forces with all the flexibility that such forces provide."

During final discussions on this report, Navy officials noted that [Deleted] [Deleted] They did not elaborate on the issue. Navy comments on deployment requirements for possible Pacific and Indian Ocean contingencies are discussed further in chapter 3.

Potential for increasing the contribution of land-based aircraft to the Navy war in the Pacific

A 1976 Naval Force Level Review noted that, during a NATO war, land-based aircraft could be used to protect [Deleted] sealines of communication. Also, shipping routes [Deleted] could be developed to pass through areas where U.S. land-based aircraft could provide protection. How fully has the Navy considered the contribution of land-based aircraft in its development of Pacific theater deployment requirements?

In our prior report on the National Security Council study of naval force requirements, we noted that the study only considered currently programed contributions of land-based aircraft to the sea portions of a worldwide conflict with the Soviet Union. Since land-based aircraft were not assigned a priority mission for contributing to the naval war, their relative benefits and liabilities, compared to aircraft carriers, were not examined.

The National Security Council Study outlined a number of possible contributions of land-based aircraft to a NATO war [Deleted]

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The study noted that to the extent that land-based aircraft can provide protection to sealines of communication, the requirement for naval combatant protection would be reduced. The study also noted that long-range aircraft could be used to attack Soviet surface combatants, sow mines, and attack land bases that threaten the Navy's sea control role.

land-based aircraft to the sea war. Given the above statements regarding these factors, what the Navy's wartime deployments should be for possible Pacific and Indian Ocean contingencies and the level of shore-based ship maintenance capability needed to support these deployments are subject to question.

In chapter 3, we discuss in more detail the Navy's deployment requirements for possible Pacific and Indian Ocean contingencies. We also discuss the progress the Navy is making in establishing wartime ship maintenance requirements for these contingencies. We are not making any specific recommendations on the issues discussed above. In chapter 3, we recommend that the Secretary of Defense reassess the ship maintenance requirements for Western Pacific and Indian Ocean operations. We would expect that the analyses used would include an assessment of Navy force requirements, and this assessment would consider the many issues discussed above.

Soviet or PRC combat involvement, or by the threat posed by the Soviet Pacific Fleet. The principal rationale for the substantial, although reduced, U.S. forces deployed in East Asia and the Pacific is now avowedly 'political.' The presence of these forces is said to support important U.S. interests. These major interests relate primarily to Japan, and include a secure Japan that relies with confidence on U.S. commitments to Japan's defense, that does not feel compelled to accommodate with the Soviet Union, to reorient its foreign policy away from support for the United States, or to undertake a major rearmament.

"In appraising the present forces in East Asia and the Pacific and in considering alternatives, basic questions seem to be

"Given the demanding tasks in the Atlantic for support to NATO in a long war, and given that only about 30 percent of the Soviet Navy is deployed in its relatively inactive general purpose Pacific Fleet, should the U.S. Navy continue to deploy nearly 50 percent of its fleet in peacetime in the Pacific?"

The report included the following information showing fiscal year 1977 Pacific Fleet forces in relation to total U.S. Navy forces:

<u>Force element</u>	<u>Total units in active Navy</u>	<u>Total deployed in Pacific Fleet</u>	<u>Percent deployed in Pacific Fleet</u>
Aircraft carriers	13	6	46
Amphibious ready groups	12	6	50
Antisubmarine warfare patrol squadrons	24	12	50

IDLE CAPACITY HAS CONTRIBUTED TO  
INCREASED STAFF-DAY RATES

There has been a considerable reduction in the workload at the three ship repair facilities. This has led to idle capacity and contributed to increased staff-day rates. A major reason is that overhead costs have not fallen with workload drawdowns. Thus, overhead costs must be applied to a decreasing workload, increasing the staff-day rates that must be charged to recover these expenses. The decrease in the workload at the three ship repair facilities and the increase in staff-day rates are summarized below. Complete details are in appendix III.

	<u>Ship repair facility</u>		
	<u>Subic Bay</u>	<u>Yokosuka</u>	<u>Guam</u>
Productive workload (base year) (note a)	1,651,200	407,000	1,762
Productive workload 1977	<u>944,700</u> (1973)	<u>333,000</u> (1970)	<u>563</u> (1969)
Decrease	<u>706,500</u>	<u>74,000</u>	<u>1,199</u>
Percent decrease	43%	18%	68%
Staff-day rates 1977	\$22.06	\$98.50	\$133.00
Staff-day rates (base year)	<u>15.62</u> (1973)	<u>29.50</u> (1970)	<u>40.56</u> (1969)
Increase	<u>\$ 6.44</u>	<u>\$69.00</u>	<u>\$ 92.44</u>
Percent increase	41%	234%	228%

a/Productive workload for Subic Bay and Yokosuka is in productive staff-days per year; for Guam it is expressed in productive staff-days per day.

Navy comments on cost growth  
at the ship repair facilities

Navy officials stated that worldwide inflation and a reduction in the value of the U.S. dollar relative to other major currencies have been the primary contributors to the growth in staff-day rates at the ship repair facilities.

Further, DOD appears to believe that the relatively stable situation in Asia could be changed by a number of events. The Secretary of Defense noted:

"There are major uncertainties in Asia which could threaten future peace in Asia and in Europe. The equilibrium that has emerged in East Asia during this decade--in which the United States, the USSR, the People's Republic of China and Japan are the principal players--is not only beneficial to Asia but helps maintain the balance in Europe.

"That equilibrium, however, is not necessarily permanent. Soviet military strength in Asia and the Pacific continues to grow. Changes of fundamental strategic significance in Sino-Soviet relations are possible. North Korea is always an uncertain element which could disrupt the peace on the peninsula and embroil the great powers. Economic development of the lesser developed non-Communist nations in the region might falter. Vietnam might undertake an adventurist policy against its non-Communist neighbors. If we don't give Asia its due--if we don't maintain the necessary military forces, as well as enough economic and political strength in the region to hedge against these uncertainties--the favorable political balance we now find in Asia could deteriorate rapidly."

## CONCLUSIONS

Accurate assessments of the Navy's wartime ship maintenance requirements for Western Pacific and Indian Ocean operations are needed to determine the level of effort required. These assessments should be based on realistic analyses of possible contingencies that could occur in these areas and the quantity of Navy forces that would be required and would be available to overcome these contingencies.

Many factors should influence the Navy's deployment requirements for possible Pacific and Indian Ocean contingencies. Some of these include defense policies trends for Asia, the Soviet Pacific Fleet, requirements for a NATO conflict and a conflict in Korea, the contribution of Western Pacific allies, and the contribution of

Navy officials stated that worldwide inflation and a decline in the value of the U.S. dollar were the primary contributors to increases in staff-day rates at the ship repair facilities. As indicated in the following table, there have been sizable increases in the consumer price indexes for Japan and the Philippines. Further, the rate of increase in their consumer price indexes is greater than that being experienced in the United States.

Consumer Price Indexes For The  
United States, Japan, And The Philippines, 1970 to 1977

<u>Year</u>	<u>United States</u>	<u>Japan</u>	<u>The Philippines</u>
1970	100	100	100
1971	104	106	115
1972	108	111	126
1973	114	124	140
1974	127	154	188
1975	139	172	203
1976	147	188	216
1977	156	204	233

As indicated in the following table, the value of the U.S. dollar in the Philippines increased slightly between 1971 and July of 1978, but has been declining over the more recent 3-year period. Also, the U.S. dollar declined 43 percent in Japan from 350 yen per U.S. dollar to 200 yen per U.S. dollar during the 1971-78 period.

<u>Year</u>	<u>Philippines Pesos per U.S. dollar</u>	<u>Japan Yen per U.S. dollar</u>
1971	6.44	350
1972	6.70	303
1973	6.75	271
1974	6.79	292
1975	7.27	297
1976	7.45	297
1977	7.41	268
1978 (July)	7.37	200

We believe that worldwide inflation and a decline in the value of the dollar provide even more reasons why the Navy should review its ship maintenance practices to assure that key economical approaches have been considered.

## CHAPTER 3

### DETERMINING WARTIME SHIP MAINTENANCE REQUIREMENTS FOR WESTERN PACIFIC AND INDIAN OCEAN OPERATIONS

There has been a considerable reduction in the quantity of Navy ships deployed to the Western Pacific, yet the Navy continues to operate, at substantially reduced levels, three ship repair facilities to provide ship maintenance for the reduced fleet. This is in addition to an important contract ship repair capability available in Japan and Singapore. The workload at the three ship repair facilities has dropped significantly. This has led to idle capacity and contributed to increased staff-day rates. Some shore-based ship maintenance capability is needed for essential peacetime requirements and to provide the base needed for wartime needs. The key questions are: What will the wartime ship maintenance requirements be? What level of peacetime capacity should be maintained to meet these requirements?

Determining the most appropriate level of ship maintenance capacity for wartime and peacetime requires a careful consideration of several issues. Of primary importance is the delineation of the support requirements for wartime and, from this, developing the most appropriate and economical peacetime levels that should be maintained to meet wartime requirements. This complex analysis must consider

- realistic assumptions regarding the various types and durations of possible contingencies;
- the levels of Navy forces that would be required and available to overcome these contingencies;
- the levels of wartime maintenance required--giving careful consideration to expected battle damage, ship losses (attrition), capability at friendly ports and deferring nonessential work--who will provide this maintenance support and where it will be performed;
- the level, type, and location of peacetime capability that would support essential peacetime operations and provide the base needed for wartime operations without creation of idle capacity.

The rest of this chapter will discuss these issues and the Navy's progress toward establishing wartime and peacetime ship maintenance requirements for Western Pacific and Indian Ocean operations.

For example, [redacted]

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[redacted] However, the facility is needed in peacetime to keep the ships repaired and in a high state of readiness. We believe this is one good reason why the wartime ship maintenance requirements should be developed. Planning should include alternatives [redacted]

[redacted] However, these alternatives should be based on analyses of what the wartime ship maintenance requirements will be.

The relationship between wartime and peacetime depot maintenance capabilities has already been established by DOD. Commenting on our report on Navy aircraft overhaul depots, 1/ DOD noted:

"The primary justification for retention of a depot maintenance capability/capacity within DOD is the requirement to have an assured capability for timely accomplishment of maintenance workloads in military contingencies."

Thus, it is important that reasonably accurate predictions of requirements for wartime ship maintenance be made to identify what capacity and capability is needed, where it is needed, and how much peacetime capacity should be maintained to meet these requirements.

Navy officials stated that the Navy has taken some actions to reduce the excess ship maintenance capacity in the Western Pacific. For example, the Navy's ship repair department at Sasebo, Japan, was closed except for contractor-provided repairs. Also, according to Navy officials [redacted]

[redacted] Deleted [redacted] A 1976 shore realignment study of SRF Guam noted that, because of operational considerations, a reduced Seventh Fleet, fuel economy, and requirements to obtain optimum use of maintenance funds, the best course of action from a Commander, U.S. Pacific Fleet viewpoint would have been to reduce SRF Guam to a partial maintenance status with a workforce of about 180 civilian personnel. However, because of concern over the impact of this on Guam's economy and the strategic

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1/"Navy Aircraft Overhaul Depots Can Be More Productive," LCD-75-432, Dec. 23, 1975.

They stated that as

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For example, a 1976 base realignment study of SRF Guam noted:

"Tight budget constraints were imposed to hold down overhead costs because of the adverse effect of the reduced productive workload on the overhead rates. Proportionate cuts in the overhead staff were made in subsequent cuts in personnel ceiling as a first step in reducing overhead costs to a level supportable by the projected workload. Cutbacks in critical overhead supported areas such as building, grounds and industrial maintenance and training were also initiated."

Overhead personnel at SRF Guam were reduced from a high of 888 in fiscal year 1969 to 242 as of July 1977.

While the Navy has taken action to control overhead costs, they have still continued to increase. As indicated in the tables in appendix III, the overhead portions of the staff-day rates have not fallen with a reduction in workload but have, instead, maintained about the same percentage of the growing staff-day rates. In our report on aircraft depot maintenance, 1/ we addressed the effect of reductions in workload on overhead rates as follows:

"Regarding the relationship between overhead and direct costs, we do not expect that overhead should decrease proportionately with a reduction in direct costs in a constantly sized production base. This is the problem with efficiently sizing the DOD aircraft depot maintenance complex. As workloads have decreased overhead costs have not fallen accordingly because some overhead costs do not vary with workload changes."

Thus, while actions can be taken to reduce some overhead costs, it is difficult to reduce other overhead costs unless the facility is closed.

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1/"Aircraft Depot Maintenance: A Single Manager Is Needed To Stop Waste," LCD-78-406, July 12, 1978.

"It may be essential to maintain a minimum mobile repair force to satisfy contingencies which might occur anywhere in the world. We believe, however, that the most predictable and demanding war scenarios should have the most weight in determining whether 25 tenders represent the minimum mobile repair force level.

"In other words, because the European war scenario is considered the most predictable and demanding one, a major portion of naval forces will presumably be committed to it. If the Navy's role is to provide sea control and power projection in the European vicinity as well as controlling the resupply sea lanes between Europe and the United States, then the United States and allied countries' shore maintenance capabilities might be an effective means for supporting much of the Navy's wartime maintenance requirement.

"This would presumably reduce the mobile IMA [intermediate maintenance activity] requirement and yet, if necessary, allow for some mobile IMAs to satisfy maintenance needs in less demanding scenarios wherever they may occur in the world, and for which no shore capability exists or is feasible."

We believe that increased reliance on allied facilities in the Western Pacific to meet ship maintenance requirements is an alternative that deserves more consideration.

Meeting ship maintenance requirements through increased reliance on allied facilities

The Navy's need to continue to maintain its extensive ship repair capability in the Western Pacific could be reduced by placing increased reliance on commercial facilities available in allied countries. In our prior reports on the Navy's intermediate maintenance program 1/ and the Navy's shipyards 2/ we noted that the use of commercial ship repair

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1/"The Navy's Intermediate Ship Maintenance Program Can Be Improved," LCD-77-412, Sept. 23, 1977.

2/"Naval Shipyards--Better Definition of Mobilization Requirements and Improved Peacetime Operations Are Needed," LCD-77-450, Mar. 31, 1978.

CAN THE NAVY AFFORD TO CONTINUE  
TO RETAIN EXTENSIVE WESTERN PACIFIC  
SHORE FACILITIES TO MEET ALL CONTINGENCIES?

Pacific Fleet officials stated that the tremendous expanse of the Pacific theater requires ship repair facilities, supply depots, ordnance facilities, and air stations in several countries in Asia. These officials do not believe that the base structure in the Pacific can be assessed simply in terms of the most demanding scenario. Rather, the entire geopolitical structure has to be considered. Potential contingencies could arise in Asia and Africa, and these possibilities must be considered. The present base structure in the Pacific, according to Pacific Fleet officials, allows the flexibility to meet such contingencies.

Can the Navy afford to continue to retain the extensive ship repair capability in the Western Pacific to meet all possible contingencies? As discussed in chapter 2, changes are being made in defense policies for Asia, and many issues have been raised regarding the Navy's role in possible contingencies in this area and the number of ships that would be required and available to overcome these contingencies. Also, ship repair at these activities is becoming more expensive. Given these considerations the problem then becomes one of systematically establishing the wartime support requirements, matching these with refined peacetime requirements, and from this establishing the most appropriate level of peacetime activity. A barrier to this analysis appears to be the Navy's continuing belief that its forces must be as self-sufficient as possible. However, the self-sufficiency concept can lead to duplication of support activities, increased costs, and not enough consideration of alternatives such as increased use of commercial ship repair.

Navy comments on the requirement  
for the ship repair facilities

Commenting on a draft of this report, Navy officials stated that

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Further, they believe there is not a clear relationship between the wartime requirements and peacetime needs for ship maintenance.

appear that several other Seventh Fleet ships could be candidates for repair in South Korea.

The Navy should fully assess how the commercial facilities in Japan and Singapore, as well as those potentially available in South Korea, could contribute to wartime ship maintenance requirements. Further, this analysis should examine how this contribution affects the Navy's need to continue to retain peacetime capability to meet wartime requirements.

HAS THE NAVY ADEQUATELY DETERMINED  
WARTIME AND PEACETIME SHIP MAINTENANCE  
REQUIREMENTS FOR THE WESTERN PACIFIC?

What ship maintenance is needed and what capacity is available to cover U.S. Navy forces' needs in the Pacific and Indian Oceans? Who should provide this maintenance support? Where should it be performed? Specific answers to these questions are needed to effectively determine wartime ship maintenance requirements and the level of peacetime capacity that should be maintained to meet these wartime requirements.

Initially, we attempted to find answers to these key questions at the activities we visited in the Western Pacific and at Pacific Fleet Headquarters in Hawaii. However, officials at these activities were unwilling to provide us with specifics on wartime capacity needs. Instead, they provided a general response that the Navy has planned an increase in the tempo of operations, and consequently there will be an increase in activity at its shore-based ship repair activities. However, this general response did not address the key issue of the Navy's wartime ship maintenance requirements for the Pacific and Indian Oceans and the peacetime capability that should be maintained. We therefore asked the Navy, in writing, to provide us with answers to several questions addressing this issue. The Navy's response to these questions is discussed below. A list of our questions and the Navy's response are included in appendixes V and VI.

Wartime deployment data  
is open to question

The Navy stated that a worldwide conflict with Soviet forces would be its most demanding contingency in the Pacific theater. A conflict in Korea would be a lesser contingency. The Navy provided us with its planned deployments for these

importance of Guam, the Congress has required the Navy to continue program work at SRF Guam above a level the Navy believes is required by current Seventh Fleet operations.

We did not attempt to examine the issues associated with the retention of SRF Guam. Our concern is with the overall wartime ship maintenance requirements for Western Pacific and Indian Ocean operations, who should perform it, where it should be performed, and how much capacity should be maintained to meet essential peacetime needs and provide the base for wartime operations. We believe that, once the Navy has made reasonably accurate predictions of wartime ship maintenance requirements, it will be better able to determine what capacity should be retained to meet these requirements and essential peacetime needs. Also, the Navy will be better able to evaluate such issues as strategic importance, political constraints, and balance of payments considerations in making determinations about where ship maintenance should be performed.

Navy officials stated that, because of their mobility features, Navy forces must be as self-sufficient as possible. The mobile logistics support force, including supply and repair ships, contributes to this self-sufficiency. Also, the ship repair facilities contribute by providing ship repair in deployed areas that keeps the ships in a high state of readiness for sustained operations.

We agree that because of mobility factors Navy forces should be as self-sufficient as necessary. Our point is that the self-sufficiency concept should not inhibit consideration of alternatives to meeting ship maintenance requirements. We addressed this issue in our report on the Navy's intermediate maintenance activities:

"The Navy did not concur with our observation. They said that: (1) Navy forces must be as self-sufficient as possible; (2) naval forces must be able to conduct sustained operations anywhere in the world; (3) retaining a minimum mobile repair force is just as important as mobile logistics support or having adequate personnel; (4) the mission of the Navy differs from that of the Army and Air Force because ships are designed to be independent from shore support for long periods.

Fleet forces to the NATO area. Further, as discussed in chapter 2 the Congressional Budget Office and representatives of the Brookings Institution have raised significant questions about the quantity of Navy forces needed to counter the Soviet threat in the Pacific.

We attempted to more fully discuss the apparent inconsistencies in the Pacific theater deployment data for the most demanding contingency with Navy planning officials. However, the only additional information these officials could provide was that decisions to redeploy Pacific Fleet forces to the Atlantic during a worldwide war with the Soviets would be made [Deleted] and would depend on many factors.

Navy officials stated that the deployment data they provided for [Deleted]

[Deleted] While Navy officials could not provide us with

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[Deleted] They also indicated that the U.S. intentions for the defense of South Korea are stated in the joint communique of the eleventh United States/Republic of Korea security consultative meeting held in San Diego, California, during July 1978. The communique states in part that:

"Secretary Brown, reiterating President Carter's special statement of April 21, 1978, regarding the assurance of the United States security commitment of the Republic of Korea and the partial adjustment of the withdrawal schedule of the U.S. ground combat forces, stated that the withdrawals of the U.S. ground combat forces signify no change whatsoever in either the United States security commitment to the Republic of Korea or the basic defense strategy of the United States on the Korean peninsula. Secretary Brown also assured Minister RO that the Mutual Defense Treaty of 1954 between the Republic of Korea and the United States remains fully in force, and that the determination of the United States to provide prompt and effective support to the Republic of Korea to defend against armed attack in accordance with the treaty remains firm and

facilities in allied countries should be included in war planning. Use of these facilities could reduce the Navy's wartime capability requirements and the amount of peacetime capacity that should be maintained to meet these requirements.

Currently, the Navy has master ship repair contracts with 39 Japanese firms in Yokosuka and Sasebo Japan. Japanese contractors provide the entire spectrum of ship repair capabilities, except for work on classified electronic and missile systems. Commercial ship repair is also accomplished through the use of five major shipyards and numerous smaller ship repair activities in Singapore. We were told that the ship repair capability in Singapore is equal to that available at the Navy's shipyard in Norfolk, Virginia. While there is currently little Navy ship repair work done in South Korea, that country is expanding its ship building industry, and opportunities could be available to significantly increase contract ship maintenance there.

Navy comments on increased use of commercial ship repair facilities in the Western Pacific

Navy officials stated that the [redacted] Deleted [redacted] After asking for this type of data for several months, the Navy provided us with an extract of a [redacted] Deleted [redacted]

Navy officials did agree that contract ship maintenance in South Korea would be less expensive than similar work in Japan. However, the quality of the work on Navy ships needs improvement. Also, according to these officials it is Navy policy to have maintenance performed in ships' home ports to reduce family separation as much as possible. However, the quality of work performed is a function of experience and, more importantly, the efforts of the contracting officers' quality control team. Also, there are about 50 ships in the Seventh Fleet, but only 9 of these are homeported in Japan, and 1 submarine is homeported at Subic Bay. Thus, it would

Because the Navy would not provide us with more specific details, we could not completely evaluate the basis for the deployment data it provided for possible Pacific theater scenarios. However, based on comments from the Congressional Budget Office and officials from the Brookings Institution, statements in DOD's annual report for fiscal year 1979, the Navy's response to our questions, and the Defense Security Assistance Agency's comments on our report on Air Force planning, Pacific theater Navy deployments for these scenarios are open to question. The wartime and, consequently, the peacetime ship maintenance requirements should be based on an accurate assessment of wartime deployment requirements. These ship maintenance requirements also appear open to question.

Need to systematically define  
the wartime maintenance workload

The number of ships that will operate in the Pacific and Indian Oceans during contingencies and their proximity to existing facilities in the Western Pacific, Hawaii, and the U.S. West Coast has been questioned. However, even if the indicated quantities of ships were deployed: What is the expected wartime maintenance requirement? Who will do it? Where should it be done?

The Navy's response indicates it has planned for an increase in activity at the ship repair facilities during war. However, this increase in activity has not been systematically developed

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Our

previous reports on the Navy's intermediate ship maintenance program and the Navy's shipyards noted that wartime maintenance requirements for these levels have not been based on any systematic analysis that considers these important factors.

In our report on the Navy's intermediate maintenance program, we stated that the Navy had not analyzed how much maintenance would be required under the conditions of modern warfare--the number of ships that would be lost, the types of casualties that would occur, and how much work could be done at the intermediate maintenance level. We noted that the Navy had initiated new studies to determine intermediate maintenance requirements for war. However, the initial

contingencies. However, the deployment data 1/ the Navy provided does not appear to be consistent with commitments the United States has made to the European portion of a worldwide war with the Soviets, which the Navy has said would have higher priority (see p. 77), or DOD guidance for a conflict in Korea

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The Navy did indicate that in a Deleted priority effort would be given to the NATO area which could entail deployment of various U.S. Pacific Fleet forces to that area.

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The Navy stated that in a worldwide war with the Soviets Pacific Fleet activities would be focused primarily on protecting sealines of communication between the continental United States, Alaska, and Hawaii. As permitted by force capabilities, the tactical situation, and National Command Authority decisions, combat operations would, according to the Navy, be undertaken

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Navy comments on deployment requirements for Pacific and Indian Ocean contingencies

Navy officials stated that the deployment data they provided

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DOD's fiscal year 1979 annual report (see p. 17) states that the most demanding contingency for U.S. conventional forces is a Warsaw Pact attack on NATO countries. The Navy's response to our questions (see p. 66) noted that in a

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the priority of effort would be directed to combat operations in the NATO area, which could entail redeployment of various Pacific

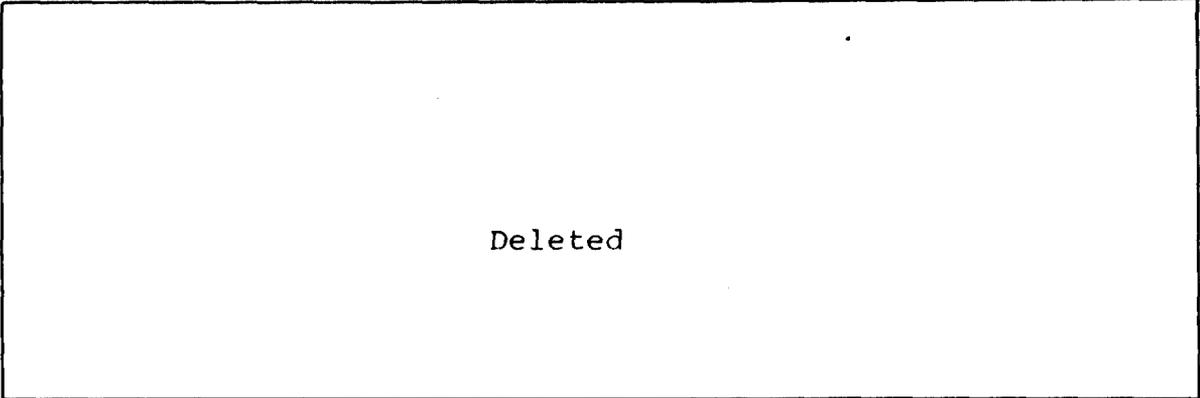
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timeframes considering available labor, recruitment from the United States, and training.

Because we were not provided with complete details, we could not fully analyze the staffing data the Navy provided. However, we believe these staffing estimates may not be based on the best available maintenance data and staffing criteria because these are still being developed by the Navy. (See p. 44.) In addition, it does not seem reasonable that the commanders of the ship repair facilities would be the most appropriate level to determine wartime ship maintenance requirements--including the effects of such important factors as expected battle damage and ship losses, capability at friendly ports, and deferring nonessential work--and the staffing needed to meet these requirements. If the commanders were given specific information on these factors, it is possible they could then determine wartime staffing requirements and their relationship to peacetime levels. However, we found no indication that the commanders had been provided with this specific information. Given this and our prior work on the Navy's wartime maintenance needs, we do not believe the estimates for wartime staffing have been based on systematic analyses of wartime maintenance requirements.

Navy comments on their development  
of wartime ship maintenance requirements

Officials initially told us that the wartime requirements have been computed based on ship deployments and that these requirements were further translated into who would perform the tasks, ships' forces and intermediate maintenance depot activities. Upon further questioning, we found that these requirements were not current nor were they based on a systematic analysis of needs. Navy officials stated that



strong. In this connection, he reaffirmed that Korea is and will continue to be under the U.S. nuclear umbrella.

"Secretary Brown made it clear that neither North Korea nor any other country should have any doubt or misunderstanding of the continuing strength of this security commitment."

The communique also stated that the United States will continue to deploy naval forces around the Korean peninsula.

The Congressional Budget Office has stated that the U.S. contribution to a conflict in Korea without combat support from either the Soviet Union or the People's Republic of China should be primarily in tactical air and logistics support, air defense, intelligence and command, control, and communications. In our report on Air Force planning for a Korean conflict, 1/ we noted that the Air Force had

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We are not questioning the need for Navy forces in the Pacific to counter the threat posed by the Soviet Pacific Fleet and to aid in the defense of the freedom of South Korea. GAO is concerned with the level of Navy forces because it is the primary factor in determining wartime ship maintenance requirements.

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1/"An Evaluation Of The U.S. Air Force's Capability To Support Its Most Demanding Pacific Theater Contingency," LCD-77-443, Aug. 28, 1978.

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--Determinations were made about the ship loading at each port. That is, how many ships would be in the various ports for repair at any given time.

--Maintenance requirements were developed by ship class by obtaining from the various ship repair activities historical data on previous work packages by class of ship for two weeks' restricted availabilities at these activities.

--Given the data on port loading (number of ships) and the applicable work packages (historical data on maintenance requirements), ship maintenance staffing estimates were developed. These are estimates of how many ship repairmen can reasonably be put aboard a ship and still work productively.

We were also told that in developing the ship maintenance requirements

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Because the supporting details were not available, we could not evaluate

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analysis used peacetime historical data that may not reflect actual wartime repair needs because it includes nonessential work. During our current work we noted that nonessential maintenance was being performed at SRF Subic Bay and at contractor activities in Singapore. Examples of this work included covering decks with tile, making awnings, and painting interior spaces.

Using peacetime workload data may be a good start in developing wartime maintenance requirements. However, the data must be refined to include only work that would be needed in wartime.

In our report on the Navy's shipyards, we concluded that the Navy had not made reasonably accurate predictions of wartime requirements for depot level ship repair. DOD agreed and noted that the Navy has encountered difficulty in determining numerical mobilization requirements in terms of the number of ships by type that would require repair and the staff-days of work that would be required. DOD also commented it would work with the Navy to develop more detailed requirements in these areas.

The Navy's response indicated that wartime ship maintenance requirements had been translated into requirements at the ship repair activities in Subic Bay, Japan, and Guam. The response did not indicate what the expected wartime staff-day repair requirements were. However, it did note that the relative magnitude of planned ship repair at these activities is indicated by the increases in wartime staffing:

<u>Activity</u>	<u>Civilian peacetime authorization</u>	<u>Mobilization day</u>		
		<u>Plus 1 month</u>	<u>Plus 2 months</u>	<u>Plus 3 months</u>
SRF Subic Bay	4,229	Deleted		
SRF Yokosuka	1,556			
SRF Guam	500			

The Navy stated that the staffing data came from Pacific Fleet mobilization plans which we did not have access to. Pacific Fleet officials stated that the wartime staffing requirements were the best estimates of the commanding officers of the respective shore activities and represent what can reasonably be achieved by each activity within given

long-term effort to review ship maintenance strategies, requirements, and resources for all classes of surface ships. The purpose of this \$644 million project is to develop an overall, integrated ship maintenance system to improve the material condition of ships. Our report identified several potential problem areas which, unless closely watched, could affect the success of the project. The report also identified specific project areas where the Navy has not done sufficient work to justify current budget requests. A digest of the report is included in this report as appendix VII. While there are problems with the Ship Support Improvement Project which should be corrected, the project does represent a significant effort by the Navy to quantify ship maintenance requirements.

Navy officials stated that in fiscal year 1979 they will begin a study of offshore intermediate maintenance capabilities for surface ships. This study will consider

- the use of ship repair facilities for intermediate maintenance in wartime,
- the establishment of shore intermediate maintenance activities with traditional allies,
- planning on uniform loading of intermediate maintenance activities in wartime, and
- the use of containerized mobile or portable shops and the use of a combination of barges and tugs as a substitute for tenders.

Navy officials explained that this study is another example of the Navy's efforts to identify maintenance requirements and the most efficient ways to accomplish them.

In a prior report on the services' development of personnel staffing standards, 1/ we noted the Navy has separate programs for documenting the minimum qualitative and quantitative staffing requirements for ships and aircraft squadrons. However, only limited progress had been achieved in the staffing standards program for shore activities. Thus, historical data and estimates, rather than more precise staffing standards, have been used in developing the force levels for shore activities.

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1/"Development and Use of Military Services' Staffing Standards: More Direction, Emphasis, and Consistency Needed," FPCD-77-72, Oct. 18, 1977.

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Navy officials stated that these figures were developed through the following steps:

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contractor activities, how much would the level of activity be reduced at these activities? Would further facility construction be required to meet this level? We believe that more analysis of these factors is needed to establish what the peacetime and wartime level of activity needs to be.

Navy comments on the need  
for construction improvements

Navy officials stated that the construction requirements they had identified for Western Pacific activities

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We recognize that construction funds are needed to provide for Deleted

Our concern is whether scarce construction funds should be used to modernize and expand the ship repair activities, and how these improvements relate to the mobilization requirements for these facilities.

In our report on the Navy's Ship Support Improvement Project, we stated that the Navy had not sufficiently defined its needs for an intermediate maintenance capability to justify its plans to upgrade and improve intermediate maintenance activities. In our report on the Navy's shipyards, we noted that the Navy has made substantial investments in shipyard facilities and equipment without having developed a master plan establishing capacity requirements to meet specific mobilization needs. Thus, the Navy has no way of knowing if modernization funds are being directed to the shipyards that can best use them. For example, we noted that one indication that modernization funds may not be spent on the shipyards with the greatest need is that over 50 percent of all available modernization funds were scheduled to be spent on West Coast shipyards. These expenditures may be questionable in view of the emphasis placed on a NATO scenario.

DOD agreed that modernization funds should be optimally spent to support mobilization needs, but noted that it should also be recognized that these funds also need to be spent to

However, this work could be accomplished with Navy employees and more of the other types of ship repairs contracted out. This alternative deserves more analysis.

--The Navy used historical data to determine wartime maintenance requirements. In our prior reports on the Navy's intermediate and depot level maintenance programs and the Navy's Ship Support Improvement Project, we commented on the need to improve the accuracy of historical data. We have noted that using peacetime historical workload data may be a good start but the data must be refined to include only work that would be needed in wartime. Our position on these issues has not changed.

The Navy is making progress toward determining more accurate ship maintenance requirements and the staffing needed to accomplish them. If properly developed, the results of these programs, the Ship Support Improvement Project and the staffing standards program could be used to develop more accurate predictions of wartime requirements.

#### NAVY PROGRESS TOWARD ESTABLISHING WARTIME REQUIREMENTS

Navy officials agreed with the need for a systematic approach to determining ship maintenance requirements. Further, they stated that Navy efforts have dealt and are continuing to deal with this problem. Two current efforts are the Navy's Ship Support Improvement Project and the establishment of staffing standards for shore activities.

In response to our report on Navy intermediate maintenance activities, the Navy noted it was engaged in a complete analysis of ship maintenance strategy under the Ship Support Improvement Project. One of the tasks is to determine the maintenance requirements for all ships. Once completed the data could then be used to determine maintenance requirements and appropriate levels under any scenario or operating conception.

In our recent report on the Navy's Ship Support Improvement Project, 1/ we noted that the project is a comprehensive,

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1/"The Navy's Ship Support Improvement Project," LCD-78-433, Sept. 12, 1978.

Some shore-based ship maintenance capability is needed for essential peacetime requirements and for providing the base needed for wartime ship maintenance requirements. The key questions are: What will the wartime ship maintenance requirements be? What level of peacetime capacity should be maintained to meet these requirements? Answers to these questions in specific terms are needed so that the Congress can determine the essentiality of these facilities when setting funding priorities for the Navy's logistic support and construction requirements in the Western Pacific and Indian Oceans, as well as when being considered in any base rights negotiations.

The Navy is making progress toward identifying its ship maintenance requirements and the staffing needed to accomplish them. Examples of this progress include the Ship Support Improvement Project and the establishment of staffing standards for shore activities. If properly developed, the results of these efforts could be used to determine wartime maintenance and staffing requirements and the peacetime levels that should be maintained to meet these requirements. The following recommendations support continuing Navy efforts to improve its determination of wartime requirements and the level of peacetime capability that should be maintained to meet these requirements.

#### RECOMMENDATIONS

We recommend that the Secretary of Defense reassess the requirements for ship maintenance in the Western Pacific. More specifically, we recommend that the Secretary of Defense direct the Navy to:

- Quantify total wartime and peacetime ship maintenance requirements for Western Pacific and Indian Ocean operations.
- Define specifically how much maintenance should be performed by ships' forces, intermediate maintenance activities, depot level activities, and commercial contractors.
- Match these refined wartime ship maintenance requirements with refined peacetime needs to determine what level of peacetime capability should be retained and modernized.

Navy officials stated that through the use of accepted industrial engineering techniques they are currently developing staffing standards for shore installations. The development of all the required standards will take some time. These officials stated that when the standards are developed they can be matched against shore installations' wartime tasking to arrive at more precise estimates of what wartime staffing requirements should be. However, before this process can achieve optimum results, wartime tasking (especially wartime maintenance requirements for the ship repair facilities) must first be developed.

Systematic analyses are needed to determine the expected wartime maintenance requirements and the levels that should perform this maintenance. These analyses must consider many factors, including expected battle damage, ship losses, allied ship repair capabilities, and work that would be deferred during wartime. Then, by matching refined wartime maintenance requirements against refined peacetime needs, it would be possible to adjust peacetime capabilities to promote more efficient and economical peacetime operations while maintaining adequate responsiveness to wartime needs. If properly developed, the Navy's Ship Support Improvement Project and staffing standards program should be beneficial in determining ship maintenance requirements and the staffing needed to accomplish these requirements in peacetime and wartime situations. We will continue to monitor the Navy's efforts in these areas.

#### NEED TO RELATE CONSTRUCTION REQUIREMENTS TO WARTIME NEEDS

The Navy indicated that no significant additional facility requirements have been identified for the three depots, three ship repair facilities, and the aircraft facilities to meet the missions these activities have been assigned during contingencies. However, about \$100 million of normal peacetime construction requirements have been identified for these activities. Some of these requirements include warehouse construction and replacement, fire protection facilities, pollution abatement, and wharf improvements and repairs.

How essential are these construction projects? The answer to this question lies in analysis of the level of activity required in peacetime, and this should be related to a thorough analysis of the level of activity that would be required in wartime. For example, if during peacetime and war nonessential and low priority work were eliminated at the ship repair facilities and more maintenance were programed at

--Intermediate level maintenance support in many areas beyond the capabilities of ship forces is provided by deployed tenders and repair ships.

--SRFs are developed to the extent necessary to provide scheduled and emergency repair support for routinely deployed ships as well as major programmed depot level maintenance support for homeported ships. SRFs exist primarily to assure the continued material readiness of Navy deployed forces for war and secondarily to accomplish regular overhaul work on ships homeported in their area in keeping with Navy policy to overhaul ships in their homeport, when possible.

We agree that Navy ships should be maintained in a high state of readiness to conduct prompt and sustained combat operations during war and to enable these ships to meet peacetime operations. Also, we recognize that the ship repair activities contribute to these goals by providing a variety of ship repair capabilities in deployed areas. However, our concern is the level of peacetime capability that is necessary to meet essential peacetime needs and to provide the base needed for wartime requirements. We believe that before the Navy can establish the most appropriate level of peacetime ship maintenance capability, it must first determine what the current wartime requirements are. This determination must consider DOD policy, Navy deployment requirements (see ch. 2), expected battle damage, ship losses, and alternatives such as placing increased reliance on a commercial ship repair capability.

Costs are increasing at the ship repair facilities. Further, balance of payments considerations regarding continued ship repair work in Japan and the results of base negotiations in the Philippines are important issues that will need to be addressed in determining where ship maintenance should be performed. We have also noted that, according to DOD, the primary reason for retaining a depot maintenance capability and capacity is to meet contingency requirements. Thus, it is important that reasonably accurate predictions of wartime ship maintenance requirements be made to identify what capacity and capability is needed, where it is needed, and how much peacetime capacity should be maintained to meet these requirements.

We recognize the Navy's efforts in attempting to determine its ship maintenance requirements. These difficult analyses may take several years to complete. Because of this, we will continue to monitor the implementation of the recommendations in this report to determine whether the many issues raised are addressed and whether effective corrective actions are taken.

improve peacetime efficiency and capability. Even so, our report noted that once reasonably accurate projections of mobilization needs have been made, the Navy will be better able to assure that scarce modernization funds are directed to shipyards having a long-term mission.

We believe that the same circumstances apply to the Navy's ship repair facilities in the Western Pacific. Once the Navy has established what the wartime and, consequently, the peacetime requirements--including an examination of available alternatives--are for these facilities, it will be better able to assure that scarce construction funds are directed where they are needed.

### CONCLUSIONS

The number of U.S. Navy ships deployed to the Western Pacific has decreased significantly. Yet the Navy's Western Pacific shore establishment providing logistics support to the reduced fleet has remained essentially the same.

Specifically, the Navy continues to operate at considerably reduced workloads three ship repair facilities, and this is in addition to a significant contractor capability. This has led to idle capacity and contributed to increased staff-day rates.

It is recognized that relatively inexpensive ship maintenance is provided by the Navy's ship repair facilities in the Western Pacific. For example, the SRF Subic, Yokosuka, and Guam staff-day rates of \$22, \$99, and \$133, respectively are less than the average West Coast Navy shipyard rate of \$168 per staff day. The decision to have the current peacetime level of ship maintenance performed at these activities may be valid, but the reasons for doing so should be known to the Congress. For example, if the reasons stem from economics, then the Congress may decide that even more peacetime maintenance should be performed at these activities. On the other hand, the Congress may decide that domestic employment and balance of payments issues are overriding and more peacetime maintenance should be performed at U.S. facilities on the West Coast--in Hawaii and Guam. If the reasons stem from a need to maintain essential skills and a "warm base" for wartime requirements, then the specifics covering the wartime requirements should be known to the Congress so that the essentiality of these facilities can be determined.

	<u>NSD Subic</u>	<u>NSD Yokosuka</u>	<u>NSD Guam</u>
Line items carried	148,000	21,000	36,000
Value of inventory	\$137,000,000	\$21,600,000	\$31,400,000

Conventional ordnance is stored in naval magazines or ordnance facilities in the Philippines, Japan, and Guam. The ammunition storage facilities have the capability to provide intermediate level maintenance on various types of ammunition.

#### PROVIDING AVIATION SUPPORT

The Commander, Fleet Air, Western Pacific, in Atsugi, Japan, provides aviation logistics, operational, and training support to the Seventh Fleet through the air stations and facilities located in the Philippines, Japan (including Okinawa), and Guam. Maintenance requirements are predicated on the number and type of aircraft assigned to a location on a permanent and rotational basis. In the Western Pacific these basically include aircraft for station support, fleet logistics support, antisubmarine patrol, and fleet tactical aircraft assigned to aircraft carriers.

Squadrons perform their own organizational level maintenance. Intermediate level maintenance for shore-based Navy aircraft is performed by aircraft intermediate maintenance departments located at each air station and facility. Aircraft carriers provide their own intermediate level maintenance to assigned aircraft. Work beyond the intermediate capability is usually sent to depot level rework facilities in the United States. However, some depot level repair is provided by contractors in Japan and Taiwan. During fiscal year 1977 about \$11 million in depot level repairs was accomplished by these contractors. Some depot level repair is also accomplished by the Fleet Air Western Pacific Repair Activity detachment at Cubi Point in the Philippines. Work includes corrosion control, metal fatigue repair, and accident damage work.

#### DIEGO GARCIA

The Navy operates a communications facility on the island of Diego Garcia in the Indian Ocean. This facility is to provide a link in the U.S. defense communications network and to provide improved communications support in the Indian Ocean.

## AGENCY COMMENTS AND OUR EVALUATION

To save time we did not request that DOD and the Navy provide us with written comments on this report. Rather, we met with DOD, Joint Chiefs of Staff, and Navy officials to discuss the issues raised in this report. Their comments regarding these issues have been included in the report, where appropriate. Their comments regarding our recommendations are outlined below.

DOD, Joint Chiefs of Staff, and Navy officials agreed with the need to determine wartime and peacetime ship maintenance requirements for Western Pacific and Indian Ocean operations, who should perform this maintenance, and what level of peacetime capability should be retained and modernized to meet potential wartime needs. However, these officials stressed that the ship repair facilities currently perform a vital peacetime role in providing ship repair that keeps Navy ships in a high state of readiness for potential contingency operations. The following points were made by Navy officials regarding this issue:

- The overall goal of the Navy maintenance policy is to provide maintenance support required to enable ships to conduct prompt and sustained combat operations in war and to meet peacetime operational commitments.
- In support of this policy, ship repair policy for the Western Pacific is that ships operating in this area shall be maintained in a readiness condition that permits extended combat operations. Also, ships on extended deployment, such as ships homeported overseas, will be made available for depot level repairs authorized and scheduled by the Navy.
- Work needed to repair the ships will not be deferred for accomplishment after an expected return to the West Coast or Hawaii, but will be accomplished at the earliest opportunity. Also, work that should be performed at West Coast and Hawaii facilities will not be deferred for accomplishment at the ship repair facilities.
- The only ship repair work to be scheduled for accomplishment by the repair activities in the Western Pacific will be those necessary items which cannot be accomplished by forces afloat because of insufficient staffing, because they are beyond the capabilities of forces afloat, or because operating schedules require that they be accomplished ashore.

- Ship Repair Facility, Subic Bay, Philippines.
- Naval Magazine, Subic Bay, Philippines.
- Naval Air Station, Cubi Point, Philippines.
- Commander, Naval Surface Group, Western Pacific, Cubi Point, Philippines.
- U.S. Navy Office, Singapore.
- Diego Garcia, Indian Ocean.

OVERVIEW OF THE NAVY'S SHORE-BASED LOGISTICS SUPPORTCAPABILITY IN THE WESTERN PACIFIC AND INDIAN OCEANSSHIP MAINTENANCE SUPPORT

The Navy uses a multilevel approach to ship maintenance which, depending on the complexity of work, places responsibilities at the organizational, intermediate, and depot levels. Organizational maintenance is normally performed by the ship crews. Intermediate maintenance is performed by designated intermediate maintenance activities--either tenders or shore activities. Depot level maintenance is performed by Navy and private shipyards, and U.S. ship repair facilities in the Pacific.

Forming a triangle whose points are about 1,600 to 1,800 miles apart, SRF's Subic Bay, Philippines, Yokosuka, Japan, and Guam comprise the backbone of Western Pacific ship repair capability. The ship repair facilities provide depot level and, depending on the circumstances, intermediate level maintenance. During fiscal year 1976 about \$105 million was spent repairing ships at these activities and at contractor activities in Japan and Singapore. This involved about 1.5 million staff days of effort. In addition to these shore-based maintenance facilities, there is normally one intermediate maintenance tender deployed to the Western Pacific at all times.

SUPPLY OPERATIONS

Ships normally carry the required fuel, ammunition, and other consumables needed to support operations for a specified number of days. Replenishment of material requirements is normally provided by mobile logistics support force (MLSF) ships. Nine MLSF ships--five oilers, two ammunition ships, and two combat stores ships--are deployed in the Western Pacific to provide this support. Currently, over 75 percent of the fueling operations, 60 percent of the ammunition transfers, and 50 percent of the combat stores transfers in the Western Pacific are made at sea by the MLSF ships.

To provide supply and support services to fleet units, MLSF ships, and shore activities, the Navy maintains three Naval Supply Depots (NSDs) at Subic Bay Philippines, Yokosuka, Japan, and Guam. Services include accounting, inventory control, supply support, data processing, cargo and fuel handling, purchasing, and contracting. Line items carried and inventory values (excluding petroleum products) during our review were:

WORKLOAD, STAFF-DAY RATES, AND LOCAL NATIONAL EMPLOYMENT

FOR SHIP REPAIR FACILITY--YOKOSUKA, JAPAN

Fiscal year	Productive staff-days	Percent of 1970	Staff-day rate			Percent of fiscal year 1970	Local national employment		
			Direct labor	Over-head	Total		Calendar year	Total	Percent of 1970
1970	407,000	100	\$15.38	\$14.12	\$29.50	100	1970	1,944	100
1971	289,000	71	18.24	18.56	36.80	125	1971	1,402	72
1972	275,000	68	21.78	16.32	38.10	129	1972	1,357	70
1973	316,000	78	30.72	18.38	49.10	166	1973	1,396	72
1974	280,000	69	37.04	24.35	61.39	208	1974	1,416	72
1975	272,000	67	45.60	36.40	82.00	278	1975	1,450	75
1976	313,000	77	58.40	35.60	94.00	319	1976	1,565	81
1977	333,000	82	56.60	41.90	98.50	334	1977	1,652	86

LIST OF ACTIVITIES VISITED

- Headquarters, Pacific Fleet, Makalapa, Hawaii.
- Headquarters, Naval Logistics Command, Pacific, Makalapa, Hawaii.
- Headquarters, Submarine Force Pacific, Makalapa, Hawaii.
- Naval Supply Center, Makalapa, Hawaii.
- Naval Air Station, Barbers Point, Hawaii.
- Commander, 7th Fleet, Yokosuka, Japan.
- Naval Supply Depot, Yokosuka, Japan.
- Ship Repair Facility, Yokosuka, Japan.
- Headquarters, Fleet Air, Western Pacific, Atsugi, Japan.
- Fleet Air Western Pacific Repair Activity, Atsugi, Japan.
- Naval Air Facility, Atsugi, Japan.
- Naval Air Facility, Misawa, Japan.
- Naval Ordnance Facility, Sasebo, Japan.
- Naval Supply Depot, Guam.
- Ship Repair Facility, Guam.
- Naval Magazine, Guam.
- Naval Air Station, Guam.
- Officer in Charge of Construction, Marianas, Guam.
- U.S.S. Proteus, Guam.
- Officer in Charge of Construction, Southwest Pacific, Manila, Philippines.
- Naval Supply Depot, Subic Bay, Philippines.

ISSUES AND STAFF-YEARS WORKED AT  
THE THREE WESTERN PACIFIC NAVY SUPPLY DEPOTS

Fiscal year	Average monthly issues	NSD Guam			NSD Yokosuka, Japan				NSD Subic Bay, Philippines			
		Percent of 1972	Staff-years worked	Percent of 1972	Average monthly issues	Percent of 1971	Staff-years worked	Percent of 1971	Average monthly issues	Percent of 1971	Staff-years worked	Percent of 1971
1971	-	-	-	-	25,530	100	1,211	100	68,352	100	2,604	100
1972	16,913	100	607	100	19,840	78	1,284	106	67,203	98	2,884	111
1973	14,266	84	639	105	20,701	81	1,245	103	80,509	118	3,956	152
1974	12,631	75	493	81	18,600	73	1,226	101	49,944	73	1,714	66
1975	10,709	63	504	83	16,222	64	1,158	96	47,782	70	1,628	63
1976	9,883	58	514	85	16,709	65	1,141	94	44,849	66	1,576	61
1977	11,216	66	504	83	a/20,151	79	1,174	97	47,864	70	1,514	58

a/Increase in issues results from NSD Yokosuka providing increased supply support to the combat store ship U.S.S. White Plains and Navy customers on Okinawa that were previously provided supply support by the Army.

WORKLOAD, STAFF-DAY RATES, AND LOCAL EMPLOYMENT

FOR SHIP REPAIR FACILITY--SUBIC BAY, THE

PHILIPPINES

<u>Fiscal year</u>	<u>Productive staff-days</u>	<u>Percent of 1973</u>	<u>Staff-day rate</u>				<u>Local national employment</u>	
			<u>Direct labor</u>	<u>Over head</u>	<u>Total</u>	<u>Percent of fiscal year 1969</u>	<u>Total</u>	<u>Percent of 1969</u>
1969	-	-	\$5.44	\$ 8.95	\$14.39	100	5,245	100
1970	-	-	5.76	9.90	15.66	109	5,336	102
1971	-	-	5.02	10.30	15.32	106	4,503	86
1972	-	-	5.76	9.30	15.06	105	4,940	94
1973	1,651,200	100	5.46	10.16	15.62	109	5,788	110
1974	1,164,700	71	6.08	10.82	16.90	117	4,625	88
1975	1,035,400	63	6.26	12.96	19.22	134	4,445	85
1976	964,200	58	6.53	12.96	19.49	135	4,786	91
1977	944,700	57	8.16	13.90	22.06	153	4,331	83

6. Have these wartime ship and aircraft deployments been translated into maintenance requirements?
  - A. Have these maintenance requirements been further translated into what can be done by the ships' forces, intermediate maintenance activities, ship repair facilities, aircraft repair facilities, and public and private shipyards?
  - B. Have these maintenance requirements been further broken down by probable deployment areas outlined in the contingencies cited in question 1 and do some of the maintenance activities have a greater role than others in the different contingencies? If so, please explain the magnitude each maintenance activity will have in each of the contingencies cited in question 1.
  - C. Have any of the U.S. Navy wartime maintenance requirements been assigned to our allies in the Pacific and Indian Ocean areas?
  - D. Has ship and aircraft attrition been considered in developing the maintenance requirements? How?
  - E. What additional factors were used in developing the wartime maintenance requirements?
7. Have the wartime maintenance requirements identified in question 6 been translated into additional manpower and material requirements at the ship repair and aircraft maintenance facilities in the Western Pacific area including Guam?
  - A. What are the peacetime and wartime (by contingency identified in question 1) personnel requirements for these activities?
  - B. How rapidly must these activities accumulate the required personnel and where will they come from?
  - C. Have the most critical repair materials been identified? Are there war reserves of these materials located at the repair facilities? How were the reserve requirements developed?
  - D. If the critical repair materials are not at the repair locations, where are they and what plans have been developed to move them to locations of use?

WORKLOAD, STAFF-DAY RATES, AND EMPLOYMENTAT THE SHIP REPAIR FACILITY--GUAM

<u>Fiscal year</u>	<u>Productive staff-days per day</u>	<u>Percent of 1969</u>	<u>Direct labor</u>	<u>Over-head</u>	<u>Total</u>	<u>Percent of fiscal year 1969</u>	<u>Local national employment</u>	
							<u>Total (note a)</u>	<u>Percent of 1969</u>
1969	1,762	100	\$21.04	\$19.52	\$ 40.56	100	2,383	100
1970	1,301	74	24.48	28.72	53.20	131	2,033	85
1971	1,201	68	29.76	29.36	59.12	146	1,863	78
1972	827	47	39.60	48.80	88.40	218	1,331	56
1973	653	37	45.84	48.96	94.80	234	1,081	45
1974	698	40	53.76	46.96	100.72	248	940	39
1975	583	33	62.56	59.20	121.76	300	885	37
1976	431	24	72.08	67.84	139.92	345	550	23
1977	563	32	74.20	58.80	133.00	328	b/689	29

a/Figures for fiscal years 1969 through 1975 include contract labor hires from the Philippines.

b/Includes temporary employees.

11. During hearings on the Fiscal Year 1977 DOD appropriations, the Navy stated that in a conflict with Soviet forces, the U.S. Navy fleets in the Pacific could hold open sealanes to Hawaii and Alaska but because of shortages of sea control and mobile logistics support forces, the Navy would have difficulty protecting sea lines of communication into the Western Pacific.
  - A. Does this situation still exist and where is the greatest shortage sea control or mobile logistics support forces?
  - B. Does this situation result from the Pacific Fleet's policy of placing reliance on shore based logistics activities and thus not fully developing and maintaining the mobile logistics capability required during wartime conditions?
12. What additional facility requirements have been identified for the three depots, three ship repair facilities and the aircraft repair facilities to meet the missions these activities have been assigned under each of the contingencies cited in question 1.
  - A. How soon would the additional facilities have to be available?
  - B. Who would construct these facilities?
  - C. What alternatives have been identified?
13. Do Navy logistics requirements include unmanned logistical support bases in peacetime that would be used during wartime?
  - A. Where are these unmanned bases?
  - B. What would these unmanned bases be used for in relation to the contingencies cited in question 1?
  - C. What resources (personnel, material and facilities) would be required to activate the unmanned bases and where would these resources come from?
14. In relation to each of the contingencies cited in question 1, what wartime logistics support functions have been assigned to the Navy shore facilities on

Diego Garcia and how would they be resupplied under wartime conditions?

15. What are the war reserve ammunition storage requirements by type of ammunition and by contingency cited in question 1 for each of the ammunition storage facilities

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- A. Can 100 percent of the war reserve requirements be stored in the facilities and is the ammunition on hand?
- B. If the requirements cannot all be stored at these activities, where is the ammunition stored, and what would be done to move it to the storage activities in the Western Pacific?
- C. What additional personnel, material and facility requirements would be needed during the contingencies cited in question 1?

16. What are the war reserve fuel storage requirements by type of fuel and by contingency cited in question 1 for each of the fuel storage activities in the Western Pacific including Guam?

- A. Can 100 percent of the war reserve requirements be stored in the facilities and is the fuel on hand?
- B. If the requirements cannot be stored at these activities, where are the fuels stored and what would be done to move the fuels to the storage activities in the Western Pacific?
- C. What additional personnel, material and facility requirements are needed during the contingencies cited in question 1?

17. If the Navy would have difficulty keeping the sea lines of communication open in the Western Pacific during a conflict with Soviet forces, (see question 11), does the Navy logistics planning include provisions for moving ammunition and fuel stocks to rear areas

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- A. Where would these stocks then be located?
- B. What forces would move these stocks? Are they available and ready?
- C. What additional rear area facilities would be required to facilitate this relocation?

U.S. NAVY RESPONSIVENESS AND COOPERATIONON THIS ASSIGNMENT

The objective of our assignment was to determine in specific terms what the Navy's logistics support requirements--especially ship repair capability--are for wartime contingencies in the Western Pacific and Indian Oceans, and how the current peacetime shore-based capability relates to planned wartime requirements. Our progress on this assignment was delayed because the Navy would not provide us with required information. For example, we needed specific information on wartime requirements and what they were based on. However, the Navy could not provide us with all the details we needed for a complete analysis because of a Joint Chiefs of Staff policy which prohibits disclosure of planning information outside of normal operation plan distribution channels.

WE ATTEMPT TO OBTAIN INFORMATION  
ON WARTIME REQUIREMENTS FOR THE NAVY'S  
WESTERN PACIFIC AND INDIAN OCEAN SHORE  
INSTALLATIONS

Beginning in May 1977 we asked the Navy for specific details on wartime requirements. The following chronology outlines our attempts to obtain the detailed information we needed:

May 5, 1977

Our Far East Branch requested that the Commander-in-Chief, Pacific provide information related to the wartime missions and functions of the Navy Western Pacific shore establishment. They were told that requested information was related to Navy war plans and would not be released without clarification from higher headquarters.

May 9, 1977

The Far East Branch wrote a letter to the Commander-in-Chief, U.S. Pacific Fleet requesting the above information.

May 27, 1977

The Far East Branch received a response from the Joint Chiefs of Staff through the Commander-in-Chief, Pacific that wartime and peacetime missions and roles of these activities could be discussed in general terms. However, details

relating to specific operational plans could not be discussed. Thus, the detailed information needed for a complete evaluation of the wartime roles of these activities was not releasable to us according to the Pacific Fleet's interpretation of this guidance.

July 2 to 13, 1977

During this period the Far East Branch found that Pacific Fleet's Logistics Support Mobilization Plan contained many of the logistics support details we needed for a more complete analysis of the wartime roles of the shore activities we visited. They requested this document in writing with, in accordance with Joint Chiefs of Staff guidance, references to specific plans deleted.

August 31, 1977

Pacific Fleet agreed to provide an oral briefing on the Logistics Plan. However, this briefing was completely unresponsive because each time we asked specific questions from a list that had been prepared in some detail prior to the briefing, Pacific Fleet officials would not respond to our questions.

September 28, 1977

Because of the lack of responsiveness on the part of Pacific Fleet officials regarding the Logistics Plan, we requested that Navy headquarters provide access to the Plan. In a separate letter we requested that the Navy also provide answers to several questions relating to the wartime missions, roles, and functions of the activities we had visited. Many of these questions had been previously asked at Pacific Fleet.

December 12, 1977

The Navy responded that they would not release the Logistics Plan to us. However, the Navy noted they were preparing a response to the questions.

January 27, 1978

The Navy responded to the questions we had sent them on September 28, 1977. However, the general nature of the Navy's response leaves many questions still unanswered. Many of these questions should have been answered at the Pacific Fleet level where the required information was readily available and could be discussed with the officials responsible for its development.

Our evaluation of relevant portions of the Navy's January 27, 1978, response to our questions is discussed below.

EVALUATION OF PORTIONS OF THE  
NAVY'S RESPONSE TO OUR QUESTIONS

We believe the need for the Navy's ship repair facilities in the Western Pacific should be based on in-depth analyses of the Navy's wartime ship maintenance requirements. These studies should include careful analysis of possible contingencies, Navy wartime deployments and the level of ship maintenance that would be required by these deployments. Specifically: What ship maintenance is required? What capability is available to cover Navy forces' requirements for Western Pacific and Indian Ocean operations? Who should provide this maintenance support and where should it be performed? Answers to these questions in specific terms are needed to effectively determine wartime ship maintenance requirements and the level of peacetime capability that should be maintained to meet these wartime requirements.

Initially, we attempted to find answers to these key questions at the activities we visited in the Western Pacific and at Pacific Fleet headquarters in Hawaii. However, officials at these activities declined to provide us with specifics on wartime capability needs. Instead, they provided a general response that the Navy has planned for an increase in the tempo of operations and, consequently, there will be an increase in activity at their shore-based ship repair activities.

This general response did not address the key issue of what the Navy's wartime ship maintenance requirements are for Western Pacific and Indian Ocean operations and what they are based on. We therefore asked the Navy in September 1977 to provide answers to several questions addressing these issues. However, as discussed below, their answers, which were received some 4 months later (February 1978) and subsequent discussions on these answers were not completely responsive to these issues.

Wartime deployment data

According to the Navy, a worldwide war with Soviet forces would be their most demanding contingency in the Pacific theater. A conflict in Korea would be a lesser contingency.

In response to our questions, the Navy provided us with their planned deployments for these contingencies. [Redacted]

[Redacted] Deleted

[Redacted] The deployment data the Navy provided does not appear to be consistent with commitments the United States has made to the European portion of a worldwide war with the Soviets, which the Navy stated would have higher priority. The deployment data the Navy provided for a conflict in Korea did not appear to be consistent with defense guidance for a conflict in Korea [Redacted]

[Redacted] Deleted

The Navy's response to our questions states that in a [Redacted] Deleted priority effort would be given to the NATO area which could entail deployment of various U.S. Pacific Fleet forces to that area. A number of other sources (see ch. 2) also indicate that during a worldwide war with the Soviets a number of Pacific Fleet units could be redeployed to the Atlantic. [Redacted]

[Redacted] Deleted

We attempted to discuss the apparent inconsistencies in the Pacific theater deployment data with Navy planning officials. However, the only additional information these officials would provide was that decisions to redeploy Pacific Fleet forces to the Atlantic during a worldwide war with the Soviets would be made [Redacted] Deleted and would depend on many factors. Navy officials subsequently stated that the [Redacted]

[Redacted] Deleted

Because of continuing access to records problems we could not review the basis for the deployment data included in the Navy's response. Thus, our question remains: What Navy forces would be required and available to meet possible Pacific theater contingencies? The wartime and, consequently, the peacetime support requirements should be based on an accurate assessment of wartime deployment requirements. As discussed below, what these support requirements need to be is also open to question.

#### Determining ship maintenance requirements

The Navy's response to our questions noted that wartime ship deployments had been translated into maintenance requirements and that wartime estimates have been made for intermediate and depot level maintenance. However, the Navy's response did not provide specific details on how such important factors as expected battle damage, ship losses (attrition), the capability at friendly ports, and deferring nonessential work had been considered in developing these estimates.

Ship losses could reduce the Navy's wartime maintenance requirements. We asked the Navy how ship losses had been considered in the development of maintenance requirements. The Navy stated that attrition is normally considered in the development of operation plans. However, it did not indicate what attrition rates had been used, what they are based on, or what the impact was on ship maintenance requirements at the Western Pacific ship repair facilities. We discussed this with Navy maintenance officials responsible for developing the Navy's answers to our questions. They could not tell us what ship loss factors had been used in developing maintenance requirements. Instead, they stated that we should ask Navy planners what the ship loss factors were for Pacific and Indian Ocean wartime operations. However, Navy planners stated that Navy maintenance officials should tell us what ship loss factors had been used.

During final discussions of this report

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While the Navy's response stated that wartime estimates have been made for intermediate and depot level ship maintenance requirements, it did not indicate what these requirements were or what they were based on. In our report on the Navy's intermediate maintenance program, we noted that the Navy had initiated new studies to determine intermediate maintenance requirements. However, the analysis used peacetime historical data that may not reflect actual wartime repair needs because it includes nonessential work. Using peacetime workload data may be a good start in developing wartime maintenance requirements, but the data must be refined to include only work that would be needed in wartime. The Navy's response did not indicate if the estimates for wartime ship maintenance had been refined to include only work that would be required during wartime.

During our final discussions with Navy officials in August 1978, they provided us with a

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We began asking for this data some 15 months earlier--in May 1977. The details of Deleted are discussed on page 41. While we did not have an opportunity to review the details supporting Deleted we did note that historical peacetime data was used

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The Navy's response did not indicate what the expected wartime maintenance needs were in terms of staff-day requirements at the ship repair facilities. Rather, it noted that the relative magnitude of planned ship repair at these activities was indicated by increases in wartime staffing.

According to the Navy's response, the staffing increases are based on Pacific Fleet mobilization plans. We did not have access to these plans. Pacific Fleet officials later stated that these increases in wartime staffing requirements were the best estimates of the commanding officers of the ship repair activities and represent what can reasonably

be achieved by each activity within given timeframes, considering available labor, recruitment from the United States, and training.

It does not seem reasonable that the commanding officers of the ship repair facilities would be the most appropriate level to determine wartime ship maintenance requirements--including the effects of such important factors as expected battle damage and ship losses, the capability at friendly ports, and deferring nonessential work--and the staffing needed to meet these requirements. If the commanders were given specific information on these factors, it is possible they could then determine wartime staffing requirements and their relationship to peacetime levels; however, we found no indication that this had been done. Given this and our prior work on the Navy's wartime maintenance needs, we do not believe the estimates for wartime staffing have been based on systematic analyses of wartime maintenance requirements. <sup>1/</sup>

The Navy's answers to our questions and subsequent discussions were not responsive to the basic issue of how wartime maintenance requirements are developed. Thus, the basic questions remain: What are the wartime ship maintenance requirements for Western Pacific and Indian Ocean operations? What level of peacetime capability should be maintained to meet these requirements? We believe that answers to these questions in specific terms are needed so that the Congress can determine the importance of these facilities in discussing future base rights agreements and in setting funding priorities for the Navy's logistics support and construction requirements in the Western Pacific and Indian Oceans.

NAVY COMMENTS ON THEIR  
RESPONSIVENESS AND COOPERATION

Navy officials stated that they were cooperative in providing information on the peacetime operations of the Navy activities visited by our staff. However, due to Joint Chiefs of Staff policy restrictions on the release of information on wartime planning, they could not provide us with the evaluation of wartime requirements.

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<sup>1/</sup>"The Navy's Intermediate Ship Maintenance Program Can Be Improved", (LCD-77-412, Sept. 23, 1977); "Naval Shipyards-- Better Definition of Mobilization Requirements And Improved Peacetime Operations Are Needed", (LCD-77-450, Mar. 31, 1978); and "The Navy's Ship Support Improvement Project", LCD-78-433, Sept. 12, 1978).

Navy officials at all levels were cooperative in providing information on the peacetime operations of the activities we visited. However, we believe that, in order to be prepared for war maintenance contingencies, the need to retain facilities in peacetime should depend primarily on the wartime requirements for these activities. To completely assess this relationship, information on the wartime requirements has to be provided for our evaluation.

Regarding the policy restrictions imposed by the Joint Chiefs of Staff, we did note that by a message dated May 27, 1977, the Joint Chiefs of Staff did give the Commander-in-Chief, Pacific and in turn, Pacific Fleet, permission to release information on methods for computing supply and maintenance support and logistics support actions needed to change from a peacetime to a wartime situation. We have discussed above our subsequent problems in trying to obtain this information.

We are continuing to work with DOD, the Joint Chiefs of Staff, and all of the services on the release of information we need to completely evaluate wartime logistics support requirements. We hope that in the future the information we require will be complete and received more rapidly. The Navy's response to our questions on this assignment follows.



DEPARTMENT OF THE NAVY  
OFFICE OF THE CHIEF OF NAVAL OPERATIONS  
WASHINGTON, D. C. 20350

IN REPLY REFER TO  
Ser 405R/T-1-78  
27 January 1978

Mr. Werner Grosshans  
Associate Director  
Logistics and Communications Division  
General Accounting Office  
Washington, D. C. 20548

Dear Mr. Grosshans,

This is in reply to your letter of September 28, 1977 which contains a series of questions regarding the survey (Code 947274) of wartime missions, functions, and requirements of certain Pacific and Indian Ocean Navy shore activities. The Navy response to these questions is contained in the enclosure.

Certain elements of your questions specifically relate to operation plans prepared by the Commander in Chief, Pacific in response to the Joint Chiefs of Staff (JCS) tasking. JCS Memorandum of Policy (MOP) Number 39 does not allow for disclosure of this information outside of normal operation plan distribution channels. The enclosed response is provided in accordance with the above JCS guidance.

Sincerely,

John D. Chase  
Rear Admiral, U.S. Navy  
Deputy Chief of  
Naval Operations (Logistics)

Enclosure  
(As stated)

QUESTIONS/ANSWERS REGARDING THE  
WARTIME MISSIONS, FUNCTIONS  
AND REQUIREMENTS OF SELECTED  
PACIFIC FLEET SHORE ACTIVITIES

1. We understand that Pacific Fleet shore activities' wartime missions functions and logistics requirements are related to the contingencies identified by the numbers 5001, 5025 and 5027.
  - A. What are these contingencies?
  - B. In terms of personnel, equipment and material which of these contingencies is the most demanding?
  - C. Is 5001 now divided into 5001A and 5001B? If so, what contingencies do they now relate to and which contingency (5001A, 5001B, 5025, 5027) is now the most demanding?
  - D. Are there other unnumbered contingencies included in logistics planning documents? If so, what are they and which is most demanding in relation to questions 1B and 1C.

Answer: (U) In accordance with long standing policy of the Joint Chiefs of Staff, association of contingency plan numbers with the contingency plan title is not disclosed outside of normal plan distribution channels. Since the thrust of the questions is to identify the most demanding contingency, non-disclosure of plans and their numbers would have no impact on the review in progress. The most demanding Pacific contingency for PACFLT would be that of general war. A localized contingency, such as the defense of the ROK, would require a lesser level of effort. Although the wartime mission and functions of PACFLT shore activities are fundamentally the same for all contingencies, the level of logistic requirement which must be met will vary as to the geographic location of the activity and the specific contingency being supported.

CLASSIFIED BY OP-60  
SUBJ TO G.D.S. OF E.O. 11652  
AUTOMATICALLY DOWNGRADED  
AT TWO-YR INTERVALS  
DECLAS ON 31 DEC 1987

Enclosure 11 to  
CNO Ser 4058/T-1-78  
of 27 January 1978

**UNCLASSIFIED**

2. What is included in the Commander-in-Chief Pacific Fleet (CINCPACFLT) base development plans and are there base development plans for all of the U. S. Navy bases in the Pacific and Indian Oceans?

Answer: (U) CINCPACFLT base development plans are prepared as a physical part of contingency operation plans. These base development plans address all overseas bases in the CINCPACFLT geographic area that will be in operation during the time frame of the contingency plan. For each base, the base development plan lists facility requirements, assets and deficiencies by facility category. Construction projects required to satisfy facility deficiencies are listed and scheduled. Construction materials and labor associated with the construction projects are also listed.

3. Does the CINCPACFLT "Lines of communication and capabilities," CINCPACFLT serial 402/01066 of October 23, 1972, show what sealanes we would attempt to keep open under the contingencies identified in question 1?

Answer: (U) CINCPACFLT serial 402/01066 of 23 October 1972 is a CINCPACFLT letter response to CINCPAC tasking relative to CINCPAC's "Logistic Lines of Communication and Capabilities" Plan. This plan is developed by the unified commander in response to JCS tasking and discusses road networks, bridges, seaports and other factors related to the transportation/logistics infrastructure of nations whose territory might be utilized in the execution of CINCPAC plans. The plan does not discuss sealines of communication.

- 3A. Has this document been recently updated?

Answer: (U) The plan is updated annually.

- 3B. What sealanes would we attempt to keep open under the contingencies listed in question 1?

Answer:

deleted

4. What is the number of ships and aircraft by type that will be deployed to meet the Navy missions specified in the contingencies identified in question 1?  
(Please indicate by each contingency)
5. What are the probable areas of deployment for the ships and aircraft identified in question 4 for each of the contingencies listed in question 1?

6. Have these wartime ship and aircraft deployments been translated into maintenance requirements?

Answer: (U) Yes.

- A. Have these maintenance requirements been further translated into what can be done by ship's forces, intermediate maintenance activities, ship repair facilities, aircraft repair facilities, and public and private shipyards?

Answer: (U) Yes. It is Navy policy that the forces afloat be self-sufficient to the maximum extent practicable consistent with current resource realities. Shipboard planned maintenance requirements remain the same for wartime as for peacetime, and ship's forces would continue to accomplish all corrective maintenance possible, deferring to the depot only those repairs which are beyond the capability or capacity of the ship's forces. Wartime estimates have been made for intermediate and depot level maintenance.

Aircraft maintenance requirements have been translated into what can be done by ship's forces (squadron), the intermediate maintenance activities, and aircraft repair facilities (depot). Aircraft maintenance requirements will require that both the organizational and intermediate level activities be augmented with personnel during wartime as a part of the mobilization plan. It is the Navy's objective to outfit carriers, Marine air groups, and helicopter carriers with sufficient parts to meet wartime flying rates. However, due to past constrained resources this objective has yet to be attained. Navy is doing everything possible within current resource controls to meet the wartime parts support objective for Naval Aviation. Maintenance requirements for aircraft repair facilities have also been planned to meet wartime flying rates.

- B. Have these maintenance requirements been further broken down by probable deployment areas outlined in the contingencies cited in question 1 and do some of the maintenance activities have a greater role than others in the different contingencies? If so, please explain the magnitude each maintenance activity will have in each of the contingencies cited in question 1.

Answer: (U) Ship maintenance requirements have been broken down by area (Subic Bay, Japan and Guam) for both the General War and the Defense of Korea contingencies. The relative magnitude of the repair activities can be seen in the manpower data provided in the response to question 7.

C. Have any of the U. S. Navy wartime maintenance requirements been assigned to our allies in the Pacific and Indian Ocean areas?

Answer: (U) No, all U. S. Navy wartime maintenance requirements are assigned to U. S. activities.

D. Has ship and aircraft attrition been considered in developing the maintenance requirements?  
How?

Answer: (U) Yes, attrition is normally considered in the development of operation plans. Aircraft attrition rates have been estimated and included in developing the depot level maintenance requirements during wartime conditions. Fleet wartime requirements are based on the assumption that attrition losses will be replaced at a pre-calculated rate.

E. What additional factors were used in developing the wartime maintenance requirements?

Answer: (U) Additional factors considered in the development of wartime maintenance requirements were: manpower requirements for each maintenance level, physical capacity of the depot level rework activities, supply support requirements for each maintenance level and commercial facility availability.

7. Have the wartime maintenance requirements identified in question 6 been translated into additional manpower and material requirements at the ship repair and aircraft maintenance facilities in the Western Pacific area including Guam?

Answer: (U) Yes; however, such increased material support would be provided through Navy Supply Depots. It is anticipated that all aircraft depot level maintenance will be accomplished in CONUS during any wartime scenario except a limited combat situation such as Vietnam. If faced with this type situation, then some limited amount of aircraft depot level repair would be accomplished through contract with overseas activities in Japan and Taiwan. Options are kept open to supplement shore based maintenance activities with Naval Air Rework Facility and commercial field teams, as applicable.

- A. What are the peacetime and wartime (by contingency identified in question 1) personnel requirements for these activities?
- B. How rapidly must these activities accumulate the required personnel and where will they come from?

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<u>Answer:</u> (S) Contd.	C/A	S/R	M+1	M+2	M+3
Ship Repair Facility Guam					
Officer	11	10			
Enlisted	103	16			
Civilian	500				
Ship Repair Facility Subic Bay					
Officer	28	9			
Enlisted	113	11			
Civilian	4,229				
Ship Repair Facility Yokosuka					
Officer	21	8		deleted	
Enlisted	53	72			
Civilian	1,556				
Aviation Intermediate Maintenance Department (AIMD), Cubi Point					
Officer	11	1			
Enlisted	325	73			
Civilian	80				
Under revision					

- C. Have the most critical repair materials been identified? Are there war reserves of these materials located at the repair facilities? How were the reserve requirements developed?

Answer: (U)

(1) Critical repair materials have been identified through both the Fleet Issue Load List (FILL) and the Tender and Repair Ship Load List (TARSLI).

(2) A FILL is positioned at NSD Subic in close proximity to SRF Subic and aboard the CINCPACFLT AFSS. The TARSLIs are PWRMS material positioned aboard the PACFLT tenders and repair ships. The repair facilities may draw from the TARSLI in an emergency if a tender or repair ship is in the area.

(3) The FILL is computed based on those repair parts and spares which have a quarterly average demand of one or more from deployable CINCPACFLT ships. The TARSLI is constructed to support the industrial mission of tenders

and repair ships in supporting specific hull types designated by CINCPACFLT. The TARSLL is developed on the basis of shipboard equipment configuration of the ships being tended, failure rates of repair parts and spares and peacetime demand of the active fleet tenders and repair ships. Peacetime demand is adjusted to reflect combat consumption rates for appropriate items.

- D. If the critical repair materials are not at the repair locations, where are they and what plans have been developed to move them to locations of use?

**Answer:** (U) The critical materials in the Fleet Issue Load List are located at NSD Subic close to the Ship Repair Facility as well as aboard the mobile AFSs. The mobility of the tenders and repair ships allows them to respond to the operational requirements and augment support to repair facilities in Guam, Subic and Yokosuka.

8. What is the impact on wartime mobility and readiness resulting from scheduling ship repair out of the ships' operating areas? For example, under what conditions would ships operating near Japan or the Philippines be sent to Guam to repair battle damage and what would be the impact of this?

Answer: (U) Extent of the combat damage received would be the factor in determining which yard repair facility would be utilized. In addition, consideration would have to be given to the work loads within those yards, be they destroyers, submarines, or carriers.

9. What are the wartime missions of the three CINCPACFLT Navy supply depots?

Answer: (U) The primary functions of the CINCPACFLT Navy Supply Depots during all contingency scenarios is to provide a forward source of supply for combat forces and/or their underway replenishment groups. This includes delivery to the operating forces of logistics support such as POL, provisions, general stores, ship stores and repair parts.

TAB A provides functions currently performed by the supply depots which would be continued during contingencies at accelerated levels. During all contingencies the importance of the supply depot's mission of providing support to fleet units operating in WESTPAC is magnified. The supply depots aid in the flexibility and instantaneous response required in wartime by providing a degree of support which could not be achieved without the supply depots.

A common fallacy in examining the impact of distance is to assume that air transportation will circumvent the problem. In fact, air transportation currently represents a miniscule portion of the total supply support directed to the depots and, in turn, to fleet units in WESTPAC. For example, NSD Subic receives 98% of its material from CONUS via surface. The fact that the vast majority of supply support of the fleet is accomplished by surface means is made possible by the existence of the Navy Supply Depots. Positioned over 4500 miles from CONUS in the three key locations of Guam, Philippines and Japan, material critical to the fleet's mission can be directed from the depots rather than from CONUS. In both wartime and peacetime, the existence of the supply depots shortens the supply pipeline to fleet units thereby increasing fleet readiness and reducing the requirement for premium air transportation.

- 9A. What additional personnel would be required by each under the contingencies cited in question 1? How soon would the additional personnel be required and where would they come from?

Answer: (U) Military Manpower data is from the 30 September 1977 billet file. The civilian manpower data is from the 1977 CINCPACFLT Logistic Support and Mobilization Plan. Provided below are the names of individual activities and the manpower categorized by officer, enlisted and civilian: C/A is the peacetime manpower authorized; M+1, M+2 and M+3

are the authorizations for M-Day plus one, plus two months and plus three months; the S/R indicates mobilization billets which should be pre-assigned to Selected Reserves. The active billets (C/A) and the Selected Reserve billets (S/R) are subsumed in the mobilization requirements.

		C/A	S/R	M+1	M+2	M+3
Navy Supply Depot Guam	Officer	17	14			
	Enlisted	49	15			
	Civilian	415				
Navy Supply Depot Subic Bay	Officer	25	14			
	Enlisted	124	15			
	Civilian	962				
Detachment 30, Manila	Enlisted	2	0			
Detachment, Yokosuka	Officer	1	0			
	Enlisted	0	0			
Navy Operating Activity, Clark AFB	Officer	1	0		deleted	
	Enlisted	14	0			
Navy Supply Depot Yokosuka	Officer	15	14			
	Enlisted	91	14			
	Civilian	943				
Navy Fuel Detachment TSURUMI, Japan	Officer	2	0			
	Enlisted	22	0			
NSD Yokosuka/Hong Kong	Officer	2	0			
	Enlisted	8	0			
NSD Yokosuka P.O.L. Detachment	Officer	1	0			
	Enlisted	3	0			
Navy Fuel Detachment Sasebo	Officer	2	0			
	Enlisted	14	0			

	C/A	S/R	M+1	M+2	M+3
Hachinohe Terminal, Japan					
Enlisted	1	0		deleted	
Navy Operating Activity, Yokota, AFB					
Officer	0	0			
Enlisted	7	0			

Key

X = Navy only  
 XX = service to Navy and/or other services,  
 government agencies

<u>Functions</u>	<u>Naval Supply Depot</u>		
	<u>Yokosuka</u>	<u>Subic</u>	<u>Guam</u>
1. Discharge and loading of cargo	XX	XX	XX
2. Distribution and transshipment of cargo	XX	XX	XX
3. Perform stores, cost, resources management, and plant property accounting as well as civilian payroll/timekeeping services	XX	X	X
4. Provide data processing services for Naval activities in the area	XX	X	X
5. Perform MHE maintenance and repairs	X		XX
6. Provide full supply support to service craft and shore activities and home ported and nonhome ported units	X	X	X
7. Provide resupply support to the MLSF	X	X	
8. Provide emergency resupply support to MLSF			X
9. Provide aviation supply support for WESTPAC fleet and marine activities		X	
10. Provide aviation supply support for selected activities in immediate area		X	X
11. Provide supply support to other DOD activities and other government agencies	XX	XX	XX
12. Perform shipping and receiving functions for sea surface cargo for all military activities	X	XX	XX

<u>Functions</u>	<u>Yokosuka</u>	<u>Subic</u>	<u>Guam</u>
13. Operate a Navy Overseas Air Cargo Terminal	X	X	
14. Receive and process all incoming and outgoing air cargo, including authorizing and issuing route orders			X
15. Provide marine terminal service to non-DOD government activities	XX	XX	XX
16. Provide bulk petroleum products for all U. S. military Services and other U. S. government activities	XX	XX	XX
17. Provide procurement, receipt, storage, issue, and accounting for all petroleum products	X	X	X
18. Provide quality control and petroleum sample analyses by all military activities and agencies	XX	XX	XX
19. Provide emergency POL support to commercial firms, private parties, and foreign vessels as approved by higher authority	XX	XX	XX
20. Provide POL quality surveillance assistance to WESTPAC fleet units	X	X	X
21. Perform general procurement as designated by higher authority	X	X	X
22. Perform the contracting function for ship repair	X	X	
23. Perform the contracting function for aircraft repair in WESTPAC		X	
24. Provide Common Use Land Transportation (CULT) services to all DOD activities			XX
25. Act as Defense Supply Agency single service area support agent for worldwide integrated management of wholesale subsistence (WIMS)	XX	XX	XX

10. What is the wartime relationship of the mobile logistics support force (MLSF) to the shore based logistics support activities located in the Western Pacific including Guam?

Answer: (U) Forward bases provide key locations that support a complex of heterogeneous naval activities including mobile logistic support forces (MLSF). MLSF contain two general categories of forces: Underway Replenishment (UNREP) and Mobile Repair Facilities (MRF).

The UNREP system is divided into three segments: the resupply segment in which bulk commodities are delivered from ports in the United States to bases in forward areas on commercial design ships; the distribution segment in which these commodities are transported from the forward bases to the area of task group operations; and finally the replenishment segment in which the task group is provided customer configured loads of various commodities. The replenishment and distribution segments are designed to maximize the effectiveness of the final delivery. Forward bases serve as the interface between the resupply and distribution segments by providing terminal facilities, materials handling equipment, storage, warehousing and staging areas. Without the interface of bases, the MLSF would transit from the United States to the task group to deliver the products, extending the length of the lines of communication and increasing the cycle time of Navy replenishment ships. The UNREP system is more responsive and achieves economy of operation with forward bases.

The relationship of the MRF with forward bases is also complementary. There is a need to perform maintenance and repairs in forward areas both in peacetime and wartime. The MRF includes destroyer and submarine tenders and repair ships to perform intermediate level maintenance and repairs that are beyond the capability of shipboard personnel. Ship repair facilities at forward bases provide depot level maintenance and battle damage repairs. Fixed facilities such as Subic and Guam require that the customer come to them whereas MRFs follow the movements of the fleet as a conflict unfolds. MRFs are relatively small, consequently substantial investments need not be made on fixed overseas facilities to perform intermediate level maintenance.

- 10A. In relation to question 4, how many MLSF ships by type would be required under each of the contingencies cited in question 1?
- 10B. Are the desired quantities of MLSF ships identified in 10A currently in the CINCPACFLT inventory? If not, where would the required MLSF ships come from, and how long would it take to mobilize them under each of the contingencies cited in question 1?

deleted

- 10C. What are the sources of replenishment for the MLSF ships, CINCPACFLT supply depots, or the Navy supply centers in Hawaii and Oakland, California, under each of the contingencies cited in question 1?

Answer: (U) The primary source for replenishment for MLSF ships for all commodities except ammunition and POL will be the CONUS Supply System, with Oakland the primary requisition control point. Overseas depots in the Philippines and Japan currently resupply deployed MLSF units. The overseas supply depots are storage points for PWRMS for the initial resupply of the fleet and for support of overseas based forces in addition to their peacetime mission assignments. Ammunition and POL will be bulk lifted to the theater of operations and resupplied to the fleet through a designated supply facility.

- 10D. What additional mobilization requirements are planned for the depots and centers assuming that under the various contingencies cited in question 1 these activities would have a wartime requirement to replenish MLSF as well as provide direct resupply to Navy ships operating in their area?

deleted

11. During hearings on the Fiscal Year 1977 DOD appropriations, the Navy stated that in a conflict with Soviet forces, the U.S. Navy fleets in the Pacific could hold open sealanes to Hawaii and Alaska but because of shortages of sea control and mobile logistics support forces, the Navy would have difficulty protecting sea lines of communication into the Western Pacific.

A. Does this situation still exist and where is the greatest shortage sea control or mobile logistics support forces?

deleted

B. Does this situation result from the Pacific Fleet's policy of placing reliance on shore based logistics activities and thus not fully developing and maintaining the mobile logistics capability required during wartime conditions?

deleted

12. What additional facility requirements have been identified for the three depots, three ship repair facilities and the aircraft repair facilities to meet the missions these activities have been assigned under each of the contingencies cited in question 1?

Answer: (U) No significant additional facility requirements have been identified for the three depots, three ship repair facilities and the aircraft facilities to meet the missions these activities have been assigned under each of the contingencies cited in question 1. While there is no construction identified specifically to meet these activities' contingency missions, there is \$100+ millions of construction identified for these activities as normal peacetime requirements. The construction requirements identified include warehouse construction and replacement, fire protection facilities, pollution abatement facilities, and wharf improvements and repairs.

13. Do Navy logistics requirements include unmanned logistical support bases in peacetime that would be used during wartime?

Answer: (U) No.

14. In relation to each of the contingencies cited in question 1, what wartime logistics support functions have been assigned to the Navy shore facilities on Diego Garcia and how would they be resupplied under wartime conditions?

Answer: (U) When construction is completed in FY-82, Diego Garcia will include a communications station, a dredged lagoon capable of anchoring a small task group, a fuel and general purpose pier, fuel storage capacity of 700,000 BBLs, a 12,000 foot runway, a limited P-3 aircraft maintenance capability, and limited ammunition storage facilities. At a time when access to regional fuel supplies and other support is subject to the uncertainties of political developments, the modest fuel, communication and airfield facilities of Diego Garcia are essential to insure the flexibility and responsiveness of U. S. forces to national requirements in a variety of possible contingencies. Resupply is/ would be accomplished by normal air and surface resupply lines from the Philippines.

15. What are the war reserve ammunition storage requirements by type of ammunition and by contingency cited in question 1 for each of the ammunition storage facilities

deleted

Answer:

FY 1978 Prepositioned War Reserve Material Requirement

(Quantity in Short Tons)

TOTAL

Air Launched Ord	
Air Launched Missiles	
Sonobuoys	
Surface Launched Missiles	
Torpedoes	
Mines	deleted
Ship Gun Ammo	

TOTAL

The above requirements represent total ammo requirements for the PACFLT area for all contingencies.

- A. Can 100% of the war reserve requirements be stored in the facilities and is the ammunition on hand?

deleted

ASHORE	<u>Quantity in Short Tons</u> STORAGE CAPACITY	ASSETS
Hawaii		
Guam		
Subic		
Okinawa		
Yokosuka, Japan		
Atsugi, Japan		
Iwakuni, Japan		deleted
Sasebo, Japan		
Misawa, Japan		
SUB TOTAL		
AFLOAT		
TOTAL		

- B. If the requirements cannot all be stored at these activities, where is the ammunition stored, and what would be done to move it to the storage activities in the Western Pacific?

Answer: (U) Not applicable, requirement can be stored.

- C. What additional personnel, material and facility requirements would be needed during the contingencies cited in question 1?

Answer: Military Manpower data is from the 30 September 1977 billet file. The civilian manpower data is from the 1977 CINCPACFLT Logistic Support and Mobilization Plan. Provided below are the names of individual activities and the manpower categorized by officer, enlisted and civilian: C/A is the peacetime manpower authorized; M+1, M+2 and M+3 are the authorizations for M-Day plus one month, plus two months and plus three months; the S/R indicates mobilization billets which should be pre-assigned to Selected Reserves. The active billets (C/A) and the Selected Reserve billets (S/R) are subsumed in the mobilization requirements.

	C/A	S/R	M+1	M+2	M+3
Navy Magazine Guam					
Officer	14	0			
Enlisted	119	46			
Civilian	68				
Navy Ordnance Facility Sasebo					
Officer	14	0		deleted	
Enlisted	71	4			
Civilian	446				
Navy Magazine Subic					
Officer	9	0			
Enlisted	125	0			
Civilian	190				

deleted

Adequate facilities are available to meet ammunition prepositioning requirements.

16. What are the war reserve fuel storage requirements by type of fuel and by contingency cited in question 1 for each of the fuel storage activities in the Western Pacific including Guam?
- A. Can 100 percent of the war reserve requirements be stored in the facilities and is the fuel on hand?
  - B. If the requirements cannot be stored at these activities where are the fuels stored and what would be done to move the fuels to the storage activities in the Western Pacific?

deleted

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- C. What additional personnel, material and facility requirements are needed during the contingencies cited in question 1?

deleted

17. If the Navy would have difficulty keeping the sea lines of communication open in the Western Pacific during a conflict with Soviet forces, (see question 11), does the Navy logistics planning include provisions for moving ammunition and fuel stocks to rear areas

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COMPTROLLER GENERAL'S  
REPORT TO  
THE COMMITTEE ON APPROPRIATIONS  
HOUSE OF REPRESENTATIVES

THE NAVY'S SHIP SUPPORT  
IMPROVEMENT PROJECT

D I G E S T

The objective of the Navy's ship maintenance and modernization program is to sustain enough ships in good condition to meet current requirements.

To carry out this objective, the Navy has adopted a periodic, multilevel approach to ship maintenance which, depending on the type and complexity of the work, places responsibility at three different levels--organizational, intermediate, and depot. In fiscal year 1977 the Navy spent about \$3.3 billion at these three levels to maintain and modernize its fleet.

The House Committee on Appropriations was concerned about the size of the Navy's ship maintenance and modernization program and wanted to see if alternate, more cost-effective ways could be found to adequately maintain Navy ships.

The Committee was interested specifically in obtaining information on an ongoing, four-part Navy effort, called the Ship Support Improvement Project, which is designed to develop an overall, integrated ship maintenance system to improve ship material condition.

The Committee also requested specific information on the Navy's selection and use of a contractor--American Management Systems, Inc.--to do the work on one part of the project, called the Maintenance System Development Program.

THE SHIP SUPPORT IMPROVEMENT PROJECT

The Ship Support Improvement Project is designed to analyze and develop a maintenance system for all Navy surface ship classes. Concepts are being developed to (1) bring about an early improvement in the ships' material condition, (2) extend the operational use of ships, and (3) improve material readiness. The project encompasses four major programs: Guided

Missile Frigate Class Support, Engineered Operating Cycles, Intermediate Maintenance Activity Upgrade, and Maintenance System Development. The total cost of the project for fiscal years 1977 to 1983 is estimated to be about \$644 million.

The Guided Missile Frigate Class Support program calls for small crews, modular replacement-type repairs, and progressive overhauls. The program is intended to provide operating intervals of about 10 years between major ship overhauls and modernizations. Periodically during the 10 years, the ships have scheduled maintenance performed at Intermediate Maintenance Activities and at shipyards to maintain the ship at an acceptable level of material condition. (See pp. 10 & 11.)

Although it is too early to reach any firm conclusions regarding the effectiveness of the program, GAO identified several potential problem areas which, unless closely monitored, could affect the success of the program. GAO noted that:

- The data base on which several of the new logistics concepts are based and which will be used to evaluate program effectiveness is inaccurate and unreliable. However, the Navy is currently undertaking steps to improve this situation. (See p. 12.)
- A new supply support concept which the Navy considers critical to the success of the new logistics concept must be carefully implemented and monitored to ensure that previously identified material visibility and control problems are eliminated. (See pp. 13 to 15.)
- Close adherence to the class maintenance plan, which is considered essential, will require close and high-level monitoring to ensure that prescribed maintenance schedules are met. (See pp. 15 to 16.)

The second element of the project, the Engineered Operating Cycle program, is also intended to extend the interval between major ship overhauls of several different classes of surface ships. The program involves (1) the development of maintenance requirements based on an engineered review of past performance, (2) a baseline overhaul to each ship, if required, that restores it to a "like new" condition,

and (3) a class maintenance plan which identifies what and when maintenance on ship systems and equipment is to be performed during brief, periodic, restorative actions at intermediate maintenance activities or shipyards. (See p. 16.)

For this program, GAO noted potential problems similar to those described in the Guided Missile Frigate Class Support program. Again, the data systems, on which the new maintenance and logistics concepts contained in the program are based, are of questionable accuracy and reliability. Also, close adherence to the class maintenance plan is essential. Finally, the Navy is implementing the program without having clearly defined what is the current level of material condition of ships in the program, what should it be, and how it is to be maintained. (See pp. 20 to 23.)

The Intermediate Maintenance Activity Upgrade program resulted primarily from an increased intermediate maintenance workload expected to result from the Guided Missile Frigate and Engineered Operating Cycle programs. The program encompasses (1) a modernization and improvement program of shore and afloat intermediate maintenance activities, (2) Navy initiatives to better train its intermediate-level maintenance personnel, (3) studies assessing the need for automated test equipment to detect malfunctions in electronic components, and (4) an experimental program to contract out excess intermediate work to private industry. (See p. 24.)

GAO believes that based on the following observations and on its recent work in this area, <sup>1/</sup> the modernization and improvement program of shore and afloat intermediate maintenance activities may be premature.

--Intermediate-level maintenance workload needs to be more accurately defined. Current workload projections are based on questionable data and are probably overstated. (See pp. 25 to 27.)

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<sup>1/</sup>"The Navy's Intermediate Ship Maintenance Program Can Be Improved" (LCD-77-412, Sept. 23, 1977).

- The Navy needs to determine the most effective way to satisfy its intermediate-level maintenance workloads; that is, how much should be mobile and how much should be shore-based. (See p. 31.)
- The impact of changing Navy maintenance concepts needs to be more fully evaluated since it directly affects what work will have to be done during mobilization and in peacetime. Therefore, expansion of capability and capacity should follow only after the needs are clearly defined. (See p. 32.)

The fourth element of the Ship Support Improvement Project is the Maintenance System Development Program. This program is a long-term study and implementation effort where fundamental changes in the way ship maintenance is accomplished and controlled are being addressed. (See pp. 34 to 42.)

Because the work on the Maintenance System Development Program is only in its early stages, it would be premature to draw any firm conclusions on whether the program will result in an improved ship maintenance strategy. This will depend on the (1) scope of the studies, (2) accuracy of the data used in the studies, (3) reasonableness of proposals generated by the studies in the program, (4) Navy's acceptance of the various proposals, and (5) extent to which the Navy will implement accepted proposals. Presently, only a few studies are in the implementation stage. (See pp. 42 to 43.)

#### MAINTENANCE SYSTEM DEVELOPMENT PROGRAM CONTRACT

The Navy had three alternatives available to do the Maintenance System Development Program work. It could either contract out the entire effort; do the entire effort in-house; or do a combination of both. Without fully evaluating these alternatives, the Navy chose to contract out the entire effort. (See pp. 44 to 45.)

The prime contractor selected, American Management Systems, Inc., was one of eighteen firms which submitted technical and cost proposals for the program work. Although the contractor's cost proposal was

among the highest submitted, the Navy ultimately chose it because of its technical proposal. (See pp. 45 to 47.)

The original contract was awarded in fiscal year 1976. Since then, two annual contracts have been awarded to the same contractor on a sole-source basis. (See p. 47.)

Work-force capability was considered a prime factor in contractor selection. A brief analysis of contractor staff qualifications and a comparison of current staff capability with that included in the original proposal showed that staff qualifications were adequate and staff capability had not diminished. (See pp. 47 to 49.)

#### RECOMMENDATIONS TO THE COMMITTEE

GAO's recent report on the Navy's intermediate maintenance program included several observations and recommendations on issues such as (1) work requirements' definition and quantification, (2) alternatives to satisfying work requirements, and (3) impact of changing maintenance concepts on intermediate-level maintenance needs. The Navy generally concurred and promised corrective action.

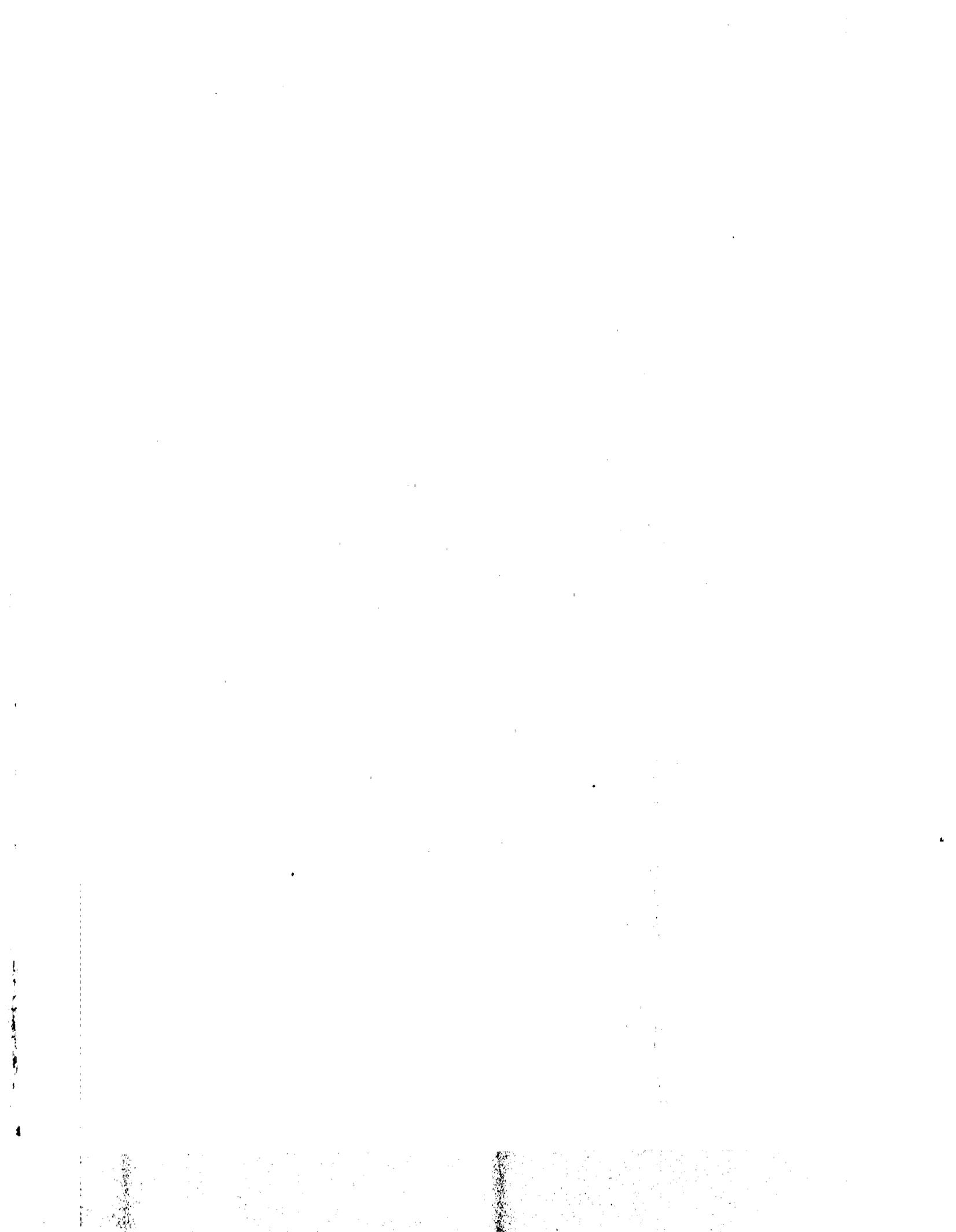
Although some progress has been made, GAO believes that the Navy still needs better information on and analyses of the above issues before it can establish what type and how much intermediate-level maintenance capability is needed. In view of current Navy efforts to obtain funds to upgrade and improve intermediate-level maintenance facilities, GAO recommends that before acting on future requests for funds the Committee require the Navy to provide specific evidence which clearly demonstrates the need for such facilities. (See p. 33.)

Also, since the cost of the Maintenance System Development Program is substantial and the results of the program could lead to permanent changes in the Navy's ship maintenance system, the Committee should require the Navy to periodically report on the results of these various Program studies and their implementation status, and, if they are not implemented, to explain why. (See p. 43.)

**AGENCY COMMENTS**

At the instruction of the Subcommittee on Defense, House Committee on Appropriations, GAO did not solicit official written comments from the Departments of Defense and the Navy. However, matters contained in the report were discussed with Navy officials and their comments were incorporated where appropriate.

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