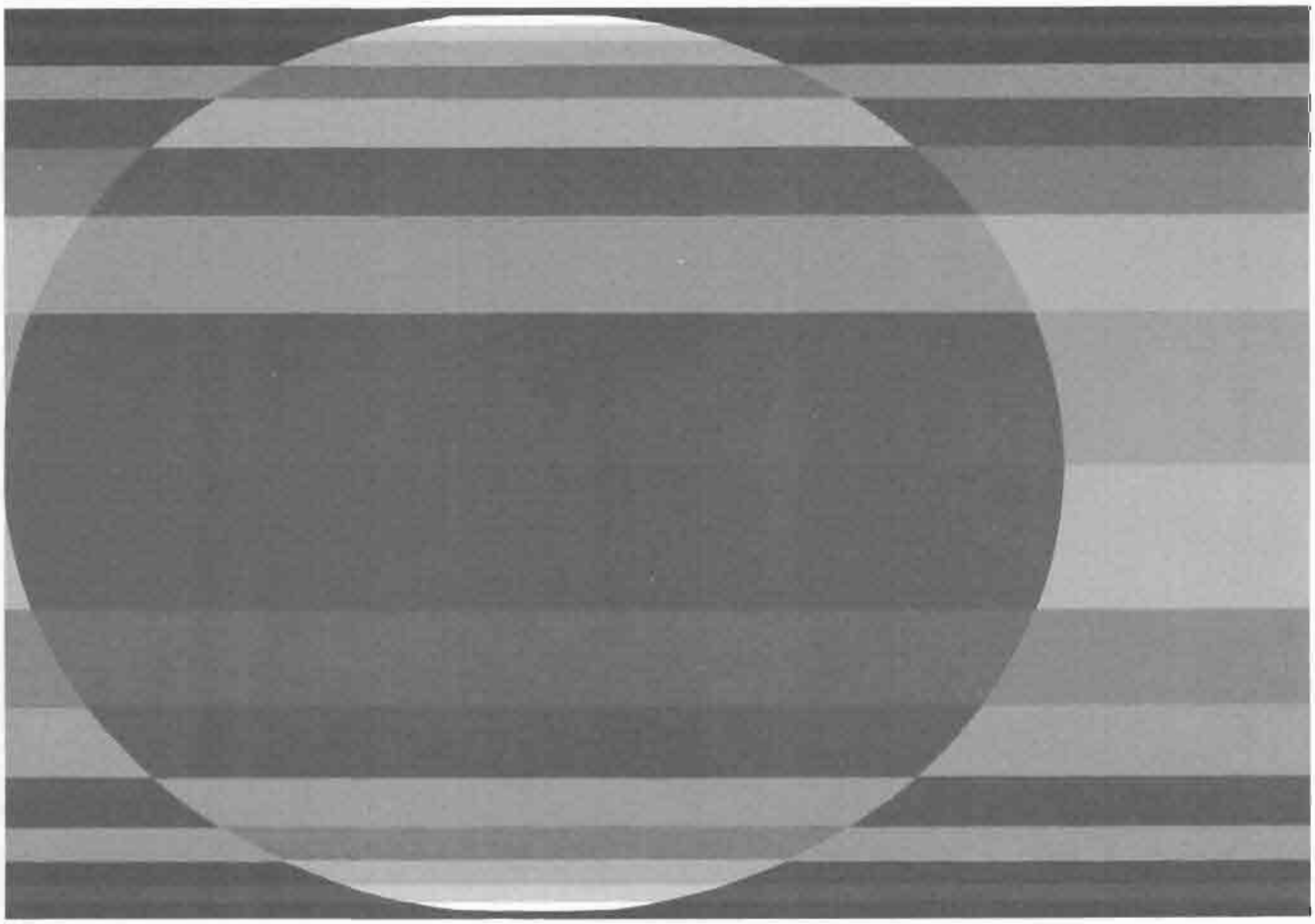
BACKGROUND PAPER

U.S. Naval Forces: The Peacetime Presence Mission

December 1978



Congress of the United States
Congressional Budget Office
Washington, D.C.

U.S. NAVAL FORCES:
THE PEACETIME PRESENCE MISSION

The Congress of the United States
Congressional Budget Office

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402

PREFACE

As the Congress debates the First Concurrent Resolution on the Budget for Fiscal Year 1980, the Navy budget will be one of the important issues that it addresses. Decisions about the size, location, and equipment of naval forces will be tied to assumptions about how and where they should be used, both in wartime and in peacetime.

While wartime missions have been widely discussed both within and outside the Congress, far less attention has been devoted to the demand that the Navy's peacetime mission--overseas presence--places upon naval forces and budgets. The presence mission is extremely important, however, for it is a key aspect of U.S. political relationships with many of its overseas allies. Responding to a joint request from Senator Edmund Muskie, Chairman of the Senate Budget Committee, and Senator John Glenn, Chairman of the Subcommittee on East Asian and Pacific Affairs of the Senate Foreign Relations Committee, this paper examines demands of the Navy's peacetime mission, with special reference to its operations in the Pacific region. The paper is intended to serve as background for a companion CBO budget issue paper that will address both the Navy's wartime and peacetime missions.

This paper was prepared by Dov S. Zakheim and Andrew Hamilton of the National Security and International Affairs Division of the Congressional Budget Office, under the supervision of David S.C. Chu. The authors gratefully acknowledge the contributions of John Shewmaker, who was responsible for early work on ship rotation factors, and Edward Swoboda of CBO's Budget Analysis Division, who prepared the cost estimates. Helpful comments on earlier drafts were provided by Patrick Renehan, Robert Schafer, John Ellwood, Marshall Hoyler, Jane D'Arista, and Nancy Swope of the CBO staff; Professor Edward N. Luttwak of Georgetown University; and Admiral Noel Gayler, USN (Ret.). (The assistance of these reviewers implies no responsibility for the final product, which rests solely with the Congressional Budget Office.) Patricia H. Johnston edited the manuscript; Janet Stafford typed the several drafts; and Connie Leonard prepared the paper for publication.

Alice M. Rivlin
Director

December 1978

CONTENTS

		Page
PREFACE		iii
SUMMARY		xi
CHAPTER I.	INTRODUCTION	1
CHAPTER II.	NAVAL PRESENCE: ITS MEANING AND PURPOSE	5
	The Impact of Overseas Carrier Presence Requirements upon Naval Force Levels	9
	Forces for the Presence Mission: A Function of Deployment Patterns and Carrier Requirements	13
CHAPTER III.	CURRENT FORWARD DEPLOYMENTS AND REGIONAL BALANCES	15
	Missions of the Navy's Pacific Forces	15
	Operating Areas of the Seventh Fleet	20
	Missions of the Navy's Mediterranean Forces	33
	Historical Aspects of Current Deployments	37
CHAPTER IV.	REEVALUATING CURRENT U.S. NAVAL POSTURE	39
	Soviet Naval Presence Mission: A Multimode Approach	42
CHAPTER V.	ALTERNATIVE FORWARD DEPLOYMENT SYSTEMS AND CONCEPTS	45
	Considerations in Choosing Alternatives to Current Deployment Posture	45
	Alternative Naval Presence Postures	48
	Land-Based Alternatives	64
CHAPTER VI.	CONCLUSIONS: TOWARD A MORE EFFECTIVE STRATEGY FOR OVERSEAS PRESENCE	69

CONTENTS (Continued)

Pa

APPENDIX A. FORWARD DEPLOYMENTS AND SHIP ROTATION FACTORS . . . . . .

APPENDIX B. THE EFFECT OF CARRIERS ON OVERALL FORCE LEVELS . . . . . .

GLOSSARY AND ABBREVIATIONS . . . . . .

TABLES

		Page
TABLE 1.	SOUTHWEST PACIFIC REGIONAL POWERS, 1978	28
TABLE 2.	INDIAN OCEAN REGIONAL POWERS, 1978	32
TABLE 3.	UNIT ACQUISITION COSTS OF SELECTED V/STOL-CAPABLE SHIPS	59
TABLE 4.	COSTS OF TASK GROUPS WITH EQUAL V/STOL CAPABILITY	63
TABLE 5.	MARGINAL COSTS OF ALTERNATIVE PRESENCE POSTURES	64

APPENDIX TABLE

TABLE B-1.	CARRIER-RELATED NAVAL UNITS	81

FIGURES

FIGURE 1.	REPRESENTATIVE CARRIER SERVICE-LIFE EXTENSION PROGRAM	12
FIGURE 2.	NORTHEAST ASIA AND THE NORTH PACIFIC	19
FIGURE 3.	SOUTHEAST ASIA AND THE SOUTHWEST PACIFIC . . .	24
FIGURE 4.	THE INDIAN OCEAN REGION	30

SUMMARY

The size and structure of the U.S. Navy have been the subject of lengthy and unresolved debate, both within and outside the Congress, over the past five years. Much of that debate has concerned the force levels and types of ships required to meet the Navy's wartime missions of sea control and power projection. An important consideration in the debate, however, concerns the forces needed to support the Navy's peacetime presence mission--specifically, whether that mission justifies procurement of an additional aircraft carrier.

The Navy's currently approved force levels will include 11 operational carriers during the 1980s and early 1990s. A twelfth carrier, scheduled to undergo extended overhaul as part of the planned Service-Life Extension Program (SLEP), will not be operational. Whether 11 is an appropriate number of operational carriers for wartime requirements remains an open question. Differing views on the effective wartime use of naval forces produce different "required" force levels. These will be discussed in a forthcoming companion CBO budget issue paper. But recently the argument has been advanced that, whatever the wartime need, a minimum of 12 operational carriers is required to meet the Navy's peacetime missions. To achieve this force level would necessitate constructing an additional large carrier at a cost ranging from $1.6 billion for a non-nuclear ship (CVV) to $2.6 billion for a Nimitz-class, nuclear-powered carrier (CVN).

This argument is based on the current requirement to maintain four carriers overseas at all times, along with their supporting ships. Two carriers are deployed in the Mediterranean, and two are in Asian waters ranging from Japan to the Indian Ocean. The Navy argues that a total of 12 operational carriers is needed to support these forward-deployed forces in peacetime, since ships must have adequate amounts of time in port for major maintenance and crews need time in port for training and home leave.

This paper reviews current deployments in the context of alternative approaches to the Navy's peacetime missions and operating methods. It finds that a range of alternative measures that

are less costly than procurement of an additional large carrier could be implemented to maintain, and even increase, the Navy's capabilities to perform current peacetime missions. These could include changes in deployment patterns and/or changes in naval systems.

U.S. NAVAL PRESENCE MISSIONS: CURRENT POSTURE AND THE CASE FOR ALTERNATIVES

The United States has maintained a permanent military presence overseas since the end of World War II. Ground forces have been the prime components of that presence in Central Europe and Korea. Presence outside those areas, however, has been viewed primarily in naval terms, and has involved activities ranging from port calls and goodwill visits ("showing the flag") to deterring military aggression with the threat that force would be applied rapidly if such aggression materialized ("crisis control").

The U.S. overseas naval posture has emphasized the use of large aggregations of firepower, centered on the aircraft carrier. These units combine peacetime naval presence and crisis-control functions with the capability to move immediately to wartime power projection.

Current U.S. naval peacetime deployments are as much a product of historical precedent as of current military necessity or requirements. While recognizing that requirements may change again over a longer period of time, this paper discusses peacetime missions in terms of the current situation and the immediate future.

For both political and military reasons, today's distribution of forward-deployed carrier resources may not be optimal for U.S. peacetime missions. The effectiveness of U.S. naval presence might be enhanced by alternative deployment postures that more closely reflect current U.S. interests.

U.S. political aims in the northwest Pacific are to reassure Japan, Korea, and even the People's Republic of China of the American commitment to maintain stability and contain Soviet expansion in the region. It is unclear that the deployment of a single carrier task force in the face of a large and growing

Soviet air, surface, and submarine capability is sufficient to provide such assurances.

On the other hand, U.S. aims of maintaining regional stability in the southwest Pacific and Indian Ocean and of ensuring the free flow of Middle East oil to East Asia might be met with lower-value forces less capable than the carrier task force that now divides its time between the two regions. The People's Republic of China is not currently considered a hostile adversary and therefore is not now a target of the U.S. naval deterrent. Furthermore, local forces cannot threaten U.S. naval units with anything other than temporary damage by patrol boat missiles. Such damage would have greater political than military ramifications, and the political ramifications might be more limited if a lower-value unit, rather than a high-value carrier, were involved. Lastly, the Soviet navy, as currently deployed, also cannot threaten U.S. forces on a sustained basis. For these reasons, the carrier deploying to the Indian Ocean and southwest Pacific might be better employed elsewhere.

U.S. naval missions in the Mediterranean are geared to reassuring southern NATO allies, as well as Israel and moderate Arab states, of U.S. support in either a NATO war or a non-NATO Middle East crisis. (Sixth Fleet carrier forces no longer are critical elements in the U.S. strategic deterrent, as they were in the 1950s.) The proximity of the eastern Mediterranean to bomber bases in the Soviet Union and the permanent deployment of a powerful Soviet naval squadron in that sea pose a serious threat to Sixth Fleet carrier forces, however. This situation could put the Sixth Fleet at a disadvantage in the early stages of a NATO/Warsaw Pact war and limit its political and military effectiveness in crises involving U.S.-Soviet confrontation. It could be argued, therefore, that the interests of U.S. friends and allies in the Mediterranean might be better met if the United States did not permanently deploy its Sixth Fleet carriers in the eastern Mediterranean.

Thus, U.S. presence requirements may not uniformly call for carrier forces in all regions in which they now are deployed. In this regard, it is noteworthy that Soviet overseas naval presence differs markedly from that of the United States. Soviet naval forces tend to lack the firepower of their U.S. counterparts and frequently operate in combination with land-based air and ground units. While Soviet naval strategy and requirements differ

markedly from those of the United States, recent Soviet use of ground forces to support operations in Africa points to the possibility of maintaining a capable "presence" without relying solely on the aircraft carrier.

ALTERNATE CONCEPTS AND SYSTEMS AND THEIR COSTS

Continuation of the current U.S. naval peacetime posture during the 1980s would require procurement of an additional carrier to maintain an operational force of 12 carriers. Alternatives to the current posture could involve homeporting an additional carrier overseas (thus reducing the number of carriers required to support forward deployments); moving to a flexible, as opposed to a permanent, deployment pattern; using lower-value systems in place of carriers in certain locations; or using land-based aircraft to perform certain naval missions. The following tables illustrate the effect of these alternatives on carrier force levels and summarize the cost of the alternatives.

ALTERNATIVE PEACETIME POSTURES: OPERATIONAL CARRIER REQUIREMENTS

Alternatives	Active Carriers	Operational Carriers
Maintain Current Active Carrier Level and Posture: Buy Added Carrier	13	12
Homeport Carrier at Guam	12	11
Flexible Deployments	12	11
Substitute Small Air-Capable Ship for Carrier	12	11

NOTE: Active carriers include all carriers in the active force. Operational carriers include only those units that are not undergoing long-term, service-life extension.

COSTS OF ALTERNATIVE PEACETIME POSTURES: BY FISCAL YEAR, IN MILLIONS OF FISCAL YEAR 1980 DOLLARS

Option	Systems Procured	Costs 1980	1981	1982	1983	1984	Total 30-Year Life-Cycle Costs
Maintain Current Carrier Level and Posture	CVV	1,575	--	--	--	--	4,920
	or						
	CVN	2,565	--	--	--	--	6,750
Homeport Carrier at Guam	Military Construction: Guam	250	--	--	--	--	250
Flexible Deployments	--	--	--	--	--	--	--
Substitute Small Air-Capable Ship for Carrier	1 LHA	820	--	--	--	--	2,250
	or						
	2 LPH/1 LHA	45/--	--/820	45/--	--/--	--/--	2,700
	or						
	2 DDV	810	--	625	--	--	3,090

Homeporting

One less costly approach that would maintain the integrity of the forward-deployed carrier force would be to homeport an additional carrier task force overseas. (A carrier is already homeported in Japan.) This approach would reduce by at least one the number of operational carriers required to support the forward-deployed fleets; thus, it would not be necessary to build an additional carrier to meet peacetime needs. The firepower of the operational carrier forces would also be reduced by one unit, however.

Homeporting would incur a variety of costs, notably those of military construction and port dredging. It also could entail political problems with the host state. A homeporting arrangement in Guam, which is a U.S. territory, would minimize these political problems, however. The initial military construction costs associated with homeporting a carrier task force at Guam could amount to about $250 million, which compares favorably to the $1.6 billion minimum procurement cost of a single carrier.

Flexible Deployments

It may be felt, however, that periodic naval peacetime visits could have the same political benefit as permanent stations. The Navy could then adopt a "flexible deployment" posture, which would vary the duration and locale of each deployment. For example, carriers could be deployed for a few months to different regions of the Pacific rather than being maintained on one year-round Pacific station. Flexible deployments would permit a larger number of carriers to be maintained in "ready" status nearer the United States. These carriers could then be used to reinforce deployed units in a crisis. Flexible deployments would also allow shorter total overseas deployments on the part of the fleet as a whole. As a result, fewer carriers would be needed to support the presence mission, and a thirteenth carrier would not have to be procured simply to support peacetime presence requirements. It should be noted, however, that states in regions where carrier task forces are currently deployed might object to their removal for even part of a year and could interpret such a move as a signal of waning U.S. interest in that region.

V/STOL Ships

A third broad alternative would maintain the Navy's current level of peacetime presence but would substitute one or more units carrying vertical/short take-off and landing (V/STOL) aircraft for a carrier in the fiscal year 1980 shipbuilding program. The V/STOL ship would replace a carrier in support of one of the four major forward naval deployments--logically, the one now deployed largely to the southwest Pacific and Indian Ocean, where the threat to U.S. forces is relatively low. No additional escort ships would have to be procured, since the V/STOL ship would simply take the place in the force structure of the carrier in SLEP.

At least three choices of V/STOL ships are available. They include the LHA, a general purpose amphibious warfare ship that, at 39,000 tons, is as large as a World War II aircraft carrier; the LPH, an amphibious warfare ship that is larger than any cruiser; and the DDV, a destroyer converted to carry aircraft. The LHA is the most survivable of the three ships and can carry twice as many V/STOL aircraft as the others. The LPH would require only minor conversion and is the most readily available for V/STOL use. The DDV, a new class of ship less costly than the

LHA, represents the greatest potential for increasing the number of fleet air platforms but has relatively poor ability to operate in rough seas. Examples of the procurement costs of various task forces employing each of these platforms and carrying 20 V/STOL AV-8B aircraft in each task force appear in the cost table above. The procurement cost of these options, ranging from $0.8 billion for an LHA to $1.4 billion for two DDVs, is less than the procurement cost of any large aircraft carrier variant. The military capability of each force is less than the capability provided by a large carrier, however. 1/

Land-Based Aviation

The last alternative involves the substitution of land-based aviation for forward-deployed naval air forces. For example, a squadron of Air Force F-111 fighters deploying from the U.S. air base on Diego Garcia could be used to patrol sea-lanes in the Indian Ocean. This operation could take the place of the periodic U.S. carrier deployment to the Indian Ocean. In that case, the Navy could more easily support the Sixth and Seventh Fleets with only 11 carriers. Without additional overseas homeporting, however, an 11-carrier force would still not be capable of supporting four continuously deployed task forces. Initial outlays for this alternative would amount to about $50 million.

ENHANCING U.S. OVERSEAS PRESENCE: A MORE FLEXIBLE APPROACH

The options outlined above are not mutually exclusive. Most are complementary. For instance, homeporting an LHA instead of a large carrier in Guam could produce several benefits. This approach would permit the Navy to provide additional presence in the northwest Pacific with large carriers. Meanwhile, the LHA would be available for nearly full-time presence in the southwest Pacific and Indian Ocean areas. Thus, U.S. naval presence could be increased in the areas where the threat is largest and maintained, at an effective level of force, in other areas.

1/ Costs and capabilities would change if another V/STOL aircraft were chosen.

36-473 O - 78 - 2

Taken in concert, elements of these options would provide the United States with a more flexible approach to presence and crisis-response requirements than is currently available. What currently may be excessive U.S. reliance upon, and preoccupation with, the carrier force tends to obscure the potential of other systems, particularly for operations in less threatening environments. To the extent that lower-value naval and ground-based units impart credibility of U.S. purpose, their presence would provide a useful tool for policymakers.

CHAPTER I. INTRODUCTION

Much of the recent Congressional debate about the appropriate size and mix of U.S. naval forces for the 1980s and 1990s, and about budgets to support those forces, has focused on the nature and demands of the Navy's missions in wartime. Although clearly important to the determination of future naval construction programs, these wartime missions are only one facet of the Navy's activities. The Navy conducts peacetime operations that also produce demands for various types and numbers of naval units. While the wartime and peacetime demands might be congruent, they need not be so; indeed, it is possible that peacetime demands actually could exceed wartime requirements. In that case, it would be the Navy's peacetime role that was critical to the ultimate determination of naval shipbuilding programs.

This paper addresses the U.S. Navy's peacetime mission: supporting U.S. worldwide presence. Peacetime presence is a broad term connoting a wide variety of activities that are as much political as they are military. The presence mission itself is not limited to naval forces; U.S. ground forces have been deployed in Central Europe and South Korea for nearly three decades. Nevertheless, far-flung U.S. overseas commitments, particularly in the Mediterranean Sea and the western Pacific Ocean, have given special significance to the Navy's role in performing the worldwide U.S. presence mission. The Navy's importance in the Pacific has been enhanced by the withdrawal of U.S. ground forces from Southeast Asia following the Vietnam war and the scheduled additional withdrawals from Korea.

Naval presence activities range from port calls and goodwill visits by secondary fleet units (termed "showing the flag") to demonstrations during crises by one or more major carrier task forces (termed "crisis control"). Of course, not all crises can be "controlled," and one virtue of the Navy is its ability to undertake military operations immediately upon the outbreak of hostilities.

The Navy's flexibility also enhances its importance to the presence mission. Unlike forward-deployed ground forces, which face particular threats in specific locales (for example, the Warsaw Pact in Europe and North Korea along the 38th Parallel),

naval units can meet a variety of possible foes in a variety of locales. Other forces, particularly air forces, have come to possess a similar capability, however. Aircraft now have far greater effective ranges than they did in the past and can transit long distances carrying bombs, missiles, and personnel.

Nevertheless, U.S. presence outside continental Europe continues to be viewed primarily in naval terms by both the Department of Defense (DoD) 1/ and the public at large. Furthermore, naval presence has been synonymous with carrier presence. The aircraft carrier forms the core of the Navy's firepower capabilities and provides the sole truly offensive unit in forward-deployed task forces.

The carrier cannot be forward deployed, however, unless it is supported by escort, support, and replenishment ships that provide for its defense and resupply. Further, each forward-deployed carrier requires one or more backup units, with their own supporting ships. This would permit year-round deployment while the carrier is overhauled, maintained, and employed in training exercises, and permit crew rotation, training, and leave time. As a result, forward deployments generate a large part of the demand for Navy general purpose forces. For this reason, peacetime deployments will be a key consideration in any Administration decision to request an additional carrier in fiscal year 1980. Indeed, while carriers have a wartime role, the case for another carrier is being made on the basis of the need to maintain the current peacetime deployment posture. 2/

The increasing ability of the Soviet fleet to threaten carrier forces worldwide, the spread of antiship missile technology to even smaller navies, and political realignments among Third World countries have created uncertainty about the carrier's usefulness to certain presence missions outside Europe and

---

1/ Department of Defense, Annual Report, Fiscal Year 1979, pp. 86-87, 91.

2/ See testimony of Secretary of Defense Harold Brown in Military Posture and H.R. 10929 (Department of Defense Authorization for Appropriations for Fiscal Year 1979), Hearings before the House Committee on Armed Services, 95:2 (February, March, and April 1978), Part 4, p. 1135. See also "USN Aircraft Carrier Programs: Topical Questions and Answers," pp. 413-14.

Northeast Asia, however. As the Congress debates the fiscal year 1980 shipbuilding budget, it may wish to consider whether technological and political changes of recent years might justify the use of alternative systems and deployment concepts in place of the current carrier-oriented presence requirements.

Alternative concepts could include additional overseas homeporting arrangements or deployments that do not require carriers to operate in particular locales for extended periods ("flexible deployments"). Either change would reduce the peacetime (though not necessarily the wartime) requirement for carrier force levels to support the U.S. overseas posture. Alternative systems could include smaller ships capable of carrying vertical/short take-off and landing (V/STOL) aircraft. These ships are less costly per unit, though considerably less capable, than large-deck carriers. They might be used to augment current carrier forces. They could also be procured in conjunction with changes in deployment concepts to replace carriers in performing primarily peacetime tasks. Lastly, the Congress might wish to consider alternatives that go beyond naval presence--for example, the use of long-range aircraft for carrying out part of the U.S. overseas presence requirement. Again, this alternative might serve to complement, or substitute for, elements of the carrier force.

This paper reviews these alternatives in the context of a broader examination of the importance of the naval presence mission to U.S. Navy force levels and planning. Given the Navy's current primacy as the embodiment of U.S. presence outside Europe and Northeast Asia, this paper first addresses in detail the meaning, purpose, and varieties of presence as it is understood in naval terms. It examines the effect of current U.S. forward deployments on naval force levels and capabilities. The paper then outlines the political and military implications of altering the current U.S. forward naval deployment posture and concludes with an examination of alternative deployment systems and concepts, both naval and non-naval, as substitutes for elements of the current posture.

It should be emphasized that, while the considerations raised in this paper could affect the peacetime demand for naval systems, they may not in themselves justify action on Administration requests for naval units, including an additional carrier. Rather, these considerations are intended to provide a background for Congressional assessment of those requests. Indeed, a key factor in future decisions on carrier procurement

will be whether the demand for an additional carrier is based on peacetime or wartime needs. Congressional action on Administration proposals must take account of wartime needs as well as peacetime requirements. The question of wartime needs and the interplay between those needs and peacetime demands will form the basis of a separate, forthcoming CBO budget issue paper.

CHAPTER II. NAVAL PRESENCE: ITS MEANING AND PURPOSE

Naval presence is as much a political as a military activity. As noted in Chapter I, it comprises functions ranging from port calls and goodwill visits ("showing the flag") to attempts to deter hostile military operations or to compel other states, both unfriendly and friendly, to act in a certain way ("crisis control"). 1/ Depending on the specific demands of the task at hand, a variety of forces can be employed for these activities. For example, a single guided-missile destroyer visited the South Pacific port of Funafuti, Tuvalu, in the summer of 1978 to symbolize U.S. participation in that country's independence celebration. 2/ A small task force group, centered around a helicopter-carrying amphibious assault ship (LHA), conducted a successful goodwill tour of West African ports in December 1977. 3/

An example of the crisis-control mission was the "routine" visit of the carrier Ranger and its escorts to the Kenyan port of Mombasa in July 1976. That visit may have deterred Uganda from carrying out its threats to attack Kenya in the aftermath of the Entebbe raid. 4/ The deployment of three carrier task forces in the Mediterranean Sea contributed to the stand-off between the U.S. Sixth Fleet and a large Soviet naval squadron during the October 1973 Middle East war. It also provided a secure protective air route for the resupply of materiel to Israel by sea

---

1/ See Edward Luttwak, The Political Uses of Sea Power (Baltimore: Johns Hopkins, 1974), pp. 3-11, passim.

2/ U.S. Navy information, provided to the Congressional Budget Office (CBO), October 31, 1978.

3/ Ibid.

4/ "War of Words Over a Tense Border," Time (July 26, 1976), p. 41; "Mounting Dangers for Latest U.S. 'Ally' in Africa," U.S. News and World Report (August 2, 1976), p. 49.

and air. 5/ Lastly, the deployment of four carriers off the coast of Cuba in 1962 was a critical (though not the sole) factor contributing to the success of the U.S. blockade during the Cuban missile crisis. 6/ These four examples reveal that underlying the effectiveness of naval presence--indeed of all forms of military presence--is the implied threat of the use of force by the power that "shows the flag."

Naval forces traditionally have been employed for the presence mission because they do not depend on land bases or infringe upon the sovereignty of other states. Nevertheless, their presence embodies the threat that some level of force might be used against other states ("projection"). Their ability to use that force can often render a nonactive presence sufficient to achieve political ends.

The linkage between presence and projection tends to become more pronounced as more powerful force levels are employed. Since World War II, the United States has tended to deploy powerful naval forces centered on carrier task forces, thereby making the linkage between presence and projection highly explicit. Two such forces are forward deployed on fixed stations in the western Pacific 7/ and form the core of the Navy's Seventh Fleet. Two other task forces, deployed on fixed station in the Mediterranean, are the key units of the Sixth Fleet.

U.S. emphasis on carrier firepower derives from the carrier's unchallenged naval role in the late 1940s and early 1950s. During that period, no other navy could mount a threat to the aircraft

---

5/ See Robert G. Weinland, Superpower Naval Diplomacy in the October 1973 Arab-Israeli War (Arlington, Va.: Center for Naval Analyses, 1978), pp. 32-34. See also testimony of Professor F.W. West, Department of Defense Authorization for Appropriations for Fiscal Year 1979 (S. 2571), Hearings before the Senate Committee on Armed Services, 95:2 (March and April 1978), Part 5, p. 4196.

6/ Information provided to CBO by Navy Historical Research Center, Archives Branch, December 1, 1978.

7/ One of the carriers in fact is deployed annually from its "permanent" Pacific station to the Indian Ocean for a three-month tour.

carrier, both for broad political reasons and because of military limitations. As a result, its air wing--the sole source of a carrier task force's firepower--could be devoted almost entirely to overland offensive operations. Carrier aircraft could conduct deep penetration bombing raids and drop hundreds of tons of ordnance daily over long periods of time. The sea-based carrier thus represented a critical element in land-based force balances: not only could its force be rapidly applied ashore, but it could be applied selectively as the situation warranted.

Over the past decades, two developments--with seemingly contradictory implications for carrier warfare--have added to the importance of carriers to the U.S. overseas naval presence mission: improvements in antiship cruise-missile technology 8/ and the seeming permanence of U.S. carrier stations overseas.

The development of cruise-missile technology has decreased the likelihood that a carrier could operate as a safe haven, as it did during the 1950s and 1960s. The Soviet Union has deployed antiship cruise missiles aboard new, longer-range warships and can now threaten U.S. forces in most of the world's oceans, 9/ though it might not do so for political reasons. Once a relatively unsophisticated coastal defense force, the Soviet navy now has in its inventory at least 45 nuclear submarines with unlimited range, capable of firing cruise missiles at U.S. ships, including carriers. In addition, it has another 40 torpedo-carrying, nuclear-powered submarines and about 160 conventional submarines (of which about 40 carry antiship missiles), as well as a small aircraft carrier and about a dozen major surface ships carrying antiship missiles. 10/ Even smaller states now have access to these missiles and, as a result, could seriously threaten carrier

---

8/ Cruise missiles are guided missiles that use aerodynamic lift to offset gravity and propulsion to counteract drag. Their flight path remains within the earth's atmosphere.

9/ Testimony of Rear Admiral Donald P. Harvey, USN, Military Posture and H.R. 10929 (Department of Defense Authorization for Appropriations for Fiscal Year 1979), Hearings before the House Committee on Armed Services, 95:2 (February, March, and April 1978), Part 4, pp. 10-11.

10/ International Institute for Strategic Studies, The Military Balance, 1978-79 (London, 1978), p. 9.

forces unless confronted by capable defenses. Thus, the availability of antiship cruise missiles to both the Soviet navy and smaller navies has increased the likelihood that, as was the case until the middle of World War II, the carrier would have to fight for its own existence before it could project power ashore.

At first glance, it would appear logical for the Navy to have dispersed its offensive capabilities among a larger number of ships, so as to make it less worthwhile for potential enemies to target only the small carrier force. In fact, however, the Navy has elected to retain the carrier as its chief offensive ship and to strengthen both on-deck carrier defenses--primarily air-wing capabilities, but also shipborne defenses--and the capabilities of carrier escorts. Carrier escorts have become purely defensive systems, geared to conduct antisubmarine, anti-air, and antisurface ship operations in defense of the carrier. 11/

The carrier's air wing--a combination of interceptor, attack, early warning, reconnaissance, tanker, and electronic warfare aircraft--is structured to permit the carrier to control the skies above its immediate waters, and thus the waters themselves, before launching attacks ashore. The air wing embodies a key element of the carrier's defenses as well as its offensive potential. In crises in which threats to carriers have been imminent, the Navy has tended to operate carriers in groups of two or more. Under these circumstances, the air wings combine to provide round-the-clock aerial protection and early warning for the entire task group.

11/ A few examples: The DDG-2 class will undergo a major modernization to provide each ship with, among other systems, improved, more jam-resistant search radar (SPS-40); quick-reaction, short-range radar (SPS-65); and improved sonar (SQS-23). The AN/SQS-26 sonar program is improving the active and passive capabilities of the SQS-26 sonars installed on FF-1052 frigates and SQS-52 sonars installed on the DD-963 class and on some of the CGNs. Current modifications to SPS-48 radars will significantly enhance the anti-air warfare (AAW) capabilities of cruisers and guided-missile destroyers. See testimony of Rear Admiral Stanley S. Fine, USN, Military Posture and H.R. 10929, Hearings, Part 4, pp. 57-58; see also testimony of Vice Admiral James H. Doyle, USN, pp. 222-23.

Carriers have thus remained important for peacetime presence because only they can sustain powerful strikes ashore. 12/ In addition, they have remained important to the U.S. presence mission because of the inertial force of history--in other words, because they have been important to that mission in the past. Carriers have become a symbol of U.S. presence, not merely in U.S. eyes, but in the eyes of allies, neutral governments, and potential adversaries alike who closely observe the worldwide U.S./Soviet military balance. The growth of the Soviet navy has led to calculations of regional maritime balances in which U.S. carriers figure prominently. Their removal after years on permanent station might appear to some states as a crucial alteration of those balances in favor of the Soviet Union. The continuous forward deployment of carriers has, in fact, further reinforced a reluctance on the part of U.S. policymakers to alter those deployments.

THE IMPACT OF OVERSEAS CARRIER PRESENCE REQUIREMENTS UPON NAVAL FORCE LEVELS

Despite growing Soviet and Third World countermeasures against it, the carrier remains, in the Navy's view, "the heart of U.S. naval capabilities." 13/ It is also a key factor in most force-sizing calculations. The number of carriers in the fleet directly affects the number of escorts, underway replenishment ships, and tenders that must be procured. Indirectly, it may influence submarine force levels as well, since submarines are

---

12/ Escorts may be outfitted in the future with sea-launched cruise missiles, giving them a significant offensive capability. Forward-deployed Marine battalion-sized amphibious assault units tend to embody relatively little capability. They have few tanks and only some helicopter support, and have always depended upon carrier-based aviation for initial firepower support in a sea-based assault. There remain serious questions about the realistic capabilities of these units to sustain operations in light of the worldwide spread of missile technology. See Jeffrey Record and Martin Binkin, Where Does the Marine Corps Go From Here? (Washington, D.C.: The Brookings Institution, 1976), pp. 31-33.

13/ U.S. Department of the Navy, Sea Plan 2000, Unclassified Executive Summary (March 28, 1978), p. 8.

now programmed to serve as carrier escorts. In addition, the carrier force level totally dominates the sizing of Navy aircraft force levels, with the exception of land-based patrol aircraft.

It is significant, therefore, that peacetime presence requirements, rather than wartime needs, may be the prime determinants of the currently programmed carrier force level. To be sure, estimated wartime requirements, as expressed in terms of demands for "prudent risk" forces put forth by fleet commanders, have tended to exceed the programmed forces in recent years. Currently, the "prudent risk" force is estimated to be 16 carriers. 14/ Nevertheless, statements by both Navy and Department of Defense officials appear to confirm that a lower programmed force level--12 large carriers--would be adequate to meet wartime needs. 15/ Further, while Administration spokesmen have not addressed the adequacy of still lower carrier force levels for wartime requirements, they have clearly indicated that 12 operational carriers are critical to maintaining current peacetime forward deployments. 16/

It should be noted that the Navy's requirement for 12 carriers is cast in terms of operational carriers, as opposed to active units. Operational carriers are those that actually can be deployed overseas. Active units, on the other hand, include the carriers undergoing long-term, service-life extension. In the

---

14/ The difference between the peacetime level generated by presence deployments and the most demanding wartime need (for a worldwide war with the Soviet Union) is considered to be met by the "mothball" fleet, that is, the fleet of "air-capable" ships (ships capable of launching aircraft) currently not in operation. See Alva M. Bowen and Ray Frank Bessette, Aircraft Carrier Force Levels, Congressional Research Service (1978), pp. 7-11. This fleet is obsolescent, however, and would not be immediately available for operations at the outset of a war.

15/ See statement of Vice Admiral F.C. Turner, USN, in Military Posture and H.R. 10929, Hearings, Part 4, pp. 354, 356.

16/ See "U.S. Navy Information," in Military Posture and H.R. 10929, Hearings, Part 4, pp. 413-14.

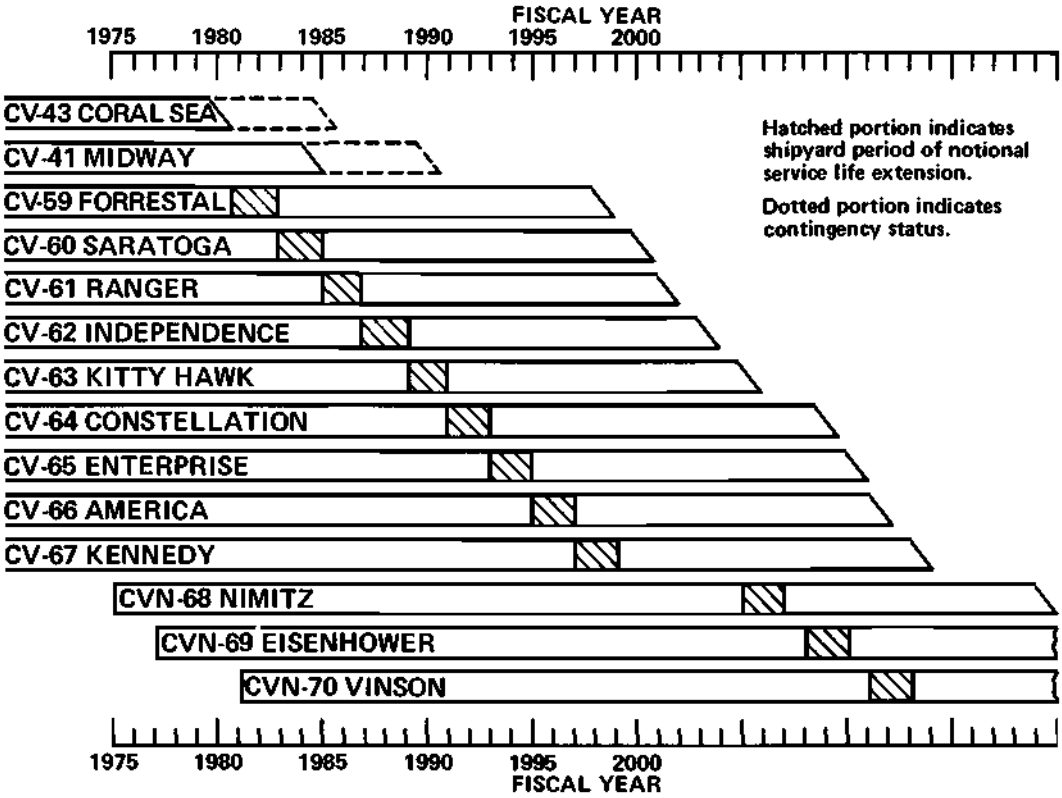
1980s and 1990s, the effect of the Service Life Extension Program (SLEP) will be to reduce the programmed operational force to 11 carriers, with 12 units in the active fleet. 17/ The Navy has, therefore, requested procurement of an additional carrier--a thirteenth active unit--to maintain the operational force of 12 carriers that is now required to support its forward deployments (see Figure 1).

The formula for sizing the carrier force on the basis of overseas deployments is quite complex, involving a calculation of the overhaul, training, operation, transit, and leave periods required to support each forward deployment. 18/ Carriers shift from forward deployments in the Sixth and Seventh Fleets to overhaul or maintenance, and then undertake primarily training operations as part of the Second (western Atlantic) or Third (eastern Pacific) Fleets. The critical factor in the force-sizing calculation, however, is the Navy's programmed requirement that the time that crew members spend on overseas deployments amounts to no more than one-third of a given deployment cycle and extends no more than six months for each deployment. Thus, to the extent that Navy requirements will permit, each carrier will have a crew of its own to operate on station for only one-third of any given cycle.

17/ Thirteen carriers are currently in the fleet. All are active and operational. Initiation of a service-life extension program for the eight Forrestal-class carriers in fiscal year 1981 will involve the removal of one operational carrier for eight successive 28-month periods--the length of each service-life extension--or 17 years for the entire program. The force will thus stand at 13 active, but 12 operational, units. While the transfer of the Coral Sea to contingency status in fiscal year 1981 will be offset by the entry of the Vinson into the fleet that year, no carrier will offset the transfer of the Midway to contingency status in 1985. The force will then drop to 12 active and 11 operational units unless another carrier is procured (see Ibid.). Future references in the text will be to operational carrier levels, while SLEP is assumed implemented in accordance with the current five-year defense program.

18/ This formula is discussed at length in Appendix A.

Figure 1.
Representative Carrier Service-Life Extension Program



The Navy sets its requirements for 12 carriers by adjusting its basic calculation to reflect the distance of each station from home port and summing calculated fractional carrier requirements to support the stations. For example, the Navy requires "1.2" units to support the carrier that is homeported in Japan. 19/ In this case, sailors can be "at home" at the same time as the carrier is nominally considered to be forward deployed. At the other extreme, long transit times result in a requirement of "3.4" units to support one of the forward-deployed Pacific carriers.

19/ See Appendix A.

When summed, however, the total Navy requirement falls neatly into the one-in-three mold: 12 operational carriers are required to support the four forward deployments. 20/

Escort, replenishment, and tender requirements are derived from the required carrier force level. Of the 156 major escorts currently in the fleet, about 114 are linked directly to carriers. All underway replenishment groups--about 46 ships in all--support the carrier force. These ships provide ammunition, supplies, and fuel to deployed forces. Lastly, seven of the fleet's ten destroyer tenders are linked directly to the carrier force. In total, the carrier force currently accounts directly for at least 179 of the 411 general purpose ships in the U.S. Navy. 21/

FORCES FOR THE PRESENCE MISSION: A FUNCTION OF DEPLOYMENT PATTERNS AND CARRIER REQUIREMENTS

Two distinct, but interrelated, elements have characterized U.S. naval presence activities since the end of World War II: the practice of maintaining fixed overseas deployments and the centrality of the carrier to most of those deployments. The interaction between these factors has been a primary determinant of the overall naval force requirement. While force levels ultimately must be linked to wartime considerations, it is possible that, consistent with possible wartime demands, changes in forward deployments or in the composition of task forces could affect both the demand for forward-deployed carriers and the size and composition of the Navy as a whole. 22/

20/ The two Mediterranean deployments are supported by "3.3" carriers each. Thus, the total force amounts to "11.2" carriers, or 12 actual units.

21/ At least 74 ships are carrier escorts. Eight ships form two nuclear task forces; the remainder provides six ships for each of the 11 conventional carriers. About 46 more ships support the 10 underway replenishment groups, four per group with a 15 percent overhaul allowance (see Appendix B).

22/ Wartime requirements and their relation to peacetime needs are addressed in a forthcoming CBO budget issue paper.

The following chapter examines in detail the current pattern of forward deployments. It also outlines the political and military contexts in which they function and the degree to which those contexts may now call for alterations in deployment patterns, task force composition, or both.

CHAPTER III. CURRENT FORWARD DEPLOYMENTS AND REGIONAL BALANCES

The U.S. Navy's permanent forward deployments consist of two powerful fleets--one in the western Pacific, the other in the Mediterranean--and a small flotilla in the Persian Gulf.

The Seventh Fleet, on station in the western Pacific since the end of World War II, currently numbers about 40 ships carrying 28,000 men. It consists of two aircraft carriers, two amphibious ready groups of up to eight ships carrying between one and two battalions of Marines, 18 to 20 escorts, four to seven replenishment ships, and about six attack submarines. The Sixth Fleet, which is deployed in the Mediterranean, is composed of about 35 ships, including two carriers, numerous escorts, submarines, and support ships, and one amphibious ready group. The Middle East force, which operates primarily in the Persian Gulf and the Gulf of Aden, consists of a (noncombatant) flagship and two destroyers. 1/

The continuity of the U.S. naval presence in these regions manifests the lasting strategic and political importance that the U.S. government has attached to each of them. A review of current deployments indicates, however, that they are in several ways poorly matched to present political and military realities. The changed requirements are discussed in this chapter; alternative deployment systems that might better meet today's needs are discussed in Chapter V. To be sure, future changes in regional balances might call for a posture similar to that which currently prevails. It should also be kept in mind that changes inimical to the U.S. position in one area might be offset by improvements in another, so that overall requirements might remain stable.

MISSIONS OF THE NAVY'S PACIFIC FORCES

The Seventh Fleet had its origin in U.S. naval deployments to Japan at the end of World War II. During the 1950s and 1960s, the

---

1/ Information provided to CBO by the U.S. Navy, February 27, 1978. See also Department of Defense, Manpower Requirements Report for Fiscal Year 1979 (February 1978), pp. V-17 to V-19.

36-473 O - 78 - 3

Seventh Fleet and other U.S. military forces in the Far East assisted noncommunist governments (Taiwan, Korea, Vietnam) that were attacked or threatened by local communist forces supported by China and the Soviet Union. In the past decade, however, several factors have altered the role of U.S. military forces in the Far East. These include the end of the Vietnam war, the opening of relations with the People's Republic of China, the emergence of Sino-Soviet rivalry in the Far East, and major improvements in Soviet naval capabilities in the Far East. In particular, the missions of the Seventh Fleet have shifted from containing Chinese-inspired communist expansion on the mainland to balancing Soviet power, protecting U.S. friends and allies located on offshore islands (Japan, Philippines, Taiwan), and contributing to stability along the Asian coast, from Japan to the Persian Gulf. Paradoxically, the Seventh Fleet now contributes indirectly to the security of China itself by containing and countering Soviet military operations in adjacent waters--a role that has been discreetly welcomed by the Peking government. 2/

One other change in the missions of the Seventh Fleet since the 1950s needs mention. In the earlier period, carriers operated as forward bases for nuclear strike aircraft assigned to strategic targets in the Soviet Union and China. With the introduction of submarine-launched ballistic missile forces in the 1960s, carriers no longer were counted as primary strategic nuclear strike forces. Their wartime missions--sea control and power projection--are now primarily oriented to the use of conventional weapons.

A decade ago, the Seventh Fleet regularly operated three carrier task forces, supported by six additional carriers stationed on the U.S. west coast. As U.S. carrier force levels have dropped from 15 to 12 in recent years, however, the major reductions have come from the Pacific force. The Seventh Fleet now operates two carriers at all times, supported by another

---

2/ Frederic A. Moritz, "Cold War Busies China's Diplomats," Christian Science Monitor (June 15, 1978), p. 1. See also, for example, Vice Premier Teng Hsiao-Peng's remarks at a banquet welcoming Thai Premier Khukrit to Peking, June 30, 1975, New China News Agency, quoted in Foreign Broadcast Information Service Daily Report-People's Republic of China (July 1, 1975).

four on the U.S. west coast. At the same time, the fleet's area of operations has been extended to the Indian Ocean, where one of its two forward carrier task forces is deployed periodically. The strains on fleet operations that might have been occasioned by the reduction in force levels and increased operating distances were, however, partially offset by the homeporting of a carrier in Japan. This homeporting arrangement permits all carrier operations (other than major overhaul) to be conducted while the carrier and its air wing remain on forward deployment.

Threats to U.S. and Allied Interests: The Soviet Pacific Fleet

The principal counterpart to the Seventh Fleet in the Pacific is the Soviet Pacific fleet of 70 attack and cruise-missile submarines (nuclear and conventional) and 55 major surface combat ships, including five cruisers and 11 guided-missile destroyers. 3/ The Soviet Union also deploys about 100 Tu-16 Badgers in Far Eastern units of Soviet Naval Aviation (SNA) forces and is expected to begin receiving Backfires into these forces. Badgers are medium-range (1,000 to 1,500 nautical miles) subsonic aircraft of 20-year-old design. They carry two supersonic missiles with a range of about 150 nautical miles. The Backfire is a much more powerful, modern "swing-wing" bomber, capable of short bursts of supersonic speed and of long unrefueled flights. 4/ From its Pacific bases, Backfire can operate as far south as Midway Island. 5/ In addition to the bombers that

---

3/ Robert P. Berman, "Soviet Naval Strength and Deployment," in Michael MccGwire and John McDonnell, eds., Soviet Naval Influence: Domestic and Foreign Dimensions (New York: Praeger, 1977), pp. 324-25.

4/ See William D. O'Neil, "Backfire: Long Shadow on the Sea Lanes," United States Naval Institute Proceedings (March 1977), p. 30; AS-4 and AS-6 missiles can reach speeds of Mach 2.5 to 3.5 at high altitude and are terminally guided. See also Norman Polmar, "Soviet Naval Aviation," Air Force Magazine (March 1976), p. 70; and Robert P. Berman, Soviet Air Power in Transition (Washington, D.C.: The Brookings Institution, 1978), pp. 26-27.

5/ Department of Defense, Annual Report, Fiscal Year 1979, p. 165.

are dedicated to naval aviation missions, Badgers and Backfires could be drawn from the Far Eastern assets of Soviet Long-Range Aviation (LRA), the strategic bomber force, as well as from bases in European Russia. 6/ The total number of Backfires in both aviation branches--now about 70 to 80 aircraft with air-to-surface missiles--is expected to increase slowly by 30 to 36 aircraft a year over the next several years. 7/

The Soviet fleet operates from two ports. The first, Vladivostok, on the Sea of Japan, is virtually land-locked. To reach the Pacific Ocean, the fleet must pass through one or more straits which could be controlled in wartime by Japan. These are the Straits of Tsushima (between Japan and South Korea), Tsugaru (between Honshu and Hokkaido Islands), and La Perouse (between Hokkaido and Sakhalin Islands), shown in Figure 2. The second Soviet naval base, Petropavlovsk, on the Kamchatka Peninsula, has open access to the North Pacific, but lacks land routes to the rest of the Soviet Union and is icebound at least six months of the year. Some of the Pacific fleet's submarines are based at Petropavlovsk, from which they can deploy without passing through straits that facilitate establishment of antisubmarine barriers.

In recent years, the Soviet Union has steadily improved the strength and capabilities of its naval and naval aviation forces in the Far East and has increased the tempo of fleet operations in areas beyond its territorial waters. Soviet forces now could mount a credible challenge for control of the Sea of Japan with a combination of submarine, surface, and airborne firepower based around Vladivostok. 8/ The introduction of Backfires, with their

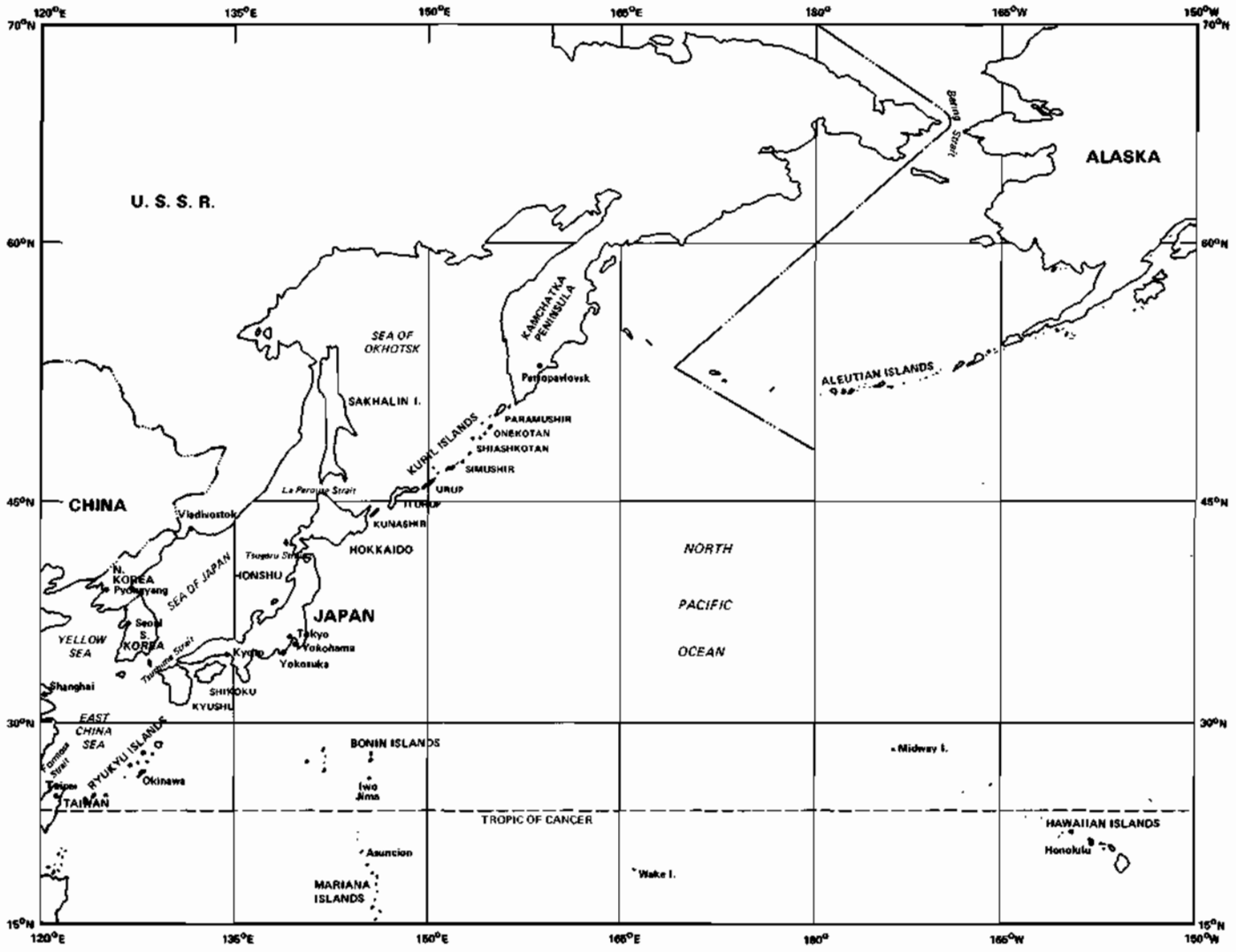
---

6/ Berman, Soviet Air Power in Transition, p. 44.

7/ See report citing "intelligence sources," "Soviets Spur Production of Backfire Plane," Atlanta Journal (August 10, 1978), p. 1.

8/ See, for example, testimony of Admiral James L. Holloway, III, Chief of Naval Operations, in Military Posture and H.R. 11500 (Department of Defense Authorization for Appropriations for Fiscal Year 1977), Hearings before the House Committee on Armed Services, 94:2 (January and February 1976), Part 1, p. 822.

Figure 2.
Northeast Asia and the North Pacific



long patrol ranges, further reduces the geographical disadvantages that restrict surface fleet access to the Pacific. Thus, the Soviet navy will be increasingly capable of conducting sea-denial operations in the North Pacific region with combinations of submarines and long-range, missile-carrying aircraft. Access to naval bases in Southeast Asia, such as Vietnam's Cam Ranh Bay, could extend the reach of Soviet sea-denial operations to the South China, Philippine, and Celebes Seas and the southwest Pacific.

OPERATING AREAS OF THE SEVENTH FLEET

In considering the specific political and military roles of the Seventh Fleet, it is useful to give separate attention to three areas of operation: the northwest Pacific, Southeast Asia (with the southern Pacific), and the Indian Ocean.

Northwest Pacific

The principal U.S. political objectives in the northwest Pacific (see Figure 2) are to deter war in Korea (in cooperation with South Korean forces) and to assure the security of Japan under the Treaty of Mutual Cooperation and Security. Japan's major security concerns are the stability of the Korean Peninsula (which lies across the Straits of Tsushima from the southernmost of the major Japanese islands, Kyushu) and the ability of the Soviet Union to interdict Japan's sea lines of communication in the Pacific. A related Japanese concern is vulnerability to a localized invasion (for example, a Soviet campaign to seize some of the exits from the Sea of Japan in order to release Pacific fleet elements based at Vladivostok). Lastly, Japan is still striving to regain the Kurile Islands from the Soviet Union.

U.S. naval forces in the northwest Pacific are components of a larger complex of forward-based U.S. military forces. These include a U.S. Army division in Korea, two-thirds of a Marine division on Okinawa, and 14 fighter/attack squadrons (ten Air Force, four Marine) in Korea, Japan, and Okinawa, with more than 200 aircraft. 9/ While forces in Korea are

---

9/ Department of Defense, Manpower Requirements Report for Fiscal Year 1979, pp. V-7, V-8, V-18, V-19. These aircraft are those actually available to units, termed "unit equipment."

committed primarily to the defense of South Korea, the ground forces on Okinawa, the air forces in Japan and Okinawa, and the northern elements of the Seventh Fleet are positioned to project U.S. military power in several directions. They can respond not only to threats to the security of Korea and Japan, but also to Soviet or other aggressive moves throughout the region. Thus, the presence of U.S. forces in Northeast Asia serves not only to deter both North Korean and Soviet aggression, but also to reassure South Korea, Japan, Taiwan, and the People's Republic of China that the United States continues to have a strong interest in maintaining the stability of the region. At the same time, these forces constitute a hedge against the forcible settlement of territorial disputes in adjacent regions.

The principal support to U.S. forces in defending the sea-lanes to Japan, Japanese territory, and the adjacent straits would come from Japan's own Self Defense Forces. Japanese naval and naval air forces are now structured primarily for antisubmarine warfare. Japanese airspace is defended by the Self Defense air force, with 250 interceptors, including 160 F-104s and 90 F-4s. The Japanese also plan to acquire F-15 interceptors and an airborne early warning capability. 10/ But defense of convoys and naval forces against Soviet naval air attacks beyond the relatively shallow Japanese air defense zone would fall upon U.S. naval forces, including the carrier force. 11/

While one of the two carriers in the Seventh Fleet operates primarily in the vicinity of Japan, the other carrier is generally deployed in the vicinity of the Philippines, except for its

---

10/ Japan Defense Agency, Defense of Japan--1977 (Tokyo: 1977), pp. 57, 116, 162.

11/ Japan's ability to survive a Soviet campaign against its seaborne supply lines--or to meet such a campaign at a lower cost in military forces--would be enhanced by the stockpiling of petroleum and the wartime suspension of Japanese exports, thus increasing its ability to meet the urgent demand for raw materials during the early months of a conflict. David Shilling, "A Reassessment of Japan's Naval Defense Needs," Asian Survey (March 1976), pp. 216-29.

periodic visits to the Indian Ocean. A single carrier could not withstand the combined attack of air, surface, and subsurface forces operating from Soviet bases in East Asia. In the event of a crisis in Northeast Asia, the second carrier could, of course, steam to Japanese waters. If that carrier were nearby, a two-carrier force capable of conducting round-the-clock air operations could be assembled in less than three days. At other times, the response time could be as long as two weeks. In addition, at least two of the four carriers on the U.S. west coast could deploy overseas on short notice and arrive off Japan in less than three weeks. Thus, the posture of the U.S. Pacific fleet allows a graduated response to a Northeast Asian crisis.

Despite its permanent station in the Pacific, the peacetime effect of the Seventh Fleet, particularly in Japan, may be lessened by ambiguities about its role during a worldwide NATO/Warsaw Pact war. Some Japanese commentators fear that, in the event of such a war, the carrier force would be transferred to the Atlantic, leaving sea-lanes to Japan, and perhaps Japan itself, vulnerable to Soviet attack. Such fears affect what one Japanese commentator has called the "politico-psychological effect of the balance in peacetime," which, he contends, may be as important as the wartime balance. 12/ Given continued Japanese apprehension over the withdrawal of U.S. forces from Korea, 13/ as well as the symbolism that the Japanese attach to the carrier

---

12/ Makoto Momoi, "Strategic Environment in the Northeast Pacific--A Japanese Perception" (paper submitted to a conference on "Security and Development in the Indo-Pacific Arena," sponsored by the International Security Studies Program, Fletcher School of Law and Diplomacy, Tufts University, April 1978; processed), p. 3. Permission for citation courtesy of the International Security Studies Program. See also Michael Pillsbury, "Discussion Outline," in Paul Y. Hammond, Charles Wolf, Jr., and Peter De Leon, "Perceptions of the Military Balance: Report of a Workshop, August 26-27, 1974" (Santa Monica: The Rand Corporation, 1974; processed).

13/ See Hideaki Kase, "Northeast Asian Security: A View From Japan," Comparative Strategy, Vol. 1, Nos. 1 and 2 (1978), pp. 98-99.

force, it may be worthwhile for the United States to realign its posture, possibly by deploying the second Seventh Fleet carrier closer to Japan in order to convey greater assurances of the sincerity of the U.S. wartime commitment. Such assurances could help strengthen Japanese resolve in the face of peacetime pressures from the Soviets, dampen any revival of Japanese militarism, and increase the probability of Japanese cooperation in a NATO/Warsaw Pact war.

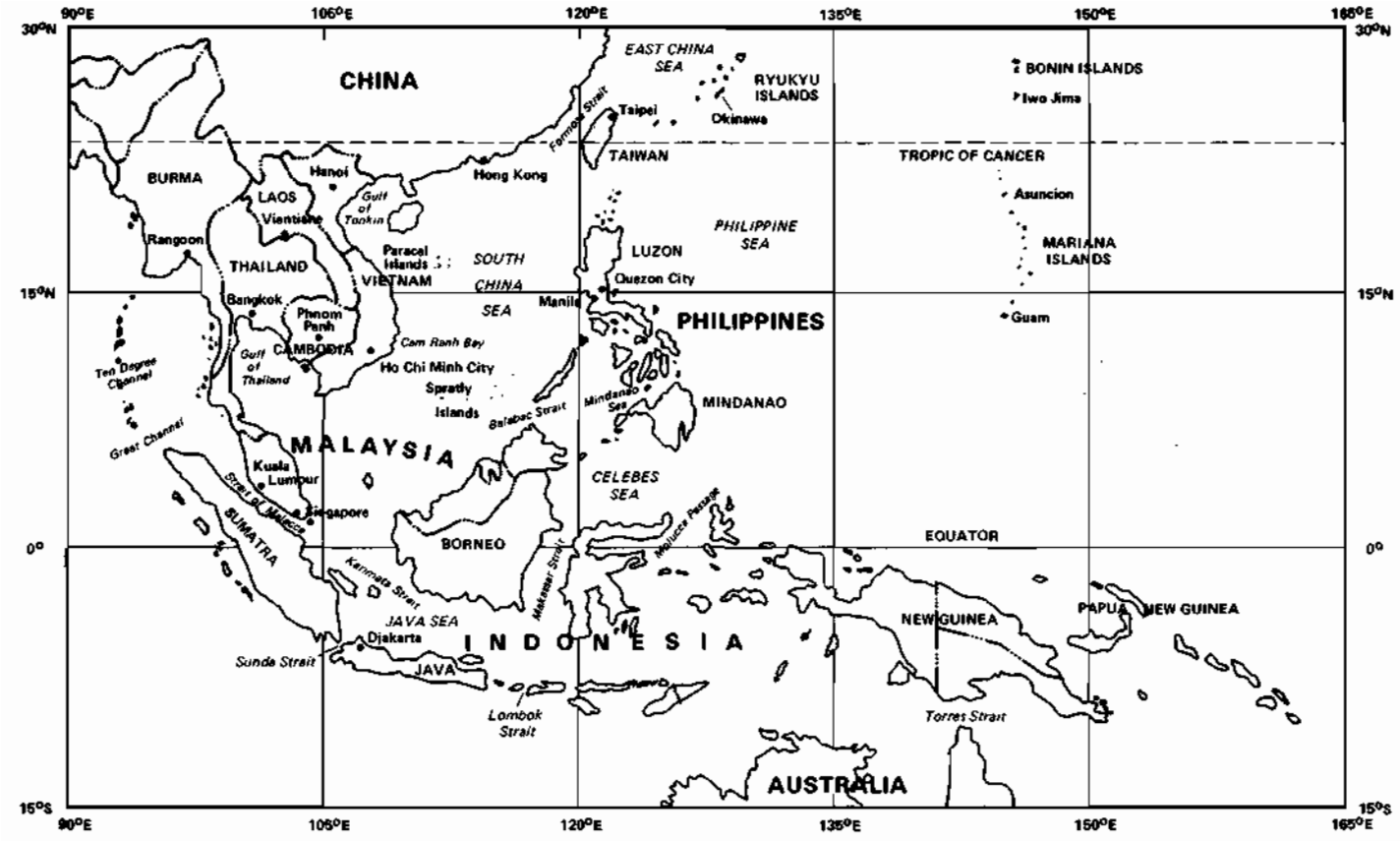
Southeast Asia and the South Pacific

The second major operating area for the U.S. Seventh Fleet is the Philippine, South China, and Celebes Seas, which command the sea and air approaches to the Philippines, Indochina, Malaysia, Indonesia, and Australia, and the major sea routes from the Middle East and Europe to Northeast Asia (see Figure 3). Since the end of the Vietnam war, no single power has dominated this region. Instead, a power balance appears to be forming among the United States, China, the Soviet Union, and Vietnam. Within this balance, the other major states of the region--Thailand, Malaysia, Singapore, Indonesia, and the Philippines, aligned with each other in the Association of Southeast Asian Nations (ASEAN)--have sought to develop diplomatic relations with all external powers. But all still face to some degree the danger of insurgency supported by external powers. 14/

The major U.S. security interests in the area are to (1) maintain free navigation through the seven straits now traversed by ocean traffic traveling to Asia from the Indian Ocean--an interest shared with the Soviet Union; (2) maintain regional stability and prevent the outbreak of local conflict; (3) offset Chinese political pressures on the nations of Southeast Asia and the South Pacific; and (4) counterbalance the Soviet military presence.

14/ Bruce Grant, The Security of Southeast Asia, Adelphi Paper No. 142 (London: The International Institute for Strategic Studies, 1978), pp. 7-10, 18-20. See also Sheldon W. Simon, Asian Neutralism and U.S. Policy, Foreign Affairs Study No. 21 (Washington, D.C.: American Enterprise Institute, 1975), pp. 91ff.

Figure 3.
Southeast Asia and the Southwest Pacific



Indonesia claims territorial control over six of the seven South Pacific straits. Together with Malaysia, it has claimed jurisdiction over the Straits of Malacca since 1971. The Malaysian and Indonesian claim over navigation in the Straits has been disputed jointly by Japan and the Soviet Union and, independently, by the United States. 15/ If all the Indonesian straits were closed to traffic, the alternative route to the south of Australia would greatly increase the transit time from the Persian Gulf to Japan, impede the transfer of U.S. naval forces from the western Pacific to the Indian Ocean, and increase the costs of transporting oil to Japan.

Another potentially destabilizing factor in the region is the unsettled territorial claims in and around the South China Sea, some motivated by a desire to control continental shelf resources. These claims make the South China Sea a potential area of conflict among the littoral states, which include the Philippines, Vietnam, Indonesia, China, and Taiwan. The major unsettled dispute in the region is China's claim to sovereignty over Taiwan, with which the United States has a mutual defense treaty. In addition, there are disputes among these states over smaller islands in the region. 16/

The Soviet naval presence in Southeast Asia and the South Pacific is limited to periodic courtesy calls, such as at Singapore, by relatively small forces, composed of three to four combat ships. Soviet surface and naval air threats in the region

---

15/ The Malaysian and Indonesian policy regarding these straits is opposed by Singapore and Thailand--fellow members of ASEAN--and supported by China. Simon, Asian Neutralism and U.S. Policy, p. 47.

16/ China and Vietnam, for example, dispute rights to the Paracel Islands, strategically located near the center of the South China Sea. The Paracels, once claimed by South Vietnam, were seized in January 1974 by a Chinese amphibious force backed by MiG fighters from Hainan Island. And all four littoral states lay claim to the Spratly Islands, where the Philippines has been granting oil exploration leases since 1970. Philippine troops occupy five of the Spratlys; Vietnamese, three; and Taiwanese, one. Grant, The Security of Southeast Asia, p. 20; Simon, Asian Neutralism and U.S. Policy, pp. 26-27, 48.

could well remain negligible unless the Soviet Union established a base in Vietnam. At present, the major Soviet threat to sea-lanes in the region is posed by the potential for submarine operations in the South Pacific. A Soviet effort to establish a shipping barrier in the South Pacific could well be short-lived, however. Soviet submarines would have to pass antisubmarine barriers that U.S. and Japanese forces could establish along the route from the Soviet Union to the South Pacific. Even if Soviet submarines avoided these barriers on their outbound journey, they would be vulnerable to detection both when they attacked ships and when they returned to port to replenish.

Some observers fear that the Soviet Union might increase its naval presence--and thus its influence--in the region by seeking permission from Vietnam to occupy the former U.S. naval base at Cam Ranh Bay. 17/ This would enable the Soviet Union to deploy more units in Southeast Asia and the South Pacific and would provide a base for Soviet naval air operations over the South China and Philippine Seas. It would also support submarine resupply efforts, thereby permitting the submarine force to avoid the allied antisubmarine warfare (ASW) gauntlet on replenishment voyages to the Soviet Union. Such a base would be vulnerable and difficult to supply in a conflict, however, and would therefore be of limited value--assuming U.S. tactical air and naval forces were available to counter Soviet operations.

The navy of the People's Republic of China, while numerically large (166 submarines and over 100 escorts and fast missile boats armed with Styx missiles and 700 shore-based aircraft), is made up primarily of short-range units and appears to be best suited for coastal defense. Its amphibious warfare fleet of 45 ships, displacing about 76,000 tons, does not appear to pose a significant threat to Taiwan or other nearby states. 18/ Its aircraft include about 60 Badgers and 400 Beagle short-range,

---

17/ Leslie H. Brown, American Security Policy in Asia, Adelphi Paper No. 132 (London: The International Institute for Strategic Studies, 1977), p. 18.

18/ Jane's Fighting Ships, 1977-78, p. 93. By comparison, the U.S. amphibious warfare fleet of 79 large ships displaces over 1.1 million tons and is capable of lifting almost one-and-one-third Marine divisions and air wings (see Jane's Fighting Ships, 1977-78, pp. 610-16).

light bombers, including 100 armed with torpedoes. Four hundred older MiG 15, 17, and 19 fighter/bombers also serve in the naval air force. The Chinese air forces are not known to possess air-to-surface missiles and thus pose only a limited threat to shipping in the South China Sea. 19/

Third World navies currently could pose a modest threat in the South Pacific if they combined to defend one or two straits, but they probably would be insufficient to provide a sustained defense of all straits against U.S. and allied naval and Third World air forces.

Table 1 outlines key elements of the navies of leading regional powers. Vietnam's forces also include over 160 F-5 and A-37 aircraft, as well as over 45 AC-119 and AC-4 gunships. This captured equipment may be of limited value, however, because of a lack of spare parts and insufficient training for operating U.S. weapons. The Indonesian navy appears impressive but at present is dominated by obsolescent Soviet units and may also suffer from a lack of spare parts. The large number of units on order, however, could signal a determination to improve Indonesia's capabilities for naval warfare.

U.S. treaty allies in the region include Australia, New Zealand, the Philippines, and Taiwan. Both Australia and New Zealand have joined Britain in a five-power treaty to defend Malaysia and Singapore. The major military contribution is provided by Australia, which deploys an aircraft carrier with a small number of attack and antisubmarine warfare aircraft on board, as well as a fleet air arm of 22 combat and antisubmarine aircraft (A-4s, S-2s). Taiwan is heavily defended by ground forces (20 divisions, over 750 tanks). Its naval forces include two submarines, 36 surface combat ships, and 51 landing craft. Air force units include 255 F-100 and F-5 fighter/attack aircraft and 44 F-104 interceptors. 20/

19/ Barry Wheeler, "World's Air Forces 1978," Flight International (July 8, 1978), pp. 106, 111. China is not listed as an operator of Soviet air-to-surface missiles. See Mark Hewish, "World Missile Directory," Flight International (June 10, 1978), p. 1768.

20/ International Institute for Strategic Studies, The Military Balance, 1978-1979 (London, 1978), pp. 59-61.

TABLE 1. SOUTHWEST PACIFIC REGIONAL POWERS, 1978

Country	Attack Aircraft Carriers	Surface Combat Ships a/	Missile Patrol Boats	Submarines
Australia b/	1	11 (3)	—	6
Indonesia	—	11 (3)	9 (4)	3 (2)
Malaysia	—	2	4 (4)	—
New Zealand b/	—	4	—	—
Philippines b/	—	19	—	—
Singapore	—	—	6	—
Taiwan b/	—	36	— (2)	2
Thailand	—	3	3 (3)	—
Vietnam	—	—	2	—

SOURCE: International Institute for Strategic Studies, The Military Balance, 1978-1979 (London, 1978).

NOTE: Units on order in parentheses.

a/ Cruisers, destroyers, frigates, and large corvettes.

b/ U.S. treaty ally.

U.S. naval forces clearly do not face as formidable a threat in the southwest Pacific as they do further north. The availability of some degree of allied support further enhances the U.S. position. The Soviet Union, on the other hand, still suffers from logistical limitations that could hamper sustained naval activities during a conflict.

Treaty commitments, as well as a concern to assert and exercise the right of navigation through the region's straits, appear to justify some level of continued U.S. naval presence in the southwest Pacific. Nevertheless, the carrier task force may be a somewhat more powerful aggregation than the current level of threat requires.

Indian Ocean

U.S. Navy activities in the Indian Ocean include deployment of a small permanent force, periodic peacetime visits by a carrier task force from the Seventh Fleet, and planned wartime protection of Indian Ocean sea-lanes. These lead from the Persian Gulf oil fields to the western Pacific and, by way of Suez and the Cape of Good Hope, to Western Europe and the United States.

Major U.S. deployments in the Indian Ocean are of relatively recent origin, although the United States has maintained a small three-ship task force in the Persian Gulf and Indian Ocean since 1948. Until 1968, the British Navy, with its large base at Singapore, was the dominant military presence. With the British decision to withdraw forces stationed "East of Suez," the Soviet Union began a permanent deployment of ships from its Pacific fleet and gradually expanded a complex of bases around the Gulf of Aden. These now include facilities in Aden, South Yemen; the island of Socotra; and, until 1977, Berbera, Somalia (see Figure 4).

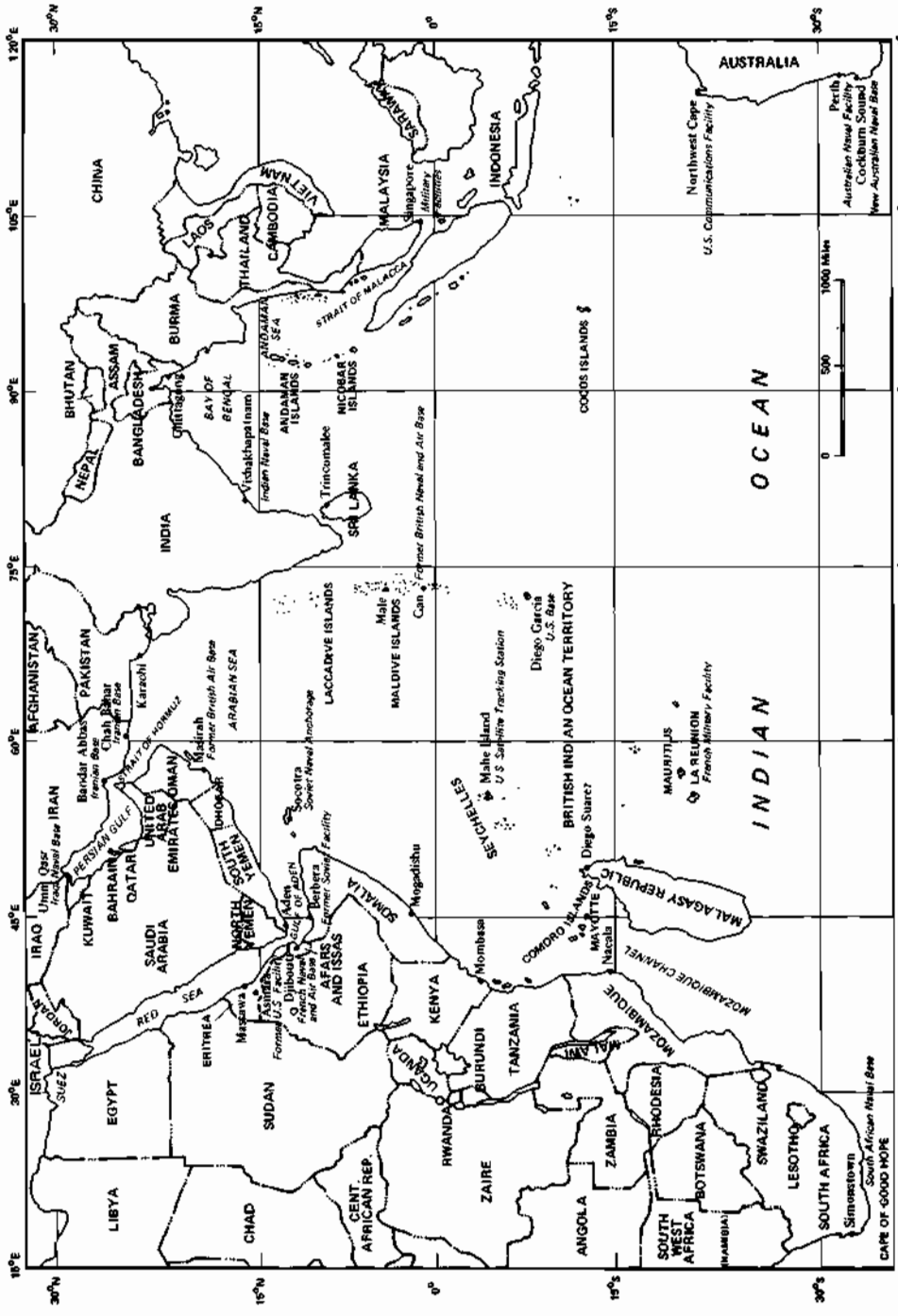
The U.S. response to these Soviet moves and to increased U.S. vulnerability to interruptions of oil shipments from the Persian Gulf has taken two forms. Since 1971, the Navy has tripled its presence in the region as measured in ship days. (A "ship day" is a measurement of naval presence consisting of one ship at sea for one day.) A carrier task group deployed from the western Pacific spends about three months a year in the area. Second, the United States established a refueling station and airfield on Diego Garcia, an island in the British Indian Ocean Territory some 2,500 miles from the Straits of Hormuz and 1,800 miles from the Gulf of Aden. U.S. antisubmarine aircraft (P-3s) operate from Diego Garcia and Bandar-Abbas, an Iranian base at the northern end of the Indian Ocean. 21/ Although the United States and the Soviet Union have engaged in talks on limiting naval deployments to the Indian Ocean, these recently have been in abeyance, perhaps, in part, because of Soviet and Cuban activities in the Horn of Africa. 22/

21/ Department of Defense, Annual Report, Fiscal Year 1979, p. 180.

22/ See Frank R. Barnett, "Preface," in Alvin J. Cottrell and Walter F. Hahn, Naval Race or Arms Control in the Indian Ocean? Some Problems in Negotiating Naval Limitations (Washington, D.C.: National Strategy Information Center, 1978), p. vii.

Figure 4.

The Indian Ocean Region



SOURCE: Adapted from Dale H. Tahtinen, *Arms in the Indian Ocean: Interests and Challenges* (Washington, D.C.: American Enterprise Institute, 1977).

It is noteworthy that regular Soviet combat ship deployments in the Indian Ocean remain at a modest level. 23/ The day-to-day Soviet threat to sea-lanes in the Indian Ocean is posed by only eight combat ships, including a few submarines. 24/ Soviet naval reconnaissance (Bear) and antisubmarine warfare (May) aircraft also operate over the Indian Ocean, mainly from bases in the Gulf of Aden. No antishipping aircraft (Badgers or Backfires) have been deployed to the region, however. To carry out strike missions over the Indian Ocean, Badgers and Backfires based in the Soviet Union would have to overfly Iran and the Arabian Peninsula or Afghanistan. Even so, their range from Soviet bases would limit the threat of air attack to the northwest sector of the Indian Ocean unless they staged through bases in the Horn of Africa.

The Soviet Union could augment its Indian Ocean naval squadron in a few days from the Black Sea through Suez. Should it also decide to base Badgers and Backfires in the Horn, it could pose a high-level threat, with little warning, to naval forces and shipping in the Indian Ocean as far south as the Mozambique Channel and as far east as Sri Lanka.

Other External Forces. France is currently the major external power in the Indian Ocean, where it maintains an active presence. French naval forces, including an aircraft carrier, were deployed to Djibouti in the Horn in 1978 to protect the former French colony of the Afars and Issas, which attained independence at about the same time that the Soviet Union and Cuba began military operations in support of neighboring Ethiopia. France has deployed over 20 combat ships in this region since the early 1970s and has bases on Reunion--an island off Madagascar that remains French territory--and Mayotte. France maintains close relations with most of its former colonies in Africa and is concerned about possible external threats to their stability. 25/

23/ See Richard Haass, "Naval Arms Limitations in the Indian Ocean," Survival (March/April 1978), p. 52.

24/ Information provided to CBO by U.S. Navy, October 30, 1978.

25/ General Mery, "Conference Prononcee par Le General Mery," Defence Nationale (June 1978), pp. 21-22. The Somali government has made claims to the territory of the Afars and Issas, which has ethnic Somalis among its population. See Dale R. Tahtinen, Arms in the Indian Ocean (Washington, D.C.: American Enterprise Institute, 1977), pp. 11, 31.

36-473 O - 78 - 4

Regional Powers. A number of nations bordering the Indian Ocean and Persian Gulf have sizable military forces. These include Australia, India, Pakistan, Iran, Iraq, Saudi Arabia, and South Africa. If allied with an external power, some of these states could aid significantly in sea denial or sea control (convoy protection) in the Indian Ocean. Beyond the Persian Gulf, however, no regional power has the reach to dominate significant portions of the area as a whole. Table 2 lists the naval capabilities of Indian Ocean nations with significant military forces or geographical locations.

TABLE 2. INDIAN OCEAN REGIONAL POWERS, 1978

Country	Attack Aircraft Carriers	Surface Combat Ships a/	Missile Patrol Boats	Submarines
Australia	1	11 (3)	—	6
India	1	29 (9)	16	8
Iran	—	11 (10)	5 (7)	— (9)
Iraq	—	—	14	—
Pakistan	—	8	—	4
Saudi Arabia	—	— (6)	— (4)	—
South Africa	—	4	3 (3)	3

SOURCE: International Institute of Strategic Studies, The Military Balance, 1978-1979 (London, 1978).

NOTE: Units on order in parentheses.

a/ Cruisers, destroyers, frigates, and large corvettes.

Implications of U.S. Presence. Unlike the U.S. presence in the Pacific region, the presence mission in the Indian Ocean has historically been geared more to "showing the flag" than to promoting regional stability or crisis control. The Pacific carrier force has been the key crisis-response unit in the Indian

Ocean. 26/ Although a carrier task force now deploys annually in the Indian Ocean, it is not clear whether this deployment presages a further increase in U.S. presence in the region.

It is even less clear whether carrier deployments are best suited to promoting U.S. interests in the region at all times. Despite their firepower, carriers could be vulnerable to attack by a number of regional states. While it is probable that the outcome of a conflict at sea eventually would favor the United States, even the temporary loss of a carrier might be an exacting political price. Just as sending a carrier to the scene of a crisis could convey a larger commitment of U.S. interests than sending a less powerful ship, the temporary disabling of a carrier could inflict a larger blow to U.S. prestige and political effectiveness than the outright loss of a lesser ship. Furthermore, there appears to be a congruence of French and U.S. interests in the area. In light of France's commitment to regional stability and its position as a leading Indian Ocean naval power, a somewhat less imposing U.S. presence--at a correspondingly lower cost--might be more appropriate.

MISSIONS OF THE NAVY'S MEDITERRANEAN FORCES

The Sixth Fleet has both NATO and non-NATO missions in the Mediterranean. The NATO missions, which led to the establishment of the Sixth Fleet 30 years ago, include maintaining the confidence of allies, such as Turkey, Greece, and Italy, that U.S. forces would be committed to protecting the NATO southern flank in the event of a NATO/Warsaw Pact conflict. 27/ The United States

---

26/ For example, the carrier Enterprise was deployed during the 1971 Indo-Pakistani war, as was the Ranger in 1976 during tensions between Kenya and Uganda after the Entebbe rescue. See David K. Hall, "The Indo-Pakistan War of 1971," in Barry M. Blechman and Stephen S. Kaplan, "The Use of Armed Forces as a Political Instrument" (Washington, D.C.: The Brookings Institution, 1976; processed), p. IX-40; see also U.S. News and World Report (August 2, 1976), p. 49.

27/ Desmond P. Wilson, Jr., The U.S. Sixth Fleet and the Conventional Defense of Europe (Arlington, Va.: Center for Naval Analyses, September 1976), pp. 5-6. The Sixth Fleet's carriers, however, no longer act as forward bases for the strategic nuclear forces, a principal role in the 1950s.

is bound by treaty to provide two carriers to NATO within 48 hours of the start of a European conflict. The Navy asserts that the Sixth Fleet carriers meet that commitment. 28/ In the event of such a war, the fleet could attempt to project U.S. air power and Marine forces into the eastern Mediterranean to assist Turkey in defending the Turkish Straits. Its principal defensive mission would be to deny the Soviet navy the use of the Mediterranean and to protect allied shipping.

The non-NATO missions of the Sixth Fleet are related to U.S. policy toward the nations to the south of the Mediterranean and, in particular, to the maintenance of stability between Israel and the Arab states. This mission is of more recent origin than the NATO role, but it dates back at least to the 1956 Suez crisis. The precise missions of the fleet in this context are difficult to define, however. Any decision to intervene in future conflicts between Israel and its neighboring Arab states would be complicated by several factors. One is the dependence of Western Europe and the United States on Arab oil and the U.S. interest in maintaining friendly relations with Egypt, Jordan, and Saudi Arabia. Another is the presence of the Soviet Mediterranean fleet, with its implicit threat to retaliate for any U.S. intervention that threatened Soviet clients in Syria, Iraq, or Libya. During the October 1973 war, the Sixth Fleet, augmented by a third carrier and its escorts, stood within striking distance of the conflict. But the addition of the third carrier represented something less than an overt commitment to use U.S. force in direct support of Israel. Moreover, all U.S. carriers were shadowed during the crisis by Soviet combat ships armed with antiship missiles. It is unclear whether the threat of a Soviet attack on the fleet would have deterred the use of carrier aircraft in support of Israel had the United States wished to do so, making the Sixth Fleet at best an enigmatic force in the Middle East balance. 29/

28/ Testimony of Vice Admiral Frederick C. Turner, USN, Military Posture and H.R. 10929, Hearings, Part 4, pp. 358-59.

29/ See Robert G. Weinland, Superpower Naval Diplomacy in the October 1973 Arab-Israeli War, Professional Paper No. 221 (Arlington: Center for Naval Analyses, 1978; processed), pp. 39-60. A more explicit commitment, for example, might have been the stationing of a wing of U.S. combat aircraft in Israel during the war.

Threats to U.S. and Allied Interests: Soviet Forces

The Soviet Union poses the primary threat to the Sixth Fleet. Its forces in the region include the Mediterranean Squadron of eight to 10 diesel submarines, one or more nuclear-powered cruise-missile submarines, two to four cruisers, and nine to 12 frigates and destroyers. In addition, 60 Badgers and about 15 Backfires are assigned to Naval Aviation at Black Sea bases. The cruisers and destroyers carry surface-to-surface missiles with ranges of 150 to 250 miles (SSN-3, SSN-12) or 30 miles (SSN-2, SSN-14); the submarines carry missiles with similar ranges; each aircraft carries at least one air-to-surface missile with a range of over 135 miles. 30/

The Soviet Mediterranean Squadron's principal weapon against carriers, other than Badgers and Backfires, is the "anticarrier task group," often composed of a small number of guided-missile cruisers and destroyers and one or more submarines. These anticarrier groups shadow the U.S. fleet to provide targeting information to bombers. In addition, each group can bring 20 to 30 cruise missiles to bear on the U.S. ships. 31/

The greatest threat to the Sixth Fleet is that of a coordinated attack by Soviet anticarrier task forces and naval aviation. In fact, it would be difficult for the Soviet Union to mount such a large attack without providing prior warning to the fleet. The carrier force could then augment its air defenses with added interceptors. In addition, the Soviet forces would risk losses to Greek and Turkish air defenses or, if the Soviets overflew Yugoslavia and the Adriatic, to

---

30/ Office of the Chief of Naval Operations, Understanding Soviet Naval Developments (1978), p. 13; Berman, Soviet Air Power in Transition, pp. 26, 28, 43; Jane's Fighting Ships, 1977-78, pp. 676-700, 781-82.

31/ See, for example, discussion of Soviet anticarrier operations in the Mediterranean in Weinland, Superpower Naval Diplomacy in the October 1973 Arab-Israeli War, pp. 56-57; for firepower of Soviet naval units, see Jane's Fighting Ships, 1977-78, pp. 676-700.

other NATO aircraft. Further, the carriers themselves might be able to redeploy to more advantageous defensive positions. 32/

In either a NATO or a Middle East conflict, the survival of Soviet Mediterranean fleet elements after an attack on the Sixth Fleet would be questionable in view of their vulnerability to attack by allied land-based aircraft. Moreover, in a NATO scenario, a Soviet attack on the Sixth Fleet, even if successful, would likely leave unharmed a large number of allied naval units in the Mediterranean, including two French aircraft carriers with 80 aircraft, as well as more than 80 allied surface combat ships and more than 40 submarines. 33/

The threat of a surprise attack cannot be ruled out completely, however. Such an attack could be mounted by anticarrier groups alone, which could benefit from the stealth and surprise of diesel-powered submarines. 34/ Were carriers deployed further west in the Mediterranean, the threat of such an attack would diminish considerably, as would the possibility of attacks by longer-range Soviet aircraft and of surprise attacks by anti-U.S. states such as Libya and Syria. Nevertheless, it is the political commitment of the United States to defend its eastern Mediterranean allies and friends that prompts the deployment of the carrier forces in close proximity to those states. The paradox is that, in seeking to reinforce that political commitment, the Navy may incur a high military cost in the event of a conflict.

32/ For a discussion of this point, see Congressional Budget Office, Planning U.S. General Purpose Forces: The Navy, Budget Issue Paper (December 1976), pp. 13-14.

33/ Jesse W. Lewis, Jr., The Strategic Balance in the Mediterranean (Washington, D.C.: American Enterprise Institute, 1976), p. 127ff. The numbers include units from the fleets of Greece, Italy, Turkey, Spain, and France and assume that approximately 50 percent of the French and Spanish escorts and submarines are deployed in the Mediterranean.

34/ These units are not easily detectable in the Mediterranean when submerged. Wilson, The U.S. Sixth Fleet and the Conventional Defense of Europe, pp. 16-20.

HISTORICAL ASPECTS OF CURRENT DEPLOYMENTS

The histories of the Sixth and Seventh Fleets suggest that there is an inertial aspect to U.S. naval deployments. The specific military and diplomatic missions of the two fleets have changed with changes in U.S. foreign policy, such as a more intense involvement in the Middle East and the rapprochement with China, as well as with changes in military forces, such as the introduction of ballistic missiles for strategic missions and improvements in Soviet military capabilities. But, for the most part, the fleets are still deployed to locales chosen for their strategic importance to the United States a generation ago. The fact that they remain in these locales may be less a result of the military importance of their current roles than a consequence of the political importance which the United States attaches to its diplomacy in the Mediterranean and East Asia.

But in several respects, current deployments seem poorly matched to diplomatic and military realities. For example, the Soviet Pacific fleet is far more capable--and more threatening to the U.S. carrier force--than it was 20 years ago. Deployment of a single carrier in Northeast Asian waters may not suffice to promote regional stability in the 1980s, as it did when considerably more U.S. force was stationed on the Northeast Asian mainland and Soviet naval and air capabilities were confined to coastal protection. On the other hand, continued deployment of a carrier in the southwest Pacific may be inefficient for a region whose patrol boat navies pose no sustained threat to even lesser naval units. Less capable ships, with lower costs, might maintain U.S. presence adequately in a region which is currently beyond the reach of major Soviet military forces and whose leading power--China--has evolved from a hostile adversary to a sometimes friendly neutral.

While the number of U.S. ship days in the Indian Ocean has increased markedly in recent years, primarily in response to greater Soviet activity in the region, the small size of the permanently deployed Middle East force continues to reflect U.S. dependence on pre-1968 British predominance in the region. It is debatable, however, whether U.S. attempts to increase naval presence in the area should focus solely on aircraft carrier groups. Many of the considerations that arise in the southwest Pacific apply to the Indian Ocean as well. A number of regional powers whose naval capabilities could not match those of the United States on a sustained basis could, in isolated instances,

inflict at least short-term damage on an aircraft carrier. A further consideration arises in the Indian Ocean context: when Britain pulled back west of Suez, it was France, not the Soviet Union, that became the region's leading external power. As long as France is determined to play a stabilizing role, the United States might provide adequate secondary support with something less than large-deck carrier forces.

In the Mediterranean, the Sixth Fleet has been a major actor in non-NATO-related crises since the 1950s. Its deployment, particularly in the eastern Mediterranean, appears to be geared primarily to containing similar crises in the future.

From a treaty standpoint, deployment of U.S. tactical carriers in the eastern Atlantic (instead of the Mediterranean) would permit the 48-hour response time required of the United States in a NATO war. Moreover, air units deployed to Greece and Turkey could be at least as effective as carrier-based air in meeting early Warsaw Pact threats to the southern flank of NATO. Militarily, the United States Navy becomes a hostage to surprise attack when it deploys to a fixed station in the eastern Mediterranean. It is not the military requirements of NATO scenarios, but the fact that the Sixth Fleet has been in the Mediterranean since 1950 that makes it appear extremely costly in political terms to move it elsewhere.

Thus, in the Mediterranean and southwest Pacific, perhaps more than elsewhere, deployments are more a product of historical precedent than of military necessity or requirements. Political contexts change with time, however, as do military capabilities and national interests. Requirements could, of course, change again in the future. A greater carrier presence might be needed in regions that currently do not appear to call for it. By the same token, however, future requirements for carrier presence in other regions might diminish, and thereby result in a total force requirement that would not necessarily be greater than that which current presence missions demand. The following chapters will examine a range of alternative approaches to the Navy's peacetime missions and the degree to which political constraints could inhibit shifts in U.S. deployments--shifts that might be geared to reflect the changing nature of U.S. interests and the possible use of military presence and force to support them.

CHAPTER IV. REEVALUATING CURRENT U.S. NAVAL POSTURE

As discussed in Chapter III, forward-deployed naval forces appear to address two kinds of political/military requirements:

- Demands for signals of continued U.S. commitments to allies and to stability in overseas regions.

- The need for on-the-scene military capability to control crises that otherwise might escalate into regional conflicts.

Chapter III also indicated that the nature of perceived threats to U.S. interests that require a U.S. naval presence has changed since World War II. These threats may change again during the remainder of this century, and such changes cannot, of course, be predicted. Nevertheless, it is questionable whether the Navy's current deployment posture most efficiently responds to those threats that can be predicted in the foreseeable future. In particular, there is some reason to doubt the appropriateness of emphasizing carrier task forces for the presence mission in all the regions of the world where presence might have to be maintained.

The effectiveness of U.S. overseas maritime presence implicitly has been predicated upon the fact that maritime forces are safe havens for the projection of force ashore. In the past, carrier forces did indeed ensure that most of the military cards remained in U.S. hands, and mere presence often appeared to substitute for the actual use of carrier (or Marine) firepower. As noted in Chapter III, however, the growth of Soviet naval capability and technological improvements in antiship systems of even small navies have increased the risk of naval confrontation at sea and thereby ended the carrier's previous status as a safe haven. U.S. maritime forces may still be likely to get the upper hand in a battle, 1/ but they would have to fight for that

---

1/ Some have argued that even the "upper hand" was in doubt with respect to the Marines. See Martin Binkin and Jeffrey Record, Where Does the Marine Corps Go From Here? (Washington, D.C.: The Brookings Institution, 1976), pp. 30-42.

upper hand, for their safety is no longer completely assured. The assistance that would likely be provided by Soviet units to supplement the antiship capabilities of regional powers would add to the price of U.S. maritime operations. U.S. decisionmakers must therefore calculate the risk attached to presence in addition to the risk associated with operations ashore. 2/ Presence no longer implies sheer projection capability; some force would have to be reserved for self-defense.

The Navy's long-standing policy of concentrating its offensive power in the carrier, while gearing other surface units to defensive missions, has aggravated the dilemma that U.S. decisionmakers face. The fact that carriers are the Navy's sole truly offensive platforms permits an adversary to concentrate his antiship attacking systems on a very few units. The limited number of carriers in the fleet means that the loss of even one--however unlikely--might seriously affect U.S. capabilities in a worldwide conflict, thus raising the carrier's opportunity cost in a regional context. Indeed, even the temporary disabling of a carrier, such as a hit on the flight deck (which would prevent operations for at least several hours), would have negative political consequences for the United States in a crisis.

The carrier's significance as the fleet's primary offensive platform, its vulnerability as the prime target for antiship missiles, and the need to amass the Navy's defensive systems to protect it from those missiles have for the first time provided some political flexibility to regional antagonists. They are now in a position to assess whether the United States really is prepared to use force when it deploys maritime units to the scene of a crisis. If it is serious about employing force ashore, the United States would not only have to assemble task groups sufficient for projection operations, but also would have to provide sufficient defensive systems to ensure the carrier's (or Marine unit's) safety and continued operation at sea. As noted earlier,

---

2/ Political considerations involving the effect of any confrontation on the worldwide strategic balance may well have been a major factor in limiting U.S./Soviet naval interaction in the past and could similarly constrain further interaction. Nevertheless, greater Soviet capabilities have increased the potential for confrontation and thereby heightened the risks that will attach to future carrier presence activities.

at least two carriers are needed to support round-the-clock tactical air operations. The mere dispatch of a single carrier task force that did not provide protection and projection might be perceived more as a knee-jerk reaction to a crisis than a carefully conceived plan of attack. It could appear to indicate merely U.S. concern, not a readiness to fight.

It is significant that, parallel to the problems of carrier survivability, 3/ the post-Vietnam reluctance of U.S. policymakers to engage in overseas military operations, as enunciated in the Guam Doctrine and evidenced by recent and programmed troop withdrawals from Asia, has led to worldwide perceptions of a loss of U.S. determination to pursue important interests if the risk of military involvement and its potential cost appear to be high. 4/ Taken together, these factors have resulted in an apparent decline in the effectiveness of U.S. naval presence as a tool of political/military policy.

3/ Some recent statements have posited that the carrier is more survivable than ever. The analysis supporting this assertion is far from conclusive, however. It is perhaps more accurate to state that, in absolute terms, carriers have improved the quality of their defenses. Relative to potential threats, however, carriers may be vulnerable to enemy attack, particularly if the enemy fires first. See U.S. Department of the Navy, Sea Plan 2000, Unclassified Executive Summary (March 28, 1978), p. 13.

4/ For example, the United States was charged with "turning the other cheek" over Katanga in 1977 and Ethiopia in 1978 (Il Giornale (Milan), May 17, 1978); it has been viewed as adopting a "growing isolationist stand . . . in the post-Vietnam era" (Daily Nation (Nairobi), May 22, 1978); and it has been accused of "not caring" about Southeast Asia since the Nixon Doctrine and causing "misgivings" to the Japanese and Korean governments with its withdrawal policy (interview with Ken Shirai, Asahi Shimbun (Tokyo) in "Carter's First Year," Atlas World Press Review (January 1978), p. 14). Nishiyama Takehiko, a senior Japanese Foreign Ministry official, voiced similar sentiments to a recent delegation of U.S. congressmen. See Prospects for Regional Stability: Asia and the Pacific, report submitted by a special study commission to the House Committee on International Relations, Committee Print, 95:2 (June 1978), p. 7.

SOVIET NAVAL PRESENCE MISSION: A MULTIMODE APPROACH

The Soviet Union has employed its navy to support multimode and combined-arms operations with some success in the 1970s. The Soviet combined-arms approach differs significantly from the traditional U.S. emphasis on self-contained carrier task forces for projection missions. Soviet naval forces do not have the sustainability of their U.S. counterparts, nor can they match the firepower of the carrier. Their lack of a credible sea-based air superiority capability further limits their flexibility, particularly with respect to resupply efforts. The Soviets apparently have chosen to employ their navy as part of a combined-forces operation rather than to develop totally independent projection capabilities for it. 5/ Thus, the Soviet navy appears to have conducted a form of sea-denial operation off the coast of West Africa, while cargo aircraft conducted what former Secretary of State Kissinger called a "massive" airlift of arms and Cuban forces into Angola in 1975 and 1976. 6/ In what appears to have been a similar operation, Soviet ships deployed off the Horn of Africa in 1978, while supplies and Cuban forces were transported

---

5/ For a discussion of the limitations of Soviet projection capabilities, see James G. Roche, "The Soviets' Growing Reach: Implications of Comparative Capabilities to Project Military Power" (paper presented before the European-American Workshop, 1977; processed), pp. 7, 11-12; Congressional Budget Office, U.S. Projection Forces: Requirements, Scenarios, and Options, Budget Issue Paper (April 1978), pp. 57-60; Dov S. Zakheim, "Maritime Presence, Projection, and the Constraints of Parity," (Concept Paper for the National Security Affairs Conference, Washington, D.C., July 17-19, 1978; processed), pp. 16-17.

6/ Testimony of Secretary of State Henry A. Kissinger in U.S. Involvement in Civil War in Angola, Hearings before the Subcommittee on African Affairs, Senate Committee on Foreign Relations, 94:2 (January and February 1976), pp. 11-12. The U.S. Navy has called the Soviet operation off Angola an "interposition." See testimony of Rear Admiral Donald P. Harvey, USN, in Military Posture and H.R. 10929 (Department of Defense Authorization for Appropriations for Fiscal Year 1979), Hearings before the House Committee on Armed Services, 95:2 (February, March, and April 1978), Part 4, p. 8.

by airlift and sealift to Ethiopia. 7/ In both cases, combat operations were conducted by Soviet-surrogate Cuban forces. The Soviet navy does not appear to have undertaken offensive operations of a type similar to those a carrier might conduct. 8/

The U.S. and Soviet navies have different missions and consequently are structured very differently. Nevertheless, the success with which the Soviets have employed naval force in conjunction with, and in support of, other air and ground units indicates that there are ways of successfully carrying out maritime presence missions apart from primary reliance upon aircraft carriers. Indeed, it might be argued that the Soviet Union's maritime presence posture appears geared to maximizing the efficiency of its less capable naval forces. On the other hand, the United States may not be using its own naval units most efficiently for the conduct of maritime presence missions as long

---

7/ See Raymond W. Copson, Ethiopia and Somalia: International Conflict in the Horn of Africa, Congressional Research Service, Issue Brief No. IB78019 (May 4, 1978), p. 6. On Soviet naval presence in the region, see testimony of Admiral Harvey, in Military Posture and H.R. 10929, Hearings, Part 4, p. 15.

8/ Other examples of the Soviet navy's supportive role in multimode crisis-control operations include the stationing of forces in Port Said and Alexandria in the late 1960s and early 1970s, while Soviet-flown MiG-21J combat air patrols brought an end to Israeli deep penetration raids into Egypt in 1970; the amphibious lift of Moroccan forces into Syria in the summer of 1973; and the sea-denial mission of the Mediterranean squadron in October 1973 to ensure the continued flow of airlifted Soviet supplies and to protect resupply units from Israeli air attacks. See Bradford Dismukes, "Soviet Employment of Naval Power for Political Purposes, 1967-75," in Michael MccGwire and John McDonnell, eds., Soviet Naval Influence: Domestic and Foreign Dimensions (New York: Praeger, 1977), pp. 485, 491-92; Robert P. Berman, Soviet Air Power in Transition (Washington, D.C.: The Brookings Institution, 1977), p. 62; and Faith Thompson Campbell, "Uses of Soviet Armed Forces for Political Objectives," in Barry M. Blechman and Stephen S. Kaplan, "The Use of Armed Forces as a Political Instrument" (Washington, D.C.: The Brookings Institution, 1976; processed), pp. XV-44 to XV-46.

36-473 O - 78 - 5

as these forces are organized primarily to support permanent overseas carrier task force stations. Fixed forward deployments "can invite a range of trouble, as well as be vehicles of opportunity." 9/ Fixed carrier deployments in potentially volatile Third World areas may foster the continuation of what could be interpreted as a pattern of "musclebound" responses to crises. 10/

To be sure, Soviet successes have been a function of improved capabilities; those capabilities render it unlikely that the United States will ever regain the naval dominance it enjoyed in the 1950s. Nevertheless, to the extent that the U.S. conception of presence does derive from an era whose conditions no longer apply, an examination of some alternative forms of maintaining U.S. presence overseas would perhaps be worthwhile.

Such alternatives should be geared to enhancing the flexibility and responsiveness of U.S. overseas military posture. They could involve changes in the current pattern of deployments, the systems deployed, or both. Several illustrative alternatives are examined in the following chapter.

9/ Ken Booth, "Warships and Political Influence," in McCGwire and McDonnell, Soviet Naval Influence: Domestic and Foreign Dimensions, p. 467.

10/ See, for example, reports of the Administration's decision not to send a naval task force to the Horn of Africa in early 1978 on the grounds that it could have little effect on the situation there. James Mayall, "The Battle for the Horn: Somali Irredentism and International Diplomacy," The World Today (September 1978), p. 341.

CHAPTER V. ALTERNATIVE FORWARD DEPLOYMENT SYSTEMS AND CONCEPTS

Preceding chapters have indicated that current deployments may not fully exploit the Navy's capabilities in fulfilling its peacetime presence mission. This chapter examines alternative ways of maintaining U.S. maritime presence overseas. It should again be noted that these alternatives do not in themselves constitute a justification for procurement decisions in the upcoming fiscal years. Such decisions must also take account of wartime Navy requirements. 1/ Nevertheless, should the Congress determine that the demand for procuring an additional carrier is primarily motivated by peacetime presence, some of these alternatives could then be viewed as a basis for procurement decisions in fiscal year 1980, including a decision to procure a thirteenth aircraft carrier for the fleet.

CONSIDERATIONS IN CHOOSING ALTERNATIVES TO CURRENT DEPLOYMENT POSTURE

The current naval forward deployment posture emphasizes permanent aircraft carrier deployments in specific ocean areas. Two distinct measures of effectiveness--one military, the other political--underlie the choice of this posture. In military terms, the measure is output, and the large aircraft carrier can generate more conventional offensive firepower, for longer periods, than other maritime units. 2/ In political terms, the

---

1/ A forthcoming CBO budget issue paper will address wartime demands for carrier forces and their interrelationship with peacetime needs.

2/ Because uncertainty characterizes the nature of naval operations, particularly in crisis-control situations, there are no obvious targets until a crisis materializes. Output, in terms of aircraft sortie generation rates or bomb or warhead tonnages, often substitutes as a proxy measure of firepower effectiveness. The development of precision-guided munitions may change this measure, making raw output less

measure is a combination of the degree and duration of visibility that a system can maintain overseas. The carrier--together with its air wing--conveys the image of America's awesome striking power more successfully than other capable, but less visible, systems, such as ballistic missile submarines. Additionally, as noted above, allies and even neutral governments appear to attach particular importance to the permanence of carrier deployments; they are viewed as symbols of U.S. adherence to treaty commitments and to regional stability.

As noted in the previous chapter, however, the current posture and its underlying measures of effectiveness tend to overlook both the development and implications of new technological threats to the carrier, as well as changing political environments in the carrier's traditional areas of operation. Carriers might not be efficient for the presence mission when enemy threats would be limited, but when an enemy could still inflict damage that is politically or militarily unacceptable to U.S. policymakers.

Furthermore, the mechanics of maintaining the current deployment posture creates its own difficulties. These difficulties arise from a combination of currently planned limits on the carrier force size, the possible need for additional deployments, and the Navy's self-imposed limitations on deployment time for its crews.

The Navy seeks to limit the length of an individual's deployment time to six months and to ensure that crews spend no more than one-third of any deployment cycle in forward operations. Additionally, the Navy attempts to provide what it considers adequate periods for overhaul and maintenance within each long-term deployment cycle. These goals have resulted in a demand for a 12-carrier force to support four forward deployments. There may be demands for additional forward deployments in the near future, however. For example, with the completion of the troop withdrawal from Korea, Japan may press for the permanent deployment of two carriers in the Pacific. (At present, one of the two Seventh

---

important than the combination of tonnage and targeting. Nevertheless, the carrier with its air wing is likely to deploy more offensive firepower, including cruise-type precision-guided missiles, than any other ship.

Fleet carriers deploys annually for a three-month tour of the Indian Ocean.) 3/ Although such demands could be met by increasing the size of the U.S. carrier force, 4/ there are no plans for further carrier procurement beyond the single ship that would be required to maintain the force at 12 operating units until the year 2000. Thus, should additional deployments become necessary, either crews would have to spend more time at sea or less time would be available for carrier maintenance. A decision to implement the former choice might have a negative effect on crew morale and efficiency; implementing the latter choice could degrade systems capabilities. 5/

There are several approaches to coping with all of these concerns. The first would be to maintain the status quo, on the basis that deployments could always be shifted if the need arose. In the meantime, it could be argued, procurement of a thirteenth carrier would ease any strains on the carrier force that might arise in the immediate future. This solution does not, however, address the larger question of the political/military utility of fixed-carrier deployments.

3/ There also is sentiment in Norway for an increased carrier presence in the Norwegian Sea. See Anders C. Sjaastad, "Norwegian Perceptions of the Changing Northern Strategic Environment: Security Predicaments" (paper presented to a conference on "The Nordic Balance In Perspective: The Changing Military and Political Situation," Center for Strategic and International Studies, Georgetown University, 1978; processed), pp. 14-15.

4/ Fourteen carriers, for example, would sustain both current Indian Ocean deployments and two full-time carrier deployments in the Pacific, as well as Mediterranean deployments.

5/ Increasing the number of carrier crews and transporting them by air to forward-deployed units would appear to save transit time and, consequently, might allow for a slight reduction in force levels. Such time savings would depend critically on maintenance intervals for the carriers, however. If carriers required the same number of maintenance availabilities as they do at present, savings in transit time and, consequently, savings in force requirements would be quite small.

Alternatives to this approach could address both the possible need to expand the scope of the current posture and the political/military problems that arise from it. The following section outlines three such options. The first--homeporting an additional carrier overseas--merely represents a less costly means of maintaining current deployments. It tacitly accepts current measures of the carrier's effectiveness. The second approach--replacing fixed carrier stations with a more wide-ranging series of deployments--seeks to maximize the carrier's military might by increasing its flexibility and reducing its vulnerability. This approach downplays the political advantages of permanent overseas deployments, however. The third option--substituting other air-capable ships for large carriers--stresses the permanence of deployments as the prime measure of the effectiveness of U.S. overseas deployments, to the partial exclusion of actual military output. Finally, this section discusses land-based alternatives.

ALTERNATIVE NAVAL PRESENCE POSTURES

Overseas Homeporting--Maintaining Current Carrier Presence at Lower Cost

Homeporting ships overseas permits the maintenance of a given deployed force level with fewer assets than would otherwise be required. It represents a technical adjustment to standard Navy calculations of carrier deployment cycles, permitting fewer carriers to support a given forward station. 6/

The United States currently homeports a carrier and its supporting units at Yokosuka, Japan. As a result, while four carriers are required to permit the forward deployment of the non-homeported Pacific carrier, only two carriers--including that at Yokosuka--are required to maintain the second forward deployment. Were a second carrier homeported in either the Pacific or the Mediterranean, deployments elsewhere could be maintained or increased. Alternatively, fewer carriers would be needed to support the four forward peacetime carrier stations, and procurement of a new carrier specifically to maintain these stations would not be necessary.

6/ Homeporting permits all activities other than overhaul to count as "forward-deployed" time, instead of maintaining a 2:1 ratio in terms of nondeployed (including transit) to deployed months during the carrier cycle.

A number of military, budgetary, and political considerations significantly affect the prospects for additional carrier homeporting and have thus far precluded any such arrangements. A successful homeporting arrangement should provide the Navy with a strategic base from which to deploy. It should have adequate harbor accommodations, ship repair facilities, urban support, and be in close proximity to a jet airfield. On the political side, its establishment should not displease either the citizens of the host country or those of its neighbors. It should not irrevocably commit the United States to involvement in the regional disputes of the host country or create new frictions between the United States and other states in the area. Finally, from a budgetary perspective, it should not commit the United States to pay heavy rental costs to the host country, nor should it incur unreasonable increases in manpower costs because of the cost of living abroad and the expense of moving ships' crews and their dependents from the United States to the overseas home port. 7/

The only recent arrangement, apart from that at Yokosuka, that initially appeared to meet all of these requirements was the proposal to homeport a carrier in Greece, either at Elefsis, near Athens, where six destroyers were already homeported, or in the Souda Bay complex in northwest Crete. 8/ That agreement foundered on political difficulties, specifically the reluctance

---

7/ On the general considerations underlying a decision to homeport naval forces overseas, see Herbert Y. Schandler and Richard M. Preece, "Considerations on Establishing a U.S. Naval Base at Haifa, Israel," Congressional Research Service (1975), p. 8; Statement of Admiral James L. Holloway, III, USN, Chief of Naval Operations, concerning the fiscal year 1979 military posture, in Military Posture and H.R. 10929 (Department of Defense Authorization for Appropriations for Fiscal Year 1979), Hearings before the House Committee on Armed Services, 95:2 (February, March, and April 1978), Part 1, p. 670; and Alva M. Bowen, Jr. and Ray Frank Bessette, Aircraft Carrier Force Levels, Congressional Research Service (1978), pp. 33-34.

8/ For a brief description of the Souda Bay facility, which is large enough to provide anchorage for almost the entire Sixth Fleet, see United States Military Installations and Objectives in the Mediterranean, Subcommittee on Europe and the Middle

of the United States to support the former Greek military government, followed by the refusal of the current Karamanlis administration to accommodate U.S. units in the aftermath of the Cyprus crisis.

Major objections to homeporting arrangements in other foreign locales have also been political. Homeporting a carrier in Haifa, Israel has been considered a political risk in terms of the U.S. effort to seek peace in the Middle East. 9/ Homeporting in the Philippines might fuel resentment of the U.S. presence in that country. Similar political problems do not apply, however, to possible homeporting arrangements in Guam, which is a U.S. territory.

Homeporting a carrier task force (a carrier and six escorts) in Guam would provide a number of political, as well as budgetary, advantages. 10/ It would maintain the U.S. posture in the Pacific, while loosening current U.S. dependence on the goodwill of the Philippines (though current basing arrangements need in no way be altered). It would allay local nations' fears of U.S. withdrawal from the region, since it would symbolize a renewed U.S. commitment to East Asian stability. 11/ Because such an

---

East, House Committee on International Relations, Committee Print, 95:2 (March 1977), p. 32. For a discussion of the proposal itself, see Jesse W. Lewis, Jr., The Strategic Balance in the Mediterranean (Washington, D.C.: American Enterprise Institute, 1976), pp. 26-27.

9/ This objection may disappear if the Camp David accords are implemented.

10/ Guam has achieved some notoriety among sailors as a less than desirable port of call. New naval construction and development of tourist facilities are likely to improve conditions in the future, however. With its excellent climate, Guam is already benefiting from tourism, a major industry on the island. See Department of the Navy, Pacific Division, Naval Facilities Engineering Command, Guam Land Use: September 1977 (1978), pp. C-8, D-9.

11/ These considerations make Guam a more attractive possibility than Hawaii, which is much farther from East Asia.

arrangement would not, however, involve the use of foreign soil, it would not aggravate any lingering suspicions of U.S. hegemonial designs that some states in the region might still harbor.

Homeporting a carrier task force in Guam would yield budgetary savings in several ways, since the Navy requires 3.4 carriers to maintain a forward-deployed Pacific carrier that is not homeported in Asia but only 1.2 to support a homeported carrier. If it is felt that the United States must continue with an annual Indian Ocean deployment of several months while maintaining its full two-carrier deployment in the Pacific, the homeporting arrangement would obviate any requirement for constructing additional air-capable ships. Whereas 14 carriers might be needed to support such a deployment cycle if only one were homeported, no more than 11 carriers would be needed if one carrier were homeported in Guam, in addition to the one already homeported in Japan. 12/

The savings that could thus be realized from an additional homeporting arrangement could be significant if the ultimate result were to obviate the need to construct even one more carrier. The total costs associated with undertaking a new homeporting arrangement, including harbor dredging and construction of support and housing facilities on government-owned land, 13/ would amount to about $250 million, considerably less than the $1.6 billion procurement cost of a conventionally powered carrier (CVV) and much less than the $2.6 billion cost of a nuclear carrier (CVN). 14/ There are no annual manpower and

---

12/ For further discussion, see Appendix A.

13/ Guam has requested the return of several hundred acres of U.S. government land. A recent study showed that several thousand U.S.-owned acres have gone unused. Thus, it appears that sufficient land is available to support both the demands of homeporting and the request of the Guam government. See Department of the Navy, Pacific Division, Naval Facilities Engineering Command, Guam Land Use: September 1977 (U.S. Navy, 1978), pp. A-v, A-vi.

14/ CBO's estimate is somewhat lower than a rough Navy estimate of $400 million for facilitating the homeporting arrangements. Even this higher cost is extremely attractive

operating costs attributable to homeporting in Guam. 15/ The annual operating costs of an additional carrier, on the other hand, amount to between $85 million and $100 million.

Flexible Deployments--A Change in Deployment Concept

Unlike homeporting, which preserves the current carrier force deployment posture, a flexible deployment regime would radically alter the way in which the United States maintains and supports its overseas presence. The term "flexible deployments" connotes the practice of operating carriers for varying durations in any number of locales. This posture contrasts with current Navy practice in that it stresses the value of transient deployments over permanent stations. It also emphasizes the flexibility inherent in "ready" task groups that would be stationed near the United States in order to respond quickly to crises overseas or to reinforce deployed units.

Flexible deployments offer several advantages, both military and budgetary. In military terms, they decrease a potential attacker's ability to plan and coordinate a preemptive strike, as is possible when task forces operate in fixed and predictable locales. In addition, they permit wider operating ranges than are possible with fixed deployments at equal force levels. Lastly, flexible deployments facilitate a calibrated force response to crises. Reinforcing groups could be tailored to the precise nature and capabilities of the regional military threat. This last advantage is as much political as it is military. The deployment of forces tailored to the needs of a given crisis would be an unequivocal statement of U.S. resolve to bring that crisis to a favorable conclusion. No such message

---

compared to the cost of a carrier. (Source: U.S. Navy information provided to CBO, September 28, 1978.) An additional benefit could be realized from the fact that escorts for the carrier in SLEP could then be attributed to other missions for the duration of the SLEP program, thereby reducing possible demands for new construction to meet the requirements of these other missions during this period.

15/ Any additional costs of basing men in Guam instead of in the United States would be offset by savings associated with the lower annual carrier steaming rates resulting from a homeporting arrangement.

could be equally well conveyed by a permanently deployed force whose station just happened to be near the crisis area.

The budgetary advantages of flexible deployments derive from the shorter deployments they facilitate. Since the size of the total force is geared to supporting these deployments, it could be reduced commensurate with the reduction in operating rates. 16/

Arguments in favor of flexible deployments are consistent with the view that maximum military effectiveness, as measured in terms of firepower output and as embodied in the aircraft carrier, is critical to the success of the U.S. overseas presence mission. On the other hand, these arguments imply that political effectiveness cannot necessarily be measured in terms of the permanence of carrier presence. Instead, they support the notion that less frequent presence might be equally as effective politically, and that what is critical to the United States is the fact of presence itself, not its duration.

It can, however, be argued that flexible deployments might involve a high political cost. East Asian countries, such as Japan, Korea, and even China, would view a reduction in forward-deployed carrier force levels with apprehension. Japan in particular might interpret such action as further evidence of abandonment by the Navy of its vital sea-lanes in the event of a worldwide war. 17/

16/ For example, current deployments do not include transit time, since carriers are meant to be on station at all times. Under a system of flexible deployments, the on-station requirement would be lifted and transit time could be counted as part of a deployment, since the carrier would be en route to a destination away from home port. Thus, counting transit time as part of each deployment and employing Navy calculations, the force required to maintain the current four forward stations would drop from 14 to 11 carriers (see Appendix A). As in the case of the homeporting option, a reduced carrier force would result in the release of several carrier escorts for employment in other missions.

17/ See the comments of Makoto Momoi, "Strategic Environment in the Northeast Pacific--A Japanese Perception" (paper submitted to a conference on "Security and Development

Similar reactions could be anticipated in the eastern Mediterranean. Although it is widely recognized that carrier deployments in that region render them particularly vulnerable to preemptive Soviet attack, 18/ those deployments are viewed as a visible token of support for allies in Greece and Turkey. Additionally, the eastern Mediterranean deployments are seen as a gauge of U.S. concern for the survival of Israel and for peaceful settlement of Middle East disputes--not only between Israel and her neighbors, but also between radical, pro-Soviet Arab nations and moderate and conservative pro-Western ones. The dilemma faced by the Sixth Fleet is that it must expose itself to the risk of a crippling Soviet surprise attack in order to provide visible peacetime assurance to its allies of its intention to honor its treaty commitments. Although a move to flexible deployments would partially resolve this dilemma, it would involve potentially great political costs that could outweigh its military advantages.

Smaller Air-Capable Ships as Alternatives to the Carrier

The option of assigning smaller air-capable ships to presence missions is based on the assumption that effective presence is more a function of the permanence of deployments than of the military capabilities of the systems deployed. To be sure, whatever systems are deployed must have some offensive capability if their presence is to demonstrate U.S. commitment and power. Further, they would be inappropriate in situations that obviously demand high levels of force. For example, small air-capable ships would hardly be effective against large concentrations of sophisticated systems (for example, near the Soviet Union) that could mount a coordinated air, surface, and submarine attack against U.S. units. Similarly, these forces would be less desirable in regions where a need to fight for air superiority, or to combat sophisticated air defenses, would demand the availability of large multipurpose air wings.

---

in the Indo-Pacific Arena" sponsored by the International Security Studies Program, Fletcher School of Law and Diplomacy, Tufts University, April 1978; processed), pp. 1ff.

18/ See, for example, testimony by Admiral James Holloway, III, in Service Chiefs on Defense Missions and Priorities, seminar conducted by the Task Force on Defense, Senate Committee on the Budget, Committee Print, 94:2 (September 1975), Volume I, p. 13.

Nevertheless, the threshold of sufficiency for projecting sea-based forces ashore will vary from region to region. Less capable forces could suffice to convey an image of U.S. power and concern in areas where threats to those forces are not great and local military capabilities--both weapons and tactics--are relatively less sophisticated. Indeed, less obvious demonstrations of force might be highly desirable politically in some instances.

For example, it is not clear that a large aircraft carrier is inherently more effective in demonstrating U.S. presence and capabilities in Southeast Asia than a vertical/short take-off and landing (V/STOL) carrier would be. The powers of the region--including the People's Republic of China and Vietnam--all lack effective means of mounting air attacks against a U.S. fleet. Furthermore, excessive shows of force in that region, particularly in the Indonesian straits, might have the effect of initiating regional arms races and military alliances with other external powers to the detriment of U.S. objectives.

The need for some recognizable level of offensive capability tends to limit alternatives to the aircraft carrier to three ship types: the LHA, a general purpose amphibious assault ship that is as large as a World War II carrier; the LPH, a smaller assault ship that displaces more tons than the largest cruiser afloat; and the DDV, a converted destroyer that can carry about eight aircraft. Smaller ships would be unlikely to convey an image of offensive power even remotely related to that associated with the aircraft carrier.

These three ship types share several characteristics. They are all inexpensive relative to the carrier. They are all capable of carrying V/STOL aircraft, which are less expensive than their conventional counterparts. And, together with their aircraft, they generate considerably less offensive power than the large-deck carrier and its air wing.

The LHA. Of the three air-capable alternatives, the LHA most closely approaches the large carrier's capability. To be sure, there is a vast difference in the output of the LHA's 20 V/STOL AV-8B attack aircraft and that of the carrier air wing's mix of 70 to 100 (depending on carrier size) interceptors and attack and support planes. Nevertheless, the new AV-8B--the

follow-on to the current Harrier 19/--is a capable plane. While it cannot match the output of the Navy's newest attack aircraft, the A-18, the AV-8B can carry 5,000 pounds of ordnance for over 400 miles if it operates from a short (as opposed to vertical) take-off from the LHA deck. The AV-8B's ordnance could include either a combination of bombs and air-to-air missiles or only bombs. The plane could thus capably conduct close air support operations over land. In situations in which air superiority over land or at sea was not at issue, the LHA's V/STOL attack aircraft could provide a key edge to an ally's ground forces. Such situations would include instances in which an ally could achieve air superiority independently, or in which Soviet maritime forces were limited to surface naval units (as they tend to be in areas remote from the Soviet Union).

Unlike the carrier, the LHA does not benefit from the most comprehensive shipboard active and passive defenses. Nevertheless, while it is more vulnerable than the carrier in absolute terms, it is large enough to withstand more than one hit. 20/ In Third World crises in which there might be more demand for credibility than for absolute offensive capability, the LHA could have both the appearance and the ability to survive a surprise attack by antiship missiles. Indeed, in certain scenarios, it may be politically--and militarily--more effective than the large-deck carrier. Whereas a hit on the flight deck of a carrier could immobilize the ship for several hours--and possibly have highly negative political repercussions--a similar hit on an LHA deck would only limit its aircraft to vertical operations. Such operations would still permit the AV-8B to carry reduced payloads for several hundred miles.

19/ This plane's limited combat radius and weapons load render it inappropriate for most maritime missions.

20/ The larger the ship, the greater its survivability. The LHA currently has some armor around its magazines; it can withstand damage equivalent to 15 percent of its length. Information provided to CBO by U.S. Navy, October 24, 1978.

The LPH. The LPH option, suggested by the Senate Committee on Armed Services 21/ and included in the first version of the fiscal year 1979 defense authorization bill, is attractive for two reasons. First, the LPH is geared primarily to carrying aircraft. Although it currently carries only helicopters, conversion to an AV-8B-capable ship would not be a major undertaking. As a V/STOL ship, most of its below-deck space could be efficiently employed to support its new role. The LHA, on the other hand, is a true multipurpose amphibious assault ship. Its well deck, which is used for debarking assault vehicles, could not be utilized efficiently if servicing V/STOL units was the ship's main purpose. Major conversions would be necessary.

The LPH also is readily available. If the Marine Corps were assured of receiving a sixth LHA, they would immediately release two LPH ships for conversion to V/STOL carriers. 22/ On the other hand, if the LHA option were adopted, there would be a considerable delay before the Navy had its first V/STOL-capable ship unless an LHA were immediately shifted from the Marines to the Navy. Such a move is unlikely, however, in view of the Marines' repeated claims of a shortage in capacity for deploying battalions overseas. 23/

The DDV. The attractiveness of the converted destroyer (DDV) lies in the fact that it would be the first surface escort to carry fixed-wing aircraft--the AV-8B. It could pave the way for the construction of similar, or smaller, air-capable ships, thereby expanding the Navy's launch capability and making it more difficult for potential adversaries to concentrate their antiship

---

21/ Authorizing Appropriations for Fiscal Year 1979 for Military Procurement, Research and Development, Active Duty, Selected Reserve, and Civilian Personnel Strengths, Civil Defense and Other Purposes, S. Report 95-826, 95:2 (1978), p. 52.

22/ See Department of Defense Authorization for Appropriations for Fiscal Year 1979 (S. 2571), Hearings before the Senate Committee on Armed Services, 95:2 (March and April 1978), Part 5, p. 4355.

23/ Martin Binkin and Jeffrey Record, Where Does the Marine Corps Go From Here? (Washington, D.C.: The Brookings Institution, 1977), pp. 33ff.

resources on a small number of large air-capable units. The DDV currently is only a design, however; none has yet been built. Its costs might be considerably higher than estimates given in recent Congressional testimony. Further, there is no assurance that a destroyer-sized unit would have the sea-keeping ability to operate aircraft in any but the calmest waters.

Escorts for Air-Capable Ships. Small air-capable ships--whether LHAs, LPHs, or DDVs--would likely be escorted by guided-missile frigates (FFGs), which are programmed to carry both the Harpoon antiship missile and the Lamps III antisubmarine helicopter. Both units would provide a credible threat to Third World, and even Soviet, surface naval and submarine units. The FFG's Standard missile would provide a modicum of air defense for the group. Were attack submarines (SSNs) added as escorts, the antiship and antisubmarine potential of the group would be further enhanced. Indeed, SSNs, while not a visible presence, would pose an extremely serious threat to many Third World, and even Soviet, surface groups. They could free the V/STOL aircraft to concentrate on operations against aircraft and shore targets.

Air-Capable Ships in Battle. It should be noted that the cost to the Soviet Union of a naval exchange with U.S. V/STOL ships would likely be higher than the cost to the United States. While the United States would risk the loss of a lesser-value unit instead of the loss of a carrier, the Soviets could well lose a key anticarrier group to the V/STOL aircraft and antiship systems aboard the LHA or LPH or DDV and its escorts. Additionally, not only would the surface action group preserve intact the carrier force for higher-threat operations, but it would also allow the carrier force to be called in only after a conflict had begun. At this point, however, the threat to the carrier would be markedly diminished, since, as noted in preceding sections, a coordinated surprise attack is the Soviets' most effective way to exploit carrier vulnerability.

Costs. As noted above, the separate components of an air-capable task group are less costly than their counterparts in a carrier task force. As Table 3 indicates, the estimated procurement cost of an LHA is $820 million; converting an LPH to make it V/STOL-capable would cost about $45 million; a lead DDV would cost about $810 million. It should be noted, however, that some LHAs now serving purely Marine Corps-oriented tasks might

TABLE 3. UNIT ACQUISITION COSTS OF SELECTED V/STOL-CAPABLE SHIPS: IN MILLIONS OF FISCAL YEAR 1980 DOLLARS

Ship Type	Number of Aircraft	Type of Acquisition	Unit Cost
LHA	20	New Procurement	820
LPH	10	Conversion	45
DDV (DD-963 variant)	10	New Procurement	870 (lead) 670 (follow)

SOURCE: LHA, LPH: Jane's Fighting Ships, 1977-78. DDV: Military Posture and H.R. 10929 (Department of Defense Authorization for Appropriations for Fiscal Year 1979), Hearings before the House Committee on Armed Services, 95:2 (February, March, and April 1978), Part 4, pp. 555-56. See also Authorizing Appropriations for Fiscal Year 1979 for Military Procurement, Research and Development, Active Duty, Selected Reserve, and Civilian Personnel Strengths, Civil Defense and other Purposes, S. Report 95-826, 95:2 (1978), p. 52.

usefully be transferred to the presence mission. 24/ Similarly, no additional escorts beyond those proposed for the current five-year defense program would have to be bought specifically for the small air-capable task force mission. By the early 1980s, there would be about 80 guided-missile frigates (FFGs) in the fleet, sufficient to support several lower-value surface action

24/ The use of LHAs for presence missions was first suggested by Secretary of Defense Schlesinger in his fiscal year 1976 posture statement. See Department of Defense, Annual Report, Fiscal 1976 and Fiscal Year 1977, p. III-79.

36-473 O - 78 - 6

groups in addition to possible FFG wartime escort duties for amphibious assault and underway replenishment groups. 25/

In addition, the current DDG-2 guided-missile destroyer conversion program will provide sufficient destroyer capability to support the demands both of carrier task forces and up to three LHA groups. 26/ The possible addition of two SSNs to escort these units could further enhance task force anti-air warfare and ASW capabilities. Again, however, it is not clear that additional SSN procurement is necessary to provide this capability. 27/

25/ There is considerable disagreement over the proper force levels for convoy escort forces for which FFGs have been designed. The current five-year naval shipbuilding plan implies a lower requirement than anticipated in recent years. The current plan calls for procurement of 31 FFGs in fiscal years 1979 to 1983, with annual procurement levels dropping from eight ships in 1979 to six in 1982 and then to three in 1983. In contrast, the fiscal year 1978 defense posture statement called for a total FFG purchase of 45 units for fiscal years 1979 to 1982 alone, with procurement of at least 10 ships in each of those years. See Department of Defense, Annual Report, Fiscal Year 1978, p. 190 and Military Posture and H.R. 10929, Hearings, Part 4, p. 1086. For an evaluation of possibly higher requirements, see Congressional Budget Office, The U.S. Sea Control Mission: Forces, Capabilities, and Requirements, Background Paper (June 1977), pp. 48-54.

26/ A total of 23 DDG-2s are currently programmed for modernization. Thirty-one DD-963s have either been authorized or are in the fleet, as are nine nuclear escorts and cruisers. (See Jane's Fighting Ships, 1978-79.) The total number of cruisers and destroyers would more than suffice to provide two nuclear task forces and six conventional escorts for each of the 10 remaining carriers. Residual ships could therefore serve in non-carrier surface action groups. It should also be noted that additional escorts would be available to an air-capable ship for about 15 years, given the expected duration of the SLEP program. This program will remove a carrier from the fleet, while escorts normally assigned to it will be freed for other missions.

27/ Congressional Budget Office, The U.S. Sea Control Mission: Forces, Capabilities, and Requirements, pp. 40-48.

The major uncertainty lies with the cost of aircraft. The AV-8B costs about the same as an A-18, $10.6 million per unit for the AV-8B compared to $9.4 million for an A-18. The AV-8B lacks both a radar and a medium-range, air-to-air missile, however. This capability would be especially critical for aircraft that sought to intercept Soviet bombers. The British Sea Harrier, for example, reportedly has such a capability. The research and development cost of providing AV-8Bs with the desired radar and missile-carrying capability could amount to about $1.4 billion, according to Navy estimates. 28/ Other, more optimistic estimates put the cost at $0.5 billion. 29/ If 200 aircraft were procured, the unit cost could range from $2.5 million, at a minimum, to as much as $7 million. 30/ The total unit cost of an AV-8B would therefore rise to between $13 million and $18 million.

It is not clear, however, whether the additional capability the improved AV-8B (AV-8B+) might attain above that of the AV-8B would be worth the additional cost. It is difficult to imagine a scenario in which any AV-8 version would be preferred over other available aircraft for intercepting Soviet Naval Aviation. Either carrier-based F-14 and F-18 interceptors or land-based F-15s would more likely be given the task of intercepting Soviet Bears and Backfires. The AV-8 cannot compare with either the F-14, F-15, or F-18 in the interceptor role. Its optimum use is as a short-range attack plane launched from small air-capable units against surface

---

28/ Department of Defense Authorization for Appropriations for Fiscal Year 1979, Hearings before the Senate Committee on Armed Services, 95:2 (March and April 1978), Part 5, p. 4341.

29/ Remarks of Senator Gary Hart, Congressional Record (July 11, 1978), p. S10385.

30/ If 20 AV-8B aircraft were required for one ship, the total number procured for that ship alone would amount to 48 aircraft, assuming 15 percent pipeline, 25 percent training, and 5 percent annual peacetime attrition. If the LHA is assumed to be the first of a number of ships, perhaps four, 192 aircraft would have to be procured.

targets and in short-range, air-to-air combat against other less capable sea-based aircraft, such as the Soviet V/STOL Forger. 31/

Table 4 indicates that the costs of an LPH group would vary considerably from those of an LHA group and, indeed, from a group organized around a DDV. To the LPH's conversion costs must be added the cost of procuring an LHA in its place to meet Marine requirements. Operating costs for an LPH are somewhat lower than for an LHA, $22 million annually compared to $34 million. 32/ On the other hand, operating costs for the aircraft would be the same if equal numbers of planes were assumed for both types.

Clearly, the cost of the air-capable V/STOL ship option is not low. But it would cost considerably less to procure and operate one, or even two, V/STOL-capable ships than it would to procure and operate a single large-deck carrier platform (see Table 5). The option would provide assurance of increased U.S. task force presence in Third World areas, thus increasing the flexibility of the large-deck carrier forces. A reduction in carrier force levels might therefore become possible, without a loss in visibility of U.S. presence overseas.

31/ The AV-8B, according to Admiral Holloway, generally can outperform the YAK-36 Forger. See Department of Defense Authorization for Appropriations for Fiscal Year 1979, Hearings, Part 2, p. 1401. Adding air-to-air missile capability to the AV-8B without increasing thrust would result in less costly modification. Whether the additional capability would justify the additional cost depends on the actual nature of those costs, which as yet are unavailable.

32/ The annual cost of operating the two LPHs that the Marines would transfer to the Navy is $44 million. If an LHA were procured to offset the transfer of the LPHs to the Navy, its operating costs--chargeable to the Marines--would be $34 million. The net saving could be allocated to the Navy mission (see Table 4).

TABLE 4. COSTS OF TASK GROUPS WITH EQUAL V/STOL CAPABILITY: IN MILLIONS OF FISCAL YEAR 1980 DOLLARS

Task Group	Initial Procurement Cost	Annual Operating Cost	30-Year Life-Cycle Cost (undiscounted) a/
LHA Task Group			
1 LHA	820	34.0	2,250
48 V/STOL Aircraft	512	15.9	1,501
Total	1,332	49.9	3,751
LPH Task Group			
2 LPH (modifications)	90	34.0 b/	1,875
48 V/STOL Aircraft	512	15.9	1,501
1 LHA	820	--	820
Total	1,422	49.9	4,196
DDV Task Group			
2 DDV	1,540	26.0 c/	3,090
48 V/STOL Aircraft	512	15.9	1,501
Total	2,052	41.9	4,591

SOURCE: Congressional Budget Office Defense Resources Model.

a/ Includes mid-life conversion.

b/ Operating costs of two LPHs ($44 million) less savings realized from Marine operations of LHA ($34 million) in place of two LPHs which they now to operate.

c/ Operating costs as with DD-963.

TABLE 5. MARGINAL COSTS OF ALTERNATIVE PRESENCE POSTURES: IN MILLIONS OF FISCAL YEAR 1980 DOLLARS

Posture	Number of Active Carriers in Fleet a/	Systems Procured	Other New Construction	Total Initial Costs	30-Year Life-Cycle Cost
Twelve Operational Carriers	13	CVV or CVN	--	1,575 2,565	4,920 6,750
Homeporting at Guam	12	--	Military Construction	250	250
Flexible Deployments	12	--	--	--	--
Small Air-Capable Ship: LHA	12	LHA	--	820	2,250
Small Air-Capable Ship: LPH	12	2 LPH (Conversion) LHA	--	90 820	1,875 820
Small Air-Capable Ship: DDV	12	2 DDV	--	1,540	3,090

a/ As of the mid-1980s.

LAND-BASED ALTERNATIVES

The introduction to this paper stressed that U.S. presence--even outside Europe and Korea--has never been exclusively a naval mission, although the Navy tends to appropriate this mission to itself. 33/ Preceding sections of this chapter have outlined alternative methods of maintaining the Navy's current

33/ See Admiral Holloway's statement in Military Posture and H.R. 10929, Hearings, Part 1, pp. 664-66.

focus on sea-based air power, while easing the degree of reliance on fixed forward deployments of carriers. Land-based air power can, of course, also contribute to the maritime presence mission. This section outlines some considerations that may illuminate the nature, scope, value, and cost of that contribution.

Land-Based Aircraft for Maritime Operations

The role of land-based aircraft in maritime operations often has been discussed in the context of a worldwide war. 34/ These forces can, however, also play a useful role in non-NATO peacetime contingencies. They can perform "intrusive" functions--such as reconnaissance--during crises, thereby providing evidence of U.S. concern. Combat aircraft can fly near hostile forces, applying the implicit threat of U.S. military operations. The decline in the number of U.S. bases overseas points to the problems that attach to any dependence on air bases abroad. Nevertheless, there remains a network of U.S.-owned and leased bases--such as those on Guam, Wake Island, and Diego Garcia--that could be exploited by long-range aviation. For example, land-based P-3 maritime patrol aircraft flying out of Diego Garcia--and perhaps out of other bases in friendly Indian Ocean states--and armed with Harpoon could threaten even the Soviet carrier Kiev were it to operate in the Indian Ocean. Its V/STOL aircraft could not overtake the P-3 before they reached the limits of their combat radius.

F-111s and B-52D bombers could be much more effective for long-range antiship and perhaps maritime reconnaissance missions. B-52Ds have performed conventional force missions in the recent past and may not be essential to the strategic mission. Armed with Harpoon, they could be a formidable threat to Soviet surface forces. F-111s, which have flown in antiship training exercises, 35/ have sufficient range, with tanker support, to cover the entire span of the western Indian Ocean, from Diego Garcia to as far north as the Persian Gulf and as far west as

---

34/ See William D. O'Neil, III, "Land-Based Multi-Purpose Naval Aircraft (LMNA) Concept," Office of the Secretary of Defense (September 15, 1976; processed); and Congressional Budget Office, The U.S. Sea Control Mission: Forces, Capabilities, and Requirements, pp. 21-34.

35/ See David A. Brown, "Air Force Doctrine, Missions Revised," Aviation Week (August 8, 1977), p. 49.

Uganda. Based on Diego Garcia, a squadron of F-111s could, therefore, threaten any Soviet surface force in the northwest quadrant of the Indian Ocean. An F-111 squadron would also indicate a formidable presence in that area, remote yet quickly available. Such a presence might be politically unwelcome today, but that might not be the case in the near future. If a routine deployment of land-based forces to Diego Garcia were implemented, it could replace the periodic visits of carrier units from the Seventh Fleet to the Indian Ocean region.

The cost of providing these aircraft with antiship capabilities would be relatively low. For example, the cost of backfitting Harpoon antiship missiles onto the P-3s currently in the force is estimated to be $400,000 per aircraft. 36/ Backfitting 50 F-111s with four Harpoons each would cost $73 million, and providing 20 B-52s with 12 Harpoons each would cost $95 million. 37/ The major costs would be associated with expansion of base facilities at Diego Garcia (particularly to construct housing for crews), crew rotation, training for antiship warfare missions, and the possible opportunity cost of foregoing the F-111's capability for deep interdiction in a conflict over land. In addition, the current manpower and operation and maintenance costs for any of these aircraft would be charged to the maritime warfare mission. A final cost would be political. It is uncertain whether any further construction on Diego Garcia would meet with less opposition, both domestically and abroad, than the current U.S. effort to upgrade the facility approved by the Congress in fiscal year 1975.

Land-Based Aircraft for Projection Operations

The Air Force long-range aircraft discussed above as candidates for maritime missions could also serve in their bomber/attack role to supplement or substitute for carrier projection operations against littoral targets in the Third World. For example, B-52D bombers stationed at Guam conducted bombing raids during the Vietnam war. They could equally well carry out

---

36/ Costs provided to CBO by U.S. Navy, December 4, 1978.

37/ Costs provided to CBO by U.S. Air Force, August 11, 1978.

missions as far away as the Kamchatka Peninsula. 38/ The B-52 carries over three times the weapons load of an A-6. A single sortie by the 12-plane Guam squadron could, therefore, drop at least as much tonnage as 40 A-6 sorties or, put another way, at least as much as the single-sortie tonnage of the A-6 squadrons from three carriers.

The F-111 likewise could play a long-range power projection role. It has a combat radius of 1,500 miles for attack missions and can be refueled by KC-135s about 1,150 miles from base. 39/ A squadron of F-111s based in Diego Garcia, if refueled, could conduct bombing runs against targets in the Persian Gulf or the African coast.

The availability of tanker assets and, indeed, of F-111s for Third World operations would hinge on the absence of crises in other parts of the world, notably a conflict between NATO and Warsaw Pact forces in Central Europe. In that case, F-111s would be dedicated to the European theater (there are no F-111s currently assigned to the Pacific air force), and KC-135s would have to support both the strategic and cargo aircraft requirements arising from a major contingency. In a single lesser crisis, however, both F-111s and KC-135s could be employed to support U.S. interests outside Europe. Their effectiveness in long-range attack missions would depend on the adequacy of the bases from which they took off for long-distance sorties. Diego Garcia would become critical in this regard. In order to function efficiently from that island, adequate facilities would have to be provided for aircraft, air crews, and maintenance teams, as well as funding for training and rotation of personnel.

The value of these forces for projection missions--and for possible maritime roles--could well lie in their potential for

---

38/ The B-52 has a combat radius of 3,385 miles with a bomb load of 60,000 to 70,000 pounds. See John M. Collins, American and Soviet Military Trends Since the Cuban Missile Crisis (Washington, D.C.: Center for Strategic and International Studies, Georgetown University, 1978), p. 107.

39/ See Barry C. Wheeler and Bill Sweetman, "Military Aircraft of the World," Flight International (March 4, 1976), p. 611; Jane's All the World's Aircraft, 1966-67.

inflicting damage rather than in their actual wartime roles. Their presence in Third World areas might have a useful deterrent effect which, as is discussed in Chapter VI, could usefully supplement the presence of sea-based systems in these areas.

CHAPTER VI. CONCLUSIONS: TOWARD A MORE EFFECTIVE STRATEGY FOR OVERSEAS PRESENCE

Presence is a political and military activity. As Chapter II indicated, presence embodies the threat that some level of force might be used against other states. The U.S. practice from World War II through the Vietnam era was to deploy high levels of naval forces for both political and military reasons. The major exception has been the token presence in the Persian Gulf and Indian Ocean. More recently, however, a reduction in the number of Navy ships has led to increased interest in exploring alternatives--both naval and non-naval--to the current carrier-oriented presence requirements.

Much of Chapter V was devoted to a discussion of three broad sets of naval alternatives. All three share one important policy implication: they each could justify a reduction in the current carrier force level. If any of these alternatives were implemented, there would be less urgency to procure a thirteenth large-deck carrier. In other respects, however, these alternatives represent quite different views about the nature and demands of U.S. overseas presence.

Choices in favor of any of these options will involve judgments about both the relative value of carrier effectiveness and the permanence of presence to the U.S. overseas posture. Homeporting essentially adopts the current Navy view stressing that the most militarily effective ship in terms of output--the carrier--must be deployed at key overseas stations at all times. Homeporting is merely a vehicle for maintaining current deployments at considerably less cost. Arguments for flexible deployments accept the importance of maximizing sea-based military capabilities, but do not propose that carriers be deployed permanently at fixed locations. Lastly, arguments in favor of procuring smaller air-capable ships instead of more carriers stress the political importance of maintaining full-time deployments, but downplay the need to maintain equal military capabilities in all locales without regard to the specific threats in those areas.

As noted in the preceding chapter, each option has some drawbacks. The primary disadvantage of the homeporting option

applies equally to the others and should again be emphasized. Homeporting, like the other options, appears to justify a reduction in the carrier force level. To the extent that such a reduction were made, the Navy would lose an element of its current firepower capabilities. That loss might not be critical to successful carrier operations. But an assessment of its effect must be made, and can only be made in the context of evaluating the demands of the Navy's most taxing contingency--a worldwide conflict with the Soviet Union.

None of the options outlined above are mutually exclusive. Most are complementary. The Congress may wish to choose among elements of these options, with regard not only to their costs, but also to the disparate forms of effectiveness that each of them reflects.

Elements of all the options can be combined in some fashion to produce still other alternatives to the current U.S. presence posture. For example, flexible carrier deployments in the Pacific could be facilitated by homeporting a carrier in Guam. Alternately, homeporting an LHA and five escorts in Guam would facilitate more frequent deployment of these less capable units to the southwest Pacific, freeing carrier forces for longer-term operations near Japan. This arrangement would involve much lower military construction costs for berthing, support, and housing facilities than would homeporting a carrier in Guam. It nevertheless would provide Japan with more visible assurance of U.S. support than is the case at present.

Similarly, the expansion of base facilities on Diego Garcia might allow a more active maritime role for Air Force aircraft. In concert with LHA, LPH, or DDV forces, Air Force units might provide a sufficiently compelling United States presence in the Indian Ocean to lessen the need for long carrier deployments there, thus freeing carrier resources for operations near Japan.

Taken in concert, different mixes of these options would provide the United States with a more flexible approach to the demands of the presence mission. Currently, what may be excessive U.S. preoccupation with the carrier force tends to obscure the potential contribution of other systems to the presence mission, especially in less threatening Third World environments. In particular, land-based aircraft might be the most valuable supplement to, not a substitute for, the Navy's current maritime presence posture, in effect providing the United States with a "combined arms" approach to maritime presence.

Land-based aircraft might not yet be capable of carrying out the full range of crisis-control activities--particularly implicit coercion of other states--that traditionally have been undertaken by the aircraft carrier. Unlike aircraft deployed on carriers, they could not remain offshore for extended periods. Nevertheless, as noted above, given sufficient range they could conduct a variety of operations near the shore. These could be both passive, such as reconnaissance, and active, such as interception of incoming aircraft. In effect, land-based forces could conduct the types of air power operations for which V/STOL aircraft are less capable. They would enable the Navy to maximize the military effectiveness of V/STOL carriers, and would also support the political function of indicating the seriousness of U.S. purpose to allies, neutral countries, and adversaries. A combined-arms approach that initially included no large-deck carriers could thus provide significant capability while allowing the carrier force to remain unthreatened, intact, and available for operations in more critical areas of the world. Of course, the availability of these other systems would not clearly imply their use, just as their initial presence in a crisis would not render the carrier unavailable or undesirable for Third World operations. Nevertheless, to the extent that lower-value naval and ground-based units impart significant credibility of U.S. purpose, their presence would provide a useful and flexible policy tool for the National Command Authority.

APPENDIXES

APPENDIX A. FORWARD DEPLOYMENTS AND SHIP ROTATION FACTORS 1/

The Navy determines the total number of carriers required to support its program of forward deployments on the basis of the "carrier deployment cycle." The cycle is measured between major overhauls; 2/ during this period of time, the carrier goes through a gamut of activities. These include overseas deployments, as well as nondeployment activities such as routine and special maintenance at shore-based depots (termed "limited availabilities") and training operations for crews prior to deploying overseas. The Navy usually posits about a 1:2 ratio of deployed to nondeployed time during the cycle. 3/ This ratio is obviously critical, since it is the foundation for the multiplier applied to forward-deployed carriers to compute total carrier requirements. Besides the need for limited availabilities and training, it is determined by the desire to provide adequate leave time to the sailor to be with his family in the home port.

A further critical factor is the length of the overseas deployments within the cycle. A period longer than six months, the Navy believes, places undue strain on the crews because of separation from their families. 4/ This strain will eventually take its toll on crew morale and capabilities and, in the long run, could exacerbate personnel retention problems.

Two elements of the deployment cycle are subject to varying definitions, however, and these variations affect the amount of time that is allotted for each activity. Assumptions about the

---

1/ This appendix draws upon the research of John Shewmaker, formerly with the Congressional Budget Office.

2/ Whether "between" includes or excludes the overhaul period itself is a matter of debate, as explained below.

3/ See Alva M. Bowen, Jr., and Ray Frank Bessette, Aircraft Carrier Force Levels, Congressional Research Service (1978), p. 21.

4/ Ibid., pp. 22, 32.

36-473 O - 78 - 7

nature of overhaul and leave time will significantly affect the nature of the cycle, the amount of leave time available to the crew, the time a carrier spends on station, and, ultimately, carrier force requirements.

Overhaul may or may not be listed as a separate element in the deployment cycle. It may be considered part of home time for the crew, since the carrier is not deployed anywhere. Funds are provided to pay for the movement of families to the yard location if the yard is different from the home port and if the overhaul takes longer than six months, which is usually the case. Thus, the crew member works near his family and can be with them at night. If overhaul time is considered part of leave time, there might be less justification for providing additional nonoverhaul leave periods for the crews. Reducing nonoverhaul leave time permits a greater number of deployment periods within a cycle (though not longer deployment periods). As a result, fewer ships are required to support a given station.

Conversely, if overhaul is considered a separate entity in the deployment cycle, additional home time must be provided for the crew. The Navy tends to view overhaul time as separate from leave time. The rationale behind this view derives from a number of factors. To begin with, while it is true that families usually join the crew member when a ship is in overhaul, they must undergo the hardship of an additional move. Therefore, they would be penalized doubly if leave time in home port were reduced. Crew members often spend part of their overhaul time studying at service schools away from both home port and yard, so that they are not truly on leave at all. Lastly, it is argued that since crew members are often assigned necessary tasks aboard ship during overhaul, they would be unlikely to consider that period as leave time.

Considerations about the nature of the overhaul period affect the way the deployment cycle is organized. If overhaul is considered part of home time, it becomes part of the calculation. The cycle is termed the "employment cycle" (C_e), namely, the period between the start of one overhaul and the start of the next. If the overhaul is a separate element of the calculation, the cycle itself may be calculated on the basis of times between overhaul, termed the "operating cycle" (C_o). The relevant cycle then serves as the basis for a four-step calculation of force requirements in the following manner:

1. The preferred cycle (C_e or C_o) in months is divided by 3, reflecting a home to deployed ratio of 2:1, to yield total time deployed, T_d:

$$T_d = \frac{C_e \text{ or } C_o}{3}$$

2. T_d is then divided by 6 months, the ideal deployment time, to yield the maximum number of deployments in a given cycle, D_{max} (which must, of course, be an integer):

$$D_{max} = \left[\frac{T_d}{6}\right]$$

3. Transit time, T_t, is calculated to a given station from the United States, doubled to reflect return trips, multiplied by the number of deployments, D_{max}, and subtracted from T_d to yield time on station, T_s:

$$T_s = T_d - (2T_t \times D_{max})$$

4. T_s is divided into the deployment cycle, C_d, to yield the carrier force requirement for that deployment, F:

$$C_d = C_e \text{ or } C_o + \text{overhaul time}$$

$$F = \frac{C_d}{T_s}$$

The following example illustrates the effect of varying assumptions about overhaul on carrier cycle and force level requirements.

Assuming that the average overhaul requires 12 months, that the deployment cycle--including overhaul--is 66 months, 5/ and that transit time to the Pacific is 13 days, 6/ then, if overhaul time is counted as home time and the employment cycle is used, $C_e = 66$, $T_d = 22$, $D_{max} = 3.7$, $T_s = 19.3$, and $F = 3.4$.

A total of 3.4 carriers would therefore be required to maintain a Pacific station. 7/ If overhaul time is not counted as home time and the operating cycle is used, then

$$C_o = 54$$

$$T_d = 18$$

$$D_{max} = 3$$

$$T_s = 15.4 \quad \text{and}$$

$$F = 4.3$$

5/ Bowen and Bessette, Aircraft Carrier Force Levels, p. 23.

6/ Based on a 5,000-mile transit, a 20-knot average transit is about 10.4 days. Since transit is not necessarily at highest speed and, in fact, is governed by fuel economy and readiness (training) considerations, 16 knots is a more likely average and 13 days is a more likely transit time.

7/ In practical terms, the Navy would have to support the illustrative Pacific station with four carriers, three of which would be allocated full time to support the station, while the fourth would divide its deployment cycle between the Pacific station and other missions. As outlined on page 13, the fractional carrier requirement for this station is summed with the requirements of other stations to achieve the total carrier force requirement. If that total also includes a fractional requirement, it is rounded up to the next whole unit. (The requirement could also be rounded down, however. In that case, current calculations would result in a requirement for carriers to spend more time on each individual deployment, or less time in maintenance or in port during crew leave time.)

Thus, 4.3 carriers, each deploying for six months, would be required to maintain the same Pacific station.

Employing the same factors for Mediterranean stations as those used above, with nine days' transit time, yields requirements of either 3.3 or 4.1 carriers for each station, using employment and operational cycles, respectively.

The Navy would prefer not to consider overhaul as time at home. Using the operating-cycle calculation, which does not count overhaul as home time, the required total for four stations would then be as many as 17 carriers if a carrier were not homeported at Yokosuka. That carrier is counted as "deployed" during both its home and deployed time. In effect, it is deployable for all but 12 months of its cycle. With a factor of 1.2 carriers for that deployment (66 months divided by 54-month deployability), a total of about 13.8 carriers would be required, which, when rounded to whole units, amounts to a 14-carrier force. This force, in fact, is above the current and programmed carrier force level. Using the employment cycle as a base, however, 11.2 carriers--or 12 units--would be required to maintain the forward deployments.

Beginning in the early 1980s, the carrier force will drop to 11 operational ships with the retirement of the Coral Sea and the beginning of the service-life extension of Forrestal-class carriers. The entry of the CVN-71 into the fleet in the mid-1980s will be offset by the retirement of the Midway. Additionally, a four-month annual Indian Ocean deployment must also be maintained. That deployment, involving transits as long as from the West Coast to the Pacific, reduces carrier on-station time still further and thereby adds to carrier force requirements. What is the implication for force requirements if the Indian Ocean deployment is viewed as an additional requirement?

If an Indian Ocean deployment is viewed as <u>additional</u> to the two-carrier Pacific deployment, and is maintained <u>continuously</u> (rather than just part of the year), then from the previous formulas (with T_t = 13 days), this would require 4.3 carriers. Since the Indian Ocean deployment is maintained on average only four months a year, however, the requirement is--approximately calculated--only one-third as great, or 1.4 carriers, on an operating-cycle basis. Therefore, 5.7 carriers would be required to support one Pacific station and to allow an annual four-month deployment in the Indian Ocean (4.3 + 1.4).

On the basis of an operating-cycle calculation, 16 carriers would be required for all four forward deployments plus the Indian Ocean deployment, 8/ as opposed to the 14 carriers that would be required if no deployments to the Indian Ocean were contemplated.

The effect of the Indian Ocean deployment would be less marked if an employment-cycle approach were used; the requirement would then be 13 carriers. 9/ The strain upon the carrier force--and the consequent need for more air-capable platforms if both an Indian Ocean deployment and two Pacific deployments are maintained--clearly depends on how the deployment-cycle calculations are made.

If the basic assumptions of the two approaches discussed in this appendix 10/ are accepted, however, then the United States could not add new deployment requirements to the Navy's current peacetime operations unless an additional carrier were procured or new approaches were taken. These new approaches could include a regime of flexible deployments, a carrier substitute, or additional homeporting of a carrier.

8/ Factors are 1.2 for the homeported carrier, 5.7 for the other Pacific deployment, and 4.1 for each of the Mediterranean carriers.

9/ Factors are 1.2 for the homeported carrier, 4.5 for the other Pacific deployment, and 3.3 for each of the Mediterranean carriers.

10/ These assumptions are the 2:1 ratio of home to deployed time and the 66-month limit for the carrier cycle.

APPENDIX B. THE EFFECT OF CARRIERS ON OVERALL FORCE LEVELS

The carrier force directly accounts for at least 179 of the 411 general purpose ships in the U.S. Navy (see Table B-1). Indirectly, it may account for an even larger number. Some carrier task forces require more than the indicated number of surface escorts; attack submarines are often deployed as part of the carrier escort force; and a number of the nontender support auxiliaries, such as repair ships and tugs, probably play a role in support of carrier operations.

TABLE B-1. CARRIER-RELATED NAVAL UNITS

Type	Number
Carriers	12
Escort Ships	114
Underway Replenishment Ships	46
Tenders	7
	179

ESCORTS

There are currently 156 major fleet escorts in the U.S. Navy. 1/ Carriers and their support ships require approximately 70 percent of these escorts. Traditionally, nuclear-powered

1/ See posture statement of the Chief of Naval Operations in Department of Defense Appropriations for 1979, Hearings before a Subcommittee of the House Committee on Appropriations, 95:2 (1978), Part 1, p. 559.

carriers are said to require four nuclear-powered escorts, all of them large cruisers carrying both anti-aircraft and antisubmarine warfare (ASW) systems. Conventionally powered carriers require a mix of six smaller, oil-powered anti-air and antisubmarine cruisers and destroyers. 2/ As the number of nuclear escorts in the current force is only large enough to provide for two all-nuclear escort groups, the remaining carriers have six escorts each. Thus, 12 carriers directly account for at least 68 major fleet escorts.

In addition, carrier task forces require sustained underway replenishment by groups of supply ships, and these underway replenishment groups (URGs) also need escorts for protection while at sea. As will be shown below, current force levels indicate that one underway replenishment group is assigned to each carrier available for deployment, for a total of 10 URGs. Since the Navy assigns a minimum of four ASW escorts to each carrier, it can be assumed that a minimum of four escorts is needed to provide adequate ASW protection to a group of ships operating together, such as an URG. Thus, 46 escorts--40 for the URG escorts and six more (15 percent) 3/ in overhaul--must be added to the escort level required by carriers, for a total of 114 ships.

UNDERWAY REPLENISHMENT FORCES

Underway replenishment groups generally consist of four ships: two oilers, an ammunition ship, and a stores ship. 4/

2/ See Department of Defense, Annual Report, Fiscal Year 1969, p. 126. The size of the all-nuclear escort force has never been justified adequately, however. See Alva M. Bowen and Michael Krepon, AEGIS Weapon System: Ship Selection and Related Issues, Congressional Research Service (1975), p. 46.

3/ Fifteen percent is a long-standing overhaul allowance factor for escorts. See Arnold M. Kuzmack, Naval Force Levels and Modernization: An Analysis of Shipbuilding Requirements (Washington, D.C.: The Brookings Institution, 1971), p. 125.

4/ There are three major categories of replenishment ships: oilers, stores, and ammunition ships. A resupply group would be expected to include at least one ship from each

The Navy appears to call for sufficient URGs to support all but two active carriers, 5/ and it seeks to maintain a 12-carrier force. 6/ Thus, 46 underway replenishment ships would be required to support 10 deployable carriers, 40 on active duty and six more as a 15 percent overhaul allowance.

TENDER FORCES

Destroyer tenders are meant to provide intermediate maintenance capability for deployed surface escorts. There are 10 tenders in the force, 7/ which service the Navy's 156 escorts. If it is assumed that 114 escorts are directly attributable to carrier forces, as explained above, seven tenders could be required to service them. 8/

---

category. Since the Navy objective, however, is to have slightly more oilers than the total fleet inventory of the other two types combined, it can be deduced that each URG should have at least two oilers.

5/ Derived from U.S. Department of the Navy, Sea Plan 2000, Unclassified Executive Summary (March 28, 1978), p. 18. Given a 15 percent overhaul allowance, the 38 support ships in the study's Option 1 (10 carriers) would form eight replenishment groups; the 46 support ships in Option 2 (12 carriers) could form 10 URGs; and the 55 support ships in Option 3 (14 carriers) would form 12 URGs.

6/ The Navy expects about 85 percent of its carriers (10 of 12) to be available under full mobilization in a general conflict--that is, all but the ships in overhaul. See statement of Admiral James L. Holloway III, USN, Chief of Naval Operations, in Military Posture and H.R. 10929 (Department of Defense Authorization for Appropriations for Fiscal Year 1979), Hearings before the House Committee on Armed Services, 95:2 (February, March, and April 1978), Part 1, p. 664.

7/ Jane's Fighting Ships, 1978-79, pp. 625-26.

8/ The carrier-related tender requirement is simply calculated by dividing the 114 escort level by 15.6, the ratio of escorts to tenders in the fleet as a whole.

GLOSSARY AND ABBREVIATIONS

GLOSSARY AND ABBREVIATIONS

A-6: Navy/Marine Corps adverse-weather attack aircraft.

A-18: Attack version of new Navy/Marine Corps multipurpose aircraft.

ASW: Antisubmarine warfare.

AV-8B: Improved version of Harrier vertical/short take-off and landing attack plane.

B-52D: Late 1950s variant of B-52 strategic nuclear bomber; has been employed for conventional long-range bombing missions.

Backfire: New Soviet long-range bomber; can carry air-to-surface missiles for antiship operations.

Badger: Medium-range Soviet bomber; can carry air-to-surface missiles for antiship operations.

CVN: Nuclear-powered multipurpose large aircraft carrier.

CVV: Conventionally powered mid-sized aircraft carrier.

DDG-2: "Adams-class" guided-missile destroyer; will undergo conversion beginning in 1980.

DDV: Destroyer converted to carry helicopters and vertical/short take-off and landing aircraft.

F-14: Navy air superiority/fleet air defense fighter and air-to-ground aircraft.

F-15: Air Force air superiority fighter.

F-18: Fighter variant of new Navy/Marine Corps multipurpose aircraft.

F-111: Air Force variable-wing ("swing-wing"), long-range, adverse-weather attack aircraft.

FFG: Guided-missile frigate (formerly patrol frigate).

Harpoon: A tactical antiship cruise missile that can be fired from surface ships, submarines, or aircraft.

LHA: General purpose amphibious assault ship.

LPH: Amphibious assault ship.

P-3: Land-based antisubmarine patrol aircraft.

SLEP: Service-Life Extension Program.

SSN: Attack submarine (nuclear-powered).

V/STOL: Vertical/short take-off and landing.