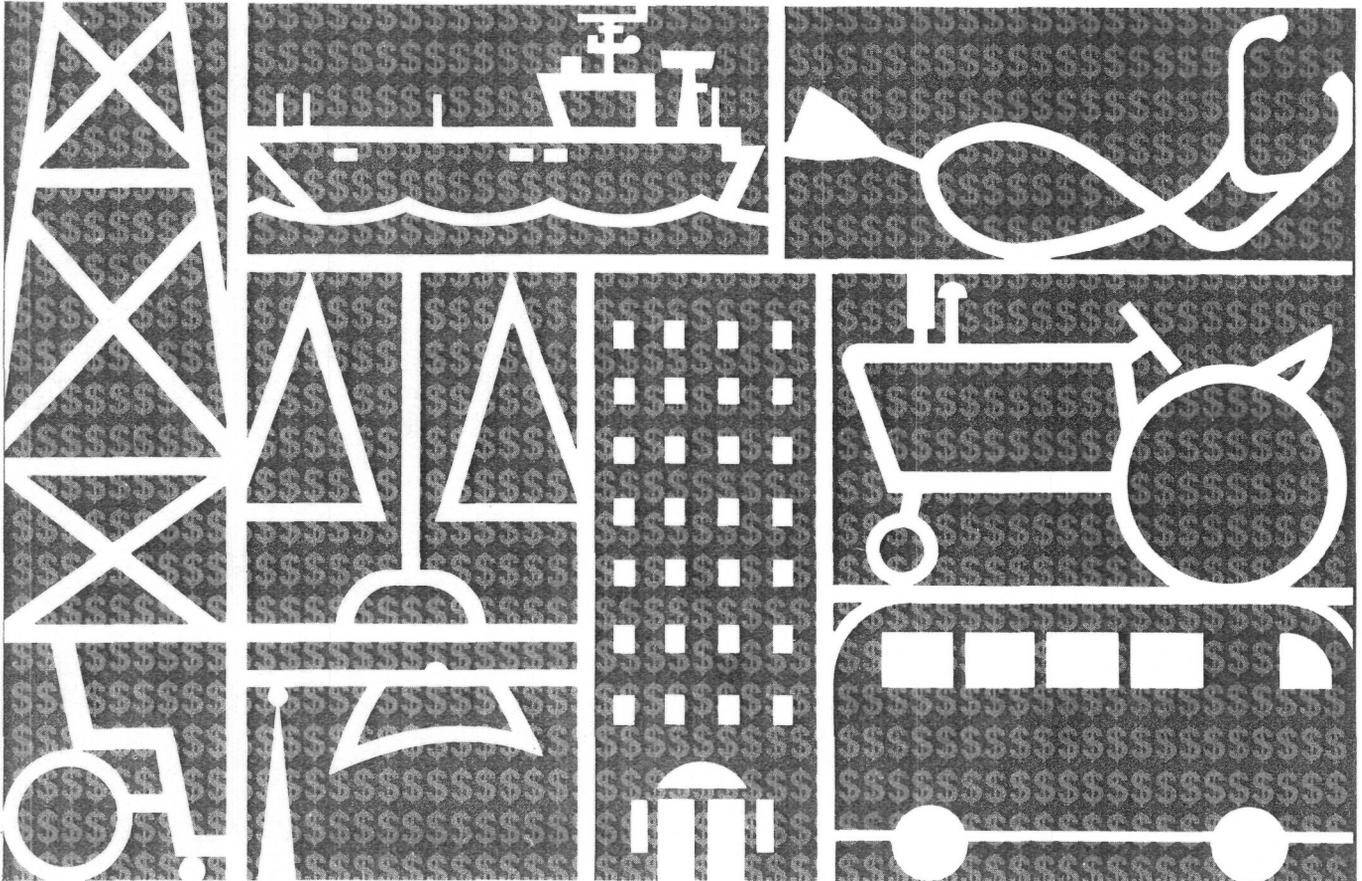


Budget Issue
Paper for
Fiscal Year 1981

The Marine Corps in the 1980's: Prestocking Proposals, the Rapid Deployment Force, and Other Issues

May
1980



**THE MARINE CORPS IN THE 1980s:
PRESTOCKING PROPOSALS, THE RAPID DEPLOYMENT FORCE,
AND OTHER ISSUES**

**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

One of the most important issues facing the Congress as it debates the fiscal year 1981 defense budget is the future mission of the U.S. Marine Corps and its place in the Administration's proposed Rapid Deployment Force. Traditionally, the Marine Corps has been the nation's rapid-response force for long-distance operations and, as mandated by the Congress, has trained primarily for amphibious missions. New demands for employment of the Marine Corps in both northern Europe and the Middle East, and proposals for prestocking Marine Corps equipment in either or both of these regions, call into question the continuing primacy of the Corps' long-standing tasks.

This budget issue paper, prepared at the request of the Subcommittee on Military Construction and Stockpiles of the Senate Committee on Armed Services, examines the systems investment and related military construction implications of alternative Marine Corps orientations. The paper draws upon material presented at a recent Marine Corps Workshop cosponsored by the Congressional Research Service and the Congressional Budget Office (CBO). In accordance with CBO's mandate to provide objective analysis, the paper makes no recommendations.

This paper was prepared by Dov S. Zakheim of the National Security and International Affairs Division of the Congressional Budget Office, under the general supervision of David S.C. Chu and Robert F. Hale. The author gratefully acknowledges the contribution of Edward Swoboda, who prepared the cost estimates. Helpful comments on earlier drafts were provided by Marshall Hoyler, Lawrence Oppenheimer, and Nancy Swope of the CBO staff, and by Kenneth A. Myers of the Center for Strategic and International Studies, Georgetown University; Dr. Jeffrey Record of the Institute for Foreign Policy Analysis; and Maj. Gen. Fred Haynes, USMC (Ret.). (The assistance of external reviewers implies no responsibility for the final product, which rests solely with the Congressional Budget Office.) Patricia H. Johnston edited the manuscript; Janet Stafford prepared it for publication.

Alice M. Rivlin
Director

May 1980

CONTENTS

	<u>Page</u>
SUMMARY	xi
CHAPTER I. INTRODUCTION	1
Future Marine Corps Missions and Their Budgetary Implications	3
Basic Questions Relating to Marine Corps Budget Choices	9
CHAPTER II. OVERVIEW OF THE MARINE CORPS: STRUCTURE, DEPLOYMENTS, AND MISSIONS . . .	11
Marine Corps Force Structure	11
Distribution of Marine Units	14
Marine Initiatives in Response to New Mission Requirements	17
Are Future Plans for the Marine Corps Compatible With One Another?	28
CHAPTER III. PROGRAM AND BUDGET IMPLICATIONS OF NEW (AND OLD) MARINE ORIENTATIONS	31
Prestocking in Europe: Policies, Equipment, and Implications	33
The Rapid Deployment Force: Implications for the Marines	41
CHAPTER IV. THE MARINE CORPS IN THE 1980s-- FOUR ALTERNATIVE APPROACHES	45
Option I: DoD's Baseline Force	46
Option II: Prestocking for a Europe-Oriented Marine Corps	51
Option III: The Marines as a Rapid Deployment Force for Third World Missions	54
Option IV: Prestocking for a Dual-Mode Marine Corps	59
What Future for the Corps?	62
APPENDIX NAVAL GUNFIRE SUPPORT FOR THE MARINE CORPS	67
GLOSSARY	73

TABLES

	<u>Page</u>
TABLE 1. MARINE AIR-GROUND TASK FORCES	12
TABLE 2. COMPARISON OF MARINE CORPS BUDGET OPTIONS	48
TABLE 3. COST OF AMENDED DoD BASELINE FOR MARINE CORPS-RELATED PROGRAMS, FISCAL YEARS 1981-1985	50
TABLE 4. KEY ELEMENTS OF AMENDED DoD BASELINE FOR MARINE CORPS-RELATED PROGRAMS, FISCAL YEARS 1981-1985	50
TABLE 5. CHANGES TO DoD BASELINE RESULTING FROM EMPHASIS ON PRESTOCKING IN NORTHERN EUROPE (OPTION II), FISCAL YEARS 1981-1985	55
TABLE 6. CHANGES TO DoD BASELINE RESULTING FROM EMPHASIS ON MARINES AS A QUICK-STRIKE AMPHIBIOUS FORCE (OPTION III), FISCAL YEARS 1981-1985	60
TABLE 7. CHANGES TO DoD BASELINE RESULTING FROM EMPHASIS ON DUAL-MODE MARINE CORPS (OPTION IV), FISCAL YEARS 1981-1985	62

FIGURES

	<u>Page</u>
FIGURE 1. PROJECTED AMPHIBIOUS SHIP FORCE LEVELS, 1980-1990	8
FIGURE 2. NATO'S NORTHERN FLANK	18
FIGURE 3. DIEGO GARCIA	26
FIGURE 4. THE INDIAN OCEAN REGION	27

SUMMARY

The Marine Corps has long served as the United States' primary long-distance, general-purpose intervention force. In carrying out this role, the Corps has functioned principally as an amphibious force. Indeed, the Congress codified the Marines' amphibious orientation in the 1947 National Security Act, which also established Marine forces at levels that continue today.

Recent developments imply new roles and missions for the Marine Corps, however. The Administration's Rapid Deployment Force (RDF) concept, which calls for prestocking Marine equipment in the Indian Ocean region, could prompt demands for significantly greater Marine Corps desert warfare capabilities. In turn, these demands could generate requirements for enlarging the relatively small Marine inventory of combat vehicles, especially tanks.

On the other hand, changing perceptions of the NATO/Warsaw Pact balance in northern Europe have led to proposals that the Marines be designated for quick reinforcement of allied forces in Norway and Denmark. Both states feel vulnerable to possible rapid Soviet attacks designed to preserve the Soviet fleet's access to the Atlantic. U.S. reinforcements of Norway and/or Denmark would place far less emphasis on the Marines' amphibious capabilities, stressing instead a combination of prestocked equipment and the use of airlift as a means of rapidly deploying ground forces to NATO's northern flank.

Because of these new demands upon Corps capabilities, three interrelated questions may be of particular concern to the Congress as it debates the Administration's Marine Corps-related procurement and military construction budget requests for fiscal years 1981-1985:

- o Where should the Marines operate? Should the Corps remain a general purpose force capable of operating worldwide but having no specific regional orientation? Or should it be dedicated to special missions, such as on NATO's northern flank or in the Third World, notably the Indian Ocean region?

- o How should the Marines reach the combat theater? Should the Corps program and train forces for major opposed amphibious assaults, similar to those that took place in the Pacific theater in World War II? Or should it emphasize surprise landings against limited opposition, similar to the 1951 Inchon landing against North Korea? Or should the Corps stress unopposed landings demanding fewer assault resources?

- o How should the Marines operate in the combat theater? Should the Corps remain a relatively light infantry force supported by airborne firepower, or should it emphasize additional ground-based mobility and firepower?

This paper examines the budgetary implications of competing Marine Corps mission orientations. It draws particular attention to proposed military construction budgets, which would be critical to the support of Marine operations either in northern Europe or the Indian Ocean and which would represent tangible evidence of U.S. commitments for use of the Corps that, once undertaken, might be difficult to revise.

CURRENT MARINE CORPS STRUCTURE AND OPERATIONS

Marine forces have been structured for amphibious operations. Marine divisions are primarily foot infantry, with each having only one battalion numbering 70 tanks. (In contrast, an Army mechanized division has five tank battalions and totals 306 tanks.) On the other hand, Marine divisions are integrated with their air wings, which provide fire support from fixed-wing aircraft and which offer more extensive helicopter mobility than is available to most Army divisions.

Critics of the current Corps structure point to the limitations of strongly opposed amphibious operations in modern combat, where entrenched defenses can direct large numbers of precision-guided munitions against slow-moving amphibious ships and landing craft. Critics also contend that the Corps relies too heavily upon air power for direct fire support. They assert that the Marines suffer from a shortage of ground-based firepower and tactical mobility, both of which are critical to combat in a number of Third World environments, notably the Middle East, as well as in central Europe, where Marines could operate as part of NATO's strategic reserve.

The Marines have responded to some of these critiques by supporting development of a fast (over 40 knot) air-cushioned landing craft and a light armored vehicle. Responding to criticisms of their preparedness for specific missions, the Marines have increased their desert warfare and cold-weather training and their antitank capabilities. Nevertheless, the Marines' fundamental reliance upon air power and foot infantry remains unchanged. Furthermore, the amphibious mission continues to dominate Marine Corps training and tactics, although there is sufficient amphibious lift for only slightly more than one of the three division/air-wing teams.

PROGRAM AND BUDGETARY IMPLICATIONS OF MARINE ORIENTATIONS

The new missions the Marines might assume, together with aging resources and the growing sophistication of potential adversaries' weapons, have resulted in a requirement for modernizing major categories of systems supporting Marine Corps operations. These systems include amphibious shipping, landing craft, amphibious vehicles, tanks, and fighter and attack aircraft. Congressional decisions about the future orientation, role, and missions of the Marine Corps will affect choices among specific programs for modernizing these systems.

These decisions could also involve the prestocking of Marine equipment. In every case where prestocking might be considered, major expenditures will probably be necessary. Funding will be required for military construction, procurement of equipment to be housed in overseas depots, and research and development for systems whose use would be most appropriate in regions to which Marines would be deployed.

Prestocking in northern Europe would involve a variety of requirements depending on the actual locale in which Marines would operate. In Norway, there could be a special requirement for cold-weather equipment and training for the brigade that the Norwegians seek as reinforcement for their own troops. In Denmark, prestocking the division that the Danes might require for operations in Jutland would call for procurement of additional armor for the Corps. The terrain in Jutland is similar to that of the Central Region, where armored warfare is likely to predominate in a NATO/Warsaw Pact conflict. On the other hand, prestocking for a brigade to protect the Danish islands against seizure by Soviet amphibious and airborne forces would call for equipment roughly similar to that which the Marines currently employ.

A prestocking program to support Marine operations in the Indian Ocean region would call for significant military construction on Diego Garcia, as well as possible military construction in other locales, such as Kenya, Oman, and Somalia, to house equipment and supplies. The prestocked equipment would likely have to be mechanized, given the nature of the terrain in which the Marines might operate. Light armored vehicles would, however, provide Marines with distinct advantages in terms of tactical mobility both for moving from ship to shore and for medium-haul intratheater moves. Air-cushioned landing craft would enhance Marine amphibious operations in the Arabian Sea region. Finally, the AV-8B vertical/short take-off and landing (V/STOL) aircraft could not only provide close air support for Marine infantry, but would also have sufficient range to operate against key Indian Ocean littoral areas from amphibious shipping.

THE MARINE CORPS IN THE 1980s--FOUR ALTERNATIVE APPROACHES

The preceding choices among competing mission orientations for the Marine Corps can be organized into four illustrative program and budget options for fiscal years 1981-1985. The first option serves as the base case for the others. It outlines the current Department of Defense (DoD) approach, which superimposes the Rapid Deployment Force concept upon the Marine Corps without fundamentally changing its current general purpose, foot infantry structure and amphibious orientation. The remaining options reflect the view that the Administration's programs do not enhance Marine capabilities sufficiently either for the conduct of traditional rapid-response, long-distance amphibious missions against significant opposition or for more specialized roles in particular geographic regions. Option II would tailor Marine capabilities to operations in northern Europe; Option III would configure the Corps as a rapid deployment force primarily for Indian Ocean operations; Option IV would combine elements of Options II and III while retaining certain aspects of the Marines' current, more flexible orientation. All three of these alternatives to the DoD plan contain more extensive adjustments to a rapid-response requirement involving prestocking, and present both the military construction and new systems investment costs that might be associated with the various prestocking strategies. Table S-1 illustrates the rationale and components of each option.

Option I: DoD's Baseline Force

Apart from those elements of the Rapid Deployment Force proposal that will affect Marine operations, the Administration's current budget request reflects no significant changes in Marine strategy, force structure, systems acquisition, or systems development. The current DoD proposal for Marine Corps-related expenditures includes modest modernization of Marine land forces, notably artillery and amphibious tractors. It also begins modernization of amphibious lift and ship-to-shore forces, providing for procurement of the first three dock landing ships (LSD-41) as well as for development of an air-cushioned landing craft (LCAC). The program continues procurement of F/A-18 fighter/attack aircraft and CH-53E heavy-lift helicopters for the Marine Corps and Navy. On the other hand, it includes no funds for the AV-8B attack aircraft.

Finally, the Administration's five-year program comprises a number of initiatives relating to the Marine Corps' role in the Rapid Deployment Force. These include acquisition of maritime prepositioning and roll-on/roll-off ships, equipment to be stored aboard them, and military construction to support them at Diego Garcia. The Administration's proposal for development of a CX transport aircraft will result in additional airlift capacity for Marine forces, although it is geared to support all U.S. land forces. The top lines of Tables S-2 and S-3 show DoD's proposed expenditures (as amended in March 1980) on systems and programs related to the Corps' operations for fiscal year 1981 and for the five-year period of fiscal years 1981-1985.

Option II: Prestocking for a Europe-Oriented Marine Corps

This option reflects the view that U.S. Marine forces should be committed to reinforce Denmark and Norway rapidly in a crisis that might precede a NATO/Warsaw Pact conflict. It is based on the assumption that NATO allies, including Norway and Denmark themselves, could only modestly enhance the capabilities of the forces that they might commit to NATO's northern flank.

This option would represent a major shift away from the Marines' general purpose role. Nearly two divisions and air wings would be converted into a force according top priority to land warfare missions in northern Europe. The remainder would retain the Corps' traditional amphibious orientation. A major

TABLE S-1. COMPARISON OF MARINE CORPS BUDGET OPTIONS

Option	Mission Orientation	Force Distribution
I. (DoD)	Maintain current general purpose/ amphibious role	3 Divisions 1 afloat brigade (battalions in Mediterranean Sea, Pacific and Indian Oceans) 3 brigades for RDF 5 brigades for SACEUR reserve 1 plus MAF Lift 3 Air Wings
II.	Prestocking for a Europe-oriented Marine Corps; limited amphibious role against opposition	3 Divisions 2/3 afloat brigade (battalions in Mediterranean Sea, Indian Ocean) 4 brigades for Denmark 1 brigade for Norway 1/3 brigade for Iceland 1 brigade for Asia/RDF 2 brigades for SACEUR reserve 2/3 MAF Lift 3 Air Wings
III.	Prestocking in Indian Ocean; amphibious lift for quick-strike Marine force	3 Divisions 1-2/3 afloat brigades (3 MAUs in Indian Ocean; 1 MAU in Mediterranean Sea; battalion (part-time) in Pacific Ocean) 3 brigades for RDF 4-1/3 brigades for general purpose 1-2/3 MAF Lift 3 Air Wings (less 3 fighter/ attack squadrons)
IV.	Prestocking for flexible Marine operations in northern Europe and the Indian Ocean	3 Divisions 1 afloat brigade (as in Option I) 3 brigades for RDF 2 brigades for northern Europe 3 brigades for general purpose 1 plus MAF Lift 3 Air Wings (less 3 fighter/ attack squadrons)

(Continued)

a/ Fiscal year 1981 budget amendment.

TABLE S-1. (Continued)

Nature of Forces	Key Budget Decisions for Fiscal Year 1981
Light infantry with sufficient equipment to support three armored brigades; primary fire support from aircraft; amphibious ships for major opposed landings	Procure: Equipment for RDF LSD-41 (1) MPS (1) Roll-on/roll-off (2) <u>a/</u> F/A-18 Develop: LCAC CX with austere field capability Milcon: Diego Garcia; Kenya, Oman, and Somalia <u>b/</u> Cancel: AV-8B
Heavy brigades in Jutland; light forces elsewhere; prestocking for forces in Norway, Denmark; aircraft primary fire support for two divisions	Procure: F/A-18 Equipment for RDF MPS (1) Roll-on/roll-off (2) <u>a/</u> Develop: CX (as in Option I) Milcon: Diego Garcia, Norway, and Denmark Cancel: LSD-41; LCAC; LVTP-7; AV-8B
Light armored infantry, with major amphibious orientation; prestocking for forces in the Indian Ocean; reduced airborne fighter/attack support	Procure: MPS (1) Roll-on/roll-off (2) <u>a/</u> Equipment for RDF Light armored vehicles Develop: LCAC Light armored vehicles AV-8B C-5 variant Milcon: Diego Garcia Cancel: USMC A-18 CX
Light armored infantry; mixed amphibious and land orientation; reduced airborne fighter/attack support	Procure: MPS (1) Roll-on/roll-off (2) <u>a/</u> Equipment for RDF 2 brigades on MPS in U.K. Develop: CX (as Option I) LCAC AV-8B Light armored vehicles Milcon: Diego Garcia and U.K. Cancel: USMC A-18

b/ Possibly included among funds in fiscal year 1981 budget amendment earmarked for military construction in unspecified locales.

TABLE S-2. OPTIONS FOR MARINE CORPS-RELATED PROGRAMS, EXPRESSED AS CHANGES TO DoD's AMENDED BUDGET REQUEST FOR FISCAL YEAR 1981 (In millions of fiscal year 1981 dollars)

	Options			
	I	II	III	IV
DoD Baseline	8,000	8,000	8,000	8,000
Changes from Baseline				
Military				
construction	--	239	-41	63
Procurement	--	-372	86	-342
Research and development	--	--	182	253
Operations	--	--	17	--
Total	8,000	7,867	8,244	7,974

TABLE S-3. OPTIONS FOR MARINE CORPS-RELATED PROGRAMS, EXPRESSED AS CHANGES TO DoD's AMENDED BUDGET REQUEST FOR FISCAL YEARS 1981-1985 (In millions of fiscal year 1981 dollars)

	Options			
	I	II	III	IV
DoD Baseline	44,770	44,770	44,770	44,770
Changes from Baseline				
Military				
construction	--	239	109	63
Procurement	--	-206	4,929	3,477
Research and development	--	-22	-464	567
Operations	--	190	69	-84
Total	44,770	44,971	49,413	48,793

prestocking program could be initiated to support Marine operations in Norway and Denmark. Equipment for one brigade, including special cold-weather equipment, could be prestocked in Norway. Four brigades' equipment could be prestocked in Denmark to provide for defense both of the Danish islands and of Jutland. Significant military construction would be required in Denmark to house the heavy equipment to support mechanized operations in Jutland.

Commitment of nearly two-thirds of the Corps to northern Europe would lessen the requirement for maintaining current levels of amphibious lift. Accordingly, both the LSD-41 and LCAC programs could be discontinued, and amphibious lift forces could be allowed to decline to the equivalent of the capacity to lift two brigades. Finally, reorienting the Marines to land combat would limit their contribution to the Rapid Deployment Force and to afloat units currently in the Mediterranean Sea and Indian Ocean. Instead, equipment for Army forces would be prestocked on Diego Garcia. Tables S-2 and S-3 indicate that these changes would reduce the Marine budget as proposed by DoD by \$133 million in fiscal year 1981, but would increase Marine budgets by \$201 million over the five-year period fiscal years 1981-1985.

Option III. The Marines as a Rapid Deployment Force for Third World Missions

This option directs Marine Corps budget priorities to conflicts outside the NATO area; the Marines would provide most of the Administration's proposed Rapid Deployment Force. Unlike Option I, however, this option would equip the Marines specifically for Middle Eastern combat. It is consistent with an approach that would dedicate U.S. Army forces for combat in Europe, and reflects the view that the NATO allies, including those in northern Europe, should assume a greater share of the burden of defending their own territory. Given this additional allied commitment, U.S. Army units might be dedicated for northern flank operations if they were not required for missions in NATO's Central Region.

Two distinct considerations govern the choice of programs in this option: the need to augment current amphibious lift capability to support rapid-response operations in the Indian Ocean, and the need to enhance the Marines' ability to operate beyond the beach in Middle Eastern environments.

Amphibious lift could be increased to one and two-thirds MAF equivalents. This would permit the constant deployment of a small Marine Amphibious Brigade in the Indian Ocean and an intermittent deployment in the Pacific in addition to the current deployment in the Mediterranean Sea. Coupled with a prestocking program to support maritime prepositioning of equipment for a Marine division on Diego Garcia, the increase in lift would permit nearly two Marine divisions to land anywhere on the Arabian Sea littoral within two weeks of orders to deploy. Significant amphibious ship construction, maritime prepositioning ship procurement, additional LCAC procurement, and additional military construction on Diego Garcia would be required to support this Marine quick-strike concept.

The need to provide for enhanced Marine capabilities on land in Middle Eastern contingencies would justify acquisition of light armored vehicles. (Such vehicles would also increase the utility of the LCAC, which could carry at least three of them at over 40-knot speeds for up to 200 miles.) It would also justify acquisition of the AV-8B, which could operate from poorly equipped airfields, as well as in areas where no airfields are available. On the other hand, there would be less demand for a new CX capable of operating from poorly equipped airfields. Thus the level of CX procurement could be reduced commensurate with greater reliance upon seaborne forces. Tables S-2 and S-3 indicate that this option exceeds the DoD baseline by \$244 million in fiscal year 1981 and by \$4.6 billion in fiscal years 1981-1985.

Option IV: Prestocking for a Dual-Mode Marine Corps

This option emphasizes rapid Marine responsiveness to a variety of crises demanding both land and amphibious capabilities. It represents a compromise between primary emphasis on land warfare in northern Europe and on amphibious operations in the Middle East. Like Options II and III, however, this option would also dedicate much of the Corps to specific missions, while preserving only one division for a wider variety of tasks. Option IV would incorporate prestocking schemes for both northern Europe and the Indian Ocean. In the former case, equipment for two brigades would be prestocked on maritime prepositioning ships homeported in Britain. The Marines would not be committed specifically to the defense of either Norway or Denmark, but rather to that of the northern region as a whole. The prestocked ships could deploy to any location in that region, and Marines would be flown directly from the United States. British shipping, as well as C-130 theater transport assets, might also support these deployments.

This option would maintain current levels of Marine lift, but procure slightly fewer LSDs and additional amphibious aviation ships (LPH) to complement procurement of AV-8B V/STOL aircraft. Together, these programs would significantly enhance the Marines' at-sea air support, both for air superiority and ground attack operations during landings. Like Option III, this option would call for development of the LCAC to support faster ship-to-shore movement, and of light armored vehicles, both to realize the full potential of the LCAC and to support Marine mobile warfare operations in Jutland and the Arabian Sea area. Tables S-2 and S-3 outline the effect of this option on the current DoD baseline.

WHAT FUTURE FOR THE CORPS?

The number of Marine systems in need of modernization and of proposed new tasks requires fundamental decisions about the future orientation of the Corps. The Marines could remain a light, general purpose force, with a limited capability to respond to distant crises in a timely fashion, but with the ability to organize air and ground forces tailored to the task at hand. In that case, the Congress may prefer to adopt the DoD program for fiscal years 1981-1985, and essentially preserve the Corps in its current form. On the other hand, it may consider that the DoD program not only is unlikely to support the effective conduct of long-standing Marine Corps missions, but also overlooks the requirements that emerge from recent demands for dedicating specialized Marine units to northern European or Indian Ocean operations.

If the Congress believes that U.S. strategy, programming, and training should continue to emphasize defense of NATO Europe against a Warsaw Pact attack, it might wish to dedicate the Marines to the defense of Norway and Denmark, both of which might otherwise not be able to resist successfully a Soviet attack in the earliest stages of a conflict. On the other hand, the Congress might reason that the NATO allies could do more to enhance their own defenses. If defense of the northern region required a U.S. contribution, it might come from Army units if they could relinquish Central Region commitments without too great a degradation of allied defenses in that area. The Congress might, however, consider that the Marines' unique orientation to amphibious capabilities might be more usefully employed in Indian Ocean operations, especially if the Corps enhanced its ability to operate in armored and desert environments well beyond the landing beach.

Finally, the Congress might decide that the best future orientation for the Marines should reflect a combination of both longer-standing capabilities and new specialized opportunities. Such a combination would mark a less radical change from past Marine priorities, but nevertheless would involve important changes in the current Marine Corps program. The Congress' preference for any one orientation, or for a force that exhibits some of the characteristics of several, will, therefore, have a major impact on Marine Corps and Navy budgets throughout the 1980s, and on the nature of the Corps through the remainder of this century.

CHAPTER I. INTRODUCTION

The Marine Corps is unique among U.S. military forces in two respects. It is the only service that combines elements of land, air, and naval forces into integrated operating units. It is also the only service whose minimum basic force structure has been determined by act of Congress. The 1947 National Security Act, as amended in 1973, provides for a Corps of "not less than three combat divisions and three air wings." 1/

The Marine Corps' mission in the 1980s is less clear, however. The 1947 act refers specifically to the Corps' amphibious responsibilities. The relevance of that mission to future U.S. military operations--and, indeed, to the future of the Corps itself--has become increasingly uncertain in recent years. Some analysts have questioned the usefulness of amphibious operations in a world in which even the smallest states have access to precision-guided munitions, against which slow-moving amphibious ships and landing craft are extremely vulnerable. Others have focused on the Marines' inability to conduct long-distance amphibious operations in force. They argue that the lack of sufficient amphibious lift to move more than one division/wing team (termed a Marine Amphibious Force, or MAF), and the distribution of available amphibious lift among the Atlantic and Pacific Oceans and the Mediterranean Sea, render the Marines an inappropriate force for conducting long-distance, rapid-response projection operations.

Still other analysts focus on the ambiguities surrounding the Marines' role in Europe in the event of a NATO/Warsaw Pact conflict. Two of the three Marine divisions and their related air wings comprise the Supreme Allied Commander's (SACEUR's) strategic reserve force. They are not committed to a specific theater of operations, despite the great variations in geographical and military environments among the different subregions of a likely European war zone. As a force that relies heavily on foot infantry for combat operations, the Marines may not be effective

1/ P.L. 80-253 (61 Stat. 495) as amended through September 30, 1973.

in the armored environment of the Central Region. Yet its lack of sufficient training may render the Corps equally unsuitable for operations in northern Europe, where the mountainous terrain and cold climate could prove a more serious hindrance to battlefield effectiveness than a lack of armor.

Related to the issue of the Marine Corps' future missions is the question of its structure, with its heavy emphasis on airborne fire support at the expense of ground mobility and firepower. Many observers contend that, even if it is capable of seizing a beachhead, the Corps cannot operate effectively beyond the beach in the highly intense armored environments in which it may be called on to fight--such as those in the Middle East.

These questions, which have received considerable attention in the Executive Branch, the Congress, and elsewhere for some time, assume critical importance in fiscal year 1981 for two reasons. First, the Administration has announced its intention to organize a Rapid Deployment Force (RDF). The Marines have always viewed themselves as America's rapid deployment force. Yet Marine units would comprise only a portion of the Administration's proposed RDF; the remainder would be composed of Army, Air Force, and Navy units.

The RDF would be supported by sufficient lift to permit its operation in distant regions. The Administration has announced plans both to build a new airlift aircraft, the CX, and to acquire 12 new cargo ships, termed maritime prepositioning ships (MPS, formally designated T-AKX), that would be dedicated specifically to support three "armor-heavy" Marine brigades capable of operating for 30 days on long-distance deployment operations. 2/

A second, and related, development is the growing demand by two NATO allies, Norway and Denmark, for the prepositioning of Marine equipment on their territory. Both countries have stressed the important contributions that Marine forces could make to their defenses in a NATO war. The Norwegians want the Marines to reinforce their own defenses against possible Soviet attacks along their narrow--and topographically complex--northern and western corridors. The Danes envisage Marine support for protection against Soviet amphibious attacks on Jutland, Zealand, and the

2/ U.S. Department of Defense, Annual Report, Fiscal Year 1981, p. 211.

smaller Danish islands. The Marines, as SACEUR's reserve, appear to be the only U.S. ground force that might be directly committed to the defense of these countries. Because neither country permits basing of foreign troops on its soil in peacetime, each has proposed that Marine equipment be prestocked in depots on its territory. This approach would facilitate the rapid deployment of Marine units in the event of a crisis or actual hostilities with the Warsaw Pact. Prestocking Marine equipment in northern Europe might not require an overhaul of the current Corps structure. It would, however, place less emphasis on the Marines' amphibious orientation and, for the first time, would target a part of the Corps to a specific territorial mission.

FUTURE MARINE CORPS MISSIONS AND THEIR BUDGETARY IMPLICATIONS

Both the RDF and the prestocking proposals could involve considerable expenditures to meet Marine requirements. The fiscal year 1981 budget includes \$207 million for construction of the first of a new class of eight large maritime prepositioning ships (MPS) to carry Marine equipment; the first ships are scheduled to enter the fleet in fiscal year 1983. ^{3/} Four "roll-on/roll-off" ships, already constructed, will also be purchased and converted to maritime prepositioning ships. In addition, the Administration may acquire several other ships, already in commercial use, for more immediate sealift support for the Rapid Deployment Force. It reportedly plans to purchase eight fast container ships at a cost of \$350 million. ^{4/} It also will

^{3/} The fiscal year 1981 plan, as presented in January, called for procurement of two maritime prepositioning ships in fiscal year 1981. Testifying before the Seapower Subcommittee of the House Committee on Armed Services, Deputy Secretary of Defense Claytor indicated that the Administration now plans to apply most of its funding request for fiscal year 1981 to procure one MPS that will be larger than the originally proposed design. See "Remarks for Deputy Secretary of Defense Honorable W. Graham Claytor, Jr., before the Seapower Subcommittee of the House Committee on Armed Services Concerning Maritime Prepositioning" (March 5, 1980; processed).

^{4/} "Civilian Ships Give the Navy a Fast Fix," Business Week (February 4, 1980), p. 31. See also "U.S. Stressing Expansion of Ability to Put Units in Iran to Fight Soviet," New York Times, February 3, 1980, p. 10.

charter two roll-on/roll-off ships and operate them with other ships currently owned or chartered by the Military Sealift Command at a total cost of \$58 million in fiscal year 1980 and \$85.3 million in fiscal year 1981. The roll-on/roll-off ships will deploy to the Indian Ocean carrying equipment for a small Marine Amphibious Brigade (10,000 troops) and for Army airborne and Air Force units. The Military Sealift Command will operate the fast container ships as rapid reinforcement ships deploying from the United States with Army equipment aboard them. Modification of the container ships to carry military equipment could cost an additional \$400 million above procurement costs. ^{5/} The Navy does not propose to reduce the MPS program as a result of acquisition of these more readily available ships.

The prestocking proposals, whether for northern Europe or the Indian Ocean area, will involve procurement of new sets of equipment for elements of the Marine ground and air units. Duplicate equipment would be needed to support Marine training programs in the United States in addition to that required for storage overseas. The Administration originally requested \$67 million in fiscal year 1981 to procure artillery, trucks, and antitank equipment for storage aboard the prepositioning ships. The fiscal year 1980 supplemental budget, submitted in March 1980, requests an additional \$24 million to facilitate transfer of these supplies to the MPS.

There is considerable uncertainty as to how this equipment would be allocated among storage facilities in northern Europe and the Indian Ocean. In addition, depending on the levels of Norwegian and/or Danish budgetary contributions, prestocking in northern Europe could involve U.S. expenditures for construction of military storage and support facilities. Similarly, support for the Rapid Deployment Force in the Indian Ocean could call for the United States to fund construction of airfield and port facilities in several states--notably Oman, Somalia, and Kenya--to serve as forward staging areas to which the United States would have access in "emergency" situations. ^{6/}

^{5/} "Civilian Ships Give the Navy a Fast Fix," p. 31.

^{6/} "U.S. Marines to Join Naval Force," Middle East Economic Digest (February 15, 1980), p. 19. Prestocking arrangements with these states involve political uncertainties that would not arise in the case of Diego Garcia, which is leased by the United States.

While military construction funding levels for northern Europe remain uncertain, the Administration appears to have made a major funding commitment for military construction to support Rapid Deployment Force operations in the Indian Ocean. The President's original fiscal year 1981 budget submission included the first \$17.9 million in military construction funds for dredging and other improvements at Diego Garcia, primarily to support the stationing of maritime prepositioning ships at the atoll. The plan called for spending an additional \$86 million between fiscal years 1982 and 1984 to complete construction on Diego Garcia to support the MPS ships. 7/ The President's fiscal year 1980 supplemental request, and particularly the Administration's fiscal year 1981 budget amendment of March 31, 1980, considerably expand this program, however. The fiscal year 1980 supplemental requests \$23.5 million to expand naval facilities on Diego Garcia. To these funds will be added \$8.6 million (1980 dollars) which has been reallocated from other Department of Defense (DoD) projects in order to fund construction of a camp for 1,500 men. The fiscal year 1981 budget amendment requests a further \$128 million--more than originally provided for in the entire fiscal years 1981-1985 five-year plan--for construction on the atoll. Of these funds, \$104 million is for Navy-related construction, primarily for unaccompanied personnel housing, support for small craft, and storage facilities. 8/ The increased funding for construction on the atoll may be part of a program designed to develop Diego Garcia as a major staging base for Marine and other U.S. forces. The total costs of this program could amount to \$1 billion. 9/

7/ Derived from information provided to CBO by the U.S. Marine Corps, March 5, 1980. The plan for construction on Diego Garcia represents the fourth phase of expansion of both the communications station on the atoll and a logistics support facility for naval forces operating in the Indian Ocean. Funding was approved in fiscal year 1978 to construct housing, support, and recreation facilities for a permanent manning level of about 800 personnel.

8/ Of that amount, \$23.7 million is for fuel storage and hydrant systems to support Air Force activities.

9/ Richard Halloran, "U.S. Studying \$1 Billion Expansion of Indian Ocean Base," New York Times, April 6, 1980, p. 16.

Finally, the fiscal year 1980 supplemental requests \$19 million for design of ship berthing and fleet support at "various" Indian Ocean locations. The fiscal year 1981 amendment requests \$21.4 million for military construction to support Army facilities and \$41 million for Navy airfield and port facilities, both at unspecified locations. All of these requests appear to be directed toward the type of facilities improvement that may be required for U.S. operations from various ports and airfields in Oman, Somalia, and Kenya. All three programs could call for construction costs totaling \$250 million. 10/

These possible new expenditures come at a time when Marine and Marine-related budgets have suffered heavily from funding constraints. Since 1970, Marine budgets have shown a larger real decrease in purchasing power than the Department of Defense budget as a whole. 11/ Moreover, Marine procurement--including Navy-funded Marine aircraft--amounts to only 2.3 percent of the total DoD procurement budget.

In the 1970s, the lion's share of the Marine-related investment budget has gone to modernize and maintain the Marine aviation component. For example, between 1970 and 1979, nearly two-thirds of all procurement funding was spent for Marine air wings. 12/ The need to sustain air-wing capabilities has intensified Marine resource allocation problems: Until the

10/ Charles Corrdry, "U.S. Planning Work at Proposed Bases," Baltimore Sun, April 3, 1980, p. 2.

11/ Between fiscal years 1970 and 1981, total obligational authority for the Department of Defense declined by 8.5 percent. During that period, the Marine Corps' share of the DoD budget also declined, from 4.5 percent of the fiscal year 1970 DoD budget to 3.1 percent of the fiscal year 1981 budget.

12/ The two-thirds figure is derived from a recent GAO report that did not discuss Marine-related naval procurement. Four LHAs constitute the only amphibious ships procured since 1970, however. Even if they were included in the calculation, Marine aircraft would still account for more than 60 percent of total procurement. See General Accounting Office, Marine Amphibious Forces: A Look at Their Readiness, Role, and Mission, LCD-78-417A (February 6, 1979), pp. 8, 64.

decision to include Marines in the new Rapid Deployment Force, it was expected that the Marines would have to reduce force levels by 10,000 troops in order to continue maintenance and modernization programs. 13/

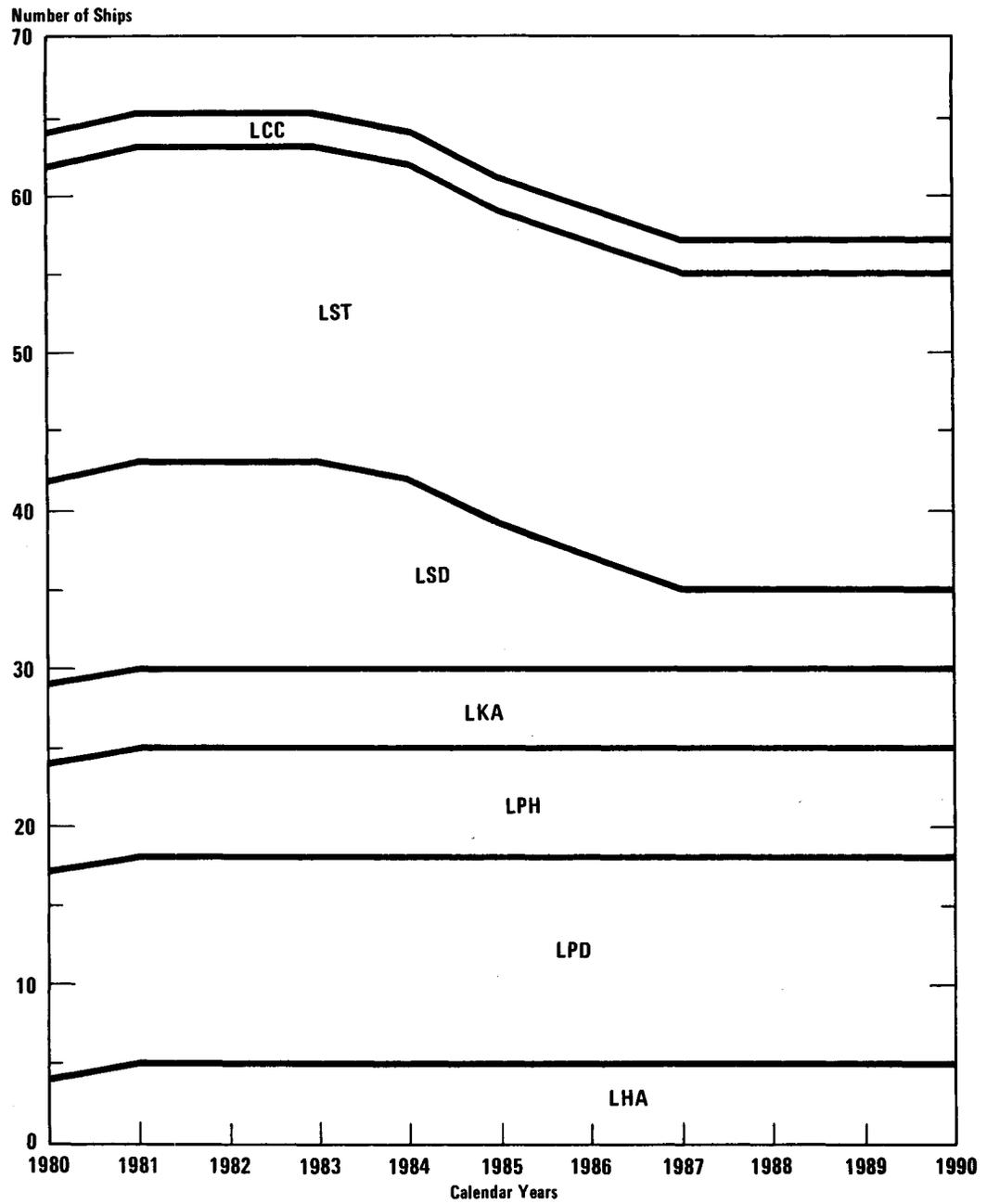
Financial constraints have also severely curtailed Marine research and development (R&D) efforts. The Marines have relied on the R&D programs of other services for force modernization, despite the very different priorities that govern those programs. It is noteworthy that development of an air-cushioned assault landing craft (LCAC), the only significant Marine-related R&D program supported by the Administration, is a Navy program. Because of funding constraints, the Office of the Secretary of Defense has opposed the program to develop the AV-8B vertical/short take-off and landing (V/STOL) attack plane, which the Congress funded in fiscal years 1979 and 1980.

Finally, no new amphibious ship construction has been authorized since 1971, since the Navy has accorded priority to construction of other units. In the meantime, the amphibious ship force has declined from more than 150 ships capable of lifting at least two Marine Expeditionary Forces (now termed Marine Amphibious Forces) in the late 1960s to 64 ships with slightly more than a single MAF lift capability today. Furthermore, unless new amphibious ship construction is funded, amphibious lift capability is expected to decline still further in the late 1980s, although it will temporarily increase earlier in the decade (see Figure 1). This decline will result from two factors. First, ships that entered the fleet in the 1950s are expected to be retired before 1990. Second, new Marine equipment is expected to be larger and bulkier than that which it will replace, thereby reducing the amphibious fleet's aggregate lift capacity. 14/ In response to this potential decline, the Administration has requested the first of three LSD-41 amphibious dock landing ships in fiscal year 1981, with the remaining ships to be procured in fiscal years 1983 and 1985.

13/ "Are the Marines Obsolete? Their Chief Speaks Out," U.S. News and World Report (September 10, 1979), p. 29.

14/ Two examples are the ongoing Marine program to replace 105mm artillery pieces with large 155mm systems and the projected replacement of M60 tanks by XM-1s later in the decade.

Figure 1.
 Projected Amphibious Ship Force Levels, 1980-1990^a



^a Assumes a 30-year service life for amphibious ships; includes active ships only; assumes no new funding for amphibious ships after fiscal year 1980.

BASIC QUESTIONS RELATING TO MARINE CORPS BUDGET CHOICES

Three interrelated questions linked to the aforementioned budget requirements may be of particular concern to the Congress as it considers future Marine missions and the Corps' role as the prime U.S. long-distance general purpose intervention force:

- o Should the Marines remain a general purpose force; or should they be dedicated to special missions, whether on NATO's flanks or in the Third World; or should they assume a combination of specialized NATO and non-NATO-related tasks? Congressional preferences for different mission orientations will significantly affect systems choices relating to the nature of Marine deployments to overseas combat theaters and the types of operations Marines might conduct upon their arrival.
- o What is meant by the "amphibious mission" today, and how much emphasis should be placed upon it in Marine training and operations? The popular notion of large Marine landings in the face of an entrenched opposition derives from the Pacific campaigns of World War II. New technologies would enhance the Marines' ability to maximize tactical surprise by landing in poorly defended areas, as they did at Inchon, Korea, in 1951. Such landings might put less premium on the need for large landing elements. (Inchon involved only two-thirds of a division.) On the other hand, programs for prestocking (either on land or at sea), combined with airlift of Marine troops, might assume unopposed landings overseas. As a consequence, less emphasis might be placed on Marine activities related to any kind of amphibious assault.
- o How are the Marines expected to fight on land? Should they continue their reliance upon airborne fire support, or should they diversify their sources of direct and indirect fire support for ground forces? Current Marine training and procurement appears to be geared more to the process of landing ashore than to the conduct of sustained operations after arrival in the combat zone. Arguments for "heavying up" Marine infantry units address themselves primarily to the nature of ground combat, and often assume no Army reinforcement. These arguments, coupled with the growing real cost of Marine aircraft, underscore the choices among alternative sources of Marine firepower that the Congress will consider.

This paper examines the major competing mission orientations for the Marine Corps and outlines their budgetary implications, drawing special attention to current proposals for future military construction budgets. These budgets, while often smaller in magnitude than procurement or operations budgets, will be a critical factor in providing support for long-distance Marine operations either in the Indian Ocean or in northern Europe. Perhaps more important, they are tangible evidence of U.S. commitments for use of the Marine Corps that, once undertaken, may be difficult to revise.

Chapter II provides a brief overview of the current Corps structure, its mission emphases, and deployments. It also discusses possible threats the Marines might face in different locales, and the different types of tactics and equipment required to meet those threats in an appropriate fashion. Chapter III reviews key Marine Corps programs currently under consideration and examines their relationship to Marine missions. Chapter IV then highlights different military construction funding profiles to support different missions, and indicates related weapons procurement strategies that would conform to those mission orientations.

CHAPTER II. OVERVIEW OF THE MARINE CORPS: STRUCTURE,
DEPLOYMENTS, AND MISSIONS

MARINE CORPS FORCE STRUCTURE

The U.S. Marine Corps, numbering 185,200 active-duty and 33,600 reserve personnel, is organized into three active divisions and associated air wings and one reserve division and air wing. The divisions comprise combat personnel (primarily foot infantry forces but also mechanized units, including tank units), artillery, and other combat-support units. The air wings consist of fighter and attack squadrons, reconnaissance and electronic warfare squadrons to support the fighter/attack elements, and a helicopter group composed of assault, utility, and transport helicopters. 1/

Marine units conduct integrated air-ground, combined-arms training exercises, including "live-fire" exercises. While divisions and air wings are formally linked in the Marine Corps structure, Marine theory emphasizes "task organization," which stresses an ad-hoc approach to operational requirements. Elements of divisions and wings are combined into Marine Air-Ground Task Forces (MAGTF) to meet the particular demands of three tasks: peacetime presence, amphibious assault and landings, and major amphibious assault operations. Table 1 illustrates the three types of combat units organized to perform these tasks.

The smallest MAGTF, termed a Marine Amphibious Unit (MAU), numbers 1,800 to 2,200 Marines, with a few hundred supporting naval personnel. It is usually built around an infantry battalion and a squadron of helicopters. A MAU includes a very small number of armored units (usually only five tanks), as well as combat-support and service-support detachments. MAUs have been deployed in the Mediterranean and western Pacific;

1/ For a detailed description of the components of a Marine air wing, see Martin Binkin and Jeffrey Record, Where Does the Marine Corps Go From Here? (Washington, D.C.: The Brookings Institution, 1976), p. 21.

TABLE 1. MARINE AIR-GROUND TASK FORCES

Task Force	Marine Troops	Infantry Unit	Air Wing Unit	Primary Mission
Marine Amphibious Unit (MAU)	1,800-2,200	Battalion (1/9 division)	Helicopter Detachment (1/9 wing)	Peacetime Presence
Marine Amphibious Brigade (MAB)	13,000-16,000	Regiment (1/3 division)	Multipurpose Air Group (1/3 wing)	Amphibious Assault and Landings
Marine Amphibious Force (MAF)	45,000	Division	Air Wing	Major Amphibious Assault Operations

one is currently deployed in the Indian Ocean. By themselves, MAUs have very limited military capability for little other than token presence or minor operations. A MAU does serve, however, as the leading edge of a larger force, the Marine Amphibious Brigade (MAB). This force is built around at least one infantry regiment and a multipurpose air group, including fixed-wing aircraft. MABs, which are designed for combat in more demanding scenarios, total 13,000 to 16,000 Marines and 2,000 supporting Navy personnel. Finally, the largest organized Marine combat element, a Marine Amphibious Force (MAF), is built around one or more infantry divisions and air wings. A single division/wing MAF totals 52,000 combat and support troops, with 70 tanks and the full range of Marine fixed-wing aircraft. 2/

2/ All figures provided above include proportionate detachments for Marine Force Service Support Groups, which provide nondivision-based combat service support. For additional observations on Marine task forces, see Binkin and Record, Where Does the Marine Corps Go From Here?, pp. 15-25. See also Maj. Gen. B.E. Trainor, USMC, "Intervention--What, How, and Who?" (paper presented to CRS/CBO Marine Corps Workshop, January 8-9, 1980; processed), pp. 18-20.

The Marine Corps continues to rely on foot infantry as its primary maneuver element. It has only recently organized its tank forces into maneuver units. Until 1978, tanks were not division elements at all, but instead were part of the Marines' Force Troops, which provided infantry elements with ground-based fire support.

The Marines have argued that their ability to organize forces for specific tasks counters the contention that they are merely a light force emphasizing foot infantry operations. 3/ Marine spokesmen contend that a "heavy" Marine division could be organized if the situation warranted. The Marines could field a MAF with 210 tanks (a level that, however, falls short of the 306 and 360 tanks in Army mechanized and armored divisions, respectively). 4/ Of course, in such situations, the remaining two active Marine divisions would be bereft of ground-based mobile firepower, other than assault amphibious landing vehicles. In addition, the Marines have emphasized the use of air power for direct firepower support of their operations. In this respect, air power serves the function of artillery in Army force units.

The amphibious nature of Marine operations has been a critical factor in the Marines' emphasis on air power to support their operations. Marine aircraft are compatible with aircraft carrier operations, and therefore can be closely integrated with the initial phases of amphibious assaults. In general, they can operate regardless of the terrain on which assaults are attempted. 5/ They can often respond more quickly than artillery to infantry needs for firepower support. The greater range and speed of fixed-wing aircraft is particularly advantageous

3/ Trainor, "Intervention," p. 19.

4/ Even such a heavy division would not meet required equipment levels for other key components of mechanized forces, such as mobile air defenses and armored personnel carriers.

5/ Marine aircraft also are instrumental in providing air cover and air superiority to support Marine operations, even if Navy aircraft are required elsewhere. This requirement is not affected by the availability or absence of ground-based fire support. See Binkin and Record, Where Does the Marine Corps Go From Here?, pp. 20-21.

within the context of an expanding operating front (as the assault progresses).

An additional aspect of the Marines' emphasis on air power is their concept of "vertical envelopment," which involves helicopter-borne landings on or beyond beaches at the same time as seaborne forces arrive onshore. Transport helicopters, which support this tactic, also could serve as key sources of intra-theater mobility for Marine infantry. Each Marine wing includes one squadron of 24 UH-1 utility helicopters, three squadrons of CH-46 medium-lift helicopters (totaling 54 craft), and two squadrons of CH-53 heavy-lift helicopters (42 craft). Army divisions, other than the 101st Air Assault Division, include only utility helicopters (mechanized and armored divisions each have 52), but none is as large as the CH-53. 6/

DISTRIBUTION OF MARINE UNITS

Traditional Marine emphasis on an ability to fight anywhere at any time, combined with the use of Marine forces during and after World War II, has resulted in the current worldwide distribution of Marine units. The First Marine Amphibious Force has its headquarters on the West Coast, with its divisional component based at Camp Pendleton, California, and its air wing at El Toro, California. This MAF is considered to be a "swing unit," available for operations in either the Atlantic or Pacific theaters. The Second MAF has its headquarters on the East Coast, with its division based at Camp LeJeune, North Carolina, and its wing at Cherry Point, North Carolina, and Beaufort, South Carolina. This MAF has been designated as the primary unit for Atlantic and Mediterranean operations. The Third MAF has its headquarters in Okinawa, with a large part of its division and air wing elements operating from bases in Japan. It is the primary Marine force dedicated to operations in the Pacific and Indian Ocean regions.

6/ The 101st Air Assault Division numbers 48 CH-47s, which are smaller than the CH-53. Marine air wings each have a squadron of 18 AH-1 Cobra attack helicopters. Only if all Marine AH-1s were combined in one air wing, however, would they form an equivalent force to the 51 Cobras in Army armored and mechanized divisions. (The 101st Air Assault Division has 90 Cobras.)

Both the Second and Third MAFs include Marine Amphibious Units that are permanently deployed at sea. The Second MAF supports a full-time deployment in the Mediterranean and a part-time deployment in the Caribbean Sea. The Third MAF supports two battalion-sized units in the western Pacific. These four units provide the essence of the Marines' quick-response capabilities. Beyond the MAUs, however, considerable time is required for larger forces to be mounted to support long-distance Marine operations. Mounting a division-sized assault in either the Pacific or the Atlantic would require the time-consuming trans-oceanic transfer of amphibious shipping. For example, about 30 days would elapse before a division-sized operation could be mounted in the Persian Gulf. 7/

It should be noted that current amphibious lift resources can transport only slightly more than one MAF. Thus, in addition to any problems associated with assembling the lift to move one division/wing team, the Marines face the prospect of foregoing all other deployments, as well as rapid additional seaborne reinforcement, if a division-sized assault were mounted anywhere in the world. 8/

Marine units could, of course, be airlifted to a distant field of operations. In this case, however, they would offer little capability intrinsically different from U.S. Army divisions, other than their ability to integrate air and ground operations within a single service structure. Operations involving airlift of Marine units would have to overcome all problems affecting airlift exercises, including aircraft and base availability, overflight rights, and limitations upon the types of cargo that could be carried by particular aircraft types. 9/

7/ See Congressional Budget Office, U.S. Projection Forces: Requirements, Scenarios, and Options, Budget Issue Paper for Fiscal Year 1979 (April 1978), p. 22.

8/ The Marines have not in fact mounted a division-sized assault since World War II. See Binkin and Record, Where Does the Marine Corps Go From Here?, p. 6.

9/ For additional discussion, see Congressional Budget Office, U.S. Projection Forces, pp. 77-84; and U.S. Airlift Forces: Enhancement Alternatives for NATO and Non-NATO Contingencies, Background Paper (April 1979), p. 56.

Forward Deployments and New Marine Missions

The environments in which forward-deployed Marine forces could be called upon to operate vary both among the regions and within the regions themselves. The Marines traditionally have pointed to the multiplicity of possible contingencies as justification for their general purpose approach to task organization. ^{10/} They argue that units can only be organized once a contingency develops. To be sure, the Marines have varied their afloat MAUs to reflect the different contingencies they might face. MAUs can include fixed-wing vertical/short take-off and landing (V/STOL) attack aircraft, which can operate from amphibious ships. In general, however, MAUs remain essentially light foot infantry forces, supported by a modicum of helicopter units. To the extent that carriers accompany MAUs, the Marines could also expect Navy tactical aviation to support their initial operations. The existence of Marine air wings is, however, indicative of the uncertainty with which the Corps views the potential availability of carrier wings for sustained support of Marine operations. ^{11/}

Current permanent Marine deployments in the Mediterranean and western Pacific perform an essentially symbolic task. They signify the strength of long-standing U.S. commitments to the security of East Asian and Mediterranean allies. On the other hand, these deployments do not reflect the full extent of possible contingencies that might require Marine operations. In particular, they are not directly linked to requirements for Marine

^{10/} General Accounting Office, Marine Amphibious Forces: A Look at Their Readiness, Role, and Mission, LCD-78-417A (February 6, 1979), pp. 7-8.

^{11/} The issue of whether the Marine Corps requires integral air wings at all is one that has been debated at length in the past. This paper assumes that the three air-wing structure will be maintained, although its component forces could be varied. For a discussion of the viability of Marine air wings as entities separate from other tactical air forces, see, for example, Fiscal Year 1977 Authorization for Military Procurement, Research and Development, and Active Duty, Selected Reserve and Civilian Personnel Strengths, Hearings before the Senate Committee on Armed Services, 94:2 (March 1976), Part 10, pp. 5601-85.

Corps forces in northern or central Europe in the event of a war between NATO and the Warsaw Pact, nor do they respond to requirements for rapid-reaction operations in the Arabian Sea region. Indeed, the Marines' emphasis on amphibious operations and/or its foot-infantry orientation may be of questionable value to the conduct of missions in all three regions.

MARINE INITIATIVES IN RESPONSE TO NEW MISSION REQUIREMENTS

The Marines have responded in several ways to the difficulties posed by possible missions in northern Europe and the Middle East. These responses include cold-weather training, consideration of prestocking for operations in northern Europe, and improved armored-warfare training for Jutland and, especially, the Middle East.

Northern Europe: Reinforcement and Prestocking in Norway and Denmark

Reinforcement of Norway: Some Considerations. Recent assessments of a growing Soviet capability to overrun northern Norway have led to consideration of the Marines as reinforcements for this area. Norway abuts a key transit route to the Atlantic for Soviet aviation and submarines. The Soviet Northern Fleet and its associated Naval Aviation, both based on the Kola Peninsula (see Figure 2), must either cross or circumvent Norwegian waters in order to reach the allied transatlantic sea lanes. Because of the nature of underwater topography near the Norwegian coast, allied forces could erect formidable antisubmarine barriers off northern Norway against the most likely transit routes for Soviet submarines from the Barents Sea to the Atlantic. 12/

Soviet forces on the Kola Peninsula outnumber standing Norwegian forces in northern Norway in terms of both manpower and firepower by more than three to one. 13/ Even more serious,

12/ R.D.M. Furlong, "The Threat to Northern Europe," International Defense Review (April 1979), p. 521.

13/ Furlong, "The Threat to Northern Europe," pp. 517, 523-24; and "The Strategic Situation in Northern Europe: Improvements Vital for NATO," International Defense Review (June 1979), pp. 900, 902.

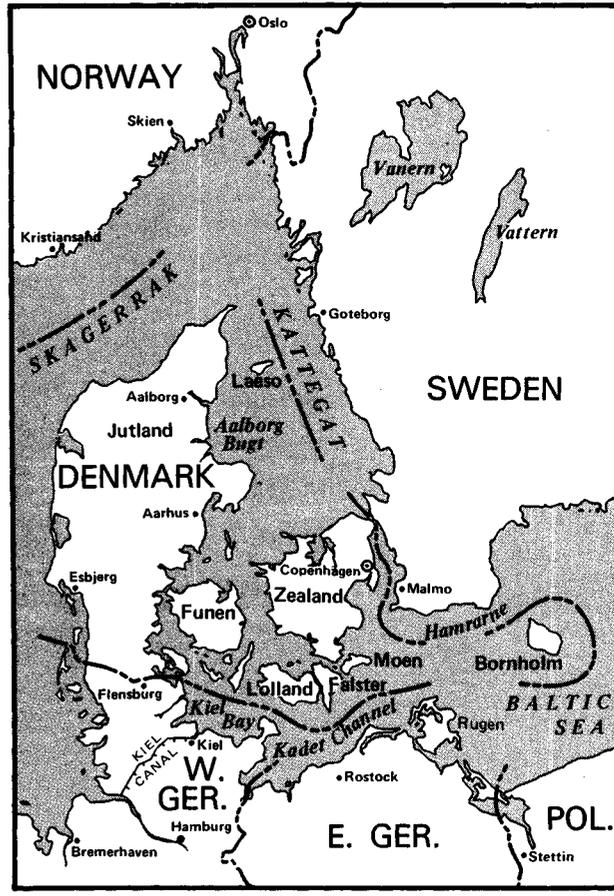
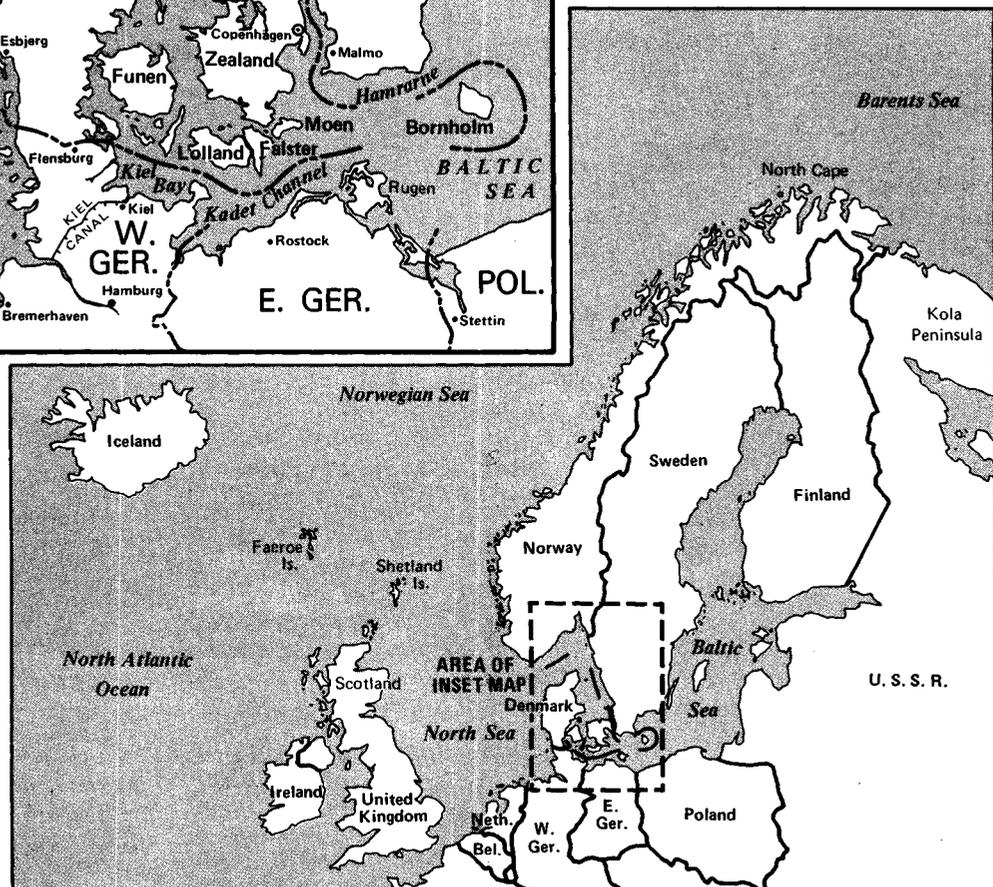


Figure 2.
NATO's Northern Flank



SOURCE: Adapted from General Sir John Sharp, "The Northern Flank," *RUSI Journal of the Royal United Service Institute for Defense Studies*, 121 (December 1976).

however, is the prospect of Soviet reinforcement of those Kola-based units, which could take the form of redeployment of ground troops from adjacent military districts, airborne and naval infantry movements, or a combination of all three. ^{14/} Given Norway's potential as a staging point for both offensive and defensive NATO operations, the Soviets might well be tempted to seize northern Norwegian bases as far south as Narvik so as to forestall a threat to the Soviet Northern Fleet's strategic and general purpose units.

Norwegian strategy is based on the presumption of allied reinforcement before the onset of war. ^{15/} Reinforcement of Norway is particularly attractive to the Norwegians because of their long-standing policy prohibiting basing of foreign troops on their soil in peacetime. Reinforcement provides a hedge against a major Soviet attack as well as against the possibility that Soviet forces might not only invade northern Norway through the single access route across the Norwegian/Soviet border, but might also achieve an accommodation with Finland, permitting them to cross into Norway through that country as well. ^{16/}

Currently, only Canadian forces are committed to reinforcing the northern Norwegian region, although a third of the U.K./Netherlands Marine Commando trains so extensively in Norway

^{14/} For a discussion of the potential Soviet threat to Norway, see Furlong, "The Threat to Northern Europe," pp. 523-25; and Congressional Budget Office, U.S. Projection Forces, pp. 70-71.

^{15/} See North Atlantic Assembly, Political and Military Committees, Report on the Activities of the Joint Subcommittee on the Northern Region (Brussels, 1979), p. 20.

^{16/} The Treaty of Friendship and Cooperation between the Soviet Union and Finland calls for Finland to cooperate with the Soviet Union militarily in the event of an attack by Germany or its allies on the Soviet Union. This treaty can be interpreted either to permit Finnish resistance to Soviet aggression against Finland as part of an attack on NATO or, alternatively, to support Soviet resistance to NATO's "aggression." For additional discussion, see Report of the Second Parliamentary Defence Committee, Finland, 1976:37 (Helsinki, 1976), pp. 20-27.

as to be virtually committed to its defense. 17/ The fact that these forces have little or no armor would not be a severe disadvantage, since the terrain in northern Norway restricts tank movement and favors defensive forces. 18/ More critical is the limited size of the forces committed to the region. Together, the Canadian and the winter-trained British and Dutch units total about 6,000 troops, roughly half the size of a U.S. Marine Amphibious Brigade. It is because of the paucity of designated reinforcements that Norway wishes U.S. Marines to be committed to its defense.

The Marines' emphasis on infantry operations supported by airborne firepower would appear to be appropriate to operations in northern Norway, given the rugged terrain of the region. Indeed, the air-wing component of the Corps is particularly attractive to the Norwegians as a source of highly mobile, relatively long-range firepower against forces operating along predictable access routes.

The Marines do not train as extensively as other allied units for operations in this sector. During the past five years, however, the Corps has conducted progressively larger exercises in Norway, while increasing the tempo of its cold-weather training program at Camp Drum, New York, and Bridgeport, California, in the High Sierras. 19/ It has conducted exercises in Norway at the brigade level, which approximates the level of U.S. reinforcement Norway views as necessary to support its deterrence/defense strategy. In addition, the Marines have enlarged their stocks of cold-weather equipment, although they do not have any oversnow vehicles, skis, or other equipment similar to that used by most northern European ground forces, including elements of Soviet forces operating on the Kola Peninsula. 20/

17/ North Atlantic Assembly, Report on the Activities of the Joint Subcommittee on the Northern Region, pp. 20-22.

18/ Furlong, "The Threat to Northern Europe," p. 521.

19/ Information provided to CBO by the U.S. Marine Corps.

20/ For a detailed critique of the current Marine cold-weather equipment inventory, see Major C. Receveur, Royal Netherlands Marine Corps, "Report on Cold-Weather Training at USMC Mountain Warfare Training Center, Bridgeport, California,

Prestocking in Norway. While amphibious operations, particularly unopposed landings, could not be ruled out for a Norwegian deployment, the premium that Norway and NATO place upon speedy reinforcement before a possible attack points to the need for airlifted forces rather than for seaborne transport. Indeed, amphibious landings in Norway that took place after a Soviet attack and were directed against Soviet-held positions could prove disastrous. Slow-moving landing ships and craft as well as helicopters could be easy targets for the Warsaw Pact's precision-guided weapons. In addition, any major Marine movement by sea would have to be accompanied by carrier task groups, and both forces would likely face coordinated missile assaults by Soviet bomber, surface, and submarine forces. Although a part of the Marine force might reach its destination, losses at sea could well be high, which would undermine the precision and timing integral to the success of an amphibious assault.

It has recently been suggested that equipment to support 8,000 Marines (that is, for roughly a brigade) be prestocked in Norway, thus paralleling the POMCUS program in central Europe. 21/ If such a prestocking plan were effected for the Marine Corps, it is envisaged that Marines would be airlifted to Norway by civilian aircraft, with some support from military transports that could also carry residual equipment not prestocked in northern Europe. The effect of this arrangement would be to foster so rapid a deployment to northern Europe that, if implemented during the buildup to a conflict, it would not only offer the military benefits of reinforcement, but could also provide political deterrence to forestall conflict in the region.

Prestocking in Denmark. Unlike Marine reinforcements in Norway, Marine units to reinforce NATO forces on the Jutland peninsula could be fighting in terrain conducive to armored warfare. Marines would operate with Danish and West German

17 February-15 March 1979" (1979; processed). See also R. Adm. Ben Eiseman, MC, USNR (Ret.) and Lt. Col. Carl F. Tidemann, MC, Norwegian Army, "Cold: Friend or Foe," Marine Corps Gazette (February 1980), pp. 39-44.

21/ John Vinocur, "U.S. Arms in Norway Are Topic of Talks," New York Times, February 11, 1980, p. 7. POMCUS is an acronym connoting Prepositioning of Materiel Configured to Unit Sets.

armored forces against at least a portion of East Germany's six-division army, possibly supported by Soviet motorized infantry or armored units. 22/ For this reason, anticipated Marine operations in Jutland are likely to resemble those of the Army, as, for very different reasons, they did in Vietnam. 23/ In this context, however, it is questionable whether a Marine force configured for amphibious movement--and emphasizing foot infantry and airborne fire support--is appropriate for Jutland's mobile armored environments.

Furthermore, as with a possible Norwegian contingency, amphibious operations might not enhance NATO combat capabilities in Denmark. Like Norway, Denmark places a premium on reinforcement of its troops as quickly as possible after a NATO decision to mobilize. Because Denmark, like Norway, sits astride key Soviet access routes to the Atlantic--the Baltic Sea exits in Denmark's case--and also is strategically placed to support NATO air attacks against key Soviet naval shipyards in the Baltic, Danish planners anticipate a rapid Warsaw Pact operation to seize those exits. Warsaw Pact forces could mount an armored attack on the Danish mainland through Schleswig-Holstein, while airborne and amphibious troops seized the Danish islands. 24/ A rapid Marine response, which only airlift could facilitate, might be critical to deter or defeat such an operation. In addition, precisely because of its slow response time, amphibious lift also would suffer from the handicap of vulnerability that would beset operations in Norway, since amphibious forces might not arrive in Denmark before hostilities commenced.

Given the relative paucity and dispersion of amphibious lift, some Danish officials also have suggested the possibility of pre-stocking Marine equipment in Denmark. 25/ This arrangement would

22/ Congressional Budget Office, U.S. Projection Forces, pp. 68-71.

23/ General Accounting Office, Marine Amphibious Forces, p. 11.

24/ See Danish Defence Intelligence Service, Warsaw Pact Aggression Possibilities Against Denmark (January 1978), pp. 8-13.

25/ Unofficial Danish military estimates call for the Marine brigades to join other reinforcing units to defend the Danish islands. This requirement, however, is uncertain.

call for storage of equipment in depots located in Jutland, as well as for expansion of Danish reception facilities. In the event of a crisis, Marines would be flown to Denmark by commercial aircraft. As with Norway, this plan has important political, as well as military, advantages, since Denmark also forbids the basing of foreign troops (but not equipment) on its territory.

Choosing a Northern European Mission. The Marines are not publicly committed to prestocking programs in either Norway or Denmark. In a European contingency, Marine forces currently could operate in Iceland (to protect the U.S. facilities at Keflavik) and/or the Mediterranean (in the event of a Warsaw Pact thrust into Turkey or Greece) and/or could reinforce Central Region NATO forces, in addition to their possible employment in northern Europe. Prestocking in northern Europe would render it less likely that the Marines could operate in force in other European regions and might also complicate their deployment to Iceland. 26/

There is at present less certainty about a possible Marine commitment to Denmark than there is to Norway. To begin with, there is considerable ambiguity about the nature of proposed Marine operations in Denmark and, as a consequence, about the type of equipment that might have to be stored there. Since Jutland might be the scene of armored combat, were Marines to operate there, they would have to prestock a large number of armored combat vehicles. On the other hand, if it is anticipated that Marines would be employed primarily to defend the Danish islands, or to regain them if conquered by the Soviets, prestocked equipment might have to include a larger proportion of amphibious tractors, and possibly helicopters, but fewer tanks.

26/ Under a prestocking arrangement in northern Europe, Marines would primarily require commercial transport for troop movements. Redeployment of Marines and their equipment to other regions would demand greater levels of support from Military Airlift Command (MAC) transports. These demands might not easily be met, however, since MAC transports are already committed to the movement of other forces to Europe. A recent account of the Department of Defense's "Nifty Nugget" deployment exercise indicates that redeployment of a Marine division during that exercise resulted in the collapse of the schedule for aerial reinforcement of Europe. See John J. Fialka, "Nifty Nugget: European War For Computer," Washington Star, reprinted in Congressional Record (November 7, 1979), p. S16147.

An additional factor is the size of the anticipated Marine reinforcements. Here, too, prestocking in Norway would create fewer difficulties than a similar program in Denmark. Whereas the Norwegians have been relatively specific about the need for an additional Marine brigade, Denmark's requirement could vary from brigade to division strength, depending again upon the nature of expected Marine operations and the availability of other allied forces. ^{27/} This uncertainty affects not only the magnitude of budgetary allotments for prestocked equipment, but also the availability of large Marine units for other potential missions in a NATO/Warsaw Pact war.

Finally, with respect to both Norway and Denmark, there looms the larger issue of burden sharing within the alliance, particularly given the growing demands for U.S. forces to operate outside NATO's boundaries, but nevertheless in NATO's interest. The dependence of both countries upon reinforcement presupposes limited growth in their own defense budgets and military establishments. If they increased their own defense forces, the pressure for U.S. Marine reinforcement of the northern flank could be lessened, and Marine forces could be dedicated to other missions.

Clearly, a commitment to either Norway or Denmark could imply significant changes in the general purpose nature of the Marine Corps, particularly with respect to the priority of its amphibious mission, not only in the context of a European conflict, but more generally within overall U.S. strategy.

The Middle East: Desert Warfare, Prestocking, and the Rapid Deployment Force

The Marine Corps has devoted considerable attention to the demands of desert warfare in the aftermath of the October 1973 war. Perhaps the most significant action in this regard has been the initiation of training and exercises on the arid terrain of the Corps' base at 29 Palms, California. The Administration's proposal for a Rapid Deployment Force (RDF) primarily for Third World operations has underscored the potential importance

^{27/} Allied forces that might reinforce Denmark include the Allied Command Europe Mobile Force and the U.K. Mobile Force, each of brigade strength.

of Marine desert operations in the Middle East. Such a force, commanded by a Marine lieutenant general, will include the equivalent of a MAF with its combat-support and service-support elements. 28/ It is envisaged that the Marines would transit to their destination by both air and sea. Most of their equipment would be transported aboard specially designed, civilian-manned, maritime prepositioning ships, which could be unloaded without sophisticated port facilities. While the Secretary of Defense has stressed that the Rapid Deployment Force could be employed in regions other than the Middle East (Korea, for example), proposed improvement of Diego Garcia (see Figure 3) to enable it to service the maritime prepositioning ships and DoD's highly publicized recent effort to secure bases in the Persian Gulf point to the primacy of Middle East operations for the RDF and its Marine component.

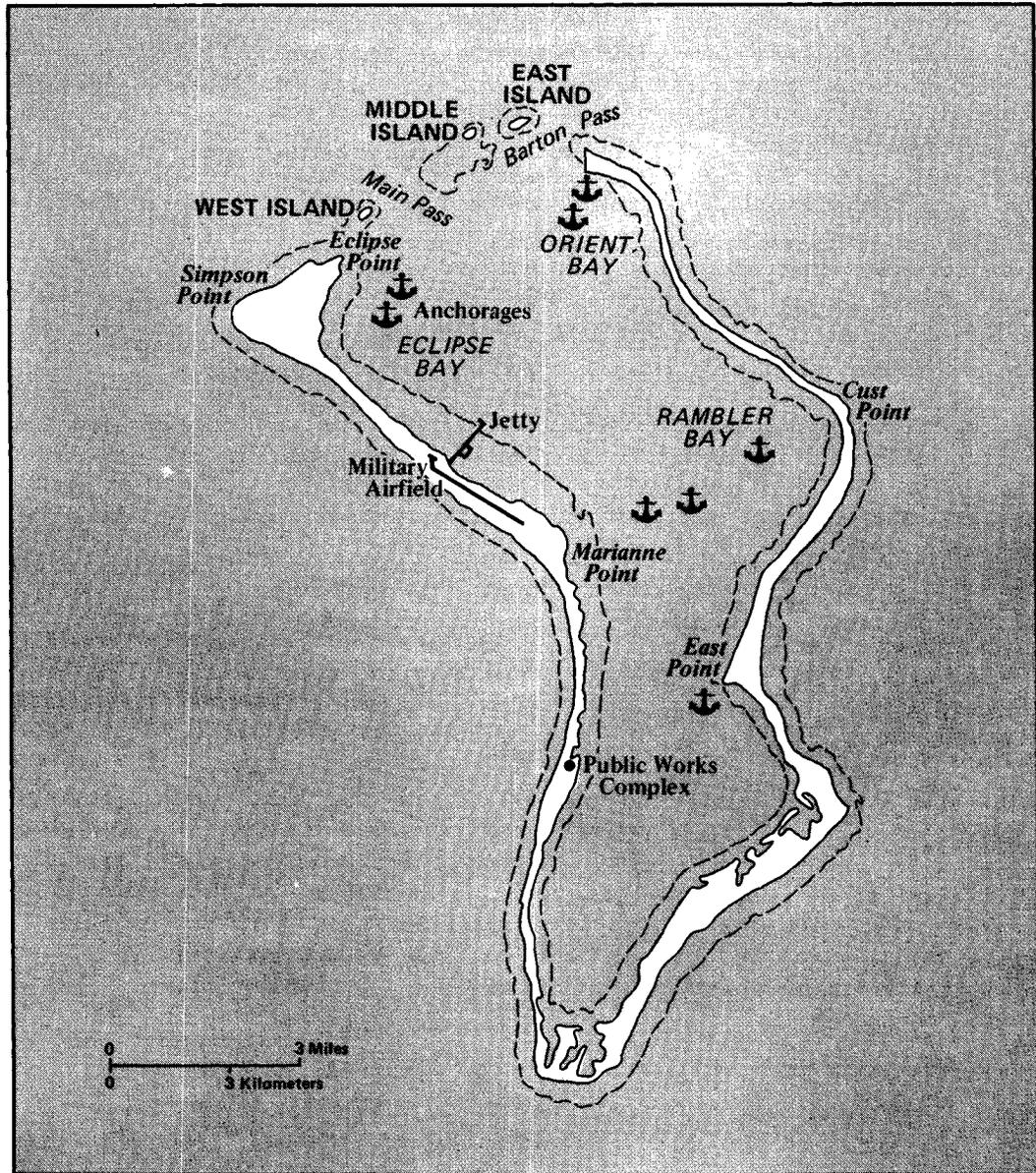
The RDF proposal emphasizes unopposed landings by air and sea. The opposed amphibious mission, for which Marines continue to train, could, in principle, be appropriate to operations in the Middle East or the Horn of Africa (see Figure 4). In practice, however, if the Marines emphasized speedy response to developing crises, the current deployment of at-sea forces could support only a battalion. Larger units, such as a Marine Amphibious Brigade, would require at least two weeks to deploy from the western Pacific to the Persian Gulf, the region most remote from the United States. In contrast, a MAB could be airlifted to the Gulf in nine days. 29/

The likelihood of Marine operations in the type of armored environment that has characterized recent warfare in the Middle East raises questions that go beyond the current training regimen for the Corps. Despite the limited number of main battle tanks and armored carriers in the Corps structure, the Administration is apparently planning to procure new tanks and armored equipment only for storage aboard the maritime prepositioning ships. Unless

28/ U.S. Department of Defense, Annual Report, Fiscal Year 1981, p. 211.

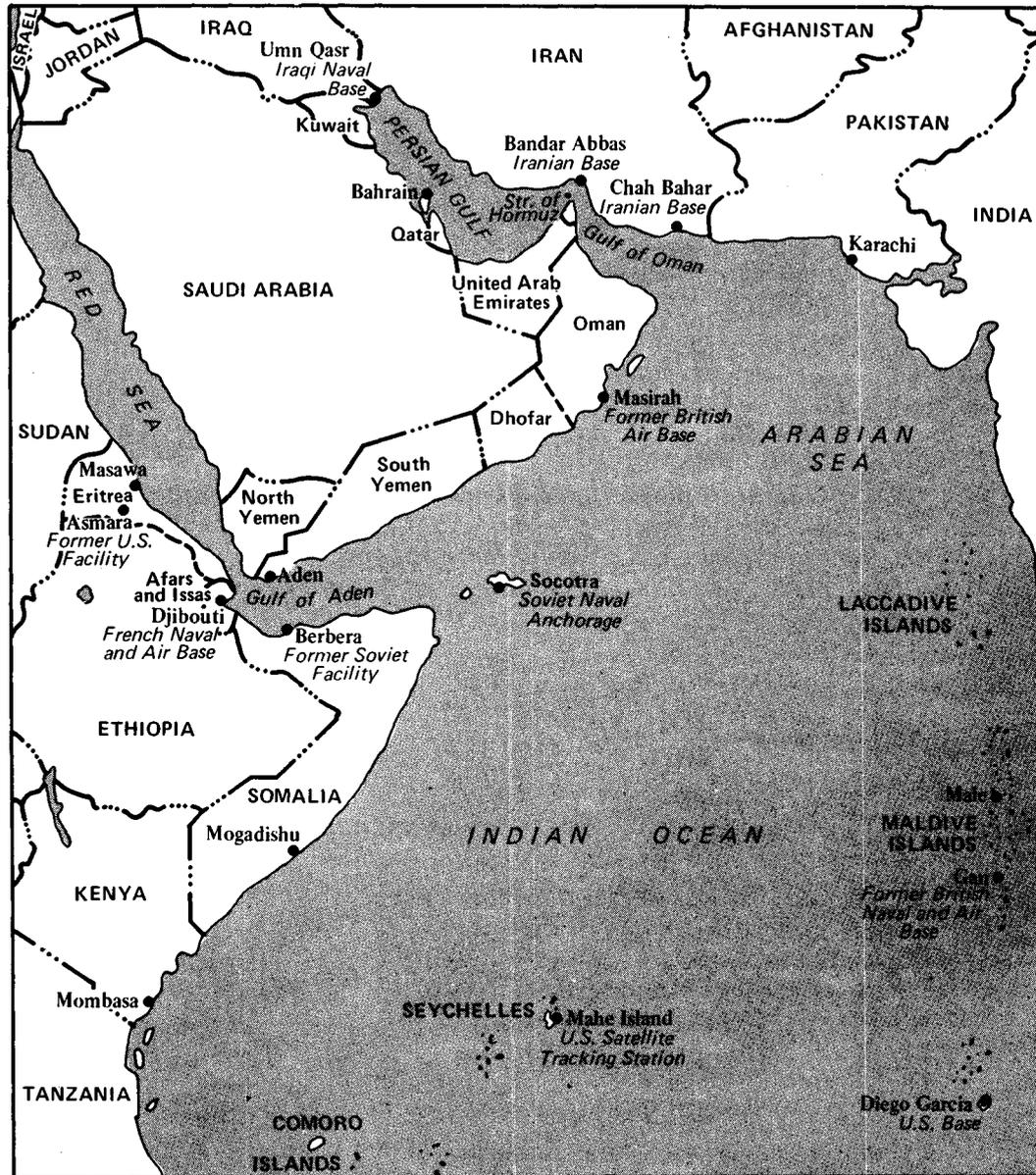
29/ "Plans Now Call For 100 CX Transports, DoD Officials Say," Aerospace Daily (February 4, 1980), p. 180. Almost all of the current U.S. Military Airlift Command transport assets would be required in order to move a MAB to the Persian Gulf in nine days.

Figure 3.
Diego Garcia



SOURCE: Journalist First Class Kirby Harrison (U.S. Navy), "Diego Garcia: The Seabees at Work", *Proceedings* U.S. Naval Institute, August 1979, p. 53.

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).

such additional equipment is procured, the Corps' other two divisions would have to be stripped of much of their mechanized equipment if a MAF deploying with equipment stored at Diego Garcia were to be provided with the additional mobility and armor necessary for Middle Eastern combat.

It is noteworthy that there is no public indication that DoD intends to press for inclusion of a new family of lightweight motorized weapons in the Corps structure. Such weapons are operated by the forces of both U.S. allies and the Soviet Union. They would also be most suitable for the helicopter landing operations that the Marines plan to conduct as part of their amphibious missions. (For example, a tank weighing less than 16 tons could be carried 100 miles by the new CH-53E heavy-lift helicopter currently entering the Corps.)

Finally, DoD has also shown little enthusiasm for improving the Marines' V/STOL capability. V/STOL aircraft could be a highly responsive source of mobile firepower support in armor-intensive combat in the Middle East, where airfields may not be readily available for conventional aircraft operations. Nevertheless, DoD has not included funds in the fiscal year 1981 budget for developing the AV-8B, whose capabilities are significantly greater than those of the Marines' current V/STOL plane, the AV-8A Harrier. 30/ Instead, DoD has supported procurement of F/A-18 aircraft for the Marines, although this conventional take-off and landing plane does not offer the responsiveness and flexibility that Marines consider to be of primary importance for firepower support of their operations. 31/

ARE FUTURE PLANS FOR THE MARINE CORPS COMPATIBLE WITH ONE ANOTHER?

The Marine Corps clearly appears to be at a crossroads in its history and is being pulled in several directions. America's Nordic allies would prefer to see the Corps committed

30/ The Administration requested no funds for the AV-8B in fiscal year 1980, but the Congress appropriated \$180 million to permit continued development of the aircraft.

31/ See General Accounting Office, A Decision by the Secretary of Defense is Needed on the AV-8B Aircraft Program, PSAD-80-23 (February 8, 1980), pp. 12-17.

to the defense of their territory. If earmarked for operations in Norway, elements of the Corps would become specialists in winter warfare and might then be less suited to perform other tasks. Elements of the Corps deployed to Denmark could become dedicated to armored warfare, if earmarked for operations in Jutland. In any event, if Marine equipment were prestocked in both countries, and perhaps even if prestocked only in Denmark, the Corps would probably lose its significance as a major element of SACEUR's strategic reserve. Although the Corps could be redeployed anywhere in the NATO region, once committed to northern flank operations, it could not be counted upon to make a major contribution to other NATO sectors, notably the southern flank.

In contrast to possible demands for northern flank operations, the creation of a Rapid Deployment Force--including Marine units--implies a reversion to the Marines' traditional emphasis on conflicts outside of the NATO region. The Marines' inclusion in the RDF does, however, point to a major new role for the Corps in mobile armored operations in the desert. While the Administration has not proposed restructuring the Marines for such operations, the lessons of the 1973 war would point to a need to emphasize the acquisition and use of families of mobile armored weapons, both for offensive and defensive operations. Current Marine Corps armored assets could only begin to meet the demands of desert warfare if the remainder of the Corps were to forego its mechanized capabilities.

Both dedication to northern flank operations and the Rapid Deployment Force represent new departures in Marine orientations. The Marines currently continue to emphasize amphibious operations, with which Middle East operations might be compatible but which have little place in a strategy that calls for prestocked equipment in northern Europe. Little has been said about cutting back on Marine amphibious deployments. Not only might they be viewed as a cutting edge of the RDF, but they are important to maintaining U.S. presence in the Mediterranean, the Caribbean, and East Asia. In two of these three regions, the Marines could well be called upon to conduct jungle operations, and in all three, at least small-scale amphibious landings remain distinctly plausible.

It is uncertain that the Marines can simultaneously reorient themselves to two new missions while maintaining their general purpose nature, current forward deployments, and amphibious orientation unless their budget is enlarged and their deployments

significantly extended. The latter, however, would aggravate one of the Marines' most persistent manpower concerns, the effect of any long overseas deployment upon troop morale and, ultimately, upon reenlistment levels. ^{32/} Indeed, the degree to which the Marines might be able to take on new missions, even under expanded budgets, depends upon the specific budgetary demands that arise from each orientation. These demands can be grouped in two general categories: requirements for military construction, and requirements for new systems investment and acquisition (including research and development). The former category involves smaller budgetary expenditures but could serve as an important indicator of future Marine Corps mission orientations. Accordingly, the following chapter examines the budgetary implications of several new Marine missions, first in terms of military construction and then in terms of requirements for new procurement as they apply to each case.

^{32/} Deployments already extend beyond the six months that the Navy considers a tolerable limit for peacetime overseas operations. An examination of the possibilities of rotating Marines to their forward deployments by air involves a detailed reevaluation of current rotation cycles that is beyond the scope of this paper.

CHAPTER III. PROGRAM AND BUDGET IMPLICATIONS OF NEW (AND OLD)
MARINE ORIENTATIONS

The preceding chapter indicated that the Marine Corps faces a possible redefinition of its role. Its traditional status as a general purpose force, reputedly capable of "going anywhere" on short notice, has led to increasing demands for its presence in--or commitments for its rapid deployment to-- a large number of combat theaters in the event of crisis or conflict. These specific commitments may imply increased specialization of Marine training and procurement of equipment tailored to the requirements of individual theaters. At the same time, budgetary constraints have apparently limited the pace of Marine and Marine-related resource modernization over the past five years. This chapter examines the policy, systems, and budgetary implications of these possible commitments for the Marine Corps. It also discusses systems choices that may be independent of such commitments.

The Administration's proposed amended budget for the Marine Corps for fiscal year 1981 amounts to \$3.8 billion, or 2.4 percent of the total DoD budget. If Navy programs (excluding amphibious ship programs) that support Marine activities are included, total Marine-related spending rises to \$5.0 billion, and if amphibious ships are also included, the total amounts to \$8.0 billion and the Corps' share of the total DoD budget increases to approximately 5 percent. It is significant, however, that only \$294 million, or 5.9 percent of the current Marine Corps budget-- apart from aircraft or ships--is allocated to new procurement. By way of comparison, procurement of only ground-based systems consumes 11.1 percent of the Army budget. Thus, despite a 31 percent constant dollar increase in the Marine Corps' land forces procurement account from 1980 to 1981, the low base from which that increase derives has not significantly altered the very small Marine Corps share of the DoD procurement account, which has risen from 0.6 percent in fiscal year 1980 to 0.7 percent in fiscal year 1981.

The budgetary constraints upon modernization of Marine Corps and Corps-related programs come at a time when, for reasons of aging resources and/or sophistication of potential adversaries,

the Marines seek the start of a new amphibious ship program, a new program for an air-cushioned landing craft, a new amphibious assault vehicle program, and a new V/STOL aircraft program. In addition, many observers have suggested that the Marines enhance their mobility and firepower in an armored environment.

One approach could involve modernizing the Corps' infantry forces along the lines of the current Army tank, personnel carrier, rocket, and air defense programs. This approach would be very costly, however, increasing procurement at least \$5.0 billion over the next ten years, an average annual increase of about \$500 million and a 170 percent increase over current Marine spending on new procurement. 1/

A second, possibly less costly approach would call for development of a family of lightweight armored vehicles to enhance Marine mobility and firepower. A number of countries currently operate such systems, including the Soviet Union, Britain, France, and Brazil. The U.S. Army and Marine Corps are jointly developing a light armored vehicle; the Marines prefer a vehicle whose weight would not exceed 16 tons. It could carry a variety of systems, including a 75mm advanced technology, armor-piercing cannon currently being developed by the Defense Advanced Research Projects Agency. 2/ More of these vehicles could be transported by air and landing craft than main battle tanks now in use. Light armored vehicles could also be transported by the Marines' CH-53E heavy-lift helicopter. 3/

Affecting all of these systems-oriented decisions are the strategic choices related to prestocking. Where the Marines prestock will likely govern where they will operate and thereby

1/ "Study Says Marines Need Massive Funds," Colorado Springs Gazette-Telegraph, February 14, 1980, p. 3.

2/ Lt. Gen. James F. Hollingsworth, USA (Ret.) and Maj. Gen. Allen T. Wood, USMC (Ret.), "The Light Armored Corps - A Strategic Necessity," Armed Forces Journal International (January 1980), p. 22.

3/ Ibid., p. 24; see also D.F. McDonald, B.E. Edney, D.N. Henry, Employment Concept for a Light Armored Combat Vehicle, BDM/W-77-245-TR (McLean, Va.: BDM Corporation, 1977).

will probably determine how they modernize their equipment, how they train their forces, and how much equipment they buy. Though the military construction involved in any prestocking arrangement would be inexpensive relative to new weapons acquisition, it would be a pivotal element in determining the future of the Corps.

PRESTOCKING IN EUROPE: POLICIES, EQUIPMENT, AND IMPLICATIONS

Prestocking for a northern European deployment would add substance to the Marines' commitment to a NATO contingency. Personnel would be airlifted to Europe, primarily by commercial aircraft, whose levels currently meet estimated DoD requirements for timely transport of troops to Europe in the event of a crisis with the Warsaw Pact. 4/

Nevertheless, as Chapter II indicated, such prestocking would undermine the reserve nature of the Marines' commitment to Europe and, indeed, its general purpose capabilities for operations outside the NATO area. 5/ Leaving aside the demands that contingencies in other regions might place upon the Corps, this poses a choice regarding the Marines' orientation, even within the European context. Should the Corps remain a general purpose reinforcement force, whose designated locale remains uncertain until hostilities have commenced and whose readiness and organization is less than optimal for combat in a number of European war zones? Or should the Marines be dedicated and organized for a specific set of operations in a given European

4/ Testimony of General Paul K. Carlton in Fiscal Year 1977 Authorization for Military Procurement, Research and Development, and Active Duty, Selected Reserve and Civilian Personnel Strengths, Hearings before the Senate Committee on Armed Services, 94:2 (March 1976), Part 6, p. 3463.

5/ As noted in Chapter II, divisions committed to the northern region could deploy from the United States to other areas. Nevertheless, if the precedent set by the Army POMCUS program is followed by the Marine Corps, divisions based in the United States would have less than their programmed equipment levels. Marines therefore could operate in regions outside northern Europe, but only at a considerably lower level of effectiveness.

theater, at the expense of foregoing the element of surprise that could complicate an adversary's calculations when planning an attack? Prestocking would set the Marines along the latter course.

Norway

If a brigade were dedicated to combat in Norway, the Corps would have to procure additional equipment to prestock in Norway, particularly specialized equipment for winter operations. It might also have to contribute to the construction cost of storage facilities for the equipment. Finally, it would have to alter its current training regimen to reflect its new commitments.

A Marine brigade designated for operations in Norway would require two sets of equipment--one for training in the United States and another for storage in Norwegian depots. Moreover, Norway's cold climate and mountainous terrain would place special demands upon a prestocking program. If the Marines were committed to Norway, they would likely have to acquire more cold-weather equipment than they currently possess. In particular, they might require oversnow vehicles, which would be stored in Norway. If sufficient vehicles were provided to support a Marine brigade--to operate in place of an amphibious tracked vehicle (LVTP) company that could now operate with each brigade--the additional cost would amount to \$9.3 million. 6/

Although other Marine ground forces equipment required for operations in Norway is similar to that of the Army, it is unlikely that the Marines could expect to draw upon any Army equipment for their prestocking program. The Army itself is faced with shortages of equipment for outfitting POMCUS units in Europe, supporting active and reserve training in the United States, and sustaining desired levels of war reserve materiel. 7/ Thus, if

6/ The trade-off between oversnow vehicles and amphibious tractors arises from the common missions of both systems--tactical ground mobility. Amphibious tractors would appear less appropriate than oversnow vehicles for non-amphibious operations in Norway.

7/ Congressional Budget Office, Strengthening NATO: POMCUS and Other Approaches, Background Paper (February 1979), p. 32.

the Marines were to prestock a brigade's set of equipment in Norway, they would have to obtain funds to procure that set. Additional costs arising from the prestocking program and likely to be borne by the United States include transportation charges for moving the equipment to Norway and a portion of the direct costs of operating and maintaining the equipment there. 8/

Although the Norwegian terrain and climate are generally inhospitable to armored warfare, it would be undesirable for a prestocked Marine Amphibious Brigade to be as lightly armed as the U.K./Netherlands Commando and the Canadian air/sea-transportable team slated to operate in Norway. Neither allied brigade-sized force has tanks, armored vehicles of any kind, or, indeed, any fixed-wing aircraft. 9/ The lack of armor in both units derives in part from national funding constraints, an emphasis on minimizing mobility constraints in the absence of significant levels of lift, and the relatively minor emphasis that these countries place on projection operations well beyond national boundaries. It is precisely the Marines' air mobility, airborne support, and greater firepower that make them attractive to the Norwegians. It is to be expected, therefore, that the

8/ The remainder of the operating and maintenance costs would presumably be borne by the Norwegian government, which would assign personnel to maintain the equipment when U.S. forces were not conducting exercises in Norway. This policy would be consistent with a long-standing basing policy that discourages the full-time presence of foreign personnel on Norwegian soil. The exact amount of the Norwegian contribution is difficult to estimate, and would be subject to negotiation. It is to be expected, however, that all major operation and maintenance activities would be funded by the United States, even if conducted by Norwegian nationals. A precedent for this approach is the Danish/NATO Agreement on Procedures for Operating NATO Depots in Denmark, signed on April 14, 1972, at Allied Headquarters, BALTAP (Baltic Approaches).

9/ See North Atlantic Assembly, Political and Military Committees, Report on the Activities of the Joint Subcommittee on the Northern Region (Brussels, 1979), p. 22.

Marines would also prestock ground support equipment for their aircraft as part of a MAB package. 10/

Prestocking in Norway would, therefore, affect the debate over the importance of air power to Marine operations. Given the probable numerical and firepower superiority of Warsaw Pact forces, dominance of the air might be critical to a successful defense of northern Norway. Without allied air superiority, Soviet aircraft would be free to disrupt in-place defenses and thereby reduce the advantages that terrain provides the defenders against armored attacks. Similarly, the mountainous terrain in Norway favors the employment of air power in place of less mobile ground-based artillery. For both reasons, operations in Norway appear to furnish a case for those who advocate maintaining the current Marine emphasis on the air wing, including its fighter/attack component.

Prestocking in Norway could also provide arguments for proponents of the AV-8B V/STOL aircraft (as opposed to the conventional take-off and landing A-18) as the next Marine close air support plane. 11/ Norwegian airfields are particularly

10/ Marine fixed-wing aircraft could be expected to deploy to Norway, island-hopping the Atlantic (Labrador-Greenland-Iceland-U.K.-Norway), with tanker refueling. Rotary-wing aircraft would have to be airlifted to Norway, and would compete for cargo space with other units programmed for airlift to Europe. The demand for helicopters in Norway is not likely to be as pressing as in Denmark, where they would be critical for island-hopping mobility.

11/ As noted in Chapter II, the V/STOL's ability to respond very quickly to calls for firepower support also makes it an attractive system for Middle East operations. The A-18 attack aircraft is identical to the F-18 Navy fighter, and the Navy is procuring both variants simultaneously. The planes have different designations to reflect their different missions: the F-18 is an air-to-air fighter and interceptor; the A-18 has an air-to-ground role. The A-18 has a greater combat radius/payload profile than the AV-8B, although the V/STOL plane's performance approaches that of the A-18 if it is operated from a short take-off. For additional details on both aircraft, see Congressional Budget Office, Navy Budget Issues for Fiscal Year 1980, Budget Issue Paper for Fiscal Year 1980 (March 1979), pp. 62-63, 67, 70-72.

vulnerable to preemptive Soviet attack. ^{12/} Should such attacks succeed (even if no territory were seized), the AV-8B, which could operate from damaged airfields, would continue to provide NATO with a viable close air support capability. The A-18 would have to fly longer routes from southern Norwegian bases, thereby limiting its effectiveness as a responsive close air support plane.

If other prepositioning agreements are to serve as a precedent for a U.S./Norwegian agreement, Norway could be expected to provide storage facilities for Marine equipment. Norwegian officials anticipate the availability of NATO infrastructure funds to support depot construction and maintenance. If the Marines required maintenance shops and flexible barrier shelters for any of their equipment, as the Army does for its POMCUS facilities, NATO infrastructure funding would not be available (since these specialized facilities are not covered by the provisions of the NATO infrastructure agreement). ^{13/} Norway might request the United States to assume all or part of this additional funding requirement. Military construction costs for a prestocking program in Norway could, therefore, range from \$123 million to \$203 million, depending on the availability of Norwegian and NATO infrastructure funds. ^{14/}

Still another cost would arise from added training requirements in Norway. If the Marines were committed to reinforcing Norway, they would probably have to increase the length and/or frequency of their exercises there from the current two-week annual exercise to one or more exercises lasting more than a month. (U.K./Netherlands forces annually train for three months in Norway.) The cost of an augmented training regimen would amount to \$20 million for two exercises of one month each.

^{12/} See Congressional Budget Office, The U.S. Sea Control Mission: Forces, Capabilities, and Requirements, Background Paper (June 1977), pp. 16-17.

^{13/} Congressional Budget Office, Strengthening NATO: POMCUS and Other Approaches, p. 30.

^{14/} CBO estimates based on adjusted costs, including war reserve procurement costs.

Denmark

As with a prestocking plan for Norway, a plan for prestocking Marine equipment in Denmark involves a number of uncertainties about military construction costs as well as about the nature of equipment that would be stored under the program. All of the generic costs outlined in the preceding section would apply to the costs of prestocking in Denmark. These include depot construction and maintenance costs, transshipment costs for moving equipment to Europe, some equipment operation and maintenance costs, and procurement of appropriate equipment for storage.

A number of complications could lead to the United States footing the entire bill for the construction of depots to house Marine equipment in Denmark. While Denmark has set aside ground in Jutland for the construction of depots and has 200,000 cubic meters of depot storage facilities available, these would accommodate only ammunition and small spare parts. Additional construction would be necessary to house major items.

Should a prestocking plan be developed, Denmark anticipates that the NATO infrastructure fund would cover the remaining construction costs for the storage facility (apart from those specialized equipment facilities not covered by NATO infrastructure provisions). In the past, a large proportion of NATO infrastructure funding has been allotted to the least prosperous NATO allies, Greece and Turkey. Other allies, including the United States, compete for the remaining funds, which, in general, are distributed in a way that does not subsidize one ally at too great an expense of the others. Denmark is already requesting NATO infrastructure funding to support expansion of its reception facilities to support reinforcement by U.S. Air Force squadrons during a crisis preceding a conflict with the Warsaw Pact. The prestocking program would of necessity have to take lower priority until the completion of the reception facilities, which involves a multiyear NATO project. Given Denmark's current NATO project, as well as Norwegian claims for NATO infrastructure support, there is considerable uncertainty whether a third major NATO project would be funded in northern Europe in the near future. The United States must therefore allow for the possibility that it might have to meet the local construction costs associated with a prestocking program in Denmark in addition to all other costs resulting from any such arrangement in Europe.

Uncertainties about the costs of a prestocking program for Denmark also arise with respect to the equipment that might be stored there. As noted above, the Danes have not specified the level or roles of Marine forces they might require. Different missions for the Marines would lead to different prestocking programs.

Assuming rapid deployment before the outbreak of war, a brigade-sized force armed with anti-armor precision-guided munitions (PGMs) and supported by fixed-wing aircraft would likely prove sufficient to support an entrenched defense against amphibious attacks on the small islands off Jutland. This brigade would benefit greatly from helicopter mobility, which could provide both airborne armor capability and island-hopping mobility.

The major problem with this approach to the prestocking issue would stem from the deployment of helicopters. Since it is unlikely that helicopters could be prestocked in Europe, ^{15/} they would have to be airlifted from the United States, competing with other equipment for valuable cargo space. Landing craft would not be a substitute for helicopters in this scenario, since they would take even longer to arrive from the United States. Thus, unless airlift plans could accommodate the helicopter requirements of Marine forces on the Danish islands, prestocking might not be the optimum method of providing for Denmark's amphibious defense needs.

Somewhat different problems arise with respect to a prestocking program geared to defense of the Jutland peninsula itself. While Denmark would prefer that Army POMCUS sites be located in Jutland, thereby committing U.S. Army mechanized forces to an early defense of the region, this appears an unlikely possibility. Location of the POMCUS sites elsewhere could lead to a Danish request for Marines to operate on the Danish mainland. In order to field an armored force of division strength, the Marines would require at least four tank battalions. To support a prestocking program for the defense of Jutland, therefore, the Marines would not only have to acquire an additional

^{15/} Helicopter unit cost is considerably greater than that of any Marine ground force vehicle. Helicopters also are more complex systems than ground vehicles and are more difficult (and therefore more costly) to maintain.

division set of equipment, but they would have to augment it with another 210 tanks to provide for three additional tank battalions and with another battalion of 187 armored personnel carriers. (A Marine division can ordinarily field only one tank and one LVTP battalion.)

The initial cost of prestocking in Denmark clearly could vary widely. It could be as low as \$165 million if only one light brigade and the support equipment for an associated air wing were prestocked for defense of the small Danish islands. The cost of prestocking a heavier division, with additional tank and armored personnel carrier battalions for the defense of the Jutland peninsula, could amount to \$1.3 billion.

Prestocking for a European Strategic Reserve

If both a division and a brigade were prestocked in northern Europe, less than one of the current two divisions designated as SACEUR's strategic reserve would be readily available for operations in other European theaters. Even a prestocking program for Denmark alone would leave only one division fully capable of operations elsewhere in Europe as SACEUR's reserve.

One possible approach to maintaining that reserve, while improving the Marines' responsiveness to the needs of the northern European allies, would be to stock materiel on maritime prepositioning ships homeported in Britain, which could serve as a launch point for operations anywhere in northern Europe. This approach would apply the Rapid Deployment Force principle to the U.S. contribution to NATO's defense of its northern flank. A prestocking arrangement on ships homeported in Britain would permit a rapid Marine Corps response to demands for forces in either Norway or Denmark--or, indeed, in Iceland. Transit times to any of these areas would be considerably shortened by the forward-positioning scheme, which would coordinate the movement of equipment by sea with the airlift of Marine forces from the United States to their northern European destination. At the same time, however, the prestocked equipment and related forces could also be committed to central or southern Europe if necessary, thereby preserving their flexibility as a true strategic reserve.

The cost of a prestocking arrangement for two brigades in Britain would amount to \$927 million, including \$104 million in related military construction costs. Other costs of the Rapid Deployment Force approach are outlined below.

THE RAPID DEPLOYMENT FORCE: IMPLICATIONS FOR THE MARINES

Procurement of maritime prepositioning ships to deliver prestocked equipment would permit the rapid airborne deployment of Marine troops to locales within short steaming distances from their equipment. The current program calls for acquisition of 12 ships, at a total cost of \$1.6 billion, to carry equipment for three armor-heavy Marine Amphibious Brigades. In addition, the Administration plans to charter two roll-on/roll-off ships and operate them with other Military Sealift Command ships at a cost of \$58 million in fiscal year 1980 and \$85 million in fiscal year 1981. It also is considering acquisition of eight fast container ships at a reported cost of \$350 million.

The equipment for at least one MAB apparently will be stored on ships docked at Diego Garcia. There is less certainty about where the other ships might deploy, although it has been suggested that ships with equipment for additional forces may operate from Kenya, Oman, or Somalia. 16/

The current RDF program also calls for \$122 million in military construction funding that can be linked to the deployment of maritime prepositioning ships. More funds for this purpose may in fact be required, however. Further expansion of the Diego Garcia facility to support these ships, as well as to provide housing for up to two battalions of Marines that might be airlifted to the atoll enroute to destinations in the Arabian Sea or East African regions, is likely to result in a five-year program amounting to at least \$150 million in construction funds.

Finally, with respect to airlift, the RDF plan calls for initiation of a \$7 billion to \$12 billion program to develop and deploy a fleet of cargo aircraft with an outsize load-carrying capability, which might be employed to carry either Army, Air Force, or Marine equipment to operations in regions remote from the United States. The proposed airlift program assumes enroute bases, if not for the cargo aircraft themselves, then for the tankers to refuel them. The airlift program could overcome the constraints imposed by operating solely on U.S.-owned or leased

16/ Don Oberdorfer, "Agreements Near on Indian Ocean Bases," Washington Post, February 13, 1980, p. 23.

bases only if the current KC-10 tanker program is significantly expanded beyond the projected level of 26 aircraft. 17/

It is noteworthy that the RDF program is heavily geared to unopposed landings of U.S. troops and equipment--either after an initial forced entry by U.S. troops or at the invitation of a friendly regional power under threat of external attack. Although the maritime prepositioning ships reportedly will have the capability to unload at unprepared sites, they will have no self-protection capability of any sort. If protection is needed, they will presumably require escort vessels from the Navy's already thinly stretched stock.

Forcible entry, which may be required to permit utilization of other elements of the RDF, will still remain the province of the Marines and the 82nd Airborne Division. In the case of the Marines, the availability of amphibious lift will critically determine the speed and magnitude of any proposed amphibious assault. 18/

As noted above, the current amphibious lift force is expected to decline at the end of the 1980s unless new ships are procured by the middle of the decade. Even with current assets, a Marine brigade could not move from its usual operating areas to an assault in the Arabian Sea/East African region in less than three weeks. The prospective decline in lift assets could increase by at least a few days the delay between an order to launch an assault and its initiation.

Clearly, before additional lift is procured, there must be a determination that amphibious assault is still a viable military strategy for forcible entry, particularly in a region such as the Indian Ocean, where many states have access to

17/ Tanker requirements to support the current airlift force for movement to the Persian Gulf could call for 120 KC-10s. That number is likely to be higher if the CX is procured, unless enroute bases are available for the airlift force. See Congressional Budget Office, U.S. Projection Forces: Requirements, Scenarios, and Options, Budget Issue Paper for Fiscal Year 1979 (April 1978), pp. 81-83.

18/ On the capabilities of the 82nd Airborne Division, see *Ibid.*, pp. 9-11.

precision-guided munitions. Despite much criticism of its viability, however, it might be argued that the essence of amphibious assault is tactical surprise, rather than frontal confrontation. (The Inchon landing is a prime example of a surprise operation.) The worst consequences of entrenched defenses buttressed by precision-guided munitions could be avoided if an assault were imaginatively planned. In addition, there is little evidence that Third World states have improved their command and control, communications, intelligence, and electronic warfare capabilities or their training programs commensurate with the additional firepower that PGMs have afforded them. Such capabilities would be severely tested by a surprise Marine amphibious assault.

The current five-year shipbuilding program provides for some amphibious ship modernization in the form of the construction of three dock landing ships (LSD) as replacements for older units of the same type. The LSD's primary feature is its improved ability to carry the light air-cushioned landing craft (LCAC) currently under development. The LCAC originally was designed to carry a single main battle tank at speeds of over 40 knots and to operate over difficult terrain up to one-eighth of a mile inland. It can carry at least three light armored vehicles for its maximum 200 nautical mile range. ^{19/} The LCAC's speed and ruggedness would significantly add to the number of prospective Marine landing sites. It would thus increase the enemy's uncertainty about a possible Marine assault and would severely tax Third World command and control capabilities in organizing a defense that depended on PGMs.

There is indeed some question whether LSD ships are the only requirement for the Marines at present. If the Marines are to undertake their proposed V/STOL attack plane program and procure 338 AV-8B aircraft, their greatest requirement might be for a means to deploy them aboard amphibious ships. LSD ships, while providing improved docking facilities for heavy cargo, have no hangar or deck space for aircraft.

The V/STOL plane might be particularly appropriate for operations in Third World regions. The AV-8B's fully loaded combat radius extends more than 150 miles (over 350 miles with a

^{19/} As currently designed, however, the LCAC could not carry the XM-1 tank for its full range.

short take-off), well within range of most major cities of coastal states in the Indian Ocean or Arabian Sea. 20/ In addition, the AV-8B would provide some air cover for amphibious forces at sea.

Although implementation of the RDF concept is not inconsistent with procurement of additional Marine amphibious shipping or with the introduction of new Marine systems such as the AV-8B or the LCAC, budget constraints may force trade-offs among the various systems that would enhance Marine capabilities. The Department of Defense already has made such trade-offs by not recommending additional AV-8B development, by limiting funding for the LCAC, and by requesting funds only for LSD ships rather than for additional amphibious assault ships capable of supporting aircraft, such as the LHA general purpose ship or the LPH V/STOL and helicopter carrier.

It might be argued that the highest priorities are to provide the Marines with both a viable forcible-insertion capability, to precede any unopposed landings in the Indian Ocean, and the ability to conduct sustained combat beyond the beach. LPHs, AV-8Bs, LCACs, and light armored vehicles--which could operate against Third World and even Soviet armored formations--would all enhance the prospects for successful amphibious landings and subsequent operations. Were the Marines so equipped, they could act as a true rapid-response shock troop to open the way for unopposed resupply by sea or air. Possible trade-offs between the current elements of the RDF and additional Marine procurement are outlined in the following chapter.

20/ It is noteworthy that no less than 85 percent of all overseas locations worldwide where there are significant numbers of Americans are within 300 nautical miles of international waters. John J. Grace, "Ship to Shore Issues" (paper presented to CRS/CBO Marine Corps Workshop, January 8-9, 1980; processed), p. 15.

CHAPTER IV. THE MARINE CORPS IN THE 1980s--FOUR ALTERNATIVE APPROACHES

Growing Soviet offensive capabilities near the Soviet Union, as well as improvement in the forces of many Third World states, have increased the premium on speedy transport of U.S. forces to a locale of a crisis. Proposals to enhance responsiveness have focused on prestocking, supported by airlift, to move Marines--or other units--before hostilities commence. In many of these circumstances, amphibious lift--the Marines' traditional approach--may be irrelevant; not only will it not provide as timely a movement to the scene as airlift, but the forcible entry which it might support will not be required.

Decisions about prestocking will affect not only the amphibious nature of the Marines, but their general purpose orientation as well. It makes little sense to invest in entirely new sets of equipment without ensuring that the equipment is suitable for the locale in which it is being prestocked. It follows naturally that the Marines will require more intensive training in the types of warfare expected in such locales. The more specialized the equipment and related training, the less general purpose are elements of the Corps likely to be.

The following sections sketch four alternative orientations for the Marine Corps. None of these choices affects the size of the Marines' land forces. The adequacy of the three-division force, as established by the Congress, is difficult to evaluate in the absence of a clearly defined opposition. Analysis of potential scenarios in which the Marines might operate furnishes little evidence for altering current force levels, however, and, indeed, provides some justification for maintaining the current Marine structure. 1/

1/ Congressional Budget Office, U.S. Projection Forces: Requirements, Scenarios, and Options, Budget Issue Paper for Fiscal Year 1979 (April 1978). This issue will also be addressed in a forthcoming CBO study on ground forces issues.

Each of the following options is based on a different approach to prestocking for rapid-response operations. The first option, which serves as a base case for the others, outlines the current DoD approach, which would superimpose the concept of a Rapid Deployment Force upon the Marine Corps without fundamentally changing the Corps' current general purpose, foot-infantry structure and amphibious orientation.

The remaining options reflect the view that the modernization programs suggested by the Administration do not provide the Marines with sufficient capabilities either to permit them to conduct traditional amphibious missions at short notice, over long distances, and against sophisticated opposition, or to undertake new roles either on NATO's northern flank or in Third World areas. All three of these alternatives outline more extensive adjustments to a rapid-response requirement involving prestocking. They also present the costs of both military construction and new systems investment and development that might be associated with the various prestocking schemes.

Option II emphasizes a NATO/Warsaw Pact contingency and outlines programs to enhance Marine reinforcement of northern Europe. Option III, in contrast, stresses the importance of meeting the demands of less taxing, but more probable, contingencies outside the NATO region, and outlines programs to transform the Marines into a Rapid Deployment Force. Option IV outlines programs that would enable the Marines to improve upon their capabilities in both northern Europe and the Indian Ocean area, while retaining greater flexibility than Options II or III permit.

All of these approaches are illustrative; other combinations are possible. Their purpose is to delineate the relationships between disparate national security policies and systems programming choices that would underlie any future design for the Marine Corps. Table 2 illustrates the major components of and rationale for each of the four options.

OPTION I: DoD's BASELINE FORCE

Current DoD proposals for the Marine Corps appear geared to maintaining the Corps' general purpose infantry and amphibious orientation, while also providing for the prestocking of some Marine equipment aboard maritime prepositioning ships. The DoD approach would continue to dedicate two Marine divisions as

the strategic reserve force for SACEUR and would provide lift for slightly more than one Marine Amphibious Force. It would include procurement of new maritime prepositioning ships, as well as of two commercial roll-on/roll-off ships that have already been built. This approach appears to involve expenditures beyond the funding levels that otherwise would have been required for Marine lift. If there is some opportunity cost to these ships, it is in terms of other Navy shipbuilding that has been foregone to fund them. 2/

As the preceding chapters indicated, the DoD program, as amended in March 1980, provides for considerable new construction on Diego Garcia. The Administration is requesting a total of \$23.5 million in supplemental fiscal year 1980 funds and \$130.3 million for fiscal year 1981 for this purpose. In addition, it is requesting \$77 million for military construction to support RDF operations in other "unspecified" locales. The DoD program also includes \$67 million in fiscal year 1981 and \$173 million in fiscal year 1982 for artillery, antitank, and other equipment to be stored aboard the maritime prepositioning ships. There is no indication at present that special facilities will be constructed specifically for housing Marine units, however. Any such facilities are likely to be for temporary housing of ground force units that might be moved to the Indian Ocean region.

Despite construction on Diego Garcia, procurement of the maritime prepositioning ships, and funding for development of a CX airlift aircraft (that could transport Marine forces to remote locales in conjunction with the ships that would carry their equipment to the troops' destination), the fiscal year 1981 budget reflects no signal changes in Marine strategy, systems acquisition, or new systems development. The Corps will remain an infantry formation primarily reliant on conventional aircraft, whose appropriateness for highly intensive combat in the areas for which its equipment is being prestocked will remain open to question.

2/ This view is implied in the Chief of Naval Operations' report for fiscal year 1981. See "Report by Chief of Naval Operations Thomas B. Hayward, U.S. Navy, on the Fiscal Year 1981 Military Posture and Fiscal Year 1981 Budget of the United States Navy" (January 31, 1980; processed).

TABLE 2. COMPARISON OF MARINE CORPS BUDGET OPTIONS

Option	Mission Orientation	Force Distribution
I. (DoD)	Maintain current general purpose/ amphibious role	3 Divisions 1 afloat brigade (battalions in Mediterranean Sea, Pacific and Indian Oceans) 3 brigades for RDF 5 brigades for SACEUR reserve 1 plus MAF Lift 3 Air Wings
II.	Prestocking for a Europe-oriented Marine Corps; limited amphibious role against opposition	3 Divisions 2/3 afloat brigade (battalions in Mediterranean Sea, Indian Ocean) 4 brigades for Denmark 1 brigade for Norway 1/3 brigade for Iceland 1 brigade for Asia/RDF 2 brigades for SACEUR reserve 2/3 MAF Lift 3 Air Wings
III.	Prestocking in Indian Ocean; amphibious lift for quick-strike Marine force	3 Divisions 1-2/3 afloat brigades (3 MAUs in Indian Ocean; 1 MAU in Mediterranean Sea; battalion (part-time) in Pacific Ocean) 3 brigades for RDF 4-1/3 brigades for general purpose 1-2/3 MAF Lift 3 Air Wings (less 3 fighter/ attack squadrons)
IV.	Prestocking for flexible Marine operations in northern Europe and the Indian Ocean	3 Divisions 1 afloat brigade (as in Option I) 3 brigades for RDF 2 brigades for northern Europe 3 brigades for general purpose 1 plus MAF Lift 3 Air Wings (less 3 fighter/ attack squadrons)

(Continued)

a/ Fiscal year 1981 budget amendment.

TABLE 2. (Continued)

Nature of Forces	Key Budget Decisions for Fiscal Year 1981
Light infantry with sufficient equipment to support three armored brigades; primary fire support from aircraft; amphibious ships for major opposed landings	Procure: Equipment for RDF LSD-41 (1) MPS (1) Roll-on/roll-off (2) <u>a/</u> F/A-18 Develop: LCAC CX with austere field capability Milcon: Diego Garcia; Kenya, Oman, and Somalia <u>b/</u> Cancel: AV-8B
Heavy brigades in Jutland; light forces elsewhere; prestocking for forces in Norway, Denmark; aircraft primary fire support for two divisions	Procure: F/A-18 Equipment for RDF MPS (1) Roll-on/roll-off (2) <u>a/</u> Develop: CX (as in Option I) Milcon: Diego Garcia, Norway, and Denmark Cancel: LSD-41; LCAC; LVTP-7; AV-8B
Light armored infantry, with major amphibious orientation; prestocking for forces in the Indian Ocean; reduced airborne fighter/attack support	Procure: MPS (1) Roll-on/roll-off (2) <u>a/</u> Equipment for RDF Light armored vehicles Develop: LCAC Light armored vehicles AV-8B C-5 variant Milcon: Diego Garcia Cancel: USMC A-18 CX
Light armored infantry; mixed amphibious and land orientation; reduced airborne fighter/attack support	Procure: MPS (1) Roll-on/roll-off (2) <u>a/</u> Equipment for RDF 2 brigades on MPS in U.K. Develop: CX (as Option I) LCAC AV-8B Light armored vehicles Milcon: Diego Garcia and U.K. Cancel: USMC A-18

b/ Possibly included among funds in fiscal year 1981 budget amendment earmarked for military construction in unspecified locales.

Tables 3 and 4 outline the DoD baseline, as amended in March 1980, for major new Marine programs in fiscal years 1981-1985 and specify those elements of the budget affecting Marine Corps operations that can be directly related to the prestocking initiative in the Rapid Deployment Force proposal.

TABLE 3. COST OF AMENDED DoD BASELINE FOR MARINE CORPS-RELATED PROGRAMS, FISCAL YEARS 1981-1985 (In millions of fiscal year 1981 dollars)

1981	1982	1983	1984	1985	Total
8,000	8,070	9,900	9,350	9,450	44,770

TABLE 4. KEY ELEMENTS OF AMENDED DoD BASELINE FOR MARINE CORPS-RELATED PROGRAMS, FISCAL YEARS 1981-1985 (Numbers acquired in parenthesis)

Procurement	Research and Development	Military Construction
LSD-41 (3)		Diego Garcia
MPS (12)	CX	Oman <u>b/</u>
LVTP-7 (327)		Somalia <u>b/</u>
Ro/Ro (2) <u>a/</u>		Kenya <u>b/</u>
LCAC (18)		

a/ Chartered; included in fiscal year 1980 supplemental request. "Ro/Ro" stands for roll-on/roll-off ships.

b/ Possibly included in amended 1981 budget provision for construction in unspecified locales.

OPTION II: PRESTOCKING FOR A EUROPE-ORIENTED MARINE CORPS

This option reflects the view that the United States should commit Marines to reinforce Denmark and Norway rapidly in a crisis that might precede a conflict between NATO and the Warsaw Pact. This view is based on the premise of strong Soviet capabilities in northern Europe. It also reflects the assumptions that other NATO allies would contribute only modest forces to the defense of either Norway or Denmark, and that political and economic constraints within both countries would limit the degree to which either could significantly enhance its indigenous defense capabilities.

These requirements for Marine support in northern Europe could justify a major prestocking program in both Denmark and Norway that would radically alter the Corps' composition. Equipment for a brigade could be prestocked in Norway and equipment for four brigades could be prestocked in Denmark. Equipment prestocked in Norway would permit rapid deployment of Marine units by air in the event of a Soviet attempt to seize Norway's northern territories. Equipment prestocked in Denmark would allow for the rapid deployment of a division to Jutland and a brigade to the Danish islands. These prestocking programs would necessitate considerable U.S. expenditures for military construction, especially if NATO infrastructure funding were not available. Additional outlays would be required for trucks, generators, and other support equipment that the host nations would be unlikely to provide.

Commitment of nearly two divisions to northern Europe would limit the Marines' status as SACEUR's strategic reserve. It also would diminish the level of force available for major amphibious assaults elsewhere. Because there has been no MAF-sized assault in over 30 years, it could be argued that there would be little need to provide sufficient lift for the four Marine brigades not committed to Norway and Denmark. Lift capability could be reduced to two-thirds of a MAF to support a MAB-sized assault in both the Atlantic and Pacific Oceans.

Reduction of Marine lift would result in lower levels of at-sea presence. Nevertheless, Marine Amphibious Unit firepower levels are so low (there are only five tanks and no fixed-wing aircraft in a MAU) that the consequences of this reduction, particularly in the western Pacific (where two Marine brigades are stationed on Okinawa), could in fact be negligible. Two-thirds MAF lift would still support one MAU in the western Pacific and

another in the Mediterranean to conduct primarily symbolic presence missions and form the core of MAB-sized assaults in either region.

A reduction in amphibious lift requirements would permit current lift modernization schedules to be relaxed. The amphibious dock landing ship (LSD) could be cancelled, as could the amphibious assault tracked vehicle (LVTP-7) program. 3/ No new amphibious ship procurement would need to be undertaken until the late 1980s, when the force will begin to drop below the capability to lift one division. In addition, the air-cushioned assault landing craft (LCAC) program could be dropped, since LCACs would only be required to replace less than two-thirds of the lift of the current assault craft force. Even at currently projected levels, procurement of 60 LCACs (equivalent to the lift of the current force) results in a unit cost of \$11 million. That cost could be significantly higher if fewer than 40 such craft were procured. When divided between two MAUs, each in a different ocean, less than 20 craft would present a very small number of targets--however fast moving--to defenders. The LCAC's greater cost and probable increased vulnerability (due to the ability of defenders to target smaller numbers) might not be offset by its greater speed.

A reorientation of the Marine Corps toward prestocking in northern Europe would result in a number of other shifts in budgetary priorities. The Marines would require five additional brigade sets of equipment, including specialized cold-weather equipment for Norway, and far more ground-based firepower, particularly for the division in Jutland. If that division were mechanized, to match the capabilities of other allied divisions as well as potential adversaries in the area, the Marines would have to prestock 270 tanks (more than the entire current active Marine inventory) as well as about 375 armored personnel carriers or LVTPs. 4/

3/ Current amphibious tracked vehicle levels are sufficient to meet the requirements of the three active and one reserve divisions, but amphibious lift levels are sufficient for only 1.15 MAF.

4/ Marine amphibious assault tracked vehicles can substitute for armored personnel carriers although they are not really optimal for land warfare. Part of the requirement for 270

As noted in Chapter III, emphasis on land operations and ground-based firepower would not necessarily support the reduction of Marine air-wing size. Marine fighter/attack squadrons would remain critically important to those elements of the force operating in Norway, and would be an important element in an amphibious defense of the Danish islands, where armor is not expected to play a critical role. The continuing importance of both fighter and attack aircraft would enhance the advantages of the F/A-18, which could be configured either as an attack or a fighter plane, in contrast to the V/STOL AV-8B, which is primarily an attack plane. This option would therefore follow Option I in cancelling the AV-8B program. 5/

Reorienting the Marines toward reliance upon prestocking in northern Europe could be consistent with the general thrust of the Administration's current emphasis on a Rapid Deployment Force. Army forces would then predominate in the RDF, however. In addition to airlifted Army forces, equipment for two Army brigades could be stored on cargo ships at Diego Garcia. If the afloat battalion were removed from the Mediterranean and added to the Indian Ocean MAU, the Marines could quickly contribute nearly a brigade to the RDF, with a second brigade arriving later on amphibious ships based in the United States. The prime focus of the Corps would, however, be on Europe. In addition to prestocked forces, two Marine brigades could continue to serve as SACEUR's strategic reserve for either the Central Region or the southern flank.

tanks could be met by transferring the 70 tanks of the Marine reserve division to the active force, in effect converting the reserve tank battalion to an infantry battalion and reducing the reserves' mobile firepower. The reserve division would not be expected to deploy early in a NATO/Warsaw Pact conflict, and could be applied to defense of urban European areas and other tasks for which tank resources may not be critical to successful operations.

5/ Although the AV-8B would be particularly useful in Norway, its advantages over the A-18 would not be as obvious in Denmark, where air bases are likely to be less vulnerable to Soviet attack. Combined with this option's deemphasis of the Marines' amphibious role, this consideration militates against production of a new aircraft type to meet the demands of a relatively small part (the air component of one MAB) of the total Marine air force structure.

Table 5 outlines the changes to the DoD baseline arising from a major prestocking program in northern Europe. It can be seen that the total cost of this option would exceed the cost of the current DoD program by \$201 million.

OPTION III: THE MARINES AS A RAPID DEPLOYMENT FORCE FOR THIRD WORLD MISSIONS

Option III reflects the view that the Marine Corps' unique amphibious training and capabilities could best be applied to Indian Ocean contingencies, particularly if the Marines were provided with equipment to permit them to conduct operations beyond the beach, and not merely near the coast. Under this alternative, the Marines would provide most of the Administration's Rapid Deployment Force. This approach would be consistent with an overall strategy that uses the Army for ground combat in Europe. (Such a strategy is described in a forthcoming Congressional Budget Office study on U.S. ground forces issues.) Furthermore, this option would implicitly support the employment of forces other than Marines on NATO's northern flank. These could be U.S. Army forces (if they are not required for missions in NATO's Central Region), other allied forces, and, most importantly, additional forces provided by the northern NATO allies themselves. ^{6/} Such contributions by Norway and Denmark would facilitate a redistribution of NATO's defense burden to permit Marine Corps operations in areas that might be formally outside the geographic boundaries of the NATO alliance, but involve economic interests as critical to Europe as to the United States.

^{6/} U.S. Army forces could include elements of the 82nd Airborne and 101st Air Assault Divisions. See Congressional Budget Office, U.S. Projection Forces: Requirements, Scenarios, and Options, pp. 38-39. For a discussion of demands for protecting NATO's Central Region, which could well preempt the use of these forces in northern Europe, see forthcoming CBO study on ground forces issues.

In addition to local forces, reinforcements for Denmark in particular could include some West German units, whose equipment could be prestocked in Denmark. (Some West German equipment already is prestocked there.) See "Danes Unlikely to Meet NATO Spending Pledge; An Unstable Parliamentary Majority Is to Blame," Baltimore Sun, April 13, 1980, p. 4.

TABLE 5. CHANGES TO DoD BASELINE RESULTING FROM EMPHASIS ON PRESTOCKING IN NORTHERN EUROPE (OPTION II), FISCAL YEARS 1981-1985 (In millions of fiscal year 1981 dollars)

	1981	1982	1983	1984	1985	Total
DoD Baseline	8,000	8,070	9,900	9,350	9,450	44,770
Option II						
Procurement						
Equipment for three mechanized Marine brigades <u>a/</u>	--	--	284	400	403	1,087
Prestocked equipment for Marine brigade (Denmark)	--	40	40	--	--	80
Cold-weather equipment for one brigade	5	--	--	--	--	5
Equipment for one Marine brigade/wing (Norway)	--	59	60	--	--	119
Cancel LSD-41	-347	--	-394	-4	-325	-1,070
Cancel LVTP-7, LCAC	-8	-121	-86	-147	-65	-427
Research and Development						
Cancel LCAC	-22	--	--	--	--	-22
Military Construction						
Denmark	200	--	--	--	--	200
Norway	80	--	--	--	--	80
Cancel unspecified mil.con.	-41	--	--	--	--	-41
Operations						
Denmark (prestocking)	--	--	36	56	51	143
Norway (prestocking)	--	--	8	10	5	23
Norway (cold-weather training)	--	--	10	20	20	50
Reduction of one MAU	--	--	--	-9	-17	-26
(Changes from Baseline)	<u>(-133)</u>	<u>(-22)</u>	<u>(-42)</u>	<u>(326)</u>	<u>(72)</u>	<u>(201)</u>
Total	7,867	8,048	9,858	9,676	9,522	44,971

a/ Equipment for three mechanized Marine brigades for Jutland. Equipment for Army brigades for RDF baseline unchanged in this regard. Assumes transfer of 70 tanks and related equipment from Marine Corps reserve, and conversion of reserve tank battalion to infantry battalion.

Two distinct considerations govern the choice of programs in this option. The first is the need to provide sufficient amphibious lift to permit extremely rapid Marine responses to crises in areas remote from the United States. The second is the requirement for systems that would enable the Marines not only to land successfully, but also to conduct sustained operations inland in the possible absence of U.S. Navy airborne support, which, according to Marine doctrine, is meant to accompany amphibious assaults.

With respect to amphibious capabilities, were the Marine Corps to deploy more forces simultaneously at sea, they could more easily respond to crises in days rather than weeks. As a result, they could possibly forestall foreign interventions or other military operations. These at-sea forces could be supported by other units that could arrive on the scene and obtain their equipment from fast logistics ships.

Such a strategy would require a significant increase in amphibious lift capability from the current one-plus MAFs to one and two-thirds MAFs, the level which the United States maintained until fiscal year 1969. 7/ This level would enable the Marines to deploy a total of four MAUs overseas at all times, while two additional Battalion Landing Teams (BLT) would be available for intermittent deployment in the Pacific Ocean and Caribbean Seas, respectively. 8/

Three of the four MAUs could operate in the Indian Ocean as a small (8,000 men) afloat brigade. The other MAU would operate

7/ U.S. Department of Defense, Annual Report, Fiscal Year 1977, p. 174. The current force was to have reached one and one-third MAF lift capability with the completion of the LHA program in mid-1980, but remains at 1.15 due to the early transfer of three amphibious ships to the Naval Reserve Force in fiscal year 1980. See Ibid., p. 175; U.S. Department of Defense, Annual Report, Fiscal Year 1980, p. 169; and Annual Report, Fiscal Year 1981, p. 180.

8/ Deployment of both BLTs would involve short transits from home port. The Caribbean BLT would deploy from the United States; the Pacific BLT, from Okinawa. Although a one and two-thirds MAF lift could support the full-time overseas deployment of six MAUs, increases in Marine Corps force levels might be necessary to maintain current rotation cycles.

in the Mediterranean Sea. Prestocking of equipment for three additional reinforced brigades in the Indian Ocean area would ensure that nearly two divisions could be moved by sea to littoral states in that region within two weeks. Thus the United States would have available a true "quick-strike" force, as well as prompt reinforcements.

Significant military construction would be required on Diego Garcia to serve as a forward staging area to support such a force. Facilities would be needed to repair and replenish both the ships that would support the brigade at sea and the 12 maritime pre-positioning ships.

This strategy would obviate major drawbacks in the current DoD plan for a Rapid Deployment Force. First, friendly countries would have to provide landing and docking facilities for troops and equipment. Second, the RDF concept entails the possibility that greater reliance would be placed on facilities in Third World states, such as Oman and Somalia, which may not always have regimes friendly to the United States. The sizable forcible-entry capability that the Marines would provide would ensure that the Marine reinforcements (amounting to an additional 50,000 men) would need to rely less on other states to ensure that their equipment could be landed. To the extent that such reliance is necessary, it could be limited to states with a low risk of potential local instability, such as Kenya, Australia, and British sovereign bases on Cyprus. ^{9/} This combination of forcible-entry/follow-on capability would also reinforce the deterrent effect that an ability to move 65,000 Marines within two weeks would have

^{9/} U.S. Navy and Air Force units already operate from Kenyan facilities at Mombasa, Embakasi, and Nanyuki. (See "Statement of Ambassador Robert Komer before the House Foreign Affairs Committee" (April 2, 1980; processed), p. 9. Australia has offered its base at Cockburn Sound, Western Australia, for U.S. use; additional military construction might be necessary to permit full Navy utilization of the facility. (See "Proposed U.S. Naval Base Enlivens Australian Campaign," Washington Post, March 22, 1980, p. 15.) The British base at Akrotiri in Cyprus is in better condition and is more frequently used than the base at Dhekelia, Cyprus, where additional military construction might be necessary. Materiel prestocked at either base could transit to the Indian Ocean through the Suez Canal.

on potential aggressors in or outside the region. (These troops would be moved from Marine forces in the Pacific and Indian Oceans and the Mediterranean Sea, and from units airlifted to MPS destinations in any Indian Ocean littoral state.)

The availability of additional lift would not, by itself, suffice to transform the Marines into a rapid deployment force suitable for operations in the Indian Ocean area. In order to facilitate successful landings and operations beyond the beach in Indian Ocean locales, the Marines would need systems such as the AV-8B aircraft and the LCAC that enhance tactical surprise and onshore mobility. Tactical surprise could be critical if short warning prevented carrier forces from arriving in the Indian Ocean in sufficient strength to organize a major assault and if entrenched defenses included precision-guided munitions. Overland mobility would probably be indispensable for operations against Third World or even Soviet armored units that Marines would likely encounter as they moved well beyond their landing sites; light armored vehicles could provide that mobility.

Creation of a true rapid-strike amphibious force would imply significant changes in the current DoD program. Procurement of amphibious ships above current DoD levels could include not only LSDs, which are designed to carry four LCACs, but also LPHs, to provide for deployment of the AV-8B. That plane would be particularly useful for Marine assaults if surprise were valued over greater aggregation of airborne firepower. The importance of tactical surprise would also underscore the LCAC program, which could be expanded to 90 ships to provide for twice the lift that current craft provide.

Option III's program would also call for accelerated development of light armored vehicles. The importance of mobility in the Middle East and Indian Ocean, not only on land but also with the LCAC at sea to support tactical surprise, would militate in favor of small armored vehicles. As a preliminary step to developing a lightweight vehicle of its own, the Marine Corps might acquire sufficient light armored vehicles of an existing type to support some of the brigades that it would dedicate to the Rapid Deployment Force. The Corps is currently examining the characteristics of six such vehicles. ^{10/} Procurement of

^{10/} The six types are the Canadian Cougar, the Brazilian Urutu, the French VCS, the British Scorpion, and two U.S. types, the Commando V150 and the Dragoon. (Information provided to CBO by the U.S. Marine Corps, April 9, 1980.)

approximately 250 vehicles would enable the Marines to employ them with several companies as light tanks, armored personnel carriers, and antitank missile mounts.

Emphasis on an independent sea-based Marine strike capability would also permit some reductions in current budget proposals. The F-18 program could be reduced not only to accommodate the AV-8B program, but also to reflect additional cuts in Marine aviation. Such cuts could be justified on two grounds: first, the Marines would be adding to their ground-based firepower; and second, the uncertainty of carrier availability could present difficulties when trying to ferry fixed-wing aircraft across the Indian Ocean without carrier support.

Additional costs could be avoided with a reduction of the CX program and a redefinition of the CX as purely a strategic transport. Reliance on the Marines as the primary intervention force, with possible support from elements of the Army airborne and air assault divisions, would lessen the need for additional outsize lift capabilities that are geared primarily to moving the equipment of a mechanized Army division. Furthermore, were the Corps to acquire a family of light armored vehicles, there would be a minimal requirement for aircraft with both an outsize lift capability and an ability to land in poorly equipped airfields. As many as eight light vehicles could be carried by a C-5. Light vehicles also could be carried for distances up to 100 miles by the CH-53E helicopter currently being procured by the Marine Corps and the Navy. Thus, the CX program could be modified to provide for a small increment to current C-5 assets to ensure sufficient outsize capability to move equipment of remaining Army units in the RDF.

Table 6 outlines the implications of this approach to remodeling the Corps, together with their variation from DoD spending patterns.

OPTION IV: PRESTOCKING FOR A DUAL-MODE MARINE CORPS

This option combines a number of the characteristics of the preceding three, but preserves a greater degree of flexibility. It would emphasize rapid Marine responsiveness to a variety of crises demanding both on-land and amphibious capabilities. Prestocking programs would be established for both northern Europe and the Indian Ocean. In the former case, equipment for two Marine brigades would be prestocked on ships homeported in

TABLE 6. CHANGES TO DoD BASELINE RESULTING FROM EMPHASIS ON MARINES AS A QUICK-STRIKE AMPHIBIOUS FORCE (OPTION III), FISCAL YEARS 1981-1985 (In millions of fiscal year 1981 dollars)

	1981	1982	1983	1984	1985	Total
DoD Baseline	8,000	8,070	9,900	9,350	9,450	44,770
Option III						
Procurement						
LPH	--	--	650	520	--	1,170
LSD-41	--	--	325	--	--	325
AV-8B	36	464	537	930	935	2,902
LCAC	--	--	65	65	65	195
265 light						
armored vehicles	50	49	--	--	--	99
U.S.-design light						
armored vehicle	--	--	--	25	100	125
Cancel CX	--	-141	-1,511	-1,462	-1,439	-4,553
C-5B	--	303	1,195	1,624	1,544	4,666
Research and Development						
AV-8B						
Accelerate light armored vehicles	223	123	40	12	--	398
C-5B variant	10	15	25	7	--	57
Cancel CX	30	--	--	--	--	30
	-81	-234	-305	-205	-124	-949
Military Construction						
Expanded mil.con. on Diego Garcia	--	40	40	40	30	150
Unspecified	-41	--	--	--	--	-41
Operations						
Reduce Marine F-4 fighter/attack squadrons	--	--	-14	-28	-42	-84
Additional MAU, part-time BLT	17	34	34	34	34	153
(Changes from Baseline)	<u>(244)</u>	<u>(653)</u>	<u>(1,081)</u>	<u>(1,562)</u>	<u>(1,103)</u>	<u>(4,643)</u>
Total	8,244	8,723	10,981	10,912	10,553	49,413

Britain. These ships could be drawn from a larger MPS force than the currently programmed level and from the roll-on/roll-off ships that the Navy plans to charter. This approach would enable the Marines to move rapidly for combat in Iceland, Norway, or Denmark without precommitting them to any particular area. Marine deployments to these countries could also be supported by available British commercial and/or amphibious shipping, as well as by C-130 theater airlift assets.

With respect to the Indian Ocean, this option would parallel Options I and III, with equipment for three Marine brigades prestocked on maritime prepositioning ships operating off Diego Garcia. Current levels of Marine amphibious lift would be maintained; LPHs would be procured in addition to LSDs, however, to permit deployment of large numbers of AV-8B aircraft. As outlined in Option III, these aircraft would provide the Marines with sea-based air power independent of carriers, whose response to Indian Ocean crises might not be as timely as that of other forces deployed there.

In order to maintain a full-time Marine presence in the Indian Ocean, one of the two western Pacific MAUs would be redeployed there. This battalion and squadron would operate from Diego Garcia. Rotating crews could be flown to and from Diego Garcia, while ships could be homeported on the atoll.

Several extra sets of Marine equipment would have to be procured to support the two prestocking schemes. A total of five brigades' equipment would be prestocked, two in Europe and three in the Indian Ocean. It might also be necessary to ensure that sufficient cold-weather equipment is available for one brigade. In addition, possible demands for armored warfare in Jutland, coupled with similar demands in the Indian Ocean, would militate in favor of developing a light armored vehicle for mobile Marine operations. As previously noted, light armored vehicles would allow the Marines to realize the LCAC's full potential. Some of the development costs could be offset by reductions in Marine fighter/attack squadrons, as noted in Option III. Finally, this option would not have to affect the CX program. Requirements for the CX would depend upon available levels of Army forces that might still be required to supplement Marine forces for situations in which large troop formations would be required in the Indian Ocean.

Table 7 outlines this option and its relationship to the DoD budget.

TABLE 7. CHANGES TO DoD BASELINE RESULTING FROM EMPHASIS ON DUAL-MODE MARINE CORPS (OPTION IV), FISCAL YEARS 1981-1985 (In millions of fiscal year 1981 dollars)

	1981	1982	1983	1984	1985	Total
DoD Baseline	8,000	8,070	9,900	9,350	9,450	44,770
Option IV						
Procurement						
LPH	--	--	650	--	520	1,170
Equipment for two brigades (U.K.)	--	165	160	--	--	325
LSD-41	-342	--	-394	394	-325	-667
AV-8B	--	37	587	610	970	2,204
MPS	--	160	160	--	--	320
New design light armored vehicles	--	--	--	25	100	125
Research and Development						
AV-8B	243	165	64	38	--	510
Accelerate light armored vehicles	10	15	25	7	--	57
Military Construction						
U.K.	104	--	--	--	--	104
Unspecified	-41	--	--	--	--	-41
Operations						
Reduce Marine F-4 fighter/attack squadrons	--	--	-14	-28	-42	-84
(Changes from Baseline)	<u>(-26)</u>	<u>(542)</u>	<u>(1,238)</u>	<u>(1,046)</u>	<u>(1,223)</u>	<u>(4,023)</u>
Total	7,974	8,612	11,138	10,396	10,673	48,793

WHAT FUTURE FOR THE CORPS?

The U.S. Marine Corps now stands at a crossroads. Its future roles could differ significantly from one another and from the Corps' recent orientations. It could remain a general purpose force, not specifically tailored for any one mission but emphasizing amphibious operations, or it could assume one or more of several specialized missions. If the former, the Congress may prefer to adopt the DoD program for fiscal years 1981-1985, and essentially preserve the Corps in its current form. On the other hand, it may consider that the DoD program is unlikely to support the effective conduct of long-standing Marine Corps missions and overlooks the requirements that emerge from recently articulated demands for dedicating specialized Marine units to northern European or Indian Ocean operations.

If the Congress believes that U.S. strategy, programming, and training should continue to emphasize defense of NATO Europe against a Warsaw Pact attack, it might wish to dedicate the Marines to the defense of Norway and Denmark, both of which might otherwise not be able to resist successfully a Soviet attack in the earliest stages of a conflict.

On the other hand, the Congress might consider that the Marines' unique orientation to amphibious capabilities might be more usefully employed in Indian Ocean operations, especially if the Corps enhanced its ability to operate in armored and desert environments well beyond the landing beach. The Congress might also reason that the NATO allies might do more to enhance their own defenses. Should a U.S. contribution to defense of the northern region be required, it might come from Army units if they could relinquish Central Region commitments without too great a degradation of allied defenses in that area. Finally, the Congress might consider that the best future orientation for the Marines should reflect a combination of both longer-standing capabilities and new specialized missions. Such a combination would mark a less radical change from past Marine priorities, but nevertheless would involve important changes in the current Marine Corps program.

Congressional decisions on the elements of prestocking programs--military construction and equipment procurement--will be an important indicator of the importance that the Congress assigns to these very different mission orientations and to the assumptions that underlie them. And from these decisions, in turn, the role of the Marine Corps for the remainder of the century could well be determined.

APPENDIX

APPENDIX. NAVAL GUNFIRE SUPPORT FOR THE MARINE CORPS

The Marines have for some time bemoaned the absence of sufficient naval gunfire support for amphibious operations. 1/ They contend that only guns can provide constant, all-weather shore bombardment of entrenched defenders. While some aircraft, notably the A-6, can also provide all-weather bombardment, guns can deliver a much higher level of munitions on a sustained basis for extended periods. 2/

The Navy's most recent major program to provide gunfire support was the 71-caliber lightweight gun, commonly known as the eight-inch gun. This gun was meant to provide longer-range firepower for the Corps than the Navy's five-inch guns can provide. The program was severely criticized on the grounds that its cost did not merit the marginal improvements that it represented over the capabilities of the current five-inch gun. 3/ Although the House Armed Services Committee earmarked \$32 million (in fiscal year 1980 dollars) for additional development of the system, arguing that it could replace more costly missiles for certain missions, the Congress did not appropriate funds for the gun in fiscal year 1980, and it has not been included in the Administration's fiscal year 1981 request. 4/ Instead, the

1/ See statement of General Robert E. Cushman, Jr., USMC, Commandant of the Marine Corps, in Department of Defense Appropriations for 1976, Hearings before the Subcommittee on Defense, House Committee on Appropriations, 94:1 (March 1975), Part 2, p. 456.

2/ Charles E. Myers, Jr., "A Sea-Based Interdiction System for Power Projection," United States Naval Institute Proceedings (November 1979), p. 105.

3/ See General Accounting Office, An Assessment of the Major Caliber Lightweight Gun System, PSAD-78-122 (August 4, 1978), pp. 20-21.

4/ See Department of Defense Authorization Act, Fiscal Year 1980, H. Rept. 96-166, 96:1 (May 1979), p. 96.

Administration has emphasized improvements in the five-inch gun system, which is expected to number 210 barrels on 136 ships by 1985. 5/

Despite the fate of the eight-inch gun, the Marines have continued to argue the need for additional gunfire support. 6/ Furthermore, there has been considerable Congressional support for recent suggestions that the Navy reactivate the Iowa-class battleships and convert them to power projection ships carrying Tomahawk missiles in addition to guns. 7/

The battleship proposal, as presented by its Congressional sponsors, does not appear solely directed toward naval gunfire support for Marine operations, however. Proponents of the proposal also argue that the battleship would substantially improve the Navy's ability to sustain an increased level of military presence in the Indian Ocean. 8/ The program could cost \$255 million to reactivate the New Jersey, \$500 million to reactivate each of the remaining three battleships, and \$53 million annually to operate each ship. The program is likely to stand or fall on the more general question of the battleship's value to the fleet as an offensive system that might be deployed in the Indian Ocean.

5/ See U.S. Department of Defense, The FY 1981 Department of Defense Program for Research, Development, and Acquisition (February 1980), p. vii-53; and Norman Polmar, "The U.S. Navy: Naval Guns," United States Naval Institute Proceedings (August 1979), p. 121.

6/ See statement of General Robert H. Barrow, Commandant of the Marine Corps, "Marine Corps Posture, Plans, and Programs for FY 1981 through 1985," before the Senate Committee on Armed Services (February 27, 1980; processed), p. 37.

7/ Myers, "A Sea-Based Interdiction System for Power Projection," p. 103. The House Committee on Armed Services approved funds in fiscal year 1981 to reactivate the battleship New Jersey. (See "House Armed Services Adds \$2.2 Billion for Ships, Turns to R&D," Aerospace Daily (March 27, 1980), p. 145.)

8/ Department of Defense Authorization Act, 1981, H. Rept. 96-916, 96:2 (April 1980), p. 63.

Moreover, any proposal for adding to the Navy's gunfire capability must address the question of the utility of naval gunfire to different types of amphibious operations. Clearly, naval gunfire support is not a requirement for unopposed landings. It also may not be a significant requirement for landings involving tactical surprise against limited opposition. In particular, the 200-nautical-mile range of the LCAC indicates that forces may begin their assaults from points at sea significantly beyond the effective range of even a major caliber gun.

Finally, while major opposed landings could well be assumed to require gunfire support, it is the very strength of opposition that is likely to force naval ships far out to sea--beyond the range of shore-based missiles or guns--thereby limiting the effectiveness of major caliber guns against coastal defense positions. 9/

The case for augmenting naval gunfire capabilities therefore appears uncertain, particularly given the difficulties that would attend a major opposed assault, for which such gunfire is most appropriate. In the absence of a new strategy for the Marines, and until Marine mission orientations involving prestocking, airlift, and unopposed landings are more clearly defined, the question of how naval gunfire might best be enhanced--and, indeed, whether it needs to be enhanced at all--cannot be answered adequately. 10/

9/ General Accounting Office, An Assessment of the Major Caliber Lightweight Gun System, pp. 7-8.

10/ The Navy currently is developing a five-inch guided projectile which will provide the fleet with many of the capabilities that the eight-inch gun would have afforded without requiring a change in actual gun platforms. This program appears to be a useful hedge against the articulation of new demands for more capable and greater naval gunfire support for the Marines.

GLOSSARY

GLOSSARY

AH-1: "Cobra"--U.S. Army and Marine Corps attack helicopter.

AV-8A: Vectored-thrust V/STOL fighter/attack plane.

AV-8B: Improved version of AV-8A.

CH-46: U.S. Marine Corps medium-lift transport helicopter.

CH-53E: Heavy-lift transport helicopter operated by U.S. Navy and Marine Corps.

CX: Proposed U.S. Air Force cargo aircraft.

F/A-18: Fighter and attack variants of U.S. Navy and Marine Corps combat aircraft.

Force Troops: Until 1978, nondivisional Marine Corps combat-support and service-support units.

KC-10: U.S. Air Force tanker aircraft.

LCAC: Air-cushioned assault landing craft.

LHA: General purpose amphibious assault ship.

LPH: Amphibious assault V/STOL and helicopter carrier.

LSD-41: Amphibious dock landing ship.

LVTP: Tracked personnel landing vehicle.

MAB: Marine Amphibious Brigade.

MAF: Marine Amphibious Force--one or more division/air-wing teams.

MAGTF: Marine Air/Ground Task Force.

MAU: Marine Amphibious Unit.

MPS: Maritime prepositioning ship (formal designation T-AKX).

PGM: Precision-guided munitions.

POMCUS: Prepositioning of materiel configured to unit sets.

RDF: Rapid Deployment Force.

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