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TOWARDS A NEW ORDER OF U.S. MARITIME POLICY[1]

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I. Introduction. The United States does not have a coordinated or articulated maritime policy sufficient to cope with the fundamental changes taking place in the strategic environment. Unless we make certain critical decisions concerning the nature and direction of this policy for the next decade, we may find our international position severely eroded. For, although we are on the threshold of a potential renaissance in maritime affairs, the debate over U.S. policy has been couched almost entirely in terms of the U.S.-Soviet naval balance, which, although of great importance, cannot be fully understood except in the context of the broader maritime issues reflecting the growing relationship between the sea and society.[2]

The sea is in the ascendancy as a source of vital resources, for transportation of goods and services and as a medium for projecting and deploying military force. Yet, if the words "chaos" and "disorder" do not fully describe the existing condition of world maritime affairs, there are indications they soon will.

On the international level, the fifth United Nations Conference on the Law of the Sea (UNCLOS) ended in New York in September 1976. With the failure to resolve the major issues relevant to establishing an acceptable regime for regulating navigational and commercial exploitation of the oceans, the possibilities for political and even military conflict over the uses of the seas have increased. Within the Western

alliance, as elsewhere, the competition for ocean resources has exacerbated existing tensions over fish in the North Atlantic, oil in the Aegean and North Seas and sovereignty over numerous small islands located throughout the world's seaways. In the United States, complex financial and bureaucratic pressures restrain and retard attempts to establish maritime policy. Quantum increases in unit costs of all U.S. naval forces have contributed to substantially reduced overall force levels, the lowest since the end of World War II, and the cost overruns of several of the U.S. Navy's shipbuilding programs could conceivably cause a legal showdown between the Department of Defense and two major civilian construction firms* which, in turn, could jeopardize current and projected Navy shipbuilding programs. This comes on top of an already foundering U.S. merchant marine building program. (Similarly, primary naval aircraft manufacturers, such as Grumman and Lockheed, are experiencing financial difficulties.)

On the more specific question of U.S. military power, during most of the post-World War II era, the United States and its allies, especially Britain and France, have controlled virtually all major oceans and waterways of the world. This was regarded as an important adjunct of the policy of "containment" and was, in part, a reaction to the *land threat* posed to Eurasia by the Soviet Union and China and the *maritime threat* posed by the Soviet submarine force which, in turn, was seen as analogous to the U-boat peril of World Wars I and II. This worldwide deployment was also due to the historical legacy which gave the United States, Britain and France numerous base rights in overseas territories adjacent to critical sealanes and waterways. One effect of this legacy was to assume that we had ready and unchallenged access to distant places. Thus, during the entire U.S. involvement in Vietnam, there was no serious public debate or worry over the sea and air lines of communication. However, during the October 1973 Arab-Israeli War which lasted for 3 weeks, the security of our lines of communication was threatened by nonmilitary acts which included the denial of many NATO European bases to our mobility forces. Since 1973 further erosion of base rights in the Pacific and Atlantic pose growing constraints on our overseas presence at the very time our dependency upon maritime access is increasing. This comes concurrently with the proliferation of advanced weapons technology to many littoral states which now possess military capabilities sufficient to give the superpowers at least second thoughts about the projection of their own military power.

The broad changes in the international maritime environment (Law of the Sea, conflict over sea resources, changes in shipbuilding programs, access to overseas bases) also cut across many domestic bureaucratic lines. We believe that a comprehensive review of U.S. policy requires that the maritime interests of government institutions other than the U.S. Navy be more fully considered and understood, (including the U.S. Air Force, Army and Marine Corps and civilian agencies such as the Departments of Commerce, Interior, Labor, State and Transportation) and must be balanced with the maritime interests of the private sector.

Thus, on almost every level of maritime activity, the problems of policy formulation and successful implementation have become increasingly complex and less prone to solution. However, none of these problems is insolvable. The U.S. Government still has sufficient

*While the Navy appears to have reconciled claims with Newport News Shipyard, substantial difficulties remain with Litton and recently with Electric Boat in Groton, Connecticut.

flexibility and scope to determine the nature and direction of maritime policy. Because the emerging environment is much more complex than the post-World War II era we must undertake a careful analysis of the interaction between *all* maritime activities and interests before reaching conclusions on the preferred size, capabilities and deployment of the fleet, as well as on other aspects of our maritime policy, including the commercial exploitation of the seas, the continued development of advanced technology and those political commitments which require us to maintain an overseas basing structure.

We propose first to review the current debate concerning U.S.-Soviet naval rivalry and examine the evolution of U.S. and Soviet naval forces. Second, we will examine the major strategic changes and their impact on the ocean environment and, third, we will suggest several policy options for the United States which can exploit the new emerging maritime order.

II. U.S.-Soviet Maritime Competition. In order to appreciate the nuances of the current debate over the magnitude and meaning of the U.S.-Soviet maritime rivalry, it is first necessary to consider briefly the uses of naval power and the evolution of the U.S. and Soviet navies.

Evolution of Navies. Traditionally, navies have been constructed for one or more of three related purposes: to project power; to defend or deter against maritime threats; and to serve political and ideological interests.[3] The first set of purposes has led to traditional uses which concentrated on achieving "mastery" or "command" of the sea by the decisive victory of "capital ships" against the capital ships of an adversary in main force actions. Navies achieving "command" of the sea in this manner could, *de facto,* have served the purposes of the other two categories.

The second purpose focused upon "denying" and deterring an adversary's use of the sea. Smaller, numerically inferior navies tended towards this category relying more on commerce raiding (*guerre de course*) in which main force actions were to be avoided. This "defensive" use of naval power dates from the days of oar, sail and piracy to Hitler's attempt to cut off Britain's maritime lifelines during World War II. Likewise, the deterrent qualities of navies, described by Mahan as the concept of a "fleet-in-being," have led to roles such as that played by the German High Seas Fleet before the Battle of Jutland which, without major actions, restrained the Royal Navy from wide-ranging operations outside the North Sea simply by virtue of a threatened sortie.

The political and ideological uses of navies are more difficult to comprehend and analyze because measurement of these perceptions is often imprecise. The *flottenpolitik* nature of navies includes an indeterminate mixture of awe, will, credibility, uncertainty and, perhaps most critically, the subjective perceptions of adversaries and potential victims. In an historical sense, political and ideological determinants have had two major results. First, commitment or interest has been demonstrated by the presence of naval ships and, more precisely, the naval ensign representing the power of the state. To be credible, however, it was essential that sufficient force would be applied against an adversary even if reprisals were delivered well after the offending act.

A second result, indeed almost a corollary of the first, focused more on the ideological purposes behind naval development, namely that states acquired navies, in part, for reasons of prestige, influence, as part of great power status or due to a pervasive and demanding ideology. Today, the ascendancy of the Soviet Navy to naval superpower status, has led some Western observers to refer to the political and,

perhaps, ideological roles of the Soviet Navy which include "securing prestige and influence." Taken together, these three purposes have produced primary naval missions of: projection of power; sea control; sea denial; presence and deterrence.

Not until the late 1960's when a strategic nuclear standoff and political "parity" emerged between the two superpowers did the distinctions separating these traditional missions become blurred and artificial on two levels. First, while great navies once had classical projective purposes, in the nuclear age, the overarching concern of escalation into general war seemed to limit the extent of these possible uses for one superpower navy directly against the other. Second, new technology in the form of ballistic and cruise missiles and/or nuclear warheads has provided for once numerically inferior navies extraordinary destructive capabilities. Thus, these navies, which originally had only defensive or denial functions and were relatively ineffective in imposing their will upon an adversary (and, by extension, on his capital ships), now must be more fully reckoned with on both the strategic nuclear and conventional scales. For example, the small sea-based nuclear deterrent forces of Britain and France are of far greater concern to the Soviet Union than all their remaining naval forces because of the damage which could be inflicted against Russian cities by British and/or French submarine-launched ballistic missiles.[4] On the conventional level, missile-equipped fast patrol boats, submarines and aircraft, under *certain tactical conditions* of geography and surprise are capable of denying local sea areas to traditional "dreadnoughts" of superpower navies and can therefore be regarded as "ersatz" capital ships. The concept that *only* a dreadnought can defeat a dreadnought has been dramatically altered by technology.

The increased destructive capabilities of modern navies, large or small, have caused us to modify "traditional" thinking about roles and uses of naval forces. However, against this background of the increasing diffusion of power and increasing dependence upon the sea, what is indicated is *not* a decline in the utility of navies, but rather, a requirement for a broader reassessment of policy including all of these factors.

Evolution of the U.S. Navy. Since the 1890's, the U.S. Navy has acquired a projective outlook on naval power based on controlling the seas. Although the United States has become increasingly dependent upon maritime commerce and has faced adversaries equipped with "capital ships," the United States has also been protected and isolated by the Atlantic and Pacific Oceans and has had a happy history of nearly always being able to exercise "command of the sea" in this century.

The outset of the cold war required U.S. military forces capable of supporting alliances designed to contain Soviet expansion. During the late 1940's and early 1950's, the primary U.S. concern was the defense of Western Europe. This gave continued importance to protecting North Atlantic sea lines of communications (SLOC's). During this period the aircraft carrier task force was (and still is) the centerpiece in carrying out the bulk of U.S. sea control and power projection missions as well as determining much of force structure and force levels despite the advent of the Polaris submarine system (SSBN).

Based on these factors and the carriers' absolute domination of the seas during World War II, Korea and Vietnam, and because of the inherent flexibility and mobility of the Navy, U.S. national strategies of "massive retaliation," "flexible response" and the "Nixon Doctrine" have not basically changed U.S. naval missions although they are more precisely articulated today. U.S. Chief of Naval Operations,

Adm. James L. Holloway III, USN, has defined two basic functions: sea control and power projection. The 13 attack aircraft carriers (CV's) along with the attack submarines (SSN's), maritime air and surface ships form the substance of sea control. Power projection is a more subtle function ranging from nuclear deterrence and the SSBN's, through the amphibious forces and their projective capability, to conventional bombardment of the shore by aircraft and ships down to peaceful presence. However, all these examples of power projection emphasize the need, first, to establish some form of sea control.

The Evolution of the Soviet Navy. The Soviet Navy developed from very different historical, geographical, and institutional frames of reference than the U.S. Navy. For five decades since the October Revolution in 1917, the U.S.S.R. has perceived itself as strategically inferior to its major Western adversaries. After the Second World War, Stalin set the requirements for a naval "active defense" based on fast cruiser strike groups and submarines operating in support of the Red Army's maritime flanks against invasion.[5] The mission of protecting the Russian homeland, fashioned by centuries of insecurity bordering on paranoia has been one of the most significant differences in outlook between U.S. and Soviet naval developments.

As the Soviet perception of the threat adjusted to the U.S. massive retaliation doctrine and the possibility of global nuclear war, the impact of a U.S. nuclear attack launched from aircraft carriers began to occupy a higher naval priority than the traditional support mission. By the late 1950's, the Soviet military establishment had adapted, in part, to these nuclear factors and the navy's primary missions were to sink Western aircraft carriers prior to their launching strategic nuclear attacks against the U.S.S.R. and to defend against invasion. However, this new "antinuclear" mission required nearly continuous naval presence within striking distance of U.S. carriers, hence some form of forward naval deployment now became necessary.

The evolution of U.S. ballistic missile submarines and their deployment in late 1960 had further dramatic impact on Soviet naval planning and, by the early 1960's, decisions had been implemented which included the requirement for hunting and, presumably, destroying "Polaris" SSBN's. This task, which some observers feel the Soviet naval leadership grossly underestimated, was to be accomplished by a "balanced" force consisting of submarines, missile-equipped long-range aviation and surface ships.

This approach to doctrine and force planning fundamentally differed from that followed in the United States in that the Soviet view assumes not only that nuclear deterrence can fail but that its failure must serve as a rationalization for force levels. This appears to remain central to Soviet military thought. However, in parallel to the development of strategic sea-denial capabilities, the Soviet Union has partially mirrored the U.S. Navy in deploying its fleet of SSBN's certainly for strategic deterrent purposes and, in part, for "war fighting" if deterrence fails. Thus, the strategic nuclear criteria of defense against Polaris and the aircraft carrier and of maintaining a nuclear deterrent capability continue as the bedrock of Soviet naval missions. However, in order to oppose "Polaris," forward deployment of naval forces, overseas basing and overseas presence are continuous requirements more rigorous than those needed only for opposing the carrier.[6] It is these factors, among others, that undoubtedly increased the importance of Soviet missions ranging on the more "peaceful" side of the violence spectrum and are incorporated under the general heading of peacetime presence,

missions over which the West has always demonstrated a certain sensitivity and missions which the Soviets show little intention of decreasing.

Summary of Differences. A comparison of the missions of both navies, as explicitly stated by their senior admirals underscoring the different outlooks, is shown in table 1.

On the one hand, the United States, by virtue of geography, requires a long-range capability for projection of conventional force.[7] The Soviets, so far, have been more concerned with the immediate and proximate defense of their homeland, requiring counterpower projection against invasion and denying the adversary wartime use of his strategic weapons in addition to participating in nuclear attack. But, the virtues of peacetime presence, which the Soviets see as potentially "neutralizing" U.S. presence are real and are unlikely to be reduced in the future.

Given this bifurcation of Soviet naval mission between criteria of strategic nuclear war and peacetime presence, the notion of Soviet naval use spilling over from strategic nuclear sea denial to more conventional forms of sea denial and interdiction short of global war is especially relevant because of the improbability and disutility of thermonuclear war including the great difficulty in hunting Polaris, the growing importance of the oceans, and the questioning of Western resolve by the West and perhaps by the Soviet Union. It is also on this point which Western analysis divides its opinion about Soviet naval intentions.

The Debate over Soviet Maritime Power. Western analysts agree that since Stalin's day there has been unprecedented growth in the qualitative capabilities and overseas presence of Soviet maritime power. Beyond this point, there is little consensus. There is a debate over the Soviet Navy because of uncertainty about Soviet motives, likely actions and capabilities. This debate has been sometimes skewed by "mirror imagery" and "worse case" or "vulnerability" analysis. Mirror imagery is the tendency to view Soviet responses to these issues as we do, i.e., in Western terms. "Vulnerability" or "worse case" analysis is determining what the most

UNITED STATES (Holloway, 1976)	SOVIET UNION (Gorshkov, 1976)
Sea control (conventional)	Strategic sea denial (anti-SSBN, anti-CV); limited conventional sea denial
Power projection	
a. Nuclear deterrence	Participating in strategic nuclear attacks
b. Amphibious projection	Defending maritime flanks (areas immediately adjacent to U.S.S.R., such as the Northern Flank, the Danish Straits, and the Dardanelles)
c. Conventional (shore bombardment, blockade)	Protection of fleet operating areas
d. Presence	Protecting state interests, securing "prestige and influence"

Table 1

dangerous contingency would be for the West without necessarily assessing the likelihood or probability of its occurrence and using that as a planning assumption. Taken together, these factors can obscure the real significance and meaning of Soviet maritime power and make accurate analysis difficult both on the level of Soviet operational capabilities and on the more critical plane of Soviet motives.

Despite a great deal of data, there is also substantial disagreement over the actual capabilities of Soviet maritime power. For example, while the *Kiev* class air-capable ship is described by the Soviets as being an "ASW cruiser," some Western analysts see her use as potentially oriented towards conventional projection of naval force against either other surface navies or the shore.[8] The "Y" and "D" class nuclear submarines are generally regarded in the West as only second-strike retaliatory systems, similar to our SSBN's but some observers suggest they have (or will have) counterforce capabilities beyond that role.[9] Does Soviet interest in overseas bases like Berbera in the Indian Ocean and West Africa indicate a legitimate naval requirement, attempts at expanding influence or both? What can be decided about Soviet trends in naval procurement—do they indicate longer term expansionary objectives or are they just sufficient to maintain current force levels?

Most important, however, is the debate over interpretation of Soviet maritime power in the context of Soviet political strategy and its intentions. How *will* and how *can* the Soviet Navy be used? For example, many Western analysts argue that the expansion of the Soviet Navy, in qualitative and operational measures, provides the capability for conventional sea denial and, hence, the naval power for threatening vulnerable Western maritime lines of communication such as the North Atlantic and the oil routes from the Persian Gulf which are critically important in time of both war and peace. Therefore, one primary U.S. naval response must be protecting these SLOC's. However, since the most usual scenario offered entails a protracted war at sea, which appears unlikely, these assumptions and the corresponding naval requirements and costs can be questioned even though the perceived vulnerability of SLOC's remains.

Alternatively, the Soviets describe "sea denial," at least for the present, in terms of strategic nuclear defense aimed against Western ballistic missile submarines (SSBN's) and nuclear-capable attack aircraft carriers (CV's). Thus, a major issue over which debate exists is the scope of Soviet sea denial and the relevance of severing SLOC's. Does Soviet sea denial consist only of the strategic nuclear defensive; does it include conventional uses short of general nuclear war or does the Soviet naval view incorporate both elements?[10]

The "expansionist" trends in the Soviet Navy are challenged by some observers who, in reviewing all available evidence in the form of Soviet shipbuilding programs (including aircraft and submarines),[11] explicit doctrine, public pronouncements, training exercises and deployment patterns argue that while the more conventional aspects of sea denial may one day replace the difficult, if not impossible, task of countering Polaris and Trident, at this stage what has been considered reliable evidence in the past still continues substantiating the missions outlined by Gorshkov.

The dilemma here, of course, is resolving what may be genuinely defensive Soviet *intentions* with increasingly offensive capabilities. And, since debate over the Soviet Navy seems to be ongoing in the Soviet Union as well as in the West, particularly Admiral Gorshkov's prolific arguments[12] for a broader approach to naval use, dismissing out of hand either argument would be

erroneous. Western analysts should, therefore, focus on certain indicators or pulses of Soviet action which may be helpful in resolving this issue. These "vital signs" include:

a. The Soviet debate over naval doctrine.

b. New Soviet building construction programs and weapons systems.

c. Change in Soviet deployment patterns, overseas basing, exercises.

d. Development in Soviet conventional ground and air force capabilities especially with respect to air, sealift and amphibious forces.

e. Soviet perceptions of Western political and military resolve.

The results of monitoring these vital signs will inevitably be ambiguous in part. However, if in the main, the strategic nuclear criteria continue as doctrinal requirements and are paralleled by complementary building programs and deployment patterns, the conclusion would not support the "expansionist," anti-SLOC argument. A diminution of the strategic nuclear defensive mission and the acquisition of more forces capable of projective power such as attack carrier aircraft (including radically new VSTOL's), blue-water amphibious and logistic squadrons and more extensive basing rights would tend toward confirming a fundamental change in Soviet Navy missions away from its current wartime role.

Thus, deduction of Soviet naval missions is both possible and important. However, what is missing from the general debate over Soviet motives and appropriate Western responses is any *explicit* linkage between those purely naval responses to Soviet *naval* power and broader *maritime* options which are present in the emerging maritime environment. This is indeed paradoxical because the evolution of both navies has been affected differently by the broader reach of history and environment and every indication suggests the future will be similar to the past in that respect. If that is correct, what needs to be done, as well, is to interpret the respective roles, missions and capabilities of each navy in terms of the maritime environment, and to assess the major asymmetries of U.S. and Soviet maritime vulnerabilities and dependencies in this broader context.

III. **The Diffusion of Power and the U.S.-Soviet Maritime Environment.** The diffusion of power is having a major impact upon both U.S. and Soviet maritime power at three levels of analysis: political, military, and economic.

Political Impacts. The proliferation of the number of sovereign states within the international system is having important political effects upon the flexibility of the major maritime powers to project military and all forms of economic and political power across the globe. In practical terms the large numbers of nonaligned states can now influence U.N. votes on Law of the Sea questions, so much so that on certain issues such as freedom of navigation through narrow straits, the United States and the Soviet Union have frequently demonstrated complementary minority interests.

The overall effect of this phenomenon appears to put increasing political constraints on the deployment and use of naval power by the United States and Soviet Union in strategic regions of the world. This is not to say that if either superpower felt its vital interests were seriously threatened it could not act unilaterally and use its naval power to uphold them. However, in lesser situations, the political and possibly military costs of using naval power against the wishes of local states have risen to the point where shows of force such as the U.S. deployment of the *Enterprise* Task Force through the Strait of Malacca into the Bay of Bengal in 1971 during the Indo-Pakistan

War may become more problematic in the future.

The net effect of these political constraints should make the superpowers increasingly wary about how they deploy their navies and how they weigh the costs and benefits of doing so.

Military Effects

• **Nuclear Weapons.** In weighing the military implications of the new environment upon the United States and the Soviet Union, the role of nuclear weapons remains the most critical ingredient. Since both countries have placed great reliance upon the nuclear submarine equipped with ballistic missiles, any changes in the environment to enhance or diminish the survivability and vulnerability of these systems will be regarded with the utmost concern. In this instance, both countries are now deploying missiles with sufficiently long ranges to permit them to be deployed near home ports respectively in the United States and the Soviet Union. But, for example, the sea area between the North Cape of Norway and the Svalbard (Spitzbergen) is believed to be rich in oil, is certainly rich in fish and is claimed by Norway. The Soviet Union considers this passageway as vital to its security since the bulk of the Soviet submarine fleet is located at Murmansk. If Norway or an international consortium were to "develop" the oilfields in a similar manner to the existing North Sea oilfields south of 62^0 N. latitude, the potential vulnerabilities of Soviet submarines and their bases would be increased because of the proximity of Western oil rigs and oceanographic research facilities which, certainly in the Soviet view, could have military implications.

Similarly the potential spread of nuclear weapons may pose as great if not greater problems for Soviet security than for the United States and its allies. The list of existing and potential nth nuclear powers indicates that most of them are more likely to be able to threaten the Soviet Union than the United States. Already Britain and France have SSBN's capable of targeting the Soviet Union. With the exception of Brazil, most of the other likely nuclear powers are located much closer to Soviet than to U.S. continental targets (Israel, India, Iran, South Africa, Republic of Korea, Republic of China).

• **Access to Overseas Military Facilities.** In contrast to nuclear issues where the U.S.S.R. may be most vulnerable, the United States will be more constrained if, as seems likely, it is further denied access to overseas naval facilities which are politically costly and are subject to the vagaries of the host country. The Soviet Union has a certain dependence on external naval facilities but has adopted austere operations using alternatives such as accomplishing necessary repairs and maintenance at anchor rather than at shore bases. However, without access to overseas bases, the United States cannot carry out all *existing* missions and may be forced to accept certain restraints in operational capabilities. The alternatives of designing forces and force levels not requiring overseas basing are extremely costly. Overseas bases, on the other hand, are not essential for current Soviet missions but could be a great bonus for future missions.

• **Proliferation of Arms and the Closure of the Seas.** More and more countries are procuring military technologies capable, in theory, of challenging the maritime forces of both the United States and the Soviet Union in local environments. The spread of cruise missiles, maritime strike aircraft, submarines and mines to less-industrial states means that they now have much more effective local "sea denial" options than were available in the past. These capabilities, together with the

extension of territorial waters out to at least 12 miles and exclusive economic zones (EEZ's) out to 200 miles strengthen the argument that increasing areas of the world's sea space may be effectively "closed" thereby eroding the maritime powers' "freedom of the seas." However, those less-industrial countries most heavily committed to a military buildup are not reducing their dependency upon the industrial powers for their ultimate security and, in some cases, may even be becoming more dependent as the problems of implementation of *very* sophisticated weapons programs compound. Since most of the emerging military powers in the less-industrial world are buying U.S. rather than Soviet equipment, this "dependency" relationship is certainly not welcomed by the Soviet Union.[13]

Furthermore, in military terms, the proliferation of arms to less-industrial countries may presently be less disadvantageous for the United States than the Soviet Union for several reasons. First, the types of naval weapons being procured by littoral states are generally low-cost alternatives to traditional "capital ships" such as SSM-equipped patrol boats. While having localized advantages due to surprise or geography in confined waters, they are not likely to be much of a match against a really sophisticated capital ship such as an attack aircraft carrier in open waters. The Soviet Union, even with limited air-capable ships like the *Kiev*, presently lacks the maritime air and traditional "capital ships" to counter, in naval terms, an enraged littoral state unless it were to deploy a large percentage of its striking fleet or rely on nonnaval options. Second, in many cases, the Soviet Union rather than the United States is a potential target for growing littoral naval capabilities, especially for those small countries who have invested most heavily in naval systems such as Israel, Iran, South Africa and Brazil. Third, although the Soviet Union has never been reluctant to use force, so far, its record of forceful or threatened naval intervention overseas has been virtually nonexistent. While the United States may be constrained in future uses of force, in calculating the probabilities of intervention against a less-industrial country, the psychological advantage may, ironically, favor the United States.

Economic Factors.

• Sea Resource. Both the United States and the Soviet Union have growing interests in the economic uses of the seas. At the same time that the West's conventional military capacity has diminished, so dependence upon certain resources, especially oil, has increased and will continue to increase during the coming decade. Barring dramatic changes in consumption patterns there are no alternatives to oil as the primary energy source for the next 10-15 years. Within this period Persian Gulf oil will remain critical. Any prolonged interference with the transshipment of Persian Gulf oil to Europe and Japan would have a profound impact upon Western economic, political and, possibly, military relationships.[14] As a consequence, the security of the oil-flow cycle should assume great importance for Western strategic planning. But, if the West's most serious weakness is oil, the Soviet Union's is food. Excluding a radical change in the Soviet method of agriculture and more favorable weather conditions than are currently being forecast for the next decade, the Soviet Union will continue to need to purchase Western food and expand its capacity to retrieve fish protein from the sea.[15] Similar Soviet import requirements exist in the area of technology and the need for access to Western sources.

The growing demand for sea resources, especially oil and fish, has already led to conflict and, on occasion, violence over ownership and exploration rights. Unfortunately some of the most

lucrative untapped sea resources—oil and fish—are located in potential conflict regions. Areas replete with resource conflict include the South China Sea where both Chinas, Japan, the Koreas, Vietnam, and the Philippines have competing claims for numerous offshore islands and potentially lucrative oil deposits. Conflict over fish has already resulted in violent encounters between the Soviet Union and Japan, North and South Korea, Britain and Iceland, and the United States and several South American states. The Soviet Union and Japan are especially vulnerable to the effects of 200 mile exclusive economic zones since so much of their protein needs come from the sea.

In sum, it can be anticipated that as the potential for conflict over sea resources grows, so the need to "protect" these resources with military or "constabulary" forces will grow. Both the Soviet Union and the United States may be separately drawn into future conflicts over the ownership of and access to sea resources.

• **Sea Transportation.** The overall growth in world trade is resulting in an expansion of seaborne commercial traffic. The security implications of these trends are potentially very important. At the most extreme level the West's growing dependency upon the oil SLOC's from the Persian Gulf, Alaska, North Sea, West Africa, Venezuela, and South East Asia requires much more attention than it so far has received. Even though deliberate naval action against Western SLOC's by the Soviet Union remains unlikely, the vulnerability of this commerce to boycotts and cartels, to "closing" of chokepoints and strategic straits either by attempted political or other forms of action, and to third parties or transnational actors remains a potential problem for both the industrialized and the resource-exporting states.

In parallel, the growth of the Soviet commercial fleet has led to speculation that over time the Soviet Union may be able to increase its share of seaborne traffic and thereby challenge or even negate the capabilities of the Western operators in their critical field. To offset the more demonological explanations for Soviet commercial activity it should be pointed out that the Soviet's commercial fleet is one of its few foreign exchange earners. Given the continuing demand for Western wheat and technology, it can be argued that the Soviet commercial fleet is an economic necessity. Furthermore, despite its growth, the fleet is comparatively backwards in technical terms and unlikely to challenge the U.S. merchant marine in efficiency or capability. Where the Soviet Union may have an advantage over the United States is in the centralization of its commercial maritime planning which undoubtedly has military capabilities, especially in the areas of command, control and communications and intelligence gathering. This does not assume either monolithic control or efficiency—but, compared with the divided and fractured American system, unless the latter can sort out some of its problems, the Soviets over the longer term can erode the American lead in technology.

IV. Implications for U.S. Maritime Policy.

Policy Options. In view of the differences in U.S.-Soviet naval missions and capabilities and the changes in the worldwide political, military and economic environment, how should the United States orchestrate its policy and plan its maritime forces for the next decade?

The new environment contains some fundamental paradoxes which compound the difficulty of choosing a preferred policy. The economic benefits of the new ocean regime ratified by a law of the sea agreement offer the

potential for a future U.S. bonanza especially in the areas of oil, mineral and fish exploitation and maritime transportation. However, for the next 10 years or so, the Western powers are becoming more dependent upon the seas while their control of the seas is being challenged in certain areas. Soviet maritime power has been in the ascendancy yet the Soviet Union will face severe constraints in projecting its power overseas as well as in the continued modernization of its maritime forces. The less-industrial world is modernizing and arming at a remarkable pace, yet at the same time is becoming dependent upon the industrial world for its basic technology. These trends reinforce the interdependence of the major actors in the international system at the very time when sources for military conflict in critical regions of the world show no signs of abating.

One net effect is to establish much closer and more complex linkages between various maritime activities in both a structural and geographical sense. What this all adds up to is that the number of contingencies which could occur in the decades ahead to jeopardize U.S. interests is growing; yet, for the United States to adopt unilateral means of ensuring the protection of all these interests will almost certainly exceed diplomatic and financial capabilities. This suggests that we need to think very carefully about our maritime interests and decide which of them we wish to protect by ourselves; those we wish to protect in concert with friends and allies and those we can afford to relinquish or diminish our dependence upon.

Insofar as the commercial and economic aspects of U.S. maritime policy are concerned, much greater coordination is required in Washington if the very great economic benefits from the sea are to be realized. The list of participants with important maritime interests includes not only fishing, shipbuilding and shipping industries but the Congress, Labor, the Departments of Commerce, Interior, and Transport and the State Department and Department of Defense, as well as those littoral states on both U.S. coasts which have increasing interests in coastal zone management, which includes pollution control, fishing and offshore drilling. Although coordination between the Executive and Legislative Branches and the federal and state bureaucracies is essential, leadership must start in the Executive Branch. A first step would be to institute a more balanced representation of the various interests in the Executive Branch. Establishment of a new maritime bureaucracy may not be the solution although some form of centralization through a single cabinet-level coordinator—a maritime Czar—might be a distinct improvement. Understanding the maritime issues and coordinating the bureaucratic machinery are the two most significant requirements and that responsibility resides with the President.

In terms of defense policy the problems are potentially far more serious, because in this respect they involve relationships with foreign governments. With exceptions of the defense of the North American regions including the immediate northeastern Pacific and northwest Atlantic, protection of worldwide maritime interests will have to rely upon continued and possibly increased cooperation with friends and allies. The policy dilemmas are most apparent in those areas, which up to now, we have either had complete control over or, alternatively, have not commanded very high attention in terms of U.S. strategic priorities. Of particular importance is the Northwest Pacific and the Persian Gulf-Indian Ocean region.

The problem in the Northwest Pacific is that whereas we have important commitments in Korea, Japan and the Philippines, the aftermath of Vietnam has eroded our physical and psychological capabilities to project

force in the region. We, therefore, have the option of either reducing commitments or relying more heavily upon more subtle diplomatic initiatives and local friendly countries to provide a greater share of their defense. This problem is most acute in the case of Japan. Logic dictates that Japan should expand its military capabilities; politics suggests that this will remain difficult though not impossible in the years ahead.

In the Southern Seas[16] it would be most dangerous for the Western Allies to permit the unilateral growth of the Soviet maritime capabilities. Any potential on the part of the Soviet Union to expand its power to the point where it seriously could threaten Persian Gulf oil would, over the next decade or so, pose a great threat to the Western world which in many ways would be more divisive than the current Soviet challenge to Western Europe. The relationship between oil and security in the Middle East is extremely complicated and does not necessarily lead one to the conclusion that allied unity is inevitable in the event of disruption or even threat to oil supplies.

Given the importance of the Indian Ocean in addition to the other remaining commitments and requirements that necessitate the maintenance of a strong position in the Pacific, Atlantic and Mediterranean areas, we have several options to check Soviet power in the Middle East. Three possibilities should be examined: First, to have U.S. forces and facilities in the Indian Ocean equivalent to those of the Soviets; second, to reduce our direct military commitments and rely, instead, on more indirect policies such as arms transfers to friendly local powers; third, to rely on a more subtle approach which plays upon the Soviet Union's inherently cautious and pragmatic view of its military relations with the West. This third approach could include limited military options such as further low-keyed initiatives to secure access to military facilities in the Indian Ocean. In practical terms this means that our arms transfer policies to Middle East countries need to be more clearly related to our overall security requirements. It also suggests that serious consideration should be given to the uses of bases in Australia, possibly Cockburn Sound at Perth, thus permitting the Seventh Fleet a "swing" capability from the Pacific Ocean to the Indian Ocean theaters. A further option would be to employ more fully with Britain and France other islands base options in the general area of the Southern Seas, especially in view of potential difficulties with base rights and facilities in the Persian Gulf, the Philippines and Southern Africa.

Weapons and Force Structures. In translating these geopolitical requirements into military missions, force structures and weapons technology, priority must be given to sustaining and improving the capacity to destroy or neutralize the Soviet Fleet in conventional combat preferably by denying egress from home waters and destroying units already at sea. This capability would automatically assure protection of SLOC's and maritime interests. This type of navy would also possess sufficient flexibility and capability to respond to most non-Soviet contingencies when they arise.

For the 1980's, three approaches might be pursued. First, the geographic vulnerability of the Soviet Navy can be better exploited by current and future technology in mine warfare and mine delivery systems. "Captor," an ASW mine using a MK-46 torpedo is an excellent, but tardy, step against enemy submarines.[17] Further mining developments against both submarines and surface warships must be hastened including enhanced capabilities for delivery as close as possible to Soviet naval bases[18] thereby restricting Soviet movements and permitting U.S. sub-

marines freedom of action beyond those close-in minefields.

Secondly, while carrier task forces will remain the centerpiece of any anti-Soviet strategy, several types of additional weapons systems and basing structures augmenting this essential offensive capability should be considered. A two-phased research and development program for new air-capable ships should focus on Surface Effect Ships (SES) and VSTOL aircraft. The SES concept, despite *extremely* difficult problems of stability, endurance, propulsion, maintenance, and costs, has great potential. Riding on its cushion of air at 80-100 knots, the SES would be capable of *one* day transits from the Cape of Good Hope to Diego Garcia and from Diego Garcia to the Straits of Hormuz. With advanced weapons and sensors, these ships might be projected rapidly into distant and potentially hazardous areas with sufficient capabilities to perform their missions but without the attendant costs and risks of deploying an expensive CV.[19]

The second weapons program is to develop VSTOL aircraft having payload, endurance and performance characteristics roughly equivalent to today's carrier strike aircraft. Admiral Holloway has already made the case for this program and the U.S. Navy is actively pursuing new VSTOL technologies. These VSTOL could be stationed in CV's, aboard smaller air-capable ships such as LHA's and even in larger destroyers providing for the fleet a more dispersed and efficient air capability.

The research and development program for the next decade also needs to anticipate the likely future maritime environment and the requirement for lower cost, offensively armed surface escorts with the capacity for extended independent surveillance missions. This is in addition to current programs and not in competition with them. These relatively inexpensive "killer escorts" would be designed primarily against surface ships (and missile-armed patrol boats), would carry a modest ASW facility and be powered by a combination gas turbine-diesel system.[20]

Continued development of surface-to-surface missiles is also important. "Harpoon" is a first step but is limited in its ability to acquire independently over-the-horizon targets and perhaps in the lethality of its approximately 500-pound explosive warhead. The "Tomahawk" submarine-launched cruise missile (SLCM) incorporates advanced self-contained computer guidance which could have direct application in aiding independent target acquisition capacities against maritime targets.[21] The combination of the guidance techniques in "Tomahawk" with a harpoon-type missile, including new types of shaped explosive warheads, is a weapons development having excellent application for the fleet.

Thirdly, greater use of air force systems in sea control/sea denial against the Soviets should be explored. In this case, the Soviet example of Long Range Naval Aviation demonstrates a "balanced force, combined arms" approach.[22]

Finally, the United States should explore with its allies ways of improving Western *access* to base facilities in areas such as the Mediterranean and Indian Oceans and the Western Pacific. A combination of carrier task forces, new VSTOL aircraft and/or SES ships, a large more modern fleet of oilers and a forward base structure, perhaps including large, superstable floating concrete platforms might provide greater flexibility at less cost than either of the alternatives on its own.

V. **Conclusion.** Our basic conclusion is that the United States has the opportunity to reap major benefits from the emerging maritime environment in the years ahead but that this will require some hard decisions concerning

priorities, especially given the escalating financial and political costs of maintaining a worldwide maritime presence. If positive decisions are not made then we run the risk of losing economic benefits as well as seeing the naval balance with the Soviet Union shift against us in critical areas. We believe that Soviet maritime power can be checked or neutralized by the United States and its allies at an acceptable financial cost, provided that we fully exploit our natural geographical and technological advantages and the other asymmetries in the maritime environment from which we benefit.

The practical implications of these conclusions suggest that we should articulate a policy which will have the following results in both the commercial and military sectors:

- Increase the commercial shipbuilding/capacity for exploiting the fish and mineral resources of the sea; this will also benefit the naval shipbuilding and overhaul programs by providing new yards.
- Articulate strong support for the commercial exploitation of the 200-mile EEZ with due regard for environmental concerns.
- Exploit our advantages in maritime technology especially in the fields of electronics for resource detection, ocean drilling and mining, fish breeding and management, large superstable floating concrete platforms.[2 3]
- Counter Soviet naval power by

(a) making it increasingly difficult for the Soviet Union to consider seriously conventional naval missions such as interdiction of SLOC's.

(b) exploiting Soviet geographic weaknesses

(c) signaling U.S. resolve in critical areas such as the Indian Ocean by subtle and low-key diplomatic and naval initiatives.

In sum, there is no reason why the United States should not exploit the intensive wealth of the new frontier of the oceans as it was able to exploit its western borders in the 19th century. To this extent what is required is a new order of U.S. maritime policy which, if properly implemented, can enhance our security and prosperity in an increasingly competitive world.

NOTES

1. The term "maritime" applies to the broadest uses of the sea including trade, transport and exploitation of ocean mineral and food resources as well as the more forceful aspects. The term "naval" applies to a state's use of (military) force in the maritime environment.

2. There have been several government studies including NSSM 125 of April 1971 on "Oceans Policy." The problem is incorporating these efforts within a broader context of interested participants of both the private and public sector. In October 1976, former Secretary of Labor Ussery announced the Ford Administration would shortly form a "cabinet level maritime coordinator," an event overtaken by the election. This may be a necessary step but, as argued below, more is required in order to produce a cogent set of policies.

3. In *Naval Strategy* (Boston: Little, Brown, 1910) Alfred Thayer Mahan amended his previous impressions that navies depend upon maritime commerce as the cause and justification of their existence. He went on to note:

> ... but it has become perfectly evident by concrete example, that a navy may be necessary where there is no shipping. ... More and more it becomes clear, that the functions of navies are distinctly military and international, whatever their historical origin in particular cases [page 446].

4. Britain has four "Polaris"-type SSBN's each armed with 16 A-3 Polaris missiles. Each A-3 missile has three 200KT warheads. The French have four "SSBS" SSBN's each with 16 missiles for a combined U.K./French total of 128 missiles and 256 reentry vehicles/warheads. Assuming one British and one French SSBN always on station, there is the capability of threatening the destruction of Moscow and Leningrad.

5. Bureaucratically, the Navy has been and remains "junior partner" to the other Services.

6. The carrier is far easier to detect than the SSBN and can also be "marked" or trailed by a following ship, airplane, submarine or satellite.

7. In addition to the differences in missions, geography provides two important asymmetries. First, while the United States has virtually unrestricted use of her Atlantic and Pacific coastal naval bases, the Soviets have four distant and nonsupporting fleets hampered by weather and difficulty of egress. The four fleets, Northern (Kola,Murmansk), Baltic (Riga, Leningrad), Black Sea, and Pacific (Vladivostok, Petropavlovsk) are isolated and hampered by climate. Egress from the Northern and Pacific bases requires a long transit before reaching deep water for submarines and lengthy ones to likely areas of action. Passage from the Baltic and Black Seas to open water (Atlantic and Mediterranean) is extremely hazardous and, in time of war, these seas would most likely be bottled up. Second, in terms of SSBN operations, the Barents Sea may provide a natural sanctuary for protection of Soviet submarines, because of its contour, depth, proximity to Russia and climate. A similar geographic sanctuary is an asset the United States lacks.

8. Elmo Zumwalt, *On Watch* (New York: Quadrangle, 1976), chap. 4.

9. Norman Polmar, "Soviet ASW," *Naval Review*, July 1976.

10. Further evidence in the form of enhanced conventional capabilities of the Soviet ground and air forces is used to document this trend.

11. By examining all types of Soviet construction programs including the newest classes such as the *Kiev* air-capable ships, the *Kara*-class guided-missile cruisers and the "D" SSBN's, an analyst can evaluate capabilities and, by deduction, discern likely missions. Michael K. MccGwire has been the leader in this field and his findings generally support the strategic nuclear defensive interpretation of Soviet naval motives.

12. The lengthy series in *Morskoi sbornik*, "Navies in War and in Peace," is well-known. Gorshkov's latest book is *The Sea Power of the State* (Moscow: Voenizdat, 1976). In this book, Gorshkov makes more explicit his arguments for naval use stressing the strategic nuclear requirements as well as the potential for political uses short of applying actual force. Gorshkov calls for a balanced maritime effort based, of course, on naval power.

13. Iran is one obvious example whose enhanced military power and links with the United States are matters of some military concern to the Soviet Union.

14. One current oil thesis is: (1) By 1985-1990 U.S. oil imports will be equal to that of Europe and Japan; (2) in the same period, the Soviet Union will be seeking external oil sources; (3) given a reluctance by OPEC, particularly AOPEC, to increase production because of finite oil supplies and with no alternative economic infrastructures built within those oil-rich states, the conflict over satisfying demand could reach crisis proportions.

15. An argument can be made which suggests the Soviet Union is attempting to shift diet protein requirements from fish to meat sources. The importation of U.S. grain for animal fodder and not human consumption is cited as an indication of Soviet intent. While this argument may reflect Soviet normative objectives, it is superficial and misleading for several reasons. First, the Soviets have always attempted the enhancing of beef and pork production since the revolution. But the constraint is their system of agriculture which without major restructuring, is unlikely to sustain much higher rates of meat production. Second, based on allocation of resources made in the 10th Five-Year Plan, the fishing industry is continuing at a significant level of importance. Third, the traditional demand for fish (both fresh and salt water) as part of the standard diet is not likely to change even over the longer term. Last, the Soviets are unlikely to develop further dependencies on Western food for enhancing a single source of protein supply (pork and beef). Thus, every indication suggests a continuing and, possibly, increasing reliance on fish as sources of protein.

16. The "Southern Seas" include: the Southern Indian Ocean, the Cape of Good Hope, and the South Atlantic.

17. This type of mine is actuated by the sound of an approaching submarine and the MK-46 torpedo fired at the target. The kill probabilities of this system are quite good.

18. Existing delivery systems such as U.S. Navy attack aircraft and B-52 bombers are not satisfactory since they are nuclear-capable and, in closing the Soviet coast, would probably be so interpreted. Remotely piloted vehicles, rocket-assisted delivery systems of 100-mile range and submarine delivery are feasible options.

19. The SES would be armed with cruise missiles and aircraft like the F-14 and newer generations of VSTOL. This would provide excellent capabilities and at less cost than CV's. However, one should not underestimate the potential magnitude of the development and design problems. But the potential that SES demonstrates strongly suggests further R&D.

20. Prototypes of this ship are the Vosper-Thorneycraft Mark 7, British type 21 and Italian "Lobo"-class escorts. About 320 to 400 feet in length and 3,000 tons displacement, these ships

would have speeds in excess of 35 knots. Limited endurance at speed and high noise levels associated with diesel engines reduce ASW effectiveness. An austere command and control system, similar to British systems now in service, would further reduce costs. Gun armament should include at least one lightweight 5-inch mount. Antiair protection would come from these guns, from rapid firing "close-in-weapons" systems such as "Phalanx," speed, maneuverability and electronics decoys like "chaff." The Israeli Navy in the October 1973 War demonstrated the effectiveness of these capabilities against cruise missile attack. Longer range ASW torpedoes (MK-46) would complement medium-powered hall-mount variable-depth sonars. Smaller versions of these escorts (245 feet in length) are already being built for the Saudi's in this country.

21. The problems with "Tomahawk" are interrelated with SALT (Strategic Arms Limitations Talks) and the 2,000-nautical-mile range potential of the SLCM which is seen by the Soviets as a great potential threat.

22. Space precludes discussion of other recommendations. Specifically, development of new electronics warfare and advanced surveillance systems represent an ongoing requirement. Maritime aircraft such as the P-3C and S-3 "Viking" are vital to ASW. The submarine fleet, too, may have untapped potential including the possibility of commissioning a new class of fast attack nonnuclear submarines (or recommissioning those in reserve). While these submarines lack the performance characteristics of their nuclear sisters, they may be cheaper over the long term and are less manpower-intensive given the rigorous nuclear power training requirements.

23. One obvious application of these platforms is for power production since the sea offers unlimited potential for cold-water cooling.