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FOREWORD

Commander Steve F. Kime, an observer of the Soviet military for much of his career, presents in this monograph his views of the nuclearage Soviet Navy. New license for Russian naval power is identified, but so are inherent limitations. There are important implications for US naval policy in the weaknesses as well as in the newfound strengths of the Soviet Navy.

Any "model" of the Soviet Navy would be controversial and the author acknowledges this; nevertheless, the "broad outlines" are reasonably discernible. He presents his arguments and describes the "profile" and composition of the Soviet Navy as he sees it. Based on his views and the current Soviet naval inventory, he presents an estimate of the Soviet Navy for the nineteen-eighties. He indicates what kind of developments would disprove his views of Soviet naval strategy.

This monograph is a timely and useful contribution to the literature on the Soviet Navy. Fiscal constraints and the politico-military complexities of contemporary international politics are hampering the ability of traditional naval powers to build naval forces and exercise seapower. Because of this, it is increasingly important that we seek a better understanding of the naval policies of a potential adversary that has, until recent history, been regarded as a "continental" power.

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R. G. GARD, JR. Lieutenant General, USA President

BIOGRAPHICAL SKETCH OF THE AUTHOR

Commander Steve F. Kime, USN, has received M.P.A. and Ph.D. degrees from Harvard University. His Ph.D. dissertation was entitled "The Rise of the Soviet Navy in the Nuclear Age." A submariner, he has served as Assistant Naval Attache to the Soviet Union and in the Defense Intelligence Agency. He is currently on the Faculty of The National War College and a member of the Management Systems Directorate of the National Defense University.

SOVIET NAVAL STRATEGY FOR THE EIGHTIES

It is wrong to try to build a navy in the image and likeness of even the strongest seapower, and it is wrong to define the requirements for building warships for one's own Navy guided only by quantitative criteria and the relative strength of ship inventories. Every country has a specific requirement for naval forces, and only this requirement, determined by the mission of the Navy, can serve as the basis for the development of types of forces, ship types, and weaponry.¹

Sergey Georgiyevich Gorshkov Admiral of the Fleet of the Soviet Union

Soviet military thought since the Second World War reflects a general adjustment to the "revolution in military affairs." The development of nuclear weapons and missile delivery systems was the beginning of a technological upheaval in military affairs. Current Soviet naval policy emerged in symbiosis with the adjustment of all the elements of Russia's traditionally continental military policy to the nuclear-missile age.

First came the possibility, and then the imperative, of maintaining a credible intercontinental attack capability. The logic of the nuclear age made strategic defense an integral part of the intercontinental attack calculus. As mutual deterrence raised the risks of confrontation to unacceptable levels, the nuclear umbrella was raised over forces for conventional warfare. This changed dramatically the nature of traditional military strategies between great powers.

For Soviet seapower it was a revolutionary change indeed. Though geography, economics, and a ground-oriented military tradition were not to be totally swept away, it became increasingly clear that maritime power would be an important part of Soviet military and foreign policy. As Gorshkov suggested above, the Soviet Union would have her own "specific requirement for naval forces" and would produce a navy different from all others in the history of navies.

What kind of navy is it and where is it going in the 1980's? The present Soviet Navy and the broad outlines of the policies directing it, can readily be described. Any such description, even of the present, would not find unanimity among observers, and any view of the future is bound also to be controversial. However, in my opinion, because

there is much we already know about the Soviet Navy and because it takes a long time to design and build ships, the outlines of both the present and the future Soviet Navy are reasonably clear.

The remainder of this paper will look briefly at Soviet naval strategy and will sketch the shape of the navy that will likely evolve to execute that strategy in the eighties.

SOME FACTORS AFFECTING SOVIET NAVAL DEVELOPMENT

Geography has never favored Russian seapower. Even in the nuclear age, widely separated fleet areas and restricted access to the open ocean are important limitations. They are not as important, however, as they used to be when Russian ships which ventured far from the shadow of the continental power of the homeland were largely at the mercy of traditional seapowers. For centuries, though there were high points and moments of glory, Russian naval power was confined to local seas and support of ground forces when truly important conflict was involved.

Admiral Gorshkov acknowledges the importance of geographical limitations, but rejects assertions that a continental power cannot also be a "great seapower."² While recognizing that "considerable difficulties for Russian seapower stemmed from its geographical position," the Soviet naval commander accentuates the importance of Russian naval power in the fate of the state.³

The fact is that one can no longer assess a state as primarily a seapower or a continental power. If it falls into one of these categories, and is *also an intercontinental military power*, a state gains leverage and credibility which enables its forces to assume roles and missions beyond the limitations imposed by simple geopolitical categories. Of course the modern Russian Navy has retained the entire range of tasks formerly associated with the Russian Navv-assignments aimed at the defense of the borders and at support of ground forces in continental offensives. But the Soviet Navy was not to be so confined; the politics and the military realities of the nuclear age engendered new license for the expression of Soviet naval power.

There are new combat missions at strategic levels, and new opportunities for the peacetime, or nonconflict, expression of Soviet naval power in the nuclear age. A primary factor changing the context for the expression of seapower is the existence of the nuclear level of conflict. The possibility of precipitating an intercontinental nuclear

exchange permeates the entire range of possible conflicts at sea. This has had a dramatic effect upon the evolution of Soviet naval forces, because it vitiates geographic limitations. Naval forces for nuclear attack and defense are justified in spite of geographic considerations, and peacetime uses of naval force, which rely on the threat of escalation, have never been precluded by geography.

Geography would probaby be a decisive factor if the Soviet Navy attempted to apply seapower in some traditional ways. Geographic limitations would weigh heavily upon attempts to "command" a significant portion of the high seas, to "project" naval forces against opposition very far from the Eurasian periphery, or to decide some important issue at sea disconnected from Soviet continental interests and the Soviet nuclear umbrella.⁴ The Soviet leadership seems to have understood this very well and to have aimed their Navy primarily at the two extremes of the conflict spectrum: forces are *built* for major intercontinental and continental war, but sometimes *deployed* for political reasons.

Economic considerations affect Soviet naval construction. While it is generally true that Soviet military planners enjoy a leadership disposed to a very high defense spending, the Soviet Navy surely has to justify expensive ships and submarines. Khrushchev made it clear that some types of forces, notably surface ships, were far less justified than others. Gorshkov remembers when, in the debates over where to place the most rubles, the Navy was placed under extreme pressure:

... in our military scientific circles extreme views were voiced, whose essence was the denigration of the role of individual branches of the armed forces and armament systems. Even the Navy's capability to operate at sea and, consequently, the country's need for it, was denied.⁵

It seems clear that strategic nuclear forces get priority, and that the Soviet Navy's claim to a large share of the defense budget must still be couched in terms of strategic offensive and defensive roles. When Gorshkov speaks of strategic nuclear naval missions, he often puts them in the context of "operations against the shore." These operations now involve naval capabilities that can directly affect the course and even the outcome of a conflict. "In this connection," Gorshkov says, "naval operations against the shore have assumed dominant importance in naval warfare, and both the technical policy of building a navy and the development of the art of naval warfare have been subordinated to them."⁶ If Gorshkov wishes to justify the building of new surface ships, for example, he must show how they are related to strategic offensive and defensive roles. If he wants to "sell" an air-capable ship like *Kiev* to the Soviet leadership, he must couch his justification in terms of a strategic mission such as antisubmarine warfare. To be sure, Soviet naval forces, and especially sleek new surface ships, will be used to "show the flag," but it would be difficult for the Soviet Navy to justify them in terms of political missions. Similarly, Soviet naval units are used for interposition, or denial, as a way of discouraging Western naval action,⁷ but it is unlikely that units are actually built with this in mind.

The Soviet Navy is only one, albeit vital, element of Soviet maritime policy. The economic arguments favoring construction of non-naval ships are strong ones. Warships are not the only means of showing the flag, and they bring in no hard currency to relieve balance of payments problems or provide protein for the Russian diet.

If for the decades just past new *naval* license has been manifested in the strategic military and political realms, new *non-naval* maritime license has appeared in the economic and political realms. The overlap is in the realm of politics, but the driving forces behind the construction of *all* Soviet maritime instruments have been military missions and economic goals. The navy has not been denied what it needs to conduct a "defense in depth"⁸ of the USSR, but non-naval maritime programs have had claim on vast resources to serve economic purposes. In the mid-1950's, when Soviet foreign policy took on more global dimensions, and just as the Soviet Navy began evolving its current nuclear age profile of capabilities, some resources were shifted from naval to merchant construction.⁹ Fishing and oceanographic ships have also proliferated in the last quarter of a century. It is apparent that the USSR has evolved an integrated maritime policy and that the navy's claim to resources to serve that policy is not always decisive.¹⁰

The internal sociopolitical position of the Soviet Navy does not favor it in the competition for resources. Naval units have sometimes been politically unreliable, a fact which has surely not endeared that Service to the leadership.¹¹ But the Soviet Navy's admirals would have to take a back seat to the marshals in any case. There is no question that the Soviet leadership, political as well as military, thinks in terms of *winning* a future conflict in which victory would ultimately be decided by what happens, or doesn't happen, with intercontinental attack forces, and by events on the ground in Eurasia. The navy's position in the competition for resources, given this perspective and the longstanding domination of the marshals, obviously has limitations.

A PROFILE OF SOVIET NAVAL POWER¹²

The factors discussed above all had their effect on the development of the Soviet Navy, and they will continue to do so. The naval forces which have been built represent capabilities to exploit the new political-military and strategic roles engendered by the nuclear age as well as to support conflict at the periphery of the Russian homeland. Figures 1 and 2 are two models of Soviet naval power.

Basically, these are simple models. They say that the Soviet Navy has practically unlimited credibility to act at the very lowest and very highest levels of naval activity; i.e., there are virtually no impediments to some viable Soviet naval role in "showing the flag" and in all-out nuclear war. The credibility of Soviet naval power becomes more circumscribed, however, as one considers levels of conflict approaching the center of the spectrum. They reveal a Soviet naval "profile" without a formidable midsection.

Though the expansion of Soviet naval activity on the high seas has been precipitated by a public image abroad of conceivable Soviet naval roles throughout the entire range of possible conflicts at sea,¹³ Soviet naval capabilities have not been tailored to fit this comprehensive image. The ability of the Soviet Navy to act independently and decisively is credible at and near the two extremes of the spectrum of naval options, but there is a large "grey area" through the middle range. This seemingly unbalanced naval capability reflects both the new opportunities for and the residual limitations upon Soviet naval power after the impact of nuclear-missile technology.

At the lowest and highest levels, there are new opportunities for Soviet naval power in the nuclear age. Only because of the advent of nuclear missile deterrence could the Soviet Navy have become an important strategic force in its own right. Its nuclear missiles, deployed in advance and ready for instant command, are credible forces because the historic geographic and economic limitations upon Russian seapower are not, in this case, restraining influences.

In the past, the geographic separation of Soviet fleets, the ability of other maritime powers to bottle the Russians up in narrow seas, and the enormous resources demanded to build a navy large enough to challenge other navies, all combined to keep the Russians from maintaining naval power which embodied a deterrent force at the highest level of conflict. The navy was forced into tangential roles at the periphery of Russian massive continental land power. Those days are gone forever.



Note: Explanations of the various levels of naval conflict depicted in Figure 1 are at endnote 14.

Figure 1: Soviet Naval Credibility

At the lowest ranges of naval expression and action, the Soviet Navy has also discovered significant new room for maneuvering. The threat of escalation removes the long necessity for the acquiescence of the great naval powers. Furthermore, the decline of all but one great naval rival and the revolution in communications have combined with nuclear age deterrence to make a modern version of Russian seapower appealing to a leadership which is intent on extracting the most possible political as well as military benefit from every ruble in the defense budget.

No longer is there such a tenuous thread connecting far-flung Soviet naval units with the awesome power of the homeland, and Soviet warships cannot be treated with impunity even by a vastly superior naval rival. The entire spectrum of nonconflict expression of naval power has thus been opened to the Soviet Navy, and it has been increasingly exploited as the Soviet leadership has perceived this opportunity for high returns on relatively limited investments. Since about 1963, the Soviet Navy has been the most dynamic *military* element in the Soviet attempt to provide mobility and flexibility to a global foreign policy. It has been accompanied by an extremely ambitious non-naval maritime expansion.

Soviet naval capabilities extend into the area of actual confrontation with Western naval power only at the lowest levels of conflict and, in a limited theater where forces are concentrated, to a major, but not protracted, level of hostility. Thus the nonconflict expressions of Soviet naval power are based on combat credibility which does not extend very far into the realm of conflict at sea before there must be recourse to the deterrent shield. Because the Soviet Navy has such a short spectrum in which it can escalate limited conflict with a credible threat of giving a good account of itself, its activity must always be regarded closely connected to the Soviet strategic nuclear umbrella. Moreover, in view of the strong emphasis on missile armament in Soviet ships, it is clear that any shooting situation carries the implicit and credible threat to cross the nuclear threshold at the level of "tactical" weaponry and thus further ease the way for rapid escalation to the highest levels.

It is in the "grey area" where the historic limitations of Russian seapower still weigh heavily upon the Soviet Navy in the nuclear age. A prolonged and extensive conflict limited to maritime theaters would find the Soviet Navy, in addition to being vastly outnumbered, more easily bottled up in restricted areas than its rival, and isolated from the rest of the nation's substantial nonnuclear power which remains "continental" in location and capability.





THE CURRENT SOVIET NAVY¹⁵

The authoritative, but unofficial, estimates of the International Institute for Strategic Studies (IISS) note that of the 3,675,000 uniformed personnel in the USSR, the Navy has 450,000.¹⁶ Of these, IISS reports that 50,000 are in the Naval Air Force, 12,000 in the Naval Infantry, and 10,000 in the Coastal Artillery and Rocket Troops.

The most recent IISS estimates also state that the Soviet Navy now has 82 strategic offensive submarines carrying 909 submarinelaunched ballistic missiles. There are 234 attack and cruise missile submarines of which 82 are nuclear-powered and 152 are diesel-driven. Major surface combatants, if one includes 103 frigates among them, now number 230. Soviet Naval Aviation maintains about 662 combat aircraft, 80 tankers, 260 helicopters, and 270 transports and trainers.

The General Purpose ships are deployed so that the bulk of the submarines go the Northern and Pacific Fleets and major surface combatants are split roughly equally among all four fleets. The Naval Infantry comprises five regiments, each with three infantry battalions and one tank battalion. The Pacific Fleet has two regiments and the other three fleets have one each.

More specific order of battle information is presented in the following tables (1 through 11).

Class	Number	Missiles
Delta II*	8	(16) SS-N-8
Delta I	13	(12) SS-N-8
Yankee	34	(16) SS-N-6
H-Class	7	(3) SS-N-5
Golf II (diesel)	11	(3) SS-N-5**
Golf I (diesel)	9	(3) SS-N-4**
Total	82	



*One of these may be a new Delta III class.

**The sixty SS-N-4 and SS-N-5 missiles are not counted in strategic arms limitations.

Attack Submarines ¹⁵				
Class	Number	Propulsion		
November	13	Nuclear		
Victor I	17	Nuclear		
Victor II	3	Nuclear		
Echo I	5	Nuclear		
Alpha	1	Nuclear		
Foxtrot	56	Diesel		
Romeo	10	Diesel		
Zulu	10	Diesel		
Whiskey	40	Diesel		
Bravo	4	Diesel		
Tango	3	Diesel		
Quebec (coastal)	5	Diesel		
Total	167			

Table 3

Cruise Missile Submarines ^{1 5}				
Class	Number	Propulsion	Missiles	
Papa	1	Nuclear	?	
Charlie	13	Nuclear	(8) SS-N-7	
Echo II	29	Nuclear	(8) SS-N-3	
Juliett	16	Diesel	(4) SS-N-3	
Whiskey (Long Bin) Whiskey (Twin	6	Diesel	(4) SS-N-3	
Cylinder)	2	Diesel	(2) SS-N-3	
Total	67			

Class	Type	Number	SAM or SSM
Kiev	VTOL Carrier	1 (2 building)	SSM & SAM
Moskva	Helicopter Cruiser	2	SAM
Kara	ASW Cruiser	5	SAM
Kresta I	ASW Cruiser	4	SSM & SAM
Kresta II	ASW Cruiser	9 (2 building)	SAM
Kynda	Cruiser	4	SSM & SAM
Sverdlov	Cruiser	10	3 with SAM
Chapayev	Training Cruiser	1	
Krivak	ASW Destroyer	14	SSM & SAM
Kanin	ASW Destroyer	8	SAM
Kildin	ASW Destroyer	4	SSM
Kashin	ASW Destroyer	19	SAM & 5 w/SSM
Mod-Kotlin	Destroyer	8	SAM
Kotlin	Destroyer	18	
Skory	Destroyer	20	
Mirka	Frigate	20	
Petya	Frigate	45	
Riga	Frigate	35	
Kola	Frigate	3	

.

Table 4

Minor Surface Combatants ¹⁵					
Class	Туре	Number*	SSM or SAM		
Nanuchka	Missile Patrol Ship	17	SSM & SAM		
Turya	Submarine Chaser	25			
Pchela	Hydrofoil Submarine				
	Chaser	25			
Grisha	Submarine Chaser	25			
Poti	Submarine Chaser	64			
Stenka	Submarine Chaser	65			
SO-1	Submarine Chaser	65			
OSA	Missile Patrol Boat	120	SSM		
Komar	Missile Patrol Boat	5	SSM		
(Various)	Motor Torpedo Boats	100			
(Various)	Minesweepers	330**			

*Numbers approximate, especially regarding smaller craft. **Includes 150 coastal minesweepers.

Table 6

Larger Amphibious Ships and Craft ¹⁵				
Class	Туре	Number*		
Alligator	LST	14		
Ropucha	LST	7		
Polnocny	LSM	60		

*Does not include about 180 small amphibious vehicles and craft (M-P2, 4, 6, 8, 10, and Vydra). Numbers approximate.

Support Ships ¹⁵			
Category	Number*		
Oilers	60		
Supply Ships	80		
Depot Ships	20		
Repair Ships	30		
Intelligence Collectors (AGI)	54		

*Approximate

Table 8

the share of the state of the s

Ships in Reserve¹⁵

Number*	
90	
15	
2	
15	
10	

Class	Туре	Number*	
Badger (TU-16)	Bomber (ASM)	280	
Backfire B	Bomber (ASM)	30	
Blinder (TU-22)	Bomber	48	
Beagle (IL-28)	Bomber	10	
Forger (Yak-36)	VTOL Ground Attack	10	
Fitter	Ground Attack	10	
Badger E/F	Reconnaissance	39	
Badger	ECM	30	
Various (Bear D/F, May,			
Mail)	Maritime Reconnaissance	205	
Badger	Tankers	80	
Various (Hound, Haze,			
Hormone)	ASW Helicopters	260	
Various	Transports and Trainers	270	

Ta	ble	10

Approximate Range of Soviet Naval Missiles¹⁷

System	Range (Miles)	
SA-N-1	16	
SA-N-2	21	
SA-N-3	21	
SS-N-2	15	
SS-N-3	450	
SS-N-4	350	
SS-N-5	750	
SS-N-6*	1750	
SS-N-8**	4800	
SS-N-9	150	

*A solid propellent successor to SS-N-6 has been tested. Called the SS-NX-17, it may be capable of carrying MIRV's.

**The SS-NX-18, a three-warhead MIRV replacement for the SS-N-8, has already been tested.

Table 11

Type Force	Northern Fleet	Baltic Fleet	Black Sea Fleet*	Pacific Fleet
Attack and Cruise				
Missile Submarines Major Surface	110	35	20	70
Combatants**	50	50	60	60
Naval Infantry Regiments	1	1		

*Includes the Caspian Flotilla and the Mediterranean Squadron.

**Includes Mirka, Petya, Riga, and Kola Class Frigates.

PROSPECTS FOR THE EIGHTIES

The current Soviet Navy, as described above in both descriptive models and in terms of specific order of battle, is not greatly different from what the Soviet Navy will see a decade from now. There will be change, of course, but near-term change in this multifaceted and relatively young force will be evolutionary rather than revolutionary. Much of what now exists will be present through the 1980's. Much of what will appear has already been decided based on current understandings.

No model of a Soviet military force could be "proven," so I do not claim that my description is *the answer* to understanding the Soviet Navy. I do feel that it is generally accurate, and that the factors which have resulted in the unique Soviet naval force we see today will be present through the eighties. If I am correct, two things are probably true: the Soviet Navy is already quite close to the numerical limits of its logical expansion; and, we should be able to discern the outlines of the Soviet Navy of the future.

The Soviet Navy does appear to be near the numerical limits of its expansion. In consonance with Admiral Gorshkov's continued emphasis of quality over quantity¹⁸ we will probably see fewer units in the future Soviet Navy, but a higher proportion of units embodying the latest technology. Admiral Gorshkov would be among the first to say that numbers alone are not sufficient to judge navies,¹⁹ and a change downward in numbers of Soviet naval units in the future would not mean a significant reduction in the capabilities of the Soviet Navy to act within the "profile" presented, including the ability to maintain about the current levels of naval presence in distant areas. But qualitative upgrading also does not appear to have potential for altering the model of Soviet naval power during the next decade in any fundamental way. Increasingly capable surface ships and submarines may "fatten" the profile somewhat at the middle of the conflict spectrum, especially if the US Navy fails to provide viable opposition to potential Soviet naval activity at those levels, but it is unlikely that the Soviet Navy could break out of its current profile before the end of the century, and almost certainly not in the eighties.

What forces are we likely to see? Based on my notions of the "profile" of Soviet naval power, and the belief that my models will basically hold true and reflect naval construction decisions through the eighties, I postulate the following:

Surface Ships

Gorshkov appears to be escalating his previous arguments that surface ships are justified by their contribution to strategic missions.²⁰ We will see more air-capable ships ("ASW Cruisers") like *Kiev*, and perhaps some will be a slightly larger follow-on class. As noted in Table 4, there are already two *Moskva* class and two more *Kiev* class ships are currently building. Seven or eight can be expected to be in commission by the end of the 1980's. Like the operation of the current *Kiev*, they will probably be kept close to home most of the time. The newer units at least will likely stay close to the "strategic" fleet areas-the Northern and Pacific Fleet areas.

Missile-carrying cruisers, now numbering about 25, will probably increase by about 10 units by the end of the eighties. Similarly, Gorshkov and his followers have probably sold the Soviet politico-military leadership on a significant increase in the number of missile-armed destroyers now in the fleet. The 53 now in commission include some older units. There will be a total of about 70, including many newer ones, by 1990. Older, nonmissile-bearing cruisers, destroyers, and frigates will suffer significant numerical reductions. The total number of the major surface combatants discussed thus far will probably decline from about 235 to about 190 in the late 1980's.

Among minor surface combatants (see Table 5), there will probably be a general reduction as small, old units are retired more quickly than replacements enter service. The approximately 142 missile-bearing patrol craft include some that are quite old. Fewer new *Nanuchukas* and follow-ons, will appear than *Osas* and *Komars* that will leave the inventory. Thus, both missile and nonmissile minor surface combatants will be reduced in number. The approximately 850 minor surface combatants shown in Table 5 will be cut to about 700 during the next decade.

Larger amphibious ships (see Table 6), currently numbering about 71 units, will probably not be significantly increased. Newer units will replace old ones, and a few larger amphibious ships will appear. Many of the small, old amphibious vehicles and craft will be retired in favor of new air-cushion types. None of these developments will constitute a Soviet naval projection capability beyond the adjacent seas. If such a capability were developed to any serious degree, it would clearly disprove my model of the Soviet Navy. So would the development of large numbers of replenishment ships. These are not anticipated.

Submarines

The Soviet submarine force will probably continue to decline somewhat numerically, because a large number of Soviet conventionally powered submarines are getting quite old and, in spite of the penchant for keeping them around well beyond what would seem to be their useful life, they must be retired.

It is not too difficult to predict the general future of the Soviet SSBN force even though the current strategic arms limitation (SAL) situation is yet to be resolved. The *Golf* and the nuclear *Hotel* class ships will be over 20 years old in the 1980's. Before the end of that decade, the oldest *Yankees* will be that old. New SSBN's, and perhaps larger ones, will surely appear in the eighties. With a SAL agreement, there will almost surely be no significant increase in total numbers of units carrying strategic missiles. The profile of the Soviet Navy presented in this paper does not suggest theoretical limits on Soviet naval strategic nuclear attack forces, but the Soviet marshals probably do, and will impose limits anyway regardless of the outcome of SAL negotiations. A rather narrow range, near the current number of SSBN's allowed under SAL agreements, is probably accurate for the Soviet SSBN force through the remainder of the century.

The 39 nuclear attack and the 43 nuclear cruise-missile submarines in the Soviet inventory will increase in number by about 50 percent by 1990. By then, 40-50 percent of the approximately 152 conventional powered, general purpose submarines should have been retired. Again, we should expect in the submarine force a qualitative upgrading and an overall quantitative decline. (General purpose submarines will decline overall by about 30 units.)

Naval Aviation

The changes here might be affected by SAL and will depend partly on the evolution of Soviet air-capa le ships. Strategic arms limitations might affect the number of Backfire aircraft assigned to Naval Aviation, but a large number, perhaps 200, are probably intended to be assigned to the navy in any case. This will be a very important upgrading of the naval bomber force, though the total numbers in that force might decline from its current inventory of about 368 Badger, Blinder, Beagle and Backfire bomber aircraft as age takes its toll, especially from the 280 Badgers. If the Soviets continue to build typically Soviet-style air-capable ships, as I think they will, we can expect significant increase in vertical and short take-off and landing (V/STOL) aircraft (perhaps 200) and helicopiers (perhaps 100) to support those ships. Reconnaissance and antisubmarine warfare (ASW) aircraft will probably maintain their current numbers more or less. On the whole, Soviet Naval Aviation will increase roughly by the increment of new V/STOL and helicopters (perhaps by 250-300 aircraft).

Presence, Operations, and Exercises

The Soviet Navy will continue to make port visits to the Third World and conduct operations and exercises as it has in the past few years. "Permanent" presences in the Indian Ocean and the Mediterranean might increase slightly but, except for occasional crises, they are not likely to expand much. Emphasis on qualitative upgrading and general, though not dramatic, reductions in numbers of units available will make it difficult to keep increased numbers of units away from the Eurasian periphery. The USSR will cultivate semipermanent port facilities, but will not stake too much investment in them, political or economic, and will not attempt to maintain too many such locations simultaneously.

Technological Potential

The Soviet Navy can be expected to pursue innovative ideas. It is, of course, impossible to predict what new departures the future holds. However, there do not appear to be any imminent breakthroughs that will free the Soviet Navy from the constraints which limit some facets of its naval power. Though we can expect the Soviet Navy to field new ideas in propulsion and weaponry in the next decade, it is probably not innovation in the realm of naval hardware *per se* that will impact on the model of Soviet naval power presented in this paper. Soviet naval strategy is critically related to overall Soviet strategic power, and to the current rough balance of strategic power between the United States and the USSR. A technological break through that changed that relationship could have dramatic impact on the current profile of Soviet naval power.

CONCLUSIONS

The contemporary Soviet Navy is different from any other navy in the history of seapower. A creature of the nuclear age, the Soviet Navy developed first around strategic nuclear missions, then around nonconflict roles in the international politico-military arena. A limited naval strategy resulted, based on the threat of escalation from lowest to highest levels and on continued relevance of naval power to traditional continental concerns. Ability to wage "war at sea," and ability to wield the kind of naval power exercised in the past by great seapowers were not part of the license for Soviet naval strategy engendered by the nuclear age.

Approaching the end of a quarter of a century of evolution, the Soviet Navy appears to have about completed tailoring itself to fit the unique profile of logical, economical naval expression appropriate to Soviet nuclear superpower status. At least the directions are firmly set. Older ships are likely to be replaced by fewer but more technologically up-to-date ones, and there is not likely to be a Soviet pretense to assume a role reminiscent of traditional seapowers.

If this assessment is wrong, we will see significant changes in several facets of Soviet naval policy. Aircraft carriers closer to the Western type might appear. A genuine projection capability and underway replenishment ships would be clear portents. Development of Soviet hases and simultaneous programs to increase overall numbers as well as quality of Soviet naval forces would clearly indicate that Soviet naval strategy suffered no residual constraints from the prenuclear age. But none of this seems to be in the cards.

The Soviet Navy will continue to be a serious challenge to the West through the 1980's, but one that, if both the nuclear-age license and the constraints of the Soviet Navy are understood, can be coped with by the West. Strategic nuclear attack and defense missions will continue to dominate the construction and deployment of that Soviet Navy. Countering capabilities for these missions must enjoy very high priority in the United States, next to our own naval strategic attack capabilities. But we must not lose sight of the fact that Soviet military policy does not view war with the West only in terms of spasmodic massive attack and defense or, in other words, only as a short war. Before, after, and during intercontinental nuclear attack there can be large-scale conflict between General Purpose Forces and a requirement for Soviet maritime capabilities to attempt to "defend in depth" the Eurasian periphery. Traditional limitations on Russian seapower would complicate this effort, but only if Western navies are built and disposed to frustrate it.

At long distances from the Soviet Union in peacetime or in times of local tension, the Soviet Navy will continue to have limitations which can be exploited by an active US naval policy. It is true that, in the absence of a viable opponent, a minor naval presence can be quite effective. It is also true that, when vital national interests on both sides are involved, a lesser force can interpose itself in the path of a greater force and, relying on a credible threat of escalation to intercontinental levels of conflict, deter that larger force. However, in the author's opinion, the stakes are not high enough for the USSR in most Third World situations to make this strategy workable in the face of a resolute opposing force. Perhaps Soviet leaders see an era of general US retrenchment from foreign involvement and calculate that they will have sufficient opportunities where resolute opposing force will not be present and where, in spite of costs in terms of war-fighting missions, far-flung naval forces will be warranted. The point is that the choice is ours, not theirs.

ENDNOTES

1. S. G. Gorshkov, Morskaya Moshch' Gosudarstva [The sea power of the state] (Moscow: Voenizdat, 1976), pp. 413-414.

2. S. G. Gorshkov, "Navies in War and Peace," Morskoy Sbornik [Naval digest], March 1972, p. 20. Gorshkov also notes that "... no one reproached Germany for the fact that, though a great continental power, it was striving to have a large fleet."

3. Ibid., p. 22.

4. I cannot address comprehensively the need for a viable naval opposition in addition to geographic limitations in this paper. Suffice it to say that without an opposing force, and a leadership willing to impose that force, other limitations including geographic ones lose much of their meaning. I touch upon the need for a resolute opposing force in "The Challenge of Soviet Oceans Development," a paper delivered to the Symposium on US Oceans Policy held in Nassau on 12-15 January 1978 and sponsored by the University of Virginia.

5. Gorshkov, Morskaya Moshch' Gosudarstva, p. 257.

6. Ibid., p. 360.

7. Gorshkov puts it propagandistically: "The Soviet Navy is being used in the foreign policy measures of the state . . . a policy of suppressing the aggressive aspirations of imperialism, or deterring military adventures, and of decisively

countering threats to the security of peoples on the part of the imperialist powers." See ibid., p. 409. The US Chief of Naval Operations recently addressed the Soviet willingness to use naval units as an interposition force and cited Soviet naval operations in the Angolan crisis in CNO Report: A Report by Admiral James L. Holloway III, US Navy, Chief of Naval Operations, on the Posture of the US Navy. April 1977, p. 43.

8. The only truly fundamental mission of the Soviet Navy is "to defend the shores of the USSR in depth." See CNO Report, p. 38.

9. Michael MccGwire, "The Soviet Navy and Ocean Resources," paper presented at the Security Dimensions Workshop of The Symposium of "Canada and the International Management of the Oceans," held at the University of British Columbia in Vancouver, September-October 1977, p. 10.

10. In my paper, "The Challenge of Soviet Oceans Development," I present details of the growth of various elements of an integrated Soviet maritime policy.

11. Lenin never forgot the March 1921 Kronstadt Rebellion during which he had to dispatch Marshal Tukhachevsky to put down rebellious sailors. An interesting recent incident was a near-escape in November 1976 from the port of Riga by a Soviet destroyer manned by mutineers. See "Mutiny of the Strorozhevoy," Marine Rundshchau, No. 7, 1976, pp. 465-467.

12. Most of the concepts in this section were presented in my "The Rise of Soviet Naval Power in the Nuclear Age," unpublished doctoral dissertation, Harvard University, 1971; and in my "Soviet Naval Policy and Strategy: Trends and Prospects," paper presented on October 15, 1977, at the annual symposium of the American Association for the Advancement of Slavic Studies.

13. See my "Rise of Soviet Naval Power in the Nuclear Age," pp. 193-212, for a discussion of the broad range of naval tasks discussed in the USSR. Gorshkov's writings predictably have augured for the widest view practicable of Navy roles. His discussion of Naval Missions in the 1976 Soviet Military Encyclopedia (Vol. II, p. 235) is quite broad, but fits within my model. Western observers, however, sometimes tend to attribute almost unlimited roles and capabilities to the Soviet Navy.

14. Explanations of the "levels" of naval conflict indicated in Figures 1 and 2:

Level 13: All-out nuclear war. Naval strategic forces are employed as part of the total Soviet nuclear arsenal. Action on the high seas at lower levels becomes o. little consequence compared to the need to defend the homeland. Short-term attempts are made to neutralize strategic forces at sea, but the *first* imperative will be consolidation and protection of the nation's continental base of power and not an attempt to command the seas. (The United States Navy could control the seas in this event if it so desired, but this would be far beyond Soviet capability.)

Level 12: "Slow-motion" nuclear exchange is where naval strategic forces are used demonstrably. In this context, naval operations of a traditional nature (ASW, ships vs. ships, anti-surface shipping) are deployed in a wide-ranging intense demonstration, but are limited to a very short time period. No pretense is made to command the seas, and there is a pervading threat to either end hostilities entirely or proceed to a level of destruction and chaos where action on the high seas will be of little consequence. The nonstrategic naval forces act as an integral part of the strategic action, which is inherently limited to a short time period.

- Level 11: All-out conventional war: a comprehensive naval confrontation in conjunction with a massive land conflict where strategic nuclear missiles had somehow been avoided. The navy's mission is to isolate the enemy allies from their sea communications as well as to destroy the enemy navy.
- Level 10: An extended "war at sea" involves the full range of naval power the two sides can muster and deploy with the exception of strategic nuclear missile forces. The navy's mission is to destroy the enemy navy in a conflict tacitly limited to the ocean theater.
- Level 9: A prolonged theater conflict is limited to a specific theater where each side would support and reinforce its naval forces from its total naval arsenal. Strategic nuclear attacks are not involved.
- Level 8: Opposed naval intervention: an attempt to land significant intervention forces in a period of tension and conflict where the other superpower can be expected to oppose with its naval forces. This includes a clear challenge to meet this opposition with the full range of the nation's sea power and thus to escalate quickly through higher levels. The Soviets have not pretended to have the capability to execute such a landing but rather have concentrated on denying the US ability to do so by means of a credible threat to cause intolerable losses and force escalation to nuclear strategic levels.
- Level 7: Brief war at sea: a short confrontation of intense naval conflict lasting at most only a few hours or days. Conflict is concentrated in areas where significant forces are already deployed such as the Mediterranean. Use of all anti-ship weaponry, including nuclear ones, is likely and would have to be assumed in a tactical situation with modern Soviet ships. Though this is temporarily "limited" conflict, it has the character of a demonstrative "pause" between controllable conflict and higher levels involving strategic rockets and continental defense.
- Level 6: A quick "flare-up" exchange is between major concentrations of naval forces (the Mediterranean). The use of nuclear-missile weaponry would be very difficult to avoid because Soviet credibility to emerge from such an exchange is heavily based on these weapons. Escalation will

probably be unavoidable, and the Soviets have said or implied this often.

Level 5: Localized shooting incident: a very localized escalation to a shooting exchange between a few units. It would be a "flare-up" incident where there would be little question of nuclear weapons involved. Sufficiently isolated from major concentrations of naval power, it could be quickly suppressed before large forces are involved.

- Level 4: Indirect conflict with other superpower. Advisors would be used to help a surrogate power make a limited attack. The surrogate power's units would be built and equipped in the image of one's own navy.
- Level 3: Nonconflict deployment of naval forces. This would include the following elements: support of a regime in difficulty; clearly *unopposed* landing of a limited force; and emplacement of naval forces in locations of tensions to deter offensive actions.
- Level 2: Direct contact. This level is characterized by the following: flexing naval muscles for demonstrative purposes; interfering with one another by direct physical contact and manifest discourtesy endangering naval units-like the repeated scrapings of the U.S.S. Walker in May 1967. No shooting is involved.
- Level 1: Nonconflict expressions of naval power. This level might include: demonstrative display of naval units; long-range operations and flag visits; relief and disaster aid; and gifts of naval units and use of naval advisors.

15. Much of the numerical information in this section is based on *The Military* Balance 1977/78 (London: The International Institute for Strategic Studies), as reprinted in *Air Force Magazine*, December 1977, pp. 68-69.

16. Some useful commentary on Soviet naval personnel, and other factual matter on the Soviet Navy, is in *Understanding Soviet Naval Developments*, Office of the Chief of Naval Operations, Department of the Navy, Washington, DC, April 1975. (pp. 31-38 concentrate on Soviet Naval Personnel.)

17. Sources: "The Military Balance," Air Force Magazine, p. 110, and Siegfried Breyer, "Fleet Admiral Gorshkov Steers Course of Soviet Fleet for 29 Years," Soldat und Technik, August 1976, pp. 400-409, table 7.

18. Gorshkov, Morskaya Moshch' Gosudarstva, p. 364.

19. Admiral Stansfield Turner, current CIA Director, also makes this point very well in his "The Naval Balance: Not Just a Numbers Game," Foreign Affairs, January 1977, pp. 339-354.

20. Gorshkov, Morskaya Moshch' Gosudarstva, p. 319.

