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Although it is not yet possible to define how the Soviets intend to use their new High Seas Fleet, Western naval planners must reexamine their understanding of the Soviet Navy—its goals, its missions, and its strategy. Earlier notions based on an earlier navy may no longer be pertinent. Fresh speculation is in order. This paper is such a speculation and finds that a swing role would be a realistic compromise between the Soviet desire for a blue-water navy on the one hand and the imperatives of their geographical position on the other.

THE SOVIET HIGH SEAS FLEET OF THE 1990s: DESIGN FOR A "SWING STRATEGY"?

by

J.S. Breemer

Introduction. As the Soviet Navy continues its transition from a coastal defense force to an offensive "blue-water" fleet, it is timely to contemplate how Soviet naval strategy might reflect the new range of capabilities that is now on the horizon. Two fundamental changes in Soviet fleet characteristics in particular warrant attention. The first is the trend toward much larger major surface combatants: frigates, destroyers, and cruisers.[1] The second is the rumored construction of a large-deck "conventional" aircraft carrier.[2] Having identified these two particular areas of change is not meant to imply the absence of other worrisome developments. The high-speed, deep-diving *Alfa*-class submarine, the *Trident*-size *Typhoon*-class SSBN, and the continuing modernization of the Soviet Naval Aviation's *Badger* force with the supersonic *Backfire* bomber are three other prominent instances of a progressively more potent naval opponent. The difference between those capabilities and the two areas of Soviet naval growth that are at the center of this essay is not one of different destructive potentials, but rather one of evolutionary versus revolutionary change. The *Backfire,* the *Alpha,* and the *Typhoon* embody, strictly speaking, qualitative improvements in the "traditional" elements in the Soviet Navy force structure. None are a radical departure from the kinds of Soviet naval forces that Western Fleets have encountered for two decades. Certainly, they will pose new and difficult problems some of which, such as the *Alpha's* speed capability, may elude a

satisfactory counter with existing anti-submarine warfare (ASW) technology. However, the fact, for example, that Soviet antiship missiles are getting faster and will be launched at greater srandoff ranges, or that Soviet submarines may exceed their Western counterparts in depth-keeping are not anomalies within the prevailing Western perception of Soviet naval strategy. The building of a "real" aircraft carrier and the across-the-board construction of larger surface warships are.

Put simply, the Soviets are now acquiring the tools to give effect to Admiral Gorshkov's order to the fleet in 1963 "to go to sea." Despite severe logistical shortcomings, a low operational tempo, and ships that were barely suited for long-distance deployments, the Soviets' *operational* gamble of "forward deployment" has paid off. It has bought them now the time and the practical experience to design a fleet with the capability to expand the meaning of "forward deployment" from its largely political-symbolic content to one with operational significance.

As the Soviet Union's peacetime hluewater navy evolves into a wartime bluewater fleet, naval planners must reassess some of the key concepts that have been at the foundarion of Western understanding of Soviet naval goals and missions. Notions that are brought into question include: the Soviet Fleet's "sea denial" role; its "single-salvo" capability, and its "zone defense" posture.[3] Instead, the possible strategic options, goals and missions of the Soviet Fleet in the 1990s ought probably to be contemplated in terms of the more traditional goal of a great naval power: maritime supremacy.

While it is certainly too early to attempt to define how the Soviet Union might use its "big navy" a decade hence, it is useful to begin to speculate on plausible alternative uses. The particular thesis that is advanced in this essay explores how a Soviet big navy could be employed to practice a "swing strategy" between the Soviet Union's main Pacific and Atlantic fleet areas. As a corollary, this essay suggests how such a fleet could help overcome the Soviet Navy's historical disadvantage in geography. Finally, it is speculated that the possession of a high seas fleet will give new impetus to the Soviet Navy's search for secure forward bases.

Soviet Surface Warship Construction Programs. According to Western news reports, four different "cruiser-size" ships are presently in different stages of construction in Soviet yards. The first unit of the 27,000-30,000-ton *Kirov*-class nuclear-powered "battle cruiser" has been undergoing sea trials in the Baltic Sea.[4] A second unit is under construction. Two other cruiser classes, one displacing about 7,000 tons and fitted with antiship missiles, and one of approximately 8,000 tons and equipped for ASW, are also being built in Baltic yards. In the Black Sea in the meantime a fourth, *Kara*-size unit, i.e., about 10,000 tons, is on the ways.

Evidence of the construction of a "conventional" aircraft carrier at the Severodvinsk yard remains sketchy. Increasingly, however, U.S. Navy spokesmen are stating their conviction that the Soviet Fleet will have at least one large-deck carrier with conventional takeoff and landing (CTOL) aircraft by the end of the decade.

One Western expert on Soviet naval affairs, Michael MccGwire, has related the large sizes of the various ships under construction to the Soviet Union's redesignation of some of its surface combatants 3 years ago. MccGwire has speculated "four main sizes of ships": a battle cruiser size, a cruiser size of about 12,000 tons, a destroyer size of 8,000 tons, and an ocean escort or frigate size of about 4,000 tons.[5] If correct this would mean, for example, that the *Kara* and *Kresta I/II* classes, now the largest modern nonaviation ships in the Soviet

Fleet, would be treated as "destroyers." Granted that there exists no universal type classification scheme among the world's navies, there is a certain irony in the fact that while the U.S. Navy continues to "upgrade" its ships (e.g., from DDG-47 to CC-47), the Soviet Fleet might effectively go through a reverse process.

There has been a great deal of speculation on the meaning of the new Soviet shipbuilding programs. While the end goal may not be clear, there is a consensus that, in the words of former Secretary of Defense Brown, "the Soviets are interested in more than the defense of their periphery, ..."[6] The following pages speculate on a possible strategic design to match the Soviet Union's new range of naval capabilities. The basic thrust of this design would be to overcome what has traditionally been the key obstacle to the development of Russia/Soviet Union as a first-rate naval power: the country's adverse geographic position.

Geographic Adversity. Naval experts in both the West and in the Soviet Union agree that geographic circumstances continue to impose a most important constraint on the effective use of Soviet seapower. The lack of direct access to the open oceans, the huge distances that separate the country's main coastal areas, harsh climatological conditions, and the opponents' historical advantage in overseas bases, are a constant theme in Admiral Gorshkov's *Sea Power of the State*. As far as Gorshkov is concerned, czarist failure to take these factors into account in doctrine, force planning and warship construction bore fruit dramatically in the disaster at Tsushima Strait in 1905.[7] While acknowledging that subsequently "influential Russians began to get a better understanding of the significance of the Navy in modern warfare," Gorshkov stresses the continued indifference of the "Czarist rulers" to *Russia's* naval needs. His complaints focus in particular on the priority of "national prestige" rather than "naval power," and the "servile imitating" of foreign ship designs rather than the building of ships tailored to Russia's geographic needs. Warships appropriate to Russia's geographic circumstances, according to Gorshkov, would have been designed to meet the requirements of "inter-theater maneuver of naval forces," and the "timely concentration of forces in the required theater." The possession of overseas bases and "suitably equipped sea routes" would have eased the design problem. Unfortunately, the admiral continues, the czars had been indifferent "to laying claim to the many islands and overseas territories which had been discovered by the Russians," a result, in turn, of the failure properly to understand naval power. The lack of bases being a *fait accompli*, Gorshkov says, the alternative would have been to build ships with a "long-range navigation capability." This, too, was not done with the result that Russia was left with several isolated fleets, each of which was usually weaker than that of the opponent that could concentrate his forces.[8]

Escape from geographic impediments has been a longstanding Soviet foreign policy objective. In World War II Soviet Foreign Minister Molotov explained to his Norwegian counterpart, Trygve Lie:

> . . . The Dardanelles . . . here we are locked . . . Oresund . . . here we are locked in. Only in the North is there an opening, but this war has shown that the supply line to Northern Russia can be cut or interfered with. This shall not be repeated in the future.[9]

Attempts by the Soviet Union to overcome the geographic fragmentation of its fleet and to secure open and safe access to the high seas have taken different forms. Technology, international law, the threat of military force, and political maneuvering have all been employed at various times and at different

places. On the technological front, three schemes have been pursued. The first one has been the construction of an extensive network of internal canals that link some of the principal rivers to the Black, Baltic and White Seas. Depth constraints permit the interfleet transfer of small vessels only, however. The evolution of Soviet Naval Aviation as a long-range bomber force has been a second application of technology to overcome fleet fragmentation. Aircraft can be redeployed rapidly among staging areas as the situation requires. The submarine, particularly if nuclear-powered, has been the third answer. Submarines stand a much better chance than surface ships to leave port undetected and reach the open sea where they may join up with units from other fleet areas.

On the legal front, the Soviets have made persistent efforts to interpret the international law of the sea in light of their goal of secure access to and free use of the seas, while limiting the access of foreign navies to Soviet regional seas. In the case of the Baltic Sea, for example, the principle of *mare clausum* has been invoked to exclude the navies of the noncontiguous nations. Similar claims have been made with regard to the Black Sea and the Seas of Okhotsk and Japan.[10] At the same time, the Soviets have sought strenuously to defuse territorial claims on narrow passages and straits through which their ships have to pass to the open seas.[11]

The threat of military force and political cajoling, alternating with offers of economic aid, has been used in a carrot and stick approach in the Soviet effort to detach Turkey from the Western alliance with the ultimate objective of political, if not outright physical, control over the Turkish Strait.

The need to concentrate forces runs like a continuing threat through Soviet military writings, whether at the operational-tactical or on the strategic level. The requirement for concentration of force is also a well-established principle of naval strategy. Naval strategists, at least since Mahan, have held that a large fleet that cannot be concentrated in time to do battle is intrinsically weak. The prerequisites for concentration include a favorable geographic position in relation to the theater of action, and high endurance. If the home country itself is located adversely, then forward bases must be secured.

At the present the Soviet Union lacks both. Major fleet components are separated by lines of communications thousands of nautical miles long that pass through or skirt the waters controlled by opponents and potential opponents. Access to the open oceans is via relatively narrow passages that are subject to constant surveillance and interdiction. In many respects then the Soviet Fleet, despite its impressive numbers, suffers from serious operational limitations. The fact that Soviet naval doctrine and exercises have emphasized operations in the contiguous sea may have been not so much a matter of choice, as one of necessity.

It is noteworthy that the Soviet Fleet's first "global" exercises, *OKEANs* 70 and 75, took place at about the time that decisions on the procurement of battle cruiser and larger ships in general would have been made. While the Western press has focused on the command and control, and apparent mission-orientation of the two maneuvers, it is possible that the critical "lessons," as far as Gorshkov and his colleagues were concerned, were of a much more mundane character. Equipment deficiencies after a long voyage to the exercise areas, logistical difficulties, and crew weariness as the result of habitability standards not meant for long overseas deployments may have been the real "evidence" that Gorshkov and his colleagues looked for to justify "Phase IV" in the Soviet postwar naval building program.[12]

The Soviet naval leadership may well have resolved that the only way to

surmount the physical isolation of its two main fleet areas, i.e., the Northern and Pacific Fleets, is to shift shipbuilding priorities to endurance, survivability and defensive capabilities: in other words, to build a fleet that, even in time of protracted hostilities, is capable of a swing strategy between the main Atlantic and Pacific theaters.

Soviet Naval Force Design for a Swing Strategy. Under most foreseeable circumstances only two of the four Soviet main fleet areas can expect to have ready access to the open ocean in wartime: the Northern Fleet based on the Kola Peninsula, and the Pacific Fleet headquartered on Vladivostok and rhe Kamchatka peninsula. Western military planners believe (as do presumably the Soviets) that the exits from the Baltic and Black Seas can be closed with relative ease.

Combined, the Northern and Pacific Fleets account for about 70 percent of the Soviet Navy's general-purpose submarine forces (including virtually all of the nuclear units), all but 6 percent of the SSB/SSBN force, and about 55 percent of the major surface combatants.[13] Moreover, major surface combatants assigned to the Baltic and Black Sea Fleets tend to be dominated by older units (i.e., over 25 years) and smaller displacement ships (e.g., the *Krivak*-class FFG). Finally, almost 70 percent of the Soviet Navy's large displacement service force is also associated with the Northern and Pacific Fleets.[14] In sum, it is reasonable to suppose that units caught or deliberately held back in rhe Baltic and Black Seas on D-day will remain there to provide local, nearshore defense. Any operations against mainstay Western forces on the open seas would primarily be the responsibility of the Soviet "Atlantic" and "Pacific" Fleets.

To date, Western observers have rated Soviet surface capabilities as the least worrisome of the Soviet naval triad of air, subsurface, and surface forces. Outside the range of Soviet Naval Aviation (SNA) strike bombers the Soviet surface navy as presently structured would probably be a marginal opponent. This means that it may effectively have to stand by helplessly until Western forces have approached to within the 1,500 to 2,000 nautical miles SNA combat radius. Even then the coordination between air and surface units at a distance of, say, 1,500 nautical miles would require that the latrer leave their ports several days ahead of the air units. While in transit the surface fleet would be under the constant threat of surprise attack by Western forces, including land-based aircraft. If it arrived safely in the intended encounter area, the margin for error in effecting the *rendezvous* with the SNA bombers would be extremely small. Errors in timing, navigation, faulty intelligence on the movement of Western forces, or a sudden deterioration in weather conditions could all contribute to failure, if not disaster. As a final note, Western naval campaign plans are unlikely to be scheduled to accommodate the availability of SNA bombers. Namely, it can reasonably be imagined that, just as Long Range Aviation (LRA) bombers might be called on to reinforce an SNA mission, similarly SNA bombers may be committed to higher priority land strikes.[15] In other words, the necessary SNA bombers may not always be there.

Admiral Gorshkov has argued strongly the importance of combining the operations of submarines and surface ships. Certainly, the Soviet submarine fleet on a unit-for-unit basis offers a very formidable capability. Again, however, there are likely to be severe problems in maximizing the coordinated effect of multiple surface and subsurface units. Not in the least, for example, is the difficulty of prompt, reliable, and secure communications among submarines and between the submarines and a surface strike force.

The Soviet problem of how to concentrate forces in a timely manner and in sufficient strength to stand up against Western, primarily U.S. Navy aircraft carrier groups, is not only an intertheater but also an intratheater problem. On the intratheater level the Soviet solution can be twofold: first, upgrade and "up-size" those surface combatants that would be at the heart of a surface battle group, and second, acquire seagoing tactical airpower, i.e., aircraft carriers. The first part of the solution would be aimed at improving fleet staying power and air defense capabilities. The second part would seek an escape from the fleet's dependence on land-based airpower.

The construction and operation of large warships and aircraft carriers plus the various supporting assets calls for a huge investment. Probably it would be neither affordable nor, for that matter, necessary for the Soviets to commit themselves to such an enterprise on the basis that the Northern and Pacific Fleets would have roughly equal priorities. Instead, a practical compromise is to build forces that could be "swung" between the Atlantic and Pacific theaters as the military situation dictates. In other words, one high seas fleet built around aircraft carriers, battle cruisers, and large cruisers and destroyers would be used either to augment surface forces within theater, to concentrate naval strength out-of-thearer, or to redeploy forces between rheaters.

In his book, Admiral Gorshkov devotes considerable attention to the "Problems of Balancing Navies." He stresses the dynamic nature of the balancing process, pointing out that force levels and force composition must be responsive to changes in "historical conditions."[16] There can be little doubt that the Soviet naval leadership has perceived both an absolute and relarive decline in Western, including U.S., naval strength. It would not have taken a content analysis of congressional testimony by U.S. Navy officials for the Soviets to conclude that the U.S. Navy's ability to conduct an intensive two-ocean war has become marginal. The debate within the U.S. Navy over the possible need to redeploy Pacific Third Fleet elements, primarily aircraft carriers, to support a NATO Atlantic campaign, may have helped convince the Soviets that the creation of a high seas swing force is both a practical and a low-risk strategy.[17]

A carrier-centered battle fleet used in a swing role would be a realistic compromise between Soviet desire for a long-range oceangoing navy on the one hand, and the imperatives of its unique geographical situation on rhe other. It would blend the global mission orientation of today's U.S. Navy with the hitherto regional mission primacy of the Soviet Fleet. A Soviet naval swing straregy would not denude the regional fleet areas in either the Pacific or the Atlantic from their potent naval defenses. Both the Northern and Pacific Fleets would retain "fleets in being" of more or less the same size and characteristics as exist today. It must be remembered that although Gorshkov himself may be convinced that the likelihood of major Western naval campaigns against both areas simultaneously is low, his counterparts on land may not. In order to secure their support for his high seas navy, Gorshkov may well have had to assure the generals that adequate regional naval strength would always be available to support the land forces.

The details of the debate within the Soviet military hierarchy that must have preceded the decision to build a big navy will not readily become known in the West. The products of this resolution are becoming visible, however: nuclear propulsion, large displacement hulls, sea-based aviation, and long-range afloat support. How these elements would mesh in a Soviet swing strategy is discussed next, as is the prospect for a

more determined Soviet forward basing strategy.

Elements of a Soviet Navy "Swing Strategy." Soviet naval writings are replete with references to the advantages of nuclear propulsion. The capabilities of the U.S. Navy's all-nuclear surface task groups, for example, have been described with grudging respect.

The installation of nuclear propulsion plants on the Soviet Navy's larger ships such as "battle cruisers" and CTOL aircraft carriers is not only sensible from an efficiency point of view, but also makes it easier to provide adequate logistical support to the smaller oil-fired warships. Nuclear propulsion of capital ships would help ease the problem that the Soviets have apparently encountered in scheduling frequent at-sea fuel replenishments. Today, for example, it is still common to see Soviet warships at anchor for days while awaiting the arrival of tankers. While the resultant degradation in readiness may be acceptable in peacetime, it is not in time of war.[18]

Nuclear propulsion for the larger combatants would reduce the Soviet Navy's fleetwide requirements for underway support, although already in this area the Soviet Navy has made very significant strides. Until recently, its underway tankers were of modest size compared with U.S. Navy oilers. The appearance in 1978 of the lead unit in a series of at least four *Berezina*-class ships has changed this trend. The ship is comparable in most respects with the U.S. Navy's largest replenishment ship, the *Wichita* class. The authoritative 1980/81 edition of *Combat Fleets of the World* summed up its description of the *Berezina* as marking "the maturation of Soviet naval logistics at sea."[19]

The building of four *Berezina*-class units underscores the report by *Jane's Fighting Ships* that Soviet large-deck carrier plans include possibly four units.[20] The possible composition of a Soviet carrier battle group might therefore be as follows:

- one 75,000-ton nuclear carrier
- one 27,000-32,000-ton nuclear battle cruiser
- two 12,500-ton *Kara* follow-on strike warfare/surface warfare cuisers
- two 7,800-ton multipurpose cruiser/destroyers
- one *Berezina*-class fleet replenishment ship.

A potent sea-based aviation component would be essential to the feasibility of a Soviet naval swing strategy. Long-range antiship missiles present a formidable threat to the U.S. carrier navy; however, given a state of war, carrier aviation has a distinct advantage in terms of striking radius, reattack capability, and weapon delivery accuracy at long ranges. If the whereabouts of a Soviet missile-only strike force is known, Western carriers could simply stay out of range while their aircraft go about attacking the force.

The Soviet carrier building program will create the means for a Soviet swing force to bring along its own long-range air defense umbrella—a need long recognized by Gorshkov as is clear from his criticism of the lack of "balance" in the Soviet Union's pre-World War II naval building program. He says:

> The program for building a large ocean-going Navy, adopted in 1938, called for the building of major gunnery ships capable of engaging in single combat with a strong enemy on the high seas. The questions of balancing the naval forces as applied to the new condirions were nor properly resolved either in theory or in naval construction practice . . . the high combat capabilities of aircraft as atrack factors in naval warfare were not given sufficient considerations. At the same time, Soviet military theory, being oriented toward surface ships, was unable to

justify the need to have in its ocean-going naval inventory aircraft carriers capable of providing cover for ships beyond the range of the shore-based fighter aircraft. As a result, one could not count on success in ship operations in the relatively distant areas of the sea, much less in zones controlled by enemy aircraft . . . . Thus, the ocean-going Navy that was being built actually could operate only in its own coastal areas . . . . [21]

Implications For Soviet Naval Forward Basing. A Soviet swing strategy would levy a heavy requirement for logistical support. The longer the voyage, which in the case of a transfer between the Pacific and the Atlantic Ocean via the Cape of Good Hope would involve about 17,000 nautical miles, the greater the need for fuel, ammunition, spares, and repair assets. There are two alternatives: forward bases or afloat support. Thus far the Soviet Navy has relied primarily on the latter while taking advantage of the country's large merchant marine tanker fleet. As mentioned, important improvements in Soviet afloat support are presently underway.

The reason that the Soviet Navy has not availed itself of overseas bases may have to do less with Gorshkov's claim that "The USSR, in conducting a Leninist peace-loving foreign policy, does not aspire to any such acquisition," than with lack of opportunity.[22] Reportedly Admiral Sergeyev, the Chief of Naval Staff, told a Western naval attache in 1973 that his greatest problem as a result of the move to forward deployment was the lack of bases.[23]

What have been termed Soviet naval "bases" in the Western press have actually been ports of privileged access. Generally, facilities and services available to Soviet warships have been limited to fuel, water, minor repairs, and "rest and recreation" for crews. According to President Sadat, even at the time of large-scale Soviet involvement in his country, Soviet port privileges at Alexandria and Mersa Matruh were never extended to permanent shore installations. Instead, the Soviets were allowed to maintain depots for reserve stocks, storage, and spare parts.[24] By no stretch of the imagination can Soviet naval facilities in such ports as Aden in South Yemen, Latakia in Syria, or formerly Berbera in Somalia be compared with the huge U.S. Navy operating bases in Subic Bay or Yokosuka.

One can fairly guess at the reasons why the Soviet Navy has thus far apparently been satisfied with its frequently quite tenuous and temporary arrangements for fleet support on foreign shores. The stigma of "imperialism" that is associated with "foreign bases" is probably one reason. Not only the Soviet Union itself carefully attempts to avoid this label, but the potential grantors of base rights, too, i.e., mostly the developing nations, strive assiduously not to become known as "imperialist pawns" before the rest of the nonaligned world. There are also military reasons. A forward naval base has little value if the user-fleet cannot protect it and its lines of communications back to the home country. Because the ultimate reason for a forward base is to strengthen a navy's ability to concentrate forces in a critical area in a timely manner, access to and from the base must be secure during hostilities. To date, the Soviet Navy has not possessed the wherewithal to gain and maintain sea control over wide expanses of the world's oceans. What forward bases it might have acquired would have been isolated as soon as hostilities started. In the event, the fate of such bases and of the Soviet warships that might be there at the time would probably resemble that of the German colonial ports at the outbreak of World War I. Most

important, until the Soviet Union can convince a host country that it is capable of defending the base and the host country, the latter is not likely to accede to the Soviet request and thereby risk its own security in the event of war.

The Soviet high seas fleet of the 1990s will probably have an important influence on future Soviet forward basing strategy. Even though the Soviet Navy's long-range support afloat capabilities are growing commensurately with the expansion of its war potential, there will be an acute need for a secure overseas basing network. In particular, there is likely to be a strategic demand for at least one operating base to serve as a hinge for operations between the Cape of Good Hope and the Malacca Strait. If the Soviets anticipate the Indian Ocean to be a potential theater of hostilities, a long-term deployment and logistical support of a high seas fleet based on Far Eastern or North Atlantic ports would be very difficult to sustain. Wear and tear on people and machinery alone would reduce combat effectiveness in important ways.

It remains to be seen whether the Soviet Navy's use of the former U.S. base at Cam Ranh Bay will be the rudiment of its first legitimate forward operating base. From a geostrategic perspective, other desirable locations are the islands in the Seychelles and Mauritius.

Bases do not translate into more ships; however, fleets and forward bases are mutually reinforcing elements in the seapower equation. The Soviet high seas fleet of the 1990s will give the Soviet Union the material means (and motivation) to secure an overseas network of bases. The possession of those bases will enhance, in turn, the flexibility and effective strength of the fleet.

Conclusion. As stated earlier, the existence of a Soviet strategic design to use a high seas fleet in a swing role is speculative. It is a "model" that seems to match the kinds of ships that the Soviet Navy is acquiring today and that moreover suggests a practical solution to the Soviet Union's longstanding geographic problem. In conclusion, the following excerpt from Gorshkov's *Sea Power of the State* is appropriate to recall:

> Establishing the conditions for gaining sea control has always required lengthy periods of time and the execution of a series of measures while still at peace.[25]

BIOGRAPHIC SUMMARY

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NOTES

1. At least four different classes of cruisers are under construction, a 27,000-30,000-ron nuclear-powered "battle cruiser" and three other classes displacing about 7,600 to 12,000 rons. *Department of Defense Annual Report Fiscal Year 1981* (Washington: U.S. Govt. Prinr. Off., 29 January 1980), p. 103.

2. Reportedly displacing between 50,000 and 75,000 tons and nuclear-powered, at least one unit is supposedly under construction at the Severodvinsk yard on the Whire Sea. See, for example, *The Washington Post*, 14 August 1980, p. A34.

3. A critique of rhose concepts is contained in my essay "Rethinking the Soviet Navy" in *Naval War College Review*, January-February 1981, pp. 4-12.

4. L. Edgar Prina, "Defense Spending Increase Includes Big Shipbuilding Hike," *Sea Power*, July 1980, p. 39.

5. Michael A. McGwire, "A New Trend in Soviet Naval Development," *Naval War College Review*, July-August 1980, pp. 3-12.

6. *Department of Defense Annual Report Fiscal Year 1981*, p. 38.

7. S.G. Gorshkov, *Sea Power of the State* (Morskaya Moshch' Gosudarstva) (Moscow: Military Publishing House, 1976), pp. 109-115.

8. *Ibid.*, pp. 115-116.

9. Quoted in Trygve Lie, *Hjemover* (Oslo: Tiden Norsk Forlag, 1958). Cited in Phillip A. Karber and Jon L. Lellenberg, "The State and Future of U.S. Naval Forces in the North Atlantic," Christopher Bertram and Johan Jorgen Holst, eds., *New Strategic Factors in the North Atlantic* (Oslo: Universitets Forlaget, 1977), pp. 37-38.

10. William E. Butler, *The Soviet Union and the Law of the Sea* (Baltimore, Md.: Johns Hopkins University Press, 1971), pp. 116-133.

11. Robert L. Friedheim and Mary E. Jehn, "The Soviet Position at the Third U.N. Law of the Sea Conference," in Michael McGwire, et al., eds., *Soviet Naval Policy Objectives and Constraints* (New York: Praeger, 1975), pp. 341-362.

12. The term "Phase IV" is used in a report by Congressional Budget Office (CBO) to denote the introduction of new platforms and weapons such as the *Backfire, Kiev*, a possible CTOL carrier, and the nuclear-powered "battle cruiser." The CBO report characterizes Soviet "Phase IV" naval missions as "SSBN Protection, Small War, and Naval Presence Missions," *Shaping the General Purpose Navy of the Eighties: Issues for Fiscal Years 1981-1985* (Washington: U.S. Govt. Print. Off., January 1980), pp. 27-32.

13. John Moore, *Jane's Fighting Ships 1979-80* (London: Jane's Publishing Company, 1979), p. 500.

14. *Ibid.*

15. That the Soviets are at least contemplating using SNA *Backfires* in land strike missions is suggested by a series of photographs in the 14 July 1980 issue of *Aviation Week & Space Technology*, pp. 18-19. The pictures show the *Backfire B* in SNA colors carrying a single AS-4 missile. According to the caption, the dielectric plate on the nose of the AS-4 is a sign that the missile is not equipped with a homing type of guidance for antiship missions but has an inertial system intended for strikes against shore installations.

16. Gorshkov, p. 324.

17. A discussion of this option is contained in the Atlantic Council Working Group on Securing the Seas, *Securing the Seas—The Soviet Naval Challenge and Western Alliance Options* (Boulder, Colo.: Westview Press, 1979), pp. 210-211.

18. One author hypothesized that fuel conservation and reduced wear and tear of propulsion plants are probably the reason for the low tempo of Soviet warship deployments. He notes that in 1975, for example, Soviet combatants in the Mediterranean Sea spent 80 percent of their deployment time in port or at anchor. Also when underway, transit times rarely exceed 12 knots whereas those for U.S. Navy ships are usually over 15 knots. Charles C. Petersen, "Trends in Soviet Naval Operations," in Bradfore Dismukes and James McConnell, eds., *Soviet Naval Diplomacy* (New York: Pergamon Press, 1979), p. 47.

19. Jean Labayle Couhat, ed., *Combat Fleets of the World 1980/81: Their Ships, Aircraft, and Armament* (Annapolis, Md.: Naval Institute Press, 1980), p. 598.

20. Cited in *The Washington Star*, 14 August 1980, p. A7.

21. Gorshkov, p. 348.

22. *Ibid.*, p. 226.

23. Cited in Michael McGwire, "Naval Power and Soviet Oceans Policy," Congressional Research Service, *Soviet Oceans Development* (Washington: U.S. Govt. Print. Off., 1976), p. 146.

24. *The New York Times*, 22 April 1974, p. 7.

25. Gorshkov, p. 297.