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Opinions differ on details of the large Soviet CVN now abuilding. They differ also on reasons the Soviets waited so long to build it. Whether they couldn't until now or didn't want to until now, it will soon be an important element of Soviet seapower. This paper offers a view of the ship, its likely capabilities, and its probable missions and urges some specific responses that the West should begin to undertake.

BLUE WATER AT LAST: MISSIONS OF AND NATO RESPONSES TO THE NEW SOVIET AIRCRAFT CARRIER

by

Commander Miles A. Libbey III, U.S. Navy

At first, aircraft carriers were regarded only as ships providing fighter cover from air attack for surface forces and cargo vessels. Then on them fell the task of destroying the fighting surface ships of the enemy at sea and at the bases. Later, carrier aviation operated widely against ground objectives also in the course of landing and anti-landing operations, likewise in operations and combat actions aimed at weakening enemy aviation groupings.... The operations of fleet against shore assumed fundamentally new significance in war as a whole. This constituted an important part of its strategy.

S.G. Gorshkov¹

their naval construction and perhaps their naval doctrine as well. The nuclear-powered aircraft carrier (CVN) reported to be now on the ways near Murmansk² seems at first merely to be a slightly more advanced antisubmarine Vertical/Short Take Off and Landing (V/STOL) aircraft carrier designed to outdate rapidly past editions of *Jane's Fighting Ships*. Why should a larger version of the carrier *Kiev* following the 10-year progression from *Moskva* to *Kiev* elicit any special response? Significantly enhanced military capability and political flexibility are the unhappy responses from the NATO security perspective.

The new Soviet capital ship, without combat load, is estimated to displace 50-70,000 tons, roughly the size of the two smaller U.S. Navy aircraft carriers (CV), *Midway* (51,000 tons) and *Coral*

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Sea (52,500 tons). The ship is comparable in size to these fully capable fast attack strike carriers, but the U.S.S.R. is apparently adding the bonus of an unlimited cruising radius by choosing nuclear propulsion. Heretofore, hampered by Khrushchev's small ship navy and limited deck space, V/STOL aircraft have been used by the smaller 38,000-ton *Kiev* class antisubmarine carriers. The flight deck space available on a 60,000-ton carrier, combined with the Soviet development of catapults and arresting gear, will make the operation of high-performance, longer range jet aircraft possible. Doubling the size allows *more* than twice the number of aircraft to operate from the larger carrier.³ By U.S. standards, approximately 75 airplanes could operate from the Soviet CVN presently being built.

The Soviet *Flogger-D* (MiG-27), similar to the U.S. Navy A-7, is often seen as their first conventional takeoff and landing carrier aircraft.⁴ Of the other possibilities of the three new Soviet aircraft sighted last year, the *Ram-K*, a follow-on to the MiG-25, is the most likely candidate for a carrier air wing. Its variable wing geometry should allow the 60,000-pound class fighter to fly slowly enough to permit arrested landing. Another nominee is the *Ram-L* whose lighter weight, 25,000 pounds, might prove to be more manageable for the first Soviet experience with arresting gear and catapults.⁵ American satellites have detected shore-based tests of this gear with what may be a MiG-27 modified for the additional stresses of carrier takeoffs and landings.⁶

One advantage of size is that it allows a ship to absorb damage and continue to operate with some effectiveness. If the only mission of the Soviet Navy were to deny the sea to the U.S. Navy, then the Soviets could do perfectly well continuing to build along the lines they were following up to the 1970s. With

some of the broad characteristics of this new nuclear-powered Soviet aircraft carrier and the vast potential for enhancing Gorshkov's blue-water navy sketched out, the first question is obvious.

Why has it taken the Soviets so long to build a carrier? Stalin's consolidation of his personal power, increased availability of resources, and the renewed naval building programs of Japan and Germany led to the major Soviet shipbuilding program in the late 1930s. This desire to make the Soviet Navy a world class power was restrained by such basic problems as lack, even in 1933, of the industrial capability to construct aircraft carriers or battleships. As smaller ships were sliding down the ways, this industrial limitation was eased by an extensive improvement program. With the capability to build aircraft carriers, the Soviets planned as many as four ships. They then tried unsuccessfully to obtain designs and plans from the United States. Whether it was the refusal of the United States to cooperate or merely the lack of funding that cancelled the plans, at least some of the naval hierarchy realized that a carrier was necessary for operations outside the range of land-based aviation.⁷ Perhaps it was this very point on which the carrier argument turned: "We are not going to fight off America's shores," Stalin said, implying that fighter support from shore airfields could serve equally well as mobile floating airfields.⁸ The U.S.S.R. would remain a coastal navy. Yet, it appears that Stalin's concept of a balanced world class navy would include carriers if they could be built. The technical problems the Soviets were having are illustrated by their efforts spanning 1936-1939 to have the United States build two or three battleships for them.⁹

"In all cases when line ships and cruisers were found to be without strong air cover," Adm. Sergei G. Gorshkov,

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Commander in Chief of the Soviet Navy, wrote after World War II, "enemy aviation was able to reach them quite easily."¹⁰ Further indication that the effectiveness of carriers in the war had been recognized can be found in the June 1946 issue of the respected Soviet publication *Military Thought*:

The conditions of modern war at sea demand the mandatory participation in the combat operations of navies of powerful carrier forces, using them for striking devastating blows against the naval forces of the enemy as well as for the contest with his aviation. Both at sea and near one's bases these tasks can only be carried out by carrier aviation.¹¹

Despite Stalin's coastal defense strategy for his growing navy, by 1950 four aircraft carriers were scheduled for construction.¹² Stalin's vision of big balanced battle fleets went to the grave with him in 1953. With the subordination of the Soviet Navy to the control of the continentally oriented army, the hopes for a carrier soon vanished.

Khrushchev's fascination with the nuclear weapon as a cure for the burden of expensive large ships was reflected in the move to base the defensive role of the navy on the submarine, land-based aircraft and small ships equipped with missiles.¹³ If a carrier was not to be built, the effort to prove its worthlessness obviously became necessary. In 1960, Admiral Gorshkov mocked these huge ships, stating that they "have already had their day and are inevitably moving into the past. In their place are new ships—missile-carriers."¹⁴ While these words may have reflected his sincere hopes, in fact, the Soviet Union recognized the nuclear delivery potential against the motherland that was inherent in each U.S. aircraft carrier since 1951. Anticarrier warfare, therefore, became a primary mission of Gorshkov and his fleet.¹⁵

Why then is the first Soviet aircraft carrier now on the ways? The influence of several forces may suggest the answer. First, despite the rhetoric against the carrier, the Soviets had to respect its power projection capabilities. That they did not let their verbal invectives get in the way of their pragmatic considerations is indicated by the intensive naval effort directed towards anticarrier warfare. Second, missiles and land-based aviation made the Soviet ability to parry an attack credible; yet the Soviet admirals must have wished to be able to meet the U.S. carriers with an equally capable warship. After all, they had hoped for an aircraft carrier building program since the early thirties. Each time a carrier came close to realization, a change of leadership, economic conditions, or national strategy got in the way. Third, until approximately the last 15 years, Soviet naval force structure has been very narrow. Since then, it has expanded enough to create the need for sea-based aviation. This long-range flexibility can be provided only by a large deck carrier until V/STOL technology has made longer ranges and heavier payloads possible.

Fourth, Soviet architects could not immediately produce a full-sized carrier. This technological issue is often overlooked in Western analysis, which concentrates on the printed doctrine. Soviet naval architects in the 1930s wanted U.S. plans for battleships. From this, it can be concluded that they probably would have had difficulty in designing an aircraft carrier. In the United States today, a major ship the size of a carrier can take a full 7 years between the conception and useful service. *Moskva*, an 18,000-ton ship representing a new concept in the Soviet Navy, was laid down in 1962 and entered active service in mid-1967. It is therefore logical to assume that the bureaucratic decision and strategic concept was initiated in the late 1950s

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or very early 1960s. It may actually have been then that the decision was made to build a full-sized carrier. It would have been perfectly consistent with good naval architectural practice to proceed cautiously towards a large deck carrier by constructing successively larger ships and profiting from each experience.¹⁶ Because *Kiev's* keel was laid in 1971, about 4 years after *Moskva* entered service, it appears that the experience gained from the extensive at-sea trials of the lead ship was incorporated in *Kiev's* design. *Kiev* and her sister ship, at 38,000 tons, displace slightly more than twice as much as *Moskva*, but only about half that of the new carrier. This effective doubling in size at each step from *Moskva* to *Kiev* to the full-sized carrier, suggests that the 70,000-ton ship may have been the desired end product as early as 1960.

The *Moskva* and *Kiev* classes have been built by the Nikolayev shipyard in the Black Sea. If the Soviets actually have been using these classes to facilitate construction of a 60,000-ton ship, it would be logical to build the CVN there also. Yet, the construction is reported to be proceeding near Murmansk. What appears to be a waste of experience may actually be a deference towards the Montreux Convention. This treaty, signed in 1936 by the U.S.S.R. and Turkey among others, provides only for capital ship transit of the Turkish straits; it deals with aircraft carriers only in a separate part of an appendix.¹⁷ *Moskva* and *Kiev* were designated as *Protivno Lodochny Kreysler* or antisubmarine cruisers, which have been treated for treaty purposes as being capital ships instead of carriers.

Naval architecture is not the only technologically limiting factor in the earlier construction of a Soviet flattop. Another major consideration is the significant differences that catapulted launching and arrested landing make in the aeronautical engineering of carrier

aircraft. The V/STOL aircraft that the Soviets have been operating with their *Moskva* (on an experimental basis) and *Kiev*-class ships, with present technology, have major payload and range limitations when compared to U.S. carrier airplanes. Soviet interest, investment and success in V/STOL improvements may lead to a breakthrough, yet the shore-based arresting and catapult systems seem to indicate that they recognize the current advantages of more conventional warplanes.¹⁸

Thus various elements from insufficient experience in building large ships to the concentration on coastal naval strategy have combined to delay the appearance of the first true Soviet aircraft carrier for over 40 years after the naval officers recognized the need for it. With the metal hull taking shape, the naval mental framework has been altered to anticipate its arrival.

Soviet Vice Adm. K.A. Stalbo has concluded, "There is no basis to speak of a future reduction in the importance of carriers in armed warfare at sea."¹⁹ With this statement, hundreds of pages of Soviet rhetoric devoted to carping at the Western carrier concept became suitable only for confetti. His article deals primarily with the development of Western attack and helicopter carriers. This amazing reversal in Soviet naval thinking, crystallized by the steel taking shape on the ways, makes it useful to look for missions for this latest Soviet iteration towards a large deck carrier.

Missions. The Soviet thinking concerning missions for their new carrier may have been partially revealed by Stalbo. In his attempt to define the U.S. concept of naval presence, the Soviet vice admiral suggests roles for screening strategic ballistic missile submarines, protecting sea lines of communications (SLOCs), and blockading of shipping.

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U.S. strategic thinkers often are accused of analyzing Soviet methodologies as if the Soviet assumptions were the same as those of the United States—in other words, mirror imaging. It appears from his assumption of U.S. concepts that Admiral Stalbo, from the Western perspective, can be accused of “reversed mirror imaging!” This is clearly an arcane method for deducing Soviet intentions.²⁰

Stalbo seems to be most impressed by the mission flexibility that Western carriers have offered. He first recognizes Gorshkov's views on the utility of generic naval forces: “That fleet attack forces can be shifted quickly and opportunely (before the making of political decisions) to so-called troubled areas and can remain there a long while in high combat readiness to accomplish missions on any scale.”²¹ He then develops the role of the aircraft carrier, making the startling admission for a Soviet that carrier forces can execute practically all “the modern concepts of armed warfare at sea.”²²

Stalbo's only bow to the pages of invective heretofore flung at the vulnerability of carriers by Soviet writers is a mere two-sentence paragraph. He concedes that there is still “no effective antidote” to torpedoes or missiles. Nevertheless, his thrust is clearly positive; the carrier's broad capabilities outweigh other factors. He foresees “an increase in their role in military operations.”²³

Despite the tortuous logic of reverse mirror imaging, Stalbo's conclusions are consistent with Western hypotheses about Soviet naval roles. Therefore the submarine protection role and blockading missions are probably being actively considered for the Soviet CVN.

The threat that NATO capability for sophisticated antisubmarine warfare (ASW) transmits to submarines has been clearly perceived by the Soviets.

Although the oceans are, by no means

acoustically transparent, the marriage of passive hydrophone arrays with computer signal processing has made the waters far more translucent. This has created Soviet concern over the survivability of their nuclear ballistic missile submarines (SSBN) to the extent that they have devoted other forces to protect them. Their new carrier could contribute to this defense in two ways. First, it might establish a safe haven in a relatively small area, perhaps close to home waters, that could be purged of enemy submarines. This task would be accomplished by onboard helicopters and sonars on the accompanying screening ships. The Soviets will probably also develop an onboard fixed-wing airplane that has longer range and greater payload than the ASW helicopters. Second, the embarked air wing can easily keep the unarmed NATO ASW aircraft (P-3, S-3, *Atlantic*) away from a SSBN. Western ASW ships, if operating without air cover, could similarly be driven off. As an aside, this mission of SSBN protection suggests that NATO planners consider both bombardment of safe havens with ballistic missiles and arming ASW aircraft for air-to-air defense.

A blockading mission by the Soviet Navy would be made far more effective with the addition of the aircraft carrier. Nuclear-powered propulsion could extend the staying power of a force significantly. *Enterprise* covered 35,000 nautical miles in 65 days flying 29,000 hours, and still *returned* to port with more aviation fuel on board than a conventionally powered CV *leaves* port with.²⁴

A further exercise in reverse mirror imagery might be useful in examining the potential role for the CVN in amphibious doctrine. Vice Admiral Stalbo points out that in World War II “carriers proved themselves to be a powerful means for supporting ground forces during amphibious landings and

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in delivering attacks against ground objectives on the land front and in the deep rear of hostile forces."²⁵ The most worrisome portion of this analysis is not that the U.S.S.R. understands how useful mobile airfields are in an amphibious operation. Rather, it is the realization that the Soviet CVN will join three other new classes of ships in several years. The *Ivan Rogov*, displacing about 14,000 tons, is the first tangible evidence of the Soviet commitment to amphibious warfare. The size of a U.S. Navy LPD, it can carry helicopters, air cushion landing craft, and can disgorge over 500 troops with their transport equipment via its bow ramp. More heavily armed than its U.S. counterpart, it can provide gun and rocket support for its troops while defending itself with guns and missiles. The nuclear-powered, 30,000-ton battle cruiser *Kirov*, with a new weapons suite including a new antiship missile launcher, will be a powerful force during the transit to an objective area as well as during an assault. The third major class is the 40,000-ton *Berezina* replenishment ship. Unlike the AOR *Wichita* class, its Western counterpart, the Soviets have outfitted this new class with the sensors and weapons of a frigate. A nuclear carrier provides air defense and close air support. A large amphibious ship disgorges a battalion landing team that can rapidly assault the beach or blow over it. A nuclear cruiser supports the operations with missiles and guns. And finally, a modern replenishment ship provides supplies and POL. What more could an amphibious force commander desire?

Missions for the new carrier have been drawn from Stalbo's view of Western CVN tasks. Admiral Gorshkov has gone directly to the past for useful lessons. In spelling out his strategic philosophy, Gorshkov asserted, "The fight of a fleet against the fleet of an enemy... has become a secondary task as compared with the operations of a

fleet against the shore."²⁶ His interpretation of history leads him to this conclusion through examination of the successes of the aircraft carrier during World War II. Operations against the shore, then, must form an important mission for his first truly CVN. Should NATO navies bolster their coastal defense ships to ward off attack on Hamburg, Rotterdam, Southampton, or New York City? Hardly, but those who care about Lofoten Island, Iceland, Greenland, the Azores, the Faeroes, Oman, and Somalia had better start wondering where this mobile Soviet airfield will be used.

Iceland and Greenland would be ideal objectives for the U.S.S.R. to occupy early in any conflict. Tight geographic constraints hamper Soviet ship movements from three of four major fleet concentrations.²⁷ NATO-controlled seas between Greenland, Iceland, and the United Kingdom, forming the "GIUK gap" are a gateway through which the Russian Northern Fleet must pass. Amphibious forces, supported by the aircraft carrier and operating with a protective screen of other warships, might well try to secure both sides of the G-I path. This would allow greater freedom of access to Murmansk and Pechenga.

There are many other strategically important areas around the globe sufficiently vulnerable to a carrier task force should the U.S.S.R. be tempted to neutralize or occupy them in the early stages of a conflict. The Azores, centrally placed, for U.S. use in any NATO effort, would be an ideal Soviet objective after securing the G-I gap.

As a corollary to the battle against the shore, Gorshkov has postulated that "operations to disrupt and cut off the sea shipments of the enemy" should be viewed as part of the primary task of the fleet.²⁸ In this mission, too, the new carrier should improve Soviet capability. The U.S.-European sea lines of communication that merchant ships

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will ply in any NATO war effort are susceptible to air attack. With the few NATO carrier forces tied up on the flanks of Europe (or in either Pacific or Indian Oceans), it will be impossible to have these valuable ships escort merchant convoys. The Soviet carrier, probably not capable of directly engaging a U.S. large deck flattop, would still be very useful in using its air arm and accompanying missile ship forces to strike isolated convoys, especially if a base has been established on the Azores.

Although not emphasized by either Gorshkov or Stalbo, there are two other tasks for which the CVN would be useful. First, properly equipped airplanes and helicopters could search for targets beyond the radar horizon. They could then act as midcourse guidance platforms for missiles fired from the carrier, other missile ships, or land-based aircraft. Second, the CVN would certainly be used as a tool for crisis management. Large, impressive, and powerful, the very presence of a nuclear-powered aircraft carrier with its attendant fleet demonstrates national interest in a particular situation. If necessary, military force can be used to bring matters to a favorable conclusion.

NATO Response. The new Soviet aircraft carrier with its ability to extend the range of air superiority beyond the limits of land-based air is a significant addition to an already impressive Soviet Navy. For the first time, Gorshkov may be able to fulfill his concept of the war against the shore. Even so, hampered by lack of competitive aircraft and operational experience, the Soviets will not be able to match NATO carriers in direct battle for perhaps 10 years. NATO must use this interlude to coordinate a strategy to neutralize the Soviet carrier, and then build ships to put the strategy into action. With specific action to reduce the effectiveness of the new, versatile threat, NATO

may stretch its superiority beyond the decade.

To maintain this carrier advantage, there are several actions that NATO should pursue simultaneously. A class of submarines must be dedicated to the anticarrier role. Diesel power will probably suffice for covering operations north of the Tropic of Cancer, but nuclear power is required to match the Soviet carrier's radius of operation. The allies, instead of trying to decide on a single ship to build, should split the building program. This will provide more flexibility at a lower average cost. The United States should probably be responsible for the nuclear version, with others of the alliance building a diesel version. The United States should consider converting some of the *Polaris* submarines to an anticarrier role as they are withdrawn from strategic service to remain within SALT launcher limits. The weapon to be employed should be the result of a joint effort, probably drawing on the range and payload of the *Tomahawk* cruise missile and the outstanding antiship missile technology of several European countries. The new missile might employ submunitions during the terminal

BIOGRAPHIC SUMMARY



Prior to his present assignment as Commanding Officer, USS *Nicholson* (DD-982), Miles A. Libbey attended the Fletcher School of Law and Diplomacy, Tufts University, as the Navy's first Samuel Eliot Morison scholar. He earned the MALD degree. His sea

service has been in destroyers, including serving as Executive Officer of USS *Spruance* (DD-963). He was a 1976 CNO Fellow and has served on the staff of COMSIXTHFLT and in the Bureau of Naval Personnel.

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phase, trying to stop aircraft operations from the flight deck rather than trying to sink the ship.

Another offensive reply to the building of the carrier ought to be the development of a high endurance frigate-sized ship. It should be optimized to report constantly the position of the carrier and be armed with antiship missiles for the escorts, anti-CV missiles to neutralize air operations, and heavy point-defense against air attack. Without significant gun or antisubmarine sensors or weapons, it would be a specialized but affordable platform that several of the allies should be able to build and operate.

Finally, in the realm of offense, the United States should recognize that the battle for the airspace above the oceans and littoral nations will remain critical. The tremendous expense of another large deck carrier is not sufficient excuse to attempt to erase the threat that only another carrier is now capable of meeting. Since the new Soviet CVN is a clear signal that naval air superiority will be in ever greater contention, a 15th CV/CVN is needed. Increased research and development should be directed toward V/STOL technology to bring V/STOL support ships (CVSS) to the NATO fleet within the decade. Less expensive than a CVN, a CVSS must still be able to fight in the same area as the new Soviet CVN to be a worthwhile investment.

The most obvious NATO response, from a defensive perspective would be to increase the anti-air (AAW) capability of the surface forces. This has been anticipated. Point defense systems even now are being upgraded to cope with missile attack. A less

obvious approach is to increase the defense of the critical islands within NATO. Iceland, Greenland, the Azores, and others that might be the targets of combined Soviet carrier and amphibious strikes should have modern AAW defenses. Additionally, consideration should be given to employing ground-launched cruise missiles. Targeting, from satellite or other sensors, would permit attack on a carrier task force at sea.

Admiral Gorshkov is within only a few years of his new nuclear-powered aircraft carrier filling the hardware gap in his strategy of the war against the shore with its inclusive anti-SLOC role. Those tens of months must be used by NATO to outthink and outproduce the East, to neutralize the carrier's effect. While a country with essentially a continental strategy rapidly builds its way to the world's most powerful navy, the NATO allies with historic maritime interests are unwilling to meet the challenge on the seas. The Soviets are building many large capable ships. The allies, while trying to conserve money have lost on all accounts: too few small hulls, inadequately armed. The U.S. Navy is not even building enough ships to maintain a level less than half that of a decade ago.

The new replenishment ship, large amphibious ship, nuclear-powered battle cruiser, and a large deck aircraft carrier are milestones that mark the path to clear Soviet maritime superiority. NATO must act now to build ships and submarines for anticarrier missions to neutralize the results of this litmus test of alliance resolve. The anticarrier missions are fairly clear and achievable—let's get on with solving them *before* the carrier arrives.

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NOTES

1. S.G. Gorshkov, *The Sea Power of the State* (Annapolis, Md: Naval Institute Press, 1979), pp. 220-221.
2. Clarence A. Robinson, Jr., "Soviet Carrier Policies Shifting," *Aviation Week & Space Technology* (hereafter *AW&ST*), 20 August 1979, pp. 14-16.
3. *Ibid.*
4. Hamlin A. Caldwell, Jr., comment on "Within the Soviet Navy," U.S. Naval Institute *Proceedings*, April 1980, p. 80.
5. "Soviet Super Carrier Confirmed," *Flight International*, 5 June 1980, p. 8.
6. Clarence A. Robinson, "Soviets Push Advanced Naval Weapons," *AW&ST*, 24 September 1970, pp. 142-146.
7. Robert W. Herrick, *Soviet Naval Strategy: Fifty Years of Theory and Practice* (Annapolis, Md: Naval Institute Press, 1968), pp. 30-33.
8. *Ibid.*, p. 34.
9. *Ibid.*, pp. 36-39.
10. *Ibid.*, p. 55.
11. *Ibid.*, p. 58.
12. *Ibid.*, p. 64.
13. *Ibid.*
14. S.G. Gorshkov, "True Sons of the Homeland," *Pravda*, 31 July 1960 as quoted in Herrick, p. 121.
15. Paul H. Nitze, et al., *Securing the Seas: The Soviet Naval Challenge and Western Alliance Options*, Atlantic Council Policy Series (Boulder, Colo.: Westview Press, 1979), pp. 40-41.
16. The Soviet approach to weapons systems procurement is generally recognized to follow a conservative, evolutionary pattern. Arthur J. Alexander, *Decision-Making in Soviet Weapons Procurement*, Adelphi Papers, nos. 147-148 (London: International Institute for Strategic Studies, 1978/9), v. p.
17. Ferenc A. Vali, *The Turkish Straits and NATO* (Stanford, Calif.: Hoover Institution Press, 1972), pp. 46, 219.
18. Robinson, "Soviets Push Advanced Naval Weapons," p. 142.
19. K.A. Stalbo, "Aircraft Carriers in the Postwar Period," *Morskoy sbornik*, June 1978, p. 100.
20. That is, "I think that he thinks that I think that he thinks!"
21. Stalbo, quoting Gorshkov, *Sea Power of the State*, p. 94.
22. Stalbo, p. 96.
23. *Ibid.*, p. 100.
24. Robinson, "Soviet Carrier Policies Shifting," p. 15.
25. Stalbo, p. 93.
26. Gorshkov, *Sea Power of the State*, p. 221.
27. Skagerrak and Kattegat from the Baltic; the Bosphorus and Dardanelles from the Black Sea; and the Straits of La Perouse and Tsushima from the Pacific.
28. Gorshkov, *Sea Power of the State*, p. 221.

