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Kiev's mix of tactical V/STOL fighters and helicopters and an extensive weapons inventory give it capability for a variety of roles but it is here contended that its basic role is to protect the Soviet SSBN force. An earlier version of this paper first appeared in the Naval Intelligence Quarterly.

SOVIET DOCTRINE ON THE ROLE OF THE AIRCRAFT CARRIER

by

Lieutenant Commander Floyd D. Kennedy, Jr., USNR

Introduction. At the close of World War II, the combined fleets of the United States and Great Britain included over 115 aircraft carriers with a total capacity of some 6,700 aircraft. Typifying their strength was the U.S. Navy's Task Force 38, operating off Japan from 10 July through 15 August 1945. Because carrier airpower had already contributed greatly to the destruction of the Japanese Fleet, this force was free to operate within 100 miles of the coast. Aircraft from the task force proceeded to devastate Tokyo and ranged across the Japanese countryside attacking targets of opportunity virtually at will.

Like the Japanese, the Soviets had no fleet that could prevent a similar force from approaching their Siberian or European coasts. A 1946 article in *Military Thought*, the Soviet professional military journal, revealed the impact that the Allied employment of carriers had made on Soviet 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 the contest with his aviation. Both at sea and near one's bases, these tasks can only be carried out by carrier aviation.¹

The primary concern of the Soviets in viewing the overwhelming preponderance of Western aircraft carriers was their ability to operate against shore targets. Soviet capabilities to hamper such operations were minimal; there were virtually no Soviet major surface combatants in 1945, and while the Soviets possessed a numerically impressive submarine fleet, individual submarines had displayed a mediocre war-time record. The greatest Soviet naval potential lay in river flotillas that had worked closely with Soviet ground

forces during the "Great Patriotic War," but these, obviously, were of little use in offshore waters.

Following demobilization of Western armies Soviet ground forces quickly became the dominant power in Europe and were quite capable of defending or launching a massive offensive from the line that separated East and West. Soviet writings make clear, however, that the U.S.S.R. derived little sense of security from this advantage on the European landmass. Not only did the United States have exclusive possession of the atomic bomb, it also had developed amphibious warfare to a fine art, thereby threatening the sea flanks of the Soviet Army. These amphibious capabilities, supported by massive carrier airpower, were perceived as a tactical deterrent to Soviet expansion that complemented the strategic deterrent of the atomic bomb. From Moscow's point of view, these capabilities constituted a major threat to the Motherland. Admiral Gorshkov, writing in *Sea Power of the State*, described the West's use of carriers in World War II and, in so doing, revealed the concern they caused to Soviet planners:

Carrier operations against the shore were most widespread during the conduct of amphibious operations when aircraft were employed to "soften up" and neutralize the anti-landing defense of the enemy and to cooperate with their own troops in accomplishing missions ashore after the landing.

Commenting on the rapid expansion of Western fleets of aircraft carriers during the war, Gorshkov continued:

It is true that the experience in such operations was limited to the employment of aircraft carriers by only three countries—Great Britain, Japan, and the United States. However, this experience has become proof of the practicality of employing this form of operation, which has led to a

considerable expansion in carrier construction.²

Early Efforts to Counter the Carrier. The Soviets' apparent inability to counter successfully the carrier and amphibious threats resulted in an accelerated postwar naval building program. This program emphasized modern submarines and cruisers that could intercept Western forces before they reached their lines of attack. But according to a "former Soviet naval officer" in Robert Herrick's *Soviet Naval Strategy*, Stalin also acquiesced to his naval commander in chief's requests for four Soviet aircraft carriers that could extend the U.S.S.R.'s defensive perimeter seaward. Admiral Kusnetsov announced the carriers' pending acquisition in 1951, but Stalin later reneged, according to the same source, and the carriers were never laid down.³

This setback notwithstanding, the U.S.S.R.'s postwar shipbuilding program continued to be driven in large part by concern with the threat that the West's carrier forces posed to Soviet territory. This concern increased substantially in the early 1950s when the U.S. Navy acquired a nuclear attack capability. Again quoting Gorshkov:

The introduction of nuclear weaponry into the navies of great powers considerably expanded the scope of employing naval forces against the shore. Initially, carrier aircraft, and later ballistic missiles launched from submarines, constituted the colossal capabilities of the navy to deliver attacks against enemy territory. Naval operations against the shore have assumed a fundamentally new significance in warfare in general. They make up an important part of warfare in general.⁴

Clearly, the Soviets saw the large U.S. attack aircraft carriers as a threat to their homeland, primarily because of the strategic threat that their heavy,

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attack aircraft posed to urban/industrial targets and secondarily because of the tactical threat that light attack aircraft and fighters capable of delivering tactical nuclear weapons as well as conventional ordnance posed to ground forces.

Khrushchev's Different Tack. Stalin's massive naval construction program, begun shortly after World War II, was cut back at his death and continued to languish during Khrushchev's consolidation of power (1953-56). Thereafter, Khrushchev adopted a naval construction program that reflected his conviction that submarines and aircraft were an adequate response to the West's carrier threat and that the large blue-water navy that Stalin had approved could be greatly trimmed. All three editions of Marshal V. Sokolovskiy's *Military Strategy* reflect this new approach by reversing the earlier estimate of the aircraft carrier's value. Sokolovskiy contended that the experience of World War II signaled the demise of large ships as the main element of naval combat and instead confirmed the superiority of naval aviation and submarines.

Despite this belittling of large combatants, Sokolovskiy acknowledged that "The most important task of our fleet from the very outset of the war will be to destroy enemy carrier-based units."⁵ Therefore, even while denying the importance of aircraft carriers, the Soviets continued to treat them as the primary naval threat.⁶

In *Sea Power of the State*, Gorshkov admits that the emphasis that Khrushchev's policies placed on the development of a large submarine force was dictated by time and necessity:

Giving the priority to the development of submarine forces made it possible in the shortest possible time to sharply increase the attack capabilities of our navy, to pose a serious threat to the main forces of the enemy navy in the ocean theaters, and, at

time, to intensify the growth in the maritime might of our country, thus depriving the enemy of those very advantages which he could have had at his disposal in the event of war against the Soviet Union and the countries of the Socialist Community.⁷

Sokolovskiy saw nuclear strikes by Soviet naval aviation and submarines—both at sea and against ports—as the most effective means for accomplishing the Soviet Navy's mission of destroying the West's carrier forces. Once this primary mission had been accomplished the navy could then assume other responsibilities such as the disruption of enemy sealanes, the protection of Soviet shipping and the support of the seaflanks of the ground forces. Sokolovskiy emphasized that the primary mission of the Soviet Navy is the destruction of enemy carrier and missile-carrying submarine forces, done most efficiently by nuclear means.⁸ Also briefly mentioned in all three editions of *Military Strategy* is the requirement for surface ships and aircraft to support submarine operations. These support operations would be conducted by reconnaissance and antisubmarine warfare aircraft, special ASW (PLO) and anti-air warfare ships, and radar patrol ships.⁹

In retrospect it is apparent that the Soviet concept of employing the submarine as the primary offensive and defensive weapons system—and supporting it with a combination of surface and air forces—must have included, as early as 1960, some interest in the possibility of developing a new breed of aircraft carrier that could assist in this support role. If this thesis is correct then it is more than likely that Soviet naval planners had a lively interest in a debate that was underway in the United Kingdom at that time.

Britain's Great Carrier Debate. The controversy in Britain centered on the plan to construct a new class of aircraft

carrier to follow the ships laid down during World War II but not completed until after the war. In 1960 the *Times* of London reported that serious planning had begun on the next generation of carriers for the Royal Navy. They would be larger than the then-current generation, would have catapults for conventional naval aircraft and would be powered by oil-fired boilers and turbines, not nuclear reactors.¹⁰ But an alternative plan emerged and in 1962 the *Times* reported that the question of vertical take-off and landing (VTOL) aircraft had been raised by a member of Parliament who advocated that the next generation of carriers be designed around that concept.¹¹

The Royal Navy's official response was that VTOL technology was not sufficiently advanced to plan a class of aircraft carriers around it. Conventional aircraft were needed aboard standard aircraft carriers, not as part of a strategic nuclear striking force but as an economical means of deploying aircraft throughout the world. It is evident, however, that the Royal Navy's argument was not universally accepted because in June 1963 the *Times* carried another report revealing official uncertainty about how to proceed:

What seems to be restraining the Admiralty in coming out firmly in favour of carriers is the undoubted difference of opinion in the Navy itself on the advantages of such ships. Among those who think that airborne platforms are needed at all, some feel that the need could be met by ships similar in size to the French *La Resolute*, of 10,000 tons. This ship carries a commando of 700 men with their equipment and a war complement of 12 large helicopters. Instead of the commando, so British supporters say, she could be designed to carry additional VTOL fighters and strike aircraft if desired.¹²

Divided opinion continued through that year and the next, and by 1965 the *Times* was still reporting the imminent construction of a new 50,000-ton aircraft carrier. Not until 1966 did the British finally decide to scrap the carrier program as it was then envisioned, and with the carrier program went Britain's presence east of Suez.

It seems from Soviet writings that the *Times'* coverage of Britain's great carrier debate was less than complete. Evidently the Russians had better sources within the British Defense Establishment because a 1972 book by T.M. Korotkin, Z.F. Slepnev and B.A. Kolyzayev entitled *Aircraft and Helicopter Carriers* reveals that the controversy over what sort of carriers the United Kingdom should have was not confined to the Admiralty and a few M.P.s. Quoting from this book:

... It is interesting to recall the basic ideas of the discussion which occurred in the middle of the 1960's in England on the most rational type of future carriers. The command of the Royal Air Force insisted in that period on building small displacement tonnage carriers designed for basing future VTOL aircraft. The representatives of the RAF based their viewpoint on the fact that, in line with the development of anti-aircraft guided missiles, piloted aircraft could not operate successfully against ships and shore installations. The traditional role of a large carrier, as the main assault force of the navy, would become, in their opinion, a matter of history. The carriers and their aviation would be necessary for carrying out just three missions: the search for and destruction of submarines, moving amphibious troops to the landing region, and aviation support of the amphibious troops. These missions could be carried out also by VTOL

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aircraft and for basing them the large, complex and expensive carriers of the present type would not be needed. It would be possible to create small, simply designed inexpensive ships. Ten small carriers built in the place of three large ones could be 200 percent more effective and would be much less vulnerable. The RAF representatives recommended that these carriers be built in anti-submarines and landing variations.

The English Admiralty rejected the viewpoint of the RAF and insisted upon creating large carriers which would be capable of basing the future supersonic bombers, fighters with a speed corresponding to a Mach-2 number, as well as a new type of anti-submarine aircraft. The calculations given by the Admiralty showed that it was wrong to assert the advisability of having a large number of small carriers instead of several large ships of this class. The large carriers would operate aviation under more difficult weather conditions, and would be better from the economic viewpoint, since the expenditures per aircraft based on it would be, according to the Admiralty's calculations, much less than on the small carriers

In one of the few opinions expressed in the book the authors go on to say:

As is known, the plans for building the new carriers for the English Navy were not carried out. However, the arguments given in the course of the discussion on the optimum type of future carriers have not lost their significance.¹³

Conceptual Base for a New Soviet Carrier. Although this controversy was almost completely overlooked in the United States (this was the same period

when the question of nuclear propulsion for CVA-67 was being argued among the U.S. Navy, the Office of the Secretary of Defense and the Congress), the Soviets apparently were following it closely. *Aircraft and Helicopter Carriers* was published in the Soviet Union at approximately the same time that large amounts of resources were about to be committed to the construction of at least four relatively "small displacement-tonnage carriers designed for basing future VTOL aircraft," the new Kiev-class ships. Consequently, it is possible to view this work as an officially sanctioned effort to communicate and justify a decision recently arrived at by the Soviet leadership. The book's extended treatment of the British debate, however, combines persuasively with the long leadtimes required for such fundamentally new construction to suggest that the Soviets had been thinking about a carrier whose role would be limited to support at least a decade before the book's publication.

This thesis is borne out in subsequent writings in which it is made quite clear that the Soviets—at least since Stalin's time—never intended to build carriers that would emulate those of the West. These texts describe the American attack carrier as an instrument directed primarily at the shore, capable of projecting power well inland and supporting "imperialist" aims. On the other hand, the new Kiev-class carrier is always described as an antisubmarine cruiser, part of the surface component in Gorshkov's "balanced Navy." The difference in the two concepts is highlighted by Gorshkov himself:

The attack carrier forces, which are the main means of attack by the [U.S.] navy in local wars and are a highly trained reserve for the strategic strike forces in an all-out nuclear war, remain now as before the main element of the [Western] general purpose naval forces.¹⁴

and:

Today, submarines and [land based] naval aircraft are the main arms of the forces of our navy, and ballistic and cruise missiles with nuclear warheads are the main weapons. Diverse surface ships and aircraft are included in the inventory of our navy in order to give combat stability to the submarine and to comprehensively support them, to battle the enemy's surface and ASW forces, and to prosecute other specific missions.¹⁵

Thus, in Gorkhov's estimation, American naval forces are built around the aircraft carrier as both a tactical and strategic system, while the Soviet forces are built around submarines and naval aircraft, supported by the surface forces that now include the *Kiev* and *Moskva*-class antisubmarine cruisers. In effect, the two different concepts for building aircraft carriers that were debated by the British in the early 1960s have been realized in two other navies that are rivaled only by one another as the world's greatest—though substantially different—seapowers. The disparity in the results that stem from these two concepts is especially evident in the physical characteristics of the two latest types of carriers built in the United States and the U.S.S.R.

Two Different Carriers. The newest American carrier, the 91,400-ton U.S.S. *Eisenhower* (CVAN-69), is nuclear powered and equipped with steam catapults and arresting gear for launching and recovering long-range, high-performance, conventional aircraft. Of the approximately 100 aircraft embarked in *Eisenhower*, about half are designated as "attack" aircraft. As an element of American theater nuclear forces, *Eisenhower* could use these attack aircraft to deliver nuclear weapons in support of a NATO war. In the event of a conventional war, the fighter

and attack aircraft aboard *Eisenhower* are equipped to destroy enemy naval forces, to achieve local air superiority in high-threat areas, such as over an objective area or battlefield, and to provide close air support to friendly ground forces. *Eisenhower* is a vehicle for power projection as well as sea control, relying upon its embarked air group to provide its offensive punch as well as its defense. Its only other weapons system is a Basic Point Defense Missile System to defend against aircraft and missiles that slip through the protective screen provided by its own aircraft and other ships/aircraft. *Eisenhower* is therefore the epitome of the "attack" carrier, the centerpiece for the American surface naval force structure. It is indeed, as the Soviets describe it, a "strike carrier," and the same "large carrier" type advocated by the British Admiralty in the 1960s.

Kiev, on the other hand, displaces approximately 40,000 tons, is conventionally powered, and has no catapults or arresting gear that would permit it to operate long-range, high performance aircraft. The aircraft embarked on her maiden voyage through the Mediterranean were ASW *Hormone* helicopters and short-range VTOL *Forger* fighters. She appears heavily laden with communications gear and has more missile launchers and guns than an American guided-missile cruiser. This weapons suite includes SS-N-12 long-range, surface-to-surface missiles; SA-N-3 medium-range, surface-to-air missiles; SA-N-4 short-range, surface-to-air missiles; 76-mm dual purpose, and 23-mm anti-aircraft guns; torpedoes; anti-submarine rocket launchers; and SS-N-14 missiles that deliver torpedoes.¹⁶ The VTOL fighters embarked in *Kiev* are no match for even U.S. Navy attack aircraft, much less the sophisticated F-4 and F-14 fighters embarked in American attack carriers. There is also little likelihood that any V/STOL aircraft the Soviets will develop will have

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the capability to counter the F-14 in the foreseeable future. Finally the range of American carrier aircraft is considerably greater than that of the surface-to-surface missiles carried by *Kiev*.

Thus the armament of this new Soviet carrier makes it apparent that *Kiev* is not an effort to challenge American carrier forces on the open seas, but is primarily intended for the ASW and defensive AAW missions similar to those the RAF envisioned for Britain's carrier forces in the mid-1960s. The surface-to-surface missiles of *Kiev*, using midcourse correction provided by an embarked helicopter or YAK-36 *Forger*, could successfully engage any Western non-carrier ships, such as cruisers or destroyers. The ASW suite seems capable of conducting a variety of attacks on submarine contacts, and the AAW missile suite is typical of the self-defense capabilities provided to most Soviet surface ships. The YAK-36, while not a match for modern Western fighters or attack aircraft, is more than a match for maritime patrol, electronics surveillance, communications relay, or other poorly defended aircraft. These capabilities are significant when placed in the proper perspective, that is, of providing support to Soviet submarines. Gorshkov has made the Soviet viewpoint explicit in stating, "Surface ships remain the main and frequently the only weapon supporting the deployment of the main attack forces of the navy, the submarines."¹⁷

The Carrier as an ASW Coordinator. In *Sea Power of the State*, Gorshkov repeatedly took the Germans to task for not attacking Allied forces so as to relieve the pressure on their submarines and thereby aid them in accomplishing their mission:

Despite the exceptional threat posed by the antisubmarine forces to submarines, no one operation or any other specially-organized military operations aimed at

defeating or destroying the anti-submarine warfare forces was ever conducted¹⁸ . . . and . . . they did not make a single attempt to employ organized counteraction against the Allied antisubmarine forces which were operating with impunity. That, obviously, is the reason 70% of the German submarines were destroyed while proceeding to the combat areas.¹⁹

Gorshkov has admitted that in World War II close coordination among air, surface and subsurface forces was impossible because of recognition and communications difficulties. In modern times however, "the situation has fundamentally changed, and the possibility has arisen of achieving the close coordination in battle and operations between submarines and surface ships which has greatly improved their combat effectiveness."²⁰

By virtue of her demonstrated and estimated capabilities, *Kiev* is probably the latest vehicle for this close coordination. Its mission as one element in a formation of other surface warships, "operational-tactical" nuclear submarines, and ballistic missile submarines would be anti-ASW or, put more directly, protecting the capital ships of the Soviet Navy: the SSBNs. The concern with which the Soviets view the threat to their ballistic missile submarine force is illustrated by an article in *Morskoy Sbornik*, written by Captain First Rank V'yunenko:

. . . Having been recognized as the main strike force of a modern navy, the nuclear-powered submarines armed with ballistic missiles have also drawn attention to themselves as the objective of the actions of all other naval forces against them. The struggle against missile-armed submarines and the efforts to destroy them before they employ their weapons have become one of the foremost missions of navies.²¹

The Mobile Zone of Supremacy. In 1975 and 1976, articles in *Morskoy Sbornik* and *Aviatsiya I Kosmonavtika* discussed the concept of a formation of surface ships and attack submarines as a means of defending SSBNs against submarine attack:

... The tactic of jointly employing mixed forces (submarines, surface ships and aircraft) is seen by foreign specialists as a practical way of combating the submarine threat.²²

... Combination aircraft carrier attack units established on the foundation of aircraft carriers, can be used for protection of a battle patrol of submarine missile-carriers.²³

... Operational-tactical submarines are more and more frequently being included in the combat disposition of various forces of surface ships... and are being employed to support the combat patrolling of strategic submarines.²⁴

... Submarines can... support the ASW defense of formations of friendly surface warships and submarines armed with ballistic missiles.²⁵

Recent Soviet writings also reveal an interest in Western doctrine on the protection of its capital ships, the attack aircraft carriers. To quote again from V'yunenکو's article:

... The joint employment of aircraft carriers with other surface ships, submarines, and antisubmarine aircraft makes it possible to create effective mobile zones of supremacy on the high seas... Within this space, the assumption is to provide absolute supremacy beneath the water surface, on the sea, and in the air.²⁶

Formations consisting only of ASW cruisers and attack submarines would theoretically be able to provide such supremacy beneath the water surface,

but the SSNs and SSBNs also must be protected against the ASW aviation threat. Heretofore, this has been a function of both the AAW batteries of noncarrier surface ships and by shore-based aviation within its range limitations.²⁷ However, these defenses are not available for forward-deployed submarines that also require protection from unescorted long-range patrol aircraft. A requirement therefore exists for sea-based aircraft capable of dealing with this threat, a requirement that the YAK-36 *Forgers* aboard *Kiev* seem capable of fulfilling.

Gorshkov foresees an expanding requirement for sea-based vertical take-off and landing aircraft like the YAK-36:

Air-capable ships, and indeed other combatants will to an even greater degree be equipped with VTOL aircraft and other air vehicles like the modern helicopter, but of a more advanced type. To an even greater degree combat operations will move into the subsurface and air environments.²⁸

These more advanced varieties of VTOL and perhaps V/STOL (Vertical/Short Takeoff and Landing) aircraft should provide greater capabilities in controlling the air above the "mobile zone of supremacy on the high seas," thereby bolstering the area of primary weakness of Soviet seagoing forces: air cover.²⁹ In fact, the thrust of recent Soviet writings about the role of their new carriers indicates that *Kiev* could have many of the same missions attributed to the British "Thru-Deck Cruiser," H.M.S. *Invincible*. In an article in the December 1976 issue of *Morskoy Sbornik*, these missions are described as follows: "delivering strikes against surface ships; intercepting air targets and conducting reconnaissance missions with embarked VTOL aircraft; detecting, tracking and attacking submarines using embarked helicopters; supporting the air defense

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of the area of combat operations; and controlling mixed naval forces."³⁰ All that is missing from the British example is the absence of any mention of supporting amphibious operations.

Conclusion. Gorshkov's approach to building his fleet has been unique, and Kiev is illustrative of his philosophy:

... In the quest for ways of developing our navy, we avoided simply copying the fleet of the most powerful sea power of the world. The composition of the navy, its weapons, ship designs and organization of forces were determined primarily by the missions which the political leadership of our country assigned to the armed forces, . . . by the country's economic resources, and also, by the conditions under which the navy had to accomplish these missions.³¹

Rather than copying the aircraft carriers of the West and their attack mission, it is evident that the Soviets have added an aircraft-carrying capability to their ASW cruiser concept in order to give better support to the primary attack arm of their fleet: the submarine. Their goal is to protect their ballistic missile submarines just as the West attempts to protect its aircraft carriers. Their decision was to achieve this objective with a combination of surface and submarine escorts that could provide a "mobile zone of supremacy on the high seas." Kiev-class carriers now joining the Soviet Fleet should therefore be understood in the West as primarily intended to be protectors of the U.S.S.R.'s submarine force.

Future Soviet development of carrier forces will probably not be limited to this concept, however. As the Soviet Navy develops operational experience with its Kiev-class carriers, it (and the Communist Party hierarchy) will probably develop an appreciation for the power projection potential of the

American-type "strike carrier." Gorshkov has already laid the political foundation for the naval power projection mission with his ballistic missile submarine force and constant references to operations against the shore being the most important mission of navies.³² Most recently, the prolific naval writer, Professor-Vice Adm. K. Stalbo, produced two articles in *Morskoy Sbornik* that were uncharacteristically complimentary about the power projection and nuclear capabilities of Western carrier forces.³³ Another article by Capt. First Rank S. Mikhaylov in the December 1978 issue of *Voyennyye Znaniya* discusses, in favorable terms, the multiple capabilities of a 58,000-ton general-purpose carrier with conventional, V/STOL and rotary-wing aircraft embarked.³⁴ These articles may simply be an effort to make a point by one isolated faction within the navy, or they may portend a new Soviet interest in developing more capable, general-purpose carriers. A third possibility is that they might be the first step in the final phase of a long planned evolution to the same end. If so, the Soviet Navy would then be truly "balanced," with offensive and defensive carrier forces,

BIOGRAPHIC SUMMARY



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offensive and defensive submarine forces, offensive shore-based naval aviation, and a comprehensive infrastructure in support of it all. Party politics and allocations of scarce resources within the Soviet economy will probably deter-

mine what kinds of new carriers the Soviets build in the 21st century, but it may be safely said that they will be examining all the options through the framework of their own unique requirements.

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3. Herrick, p. 64.
4. Gorshkov, p. 360.
5. V.D. Sokolovskiy, ed., *Military Strategy* (3rd edition and a comparison with previous editions), translated by Harriet Fast Scott (prepared for the Chief of the Office of Research and Development, U.S. Army, Washington, D.C., Contract DAHC 19-71-C-00Q1 SR1, Project 8974, Menlo Park, Calif.: Stanford Research Institute, 1971), p. 345.
6. In a 1969 article in *Military Thought (Voyennaya Mysl')*, No. 2, 1969 entitled "The Role of Surface Ships in Combat at Sea," V. Kasatonov discusses the vulnerability of carriers during nuclear war, yet gives them credit for their continually growing striking power against the shore. Kasatonov contends that this power, while tempered in a major conflict by Soviet submarines and shore-based aviation, is not so restricted in a local war and has been preeminent. See *Military Thought*, No. 2, 1969, p. 38.
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33. K. Stalbo, "Aircraft Carriers in the Second World War," *Morskoy Sbornik*, No. 1, 1978, pp. 91-100, and "Aircraft Carriers in the Postwar Period," *Morskoy Sbornik*, No. 6, 1978, pp. 91-100.

34. S. Mikhaylov, "The Aircraft Carrier: Warship-Airfield," *Voyennyye Znaniya*, No. 12, 1978, pp. 40-41.

