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Attacking the Weakest Link: The Anti-Support Role of Soviet Naval Forces

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Communications and navigation facilities, tenders, missile transport and storage facilities, supply ships, fixed acoustic arrays, cargo handling facilities, and the like are more susceptible to destruction than the weapons systems to whose support they are dedicated. Evidence of Soviet attention to this weakest link is presented in this adaptation of an analysis prepared for the Naval Intelligence Quarterly (Vol. II, No. 1).

ATTACKING THE WEAKEST LINK:

THE ANTI-SUPPORT ROLE OF SOVIET NAVAL FORCES

by

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Soviet literature available to the naval analyst contains a great deal of valuable information intermingled with the chaff of Leninist polemic. Such publications as *Morskoy Sbornik, Voyennaya Mysl'* and *Voyennoistorich-eskiy Zhurnal* are designed to be read by Soviet professional military personnel and consequently contain relatively substantive concepts, once the obligatory deference to Marxism-Leninism is paid. Consistent reading of these periodicals eventually yields an appreciation of significant Soviet concerns and an understanding of the factors that make up the Soviet military perspective.

A primary Soviet concern is the overall correlation of forces, particularly nuclear forces. This concern is not just limited to gross number counts, however; every aspect of nuclear capability is a factor in Soviet calculations. In fact, the clear impression given by many Soviet authors is that in many instances the most vulnerable element of a national nuclear capability is perceived by them to be not the weapon system itself but all the support without which that system cannot function. The Soviets therefore include this support element in all their correlation calculations and place a great deal of emphasis on the destruction of enemy support elements (for both nuclear and conventional systems) in time of war. An examination of this antisupport concept is the purpose of this paper.

The NATO Naval Threat. The Soviets visualize several NATO naval threats, both to their homeland and to their military forces. To avoid the debate over the prioritization of those threats, they are listed here without regard to priority: the NATO SSBN threat to the Soviet homeland, the carrier threat to the homeland and to Soviet naval and continental forces, the NATO

antisubmarine warfare (ASW) threat to Soviet naval strike forces (SSNs as well as SSBNs), the threat of NATO resupply of the European theater and the NATO amphibious threat to the Soviet flanks. Each of these threats involves primary systems and a supporting structure, all of which can be subjected to coordinated Soviet attacks. The various elements of that support structure are frequently identified in Soviet literature and their value assessed by a variety of Soviet authors.

Anti-SSBN Support Structure. Soviet emphasis on targeting support elements of the American Polaris/Poseidon submarine-launched ballistic missile (SLBM) system grew over the years as the complexities of the antisubmarine problem became more appreciated. Whereas Marshal Sokolovskiy in the first two editions of his book *Military Strategy* (1962 and 1963) talked about destroying the ballistic missile submarines (SSBN) themselves,[1] Admiral of the Fleet of the Soviet Union Sergei Gorshkov in 1977 discussed instead the disruption or blunting of SSBN attacks "to the maximum possible degree."[2] This may at first glance appear to be only a subtle difference in semantics, but it actually reflects what appears to have been a steadily increasing Soviet recognition that their ASW capabilities may not even be able to catch up, much less keep pace, with the increasing ranges of American ballistic missiles. Consequently, the importance of destroying elements of the weapon system other than the weapon platforms themselves has increased markedly in Soviet priorities.

This is not to say that from the first deployment of the Polaris A-1 missile boats the Soviets were not planning to attack the system's supporting elements. In fact, in a 1964 article, Colonel V.P. Zhukov enumerated the following anti-SSBN missions for Soviet aerial reconnaissance:

> . . . searching for submarines at advanced positions and home bases; searching for floating rocket submarine bases (submarine tenders) and directing naval strike forces to them; searching for transports carrying special weapons needed by rocket submarines and directing naval strike forces to them; determining the location and identity of navigation and communication facilities needed by submarine rocket carriers.[3]

Zhukov was not the first, nor the last, to stress the importance of locating and destroying the support elements of SSBN forces: submarine tenders, reload missile transports, navigation and communication facilities. Captain 1st Rank K. Titov in 1972 echoed and expanded upon Zhukov's words:

> Strategic underwater nuclear missile systems (e.g., Polaris-Poseidon) represent a complex of interdependent elements whose normal functioning ensures a high combat readiness for the system. These elements are: the FBM submarines; command posts and staffs implementing control of these submarines; transmitting and receiving radar centers supporting communications with them; various navigational systems permitting the determination of the coordinates of the submarines and other data essential for launching missiles; bases and mobile logistical means; missile arsenals and test ranges for storing and preparing the missiles; and training centers for training submarine crews . . . .[4]

Two different types of supporting elements for SSBNs are thus discussed by Soviet authors. One is the type of support that services the weapon platform after it has returned from performing a mission: the submarine tenders and other bases, transports

carrying reload missiles, training centers and missile storage areas. While these are important targets, their destruction cannot, in Gorshkov's words, "disrupt or blunt" the initial SSBN attack. On the other hand, destruction of communications facilities, navigation aids or command and control elements could have just that effect. Captain 1st Rank Pirumov and others addressed the importance of communications in this way:

> the U.S. Navy's nuclear-powered submarines armed with Polaris ballistic missiles with a nuclear payload are constantly ready to launch on 15 minutes notice in their patrol areas. It is believed that a delay in transmitting a signal to them on the start of a war could have, if not a decisive effect, at least a very considerable effect on the outcome of the combat operations.[5]

And Captain 1st Rank B. Makeyev discussed navigational systems in his 1977 article:

> High precision of navigational computations is . . . the foundation which permits maneuvering of the submarine and application of the weapons it carries. As an example, even a slight error in determining the location of the submarine at the moment a ballistic missile is launched would result in a significant deviation of the latter from the target and could cause failure of the combat mission.[6]

Therefore, while the American Poseidon and Trident missile-carrying submarine force may be relatively secure from direct attack by Soviet naval forces, it is obvious that the Soviets are trying to find the weakest links in the overall fleet ballistic missile system, and they appear to have seized upon the support elements for the SSBN fleet as just those weak links. Communications and navigation facilities are thus priority Soviet targets at the outbreak of any general war, and other elements of the SSBN support structure such as tenders, bases, missile transports and storage facilities can be expected to come under early attack.

Antisurface Force Support Structure. Although centralized communications and navigation aids are not as vital to the operations of carrier attack groups and other surface forces as they are to the SSBN force, destruction of them, especially navigation systems, will also, in the Soviet view, have a detrimental effect on surface operations. But more central to the war against the carrier threat in particular, as well as other surface forces in general, is the destruction of the replenishment ships that keep the combatants supplied with fuel, aviation fuel and ammunition. Engineer-Captain 2nd Rank V. Yeliseyev discussed this vulnerability as it relates to carriers in a 1973 article:

> Conventional steam turbine plants are installed in 15 out of 16 aircraft carriers of the U.S. Navy. The endurance of an attack carrier is 90 days. However, the experience of participation of the attack aircraft carrier MIDWAY in combat exercises against the people of Southeast Asia showed that 8,500 tons of ammunition, about 60,000 tons of ship fuel, 30,000 tons of aviation fuel, and also 1,200 tons of other cargo must be delivered to the carrier every 4 to 5 days. Replenishment at sea is a lengthy process. This makes the ship dependent on the operating efficiency of rear forces and makes it very vulnerable to enemy action.[7]

He went on to say:

> Moreover, the ships of the combat nucleus of an attack carrier group are largely dependent on replenishment at sea. Destruction or disabling of the service ships may

result in disruption of the combat operations of aircraft carriers.[8]

Soviet interest in the battle against the supporting elements of the carrier task force is less intense than the concern devoted to attacking SSBN support, but it is nevertheless a topic that is discussed by Soviet naval officers as supportive of their anticarrier mission. Therefore, it must be anticipated that if the Soviets feel they cannot muster the means necessary to strike directly at a task force, they will use the resources available to strike at a "softer" target such as lightly escorted supply ships.

Another Soviet concern that falls into the category of support targeting is the destruction of bases and, concurrently, the ships within them. This applies equally to all types of ships: carrier task groups, SSBNs, amphibious forces, etc. Several articles over the years have expounded at length on the success of antibase operations during World War II and have implied that these operations have a valid, modern counterpart.[9] Rear Admiral Filinov introduced his 1973 work by saying, "In analyzing the operations it is not difficult to note that all of them were characterized by certain principles of planning and organizing the combat operations and methods of utilizing forces and employing weapons which have not lost their significance even in our day." In order to emphasize this point, he continued later in the article:

> According to foreign naval experts, operations for destroying enemy naval forces in their bases can find broad application in today's context too. This is due to technical progress and in particular to the presence of nuclear-missile weaponry in the inventories of the navies of the main powers.[10]

The shipbuilding industry was also cited by Captain 1st Rank Mamayev as another very worthwhile target to prevent the replacement of ship losses:

> During a modern war, strikes directed at shipbuilding firms and at other industrial enterprises which cooperate with commercial and military shipbuilding, would render it impossible to restore losses either in merchant ships or in naval warships. This applies equally well to escort vessels which, during an ocean transit, protect the convoys from strikes by aviation, submarines and other naval forces. Thus the forces which protect navigation could be increased only by placing previously built ships, those kept in moth-balls, in operation.[11]

It is interesting to note that while professional military literature in the United States addresses the escalatory implications of attacking targets such as bases and shipyards located within the homeland of the Soviet Union, such factors are never addressed by Soviet military authors in the literature available to the West. Therefore, it can *not* be automatically assumed that the American penchant for calculating the escalatory implications of strikes against Soviet territory is reciprocated by the Soviets. The military advantages of even conventional strikes against bases and shipyards on U.S. territory may, in Soviet thinking, outweigh the potential damage to the complex escalation calculations of American strategic planners. The Soviets certainly perceive their own bases and shipyards to be in jeopardy and have conducted military exercises accordingly.

Anti-ASW Support Structure. Unlike submariners in the U.S. Navy, the Soviets have little confidence in stealth as the primary protection for their submarine forces; instead, they require active defenses for their ballistic missile, guided missile, and torpedo submarines. Carrier task forces are considered a

primary ASW threat, especially since the initiation of the multipurpose CV/CVN concept with embarked S-3 and SH-3 aircraft. But in addition to carrier groups, which have already been discussed, the Soviets perceive major ASW threats from NATO maritime patrol aircraft (MPA), ASW submarines, surface ASW forces, and fixed acoustic arrays. The antisupport discussions pertaining to surface forces includes those with ASW roles as these destroyers and frigates are almost as vulnerable to supply ship interdiction and base and shipyard strikes as aircraft carriers. ASW submarines are also as vulnerable to the destruction of their tenders as SSBNs, perhaps even more so because the ASW submarine may expend its weapons in either conventional or nuclear war phases whereas the SSBN's weapons are employed only in nuclear conflict.

In order to reduce the NATO MPA threat, Soviet naval planners have for some time planned to attack and destroy the airfields from which these aircraft operate.[12] Soviet Naval Aviation (SNA) and Long Range Aviation (LRA) medium bombers using either conventional or nuclear weaponry are particularly suited to this type of operation, and the resultant rewards from successful attacks are potentially great. Colonel F. Shesterin wrote in 1969, "In all probability, aerial combat in the future will become less effective and primary importance in the battle against enemy aviation will shift to actions against airfields, enterprises of the aviation industry, fuel sources and training centers of flight personnel."[13] While the last three targets mentioned would eventually take a toll of aircraft and crews in combat, the effect of striking airfields would be felt in the battle area immediately.

The Soviets believe that NATO military forces are aware of this threat and have responded accordingly. According to Colonels N.M. Lavrent'yev and L.I. Gorodenskiy,

> Today the basing of ASW aviation is taking on tremendous importance. Military leaders in the NATO countries, for example, feel that it is desirable to disperse their bases. This procedure takes into consideration the threat of nuclear missile strikes against airfields, as well as the fact that ASW aviation assigned to such bases will conduct combat operations in small tactical groups and by single aircraft. This type of basing, it is assumed, will provide protection for forces against enemy strikes and will increase secrecy of takeoffs by the aircraft (or by tactical groups) in areas in which submarine search goes on.[14]

Consequently, the Soviets perceive an urgency to reconnoiter and strike ASW airfields in order to diminish and make manageable a very significant threat as soon as possible.

Another ASW system about which Soviet authors have expressed considerable concern is the system of fixed acoustic arrays identified in Soviet literature by such names as "SOSUS," "Sea Spider," "Artemis" and "Caesar."[15] They claim that this overall network is responsible in many cases for the initial detection and tracking of most submarine contacts localized by NATO naval forces,[16] and that, therefore, it is an extraordinary threat to submarine forces.[17] It is unthinkable that the Soviets would permit such a system to remain in existence at the outbreak of hostilities, or even for any length of time after NATO begins mobilization. The covert elimination of such an acoustic detection network would probably provide, in the Soviet calculus, a far greater gain than risk, even long before the commencement of open hostilities, and could be accomplished with comparative ease once the locations of the devices themselves were established. Elements of the extensive Soviet fishing fleet could be tasked to

tear up the offending cables from areas of particular concern to the Soviets before significant submarine deployments were ordered. Later, upon commencement of hostilities, shore-based terminals and processing centers within range of Soviet naval aviation could be brought under attack.

Anti-SLOC Support Structure. The Soviets have for some time attached great importance to the disruption of the air and sea lines of communication (SLOC) between North America and Europe. They recognize that the majority of NATO's strategic reserves of manpower and weaponry are separated from the primary theater of military operations by 3,000 miles of ocean, a medium that cannot be occupied and denied to the enemy like territory on the European continent. Consequently, they perceive in this geographical circumstance an opportunity to delay NATO's plans for what may be a decisive period. Major General Dzhelaukhov wrote in 1964:

> Under these conditions the proper selection of the objectives of strikes—in other words, the waging of an effective battle against reserves with the smallest expenditures of forces and means—will be of great importance. If the main strategic mission in a theater can be carried out in several days, then obviously, delaying the approach of the enemy reserves for that period of time will ensure the completion of the operation.[18]

He goes on to contend that SLOCs and air lines of communication are vital:

> But combating reserves in continental TVDs (Theaters of Military operations) is only a part of the overall battle against strategic reserves, since reserves can be brought in by sea and air transports. Thus, battle on ocean and air communications routes is a no less important part of combating strategic reserves.[19]

According to Dzhelaukhov, convoys of ships carrying troops and weapons should therefore be destroyed either as they approach the theater of military operations, or in the ports themselves.[20]

Dzhelaukhov was both preceded and followed by many other authors who advocated the destruction of enemy SLOCs by means of strikes against the loading and unloading facilities that support them. Captain 1st Rank Stepanov wrote earlier in 1964:

> The contemporary level of development of naval technology permits the execution of missions to disrupt sea and ocean lines of communication by various techniques such as action against shipping (missile and torpedo attacks by submarines and aircraft on ships at sea and in the ports and mine barriers across the shipping lanes) and against the loading and unloading points and the sources of supplies (nuclear missile strikes by submarines, aircraft, and coastal units on ports, warehouses, and industrial centers).[21]

Captain 1st Rank Marinin followed with a 1967 *Morskoy Sbornik* article:

> Whereas merchant ships located in ports beyond the range of enemy aircraft were considered safe in past wars, today, with the development of nuclear weapons, they will be more vulnerable than will merchant ships at sea.[22]

And Captain 1st Rank Mamayev continued the discourse in December 1968:

> The warring parties now have the potential to influence all elements of communications, particularly the large ports of any continent. In addition to the loading and unloading ports, the centers of the shipbuilding industry will also be subject to attack.[23]

In his 1977 book on the Soviet Navy, Admiral Gorshkov himself emphasizes the importance of the disruption of enemy ocean and sea communications to the implementation of the main wartime mission of his navy.[24] His words are echoed by Captain 1st Rank Gontarenko and Captain 3rd Rank Khomenskiy in two separate articles in the February 1978 issue of *Zarubezhnoye Voyennoye Obozreniye*, and by Captain 1st Rank Ammon in the May 1978 issue of *Morskoy Sbornik*.[25] While none of these articles discusses the methodology for disrupting NATO's SLOCs, they all describe their importance to the NATO war effort and their place in NATO planning.

The antisupport tactic of destroying loading and unloading facilities, as discussed in the 1960s, would seem to be a viable supplement to direct SLOC interdiction in the present day as well, particularly when one considers the West's reliance on containerized cargo. While expediting peacetime shipments of a wide variety of cargo over land and sea, containerization requires a large capital outlay in specialized handling facilities in ports and railroad yards. Without these facilities, the normally rapid handling of containerized cargo would grind to a halt. In contrast, the Soviets have invested in Roll-On, Roll-Off (RO-RO) cargo ships that require virtually no support susceptible to attack other than a deep-water pier. RO-RO type ships provide an additional bonus in that they are eminently suited for amphibious warfare, particularly into ports.

Conclusion. For each NATO naval threat perceived by the Soviets there is a supporting structure they identify in their writings. For the ballistic missile submarine threat it is composed of communications and navigation facilities, submarine tenders, missile transport and storage facilities and training bases. For surface ships, and particularly for aircraft carrier groups, the Soviets identify supply ships as the primary supporting element, for ASW forces they specify MPA airfields and fixed acoustic arrays, and for SLOCs they pinpoint handling facilities in ports. Each of these elements is vital to the proper functioning of the system it supports, and in most cases each is also more susceptible to destruction. The Soviets realize this, and they write about it; they undoubtedly also consider it in their correlation of forces calculations and assign antisupport missions to their naval units. U.S. and NATO planners would be well-advised to consider seriously the effect of this role of Soviet naval forces.

BIOGRAPHIC SUMMARY

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NOTES

1. V.D. Sokolovskiy, *Soviet Military Strategy* (New York: Crane-Russak, 1975), p. 459.
2. S.G. Gorshkov, *Voyenno-morskoy Flot (The Navy)* (Moscow: Znaniye Publishing House, 1977).

3. V.P. Zhukov, "Peculiarities of Conducting Aerial Reconnaissance at Sea," *Morskoy Sbornik*, January 1964, p. 13.

4. K. Titov, "Naval Intelligence Targets and Forces," *Morskoy Sbornik*, September 1972, pp. 58-59.

5. V.S. Pirumov, et al., "Electronic Warfare in War at Sea," *Morskoy Sbornik*, July 1970, p. 47.

6. B. Makeyev, "Submarines: Problems and Prospects," *Tekhnika i Vooruzheniye*, April 1977, p. 12.

7. V. Yeliseyev, "Strategic Forces Reserve," *Morskoy Sbornik*, August 1973, p. 88.

8. *Ibid.*, p. 91.

9. See, for example, Sokolovskiy, p. 66; K.V. Penzin, "Changes in the Methods and Forms of Armed Conflict at Sea," *Morskoy Sbornik*, July 1966; N. Semenov, "The Use of Aviation in Naval Warfare," *Morskoy Sbornik*, December 1972; A. Smukul, "Some Trends in the Development of Auxiliary Fleets," *Morskoy Sbornik*, July 1973; and "The U.S. Navy's Basing System," *Morskoy Sbornik*, October 1978.

10. S. Filinov, "Destroying Naval Forces at Their Bases," *Morskoy Sbornik*, April 1973, pp. 23-26.

11. Ye. Mamayev, "The Disruption of Sea and Ocean Transport," *Voyennaya Mysl'*, December 1968, Foreign Press Digest 0102/69, p. 51.

12. Yu. A. Bryukhanov, "Coordination of Aviation and Submarines," *Morskoy Sbornik*, April 1965, p. 20, and P.O. Nevzorov, "The Use of Aviation in the Struggle with Submarines," *Morskoy Sbornik*, September 1964, p. 21.

13. F. Shesterin, "The Experience of the Battle for Air Superiority in World War II and Its Significance under Modern Conditions," *Voyennaya Mysl'*, February 1969, Foreign Press Digest, 0060/69, p. 74.

14. N.M. Lavrent'yev and L.I. Gorodenskiy, "Control of Aviation in Operations Against Submarines," *Morskoy Sbornik*, August 1966, p. 27.

15. Yu. Yurevich, "Some Trends in the Use of the Seabed for Military Purposes, and International Maritime Law," *Morskoy Sbornik*, January 1973, p. 88. Also see A.I. Rodinov, *Udarnaya Sila Flota (Strike Force of the Fleet)* (Moscow: Izdatel'stvo DOSAAF SSR, 1977).

16. I.M. Sotnikov and N.A. Brusentsev, *Aviation Against Submarines* (U.S.S.R.: Order of the Red Banner of Labor Military Publishing House of the Ministry of Defense, 1970), NAVSTIC Translation 3253, p. 181.

17. V.I. Matveyev, "Secrecy is the Basis for the Successful Actions by Submarines," *Morskoy Sbornik*, December 1965, p. 33.

18. Kh. Dzhelaukhov, "Combating Strategic Reserves in a Theater of Military Operations," *Voyennaya Mysl'*, November 1964, FDD Translation 924, p. 8.

19. *Ibid.*, p. 9.

20. *Ibid.*, pp. 7, 11.

21. M. Ye. Stepanov, "The Effect of the Development of Military Technology on the Execution of Combat Missions at Sea," *Morskoy Sbornik*, August 1964, p. 19.

22. Ye. S. Marinin, "Views of the NATO Country Naval Commands on Protecting the Sea Lanes," *Morskoy Sbornik*, March 1967, p. 44.

23. Mamayev, p. 51.

24. Gorshkov, p. 49.

25. B. Gontarenko, "The Ocean Strategy of the USA," *Zarubezhnoye Voyennoye Obozreniye*, February 1978, pp. 7-14; V. Khomenskiy, "The Possible Nature of Combat Operations in the Atlantic," *Zarubezhnoye Voyennoye Obozreniye*, February 1978, pp. 73-79; G. Ammon, "Securing Sea Lanes (Based on the Combat Actions of the Northern Fleet in 1941-45)," *Morskoy Sbornik*, May 1978, pp. 26-32.