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CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

20 February 1974

MEMORANDUM FOR: The Director of Central Intelligence

SUBJECT : MILITARY THOUGHT (USSR): Soviet Naval
Operations Against a Naval Missile Attack

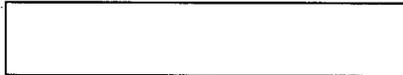
1. The enclosed Intelligence Information Special Report is part of a series now in preparation based on the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". This article discusses actions which the Soviet Navy might take to prevent an attack on the USSR by missiles and aircraft deployed on foreign naval vessels. The author points out that almost half of enemy strategic attack capability is shipborne, and that it must be destroyed within fifteen minutes after enemy ICBM launch. He asserts that enemy missile submarine locations must be known at all times, because otherwise it takes four hunter-killer submarines or 500 aircraft sonobuoys to locate one submarine in an area of 100 square miles. This article appeared in Issue No. 3 (79) for 1966.

2. Because the source of this report is extremely sensitive, this document should be handled on a strict need-to-know basis within recipient agencies.

William E. Nelson
Deputy Director for Operations

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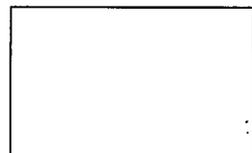
Deputy Director for Science and Technology

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Intelligence Information Special Report

COUNTRY USSR

DATE OF INFO. Late 1966

[Redacted]
DATE 20 February 1974

SUBJECT

MILITARY THOUGHT (USSR): Ways of Combatting
an Enemy Missile/Nuclear Attack on
Ocean and Sea Axes

SOURCE Documentary

Summary:

The following report is a translation from Russian of an article which appeared in Issue No. 3 (79) for 1966 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". The author of this article is General-Major of Aviation A. Sukhanov. This article discusses actions which the Soviet Navy might take to prevent an attack on the USSR by missiles and aircraft deployed on foreign naval vessels. The author points out that almost half of enemy strategic attack capability is shipborne, and that it must be destroyed within fifteen minutes after enemy ICBM launch. He asserts that enemy missile submarine locations must be known at all times, because otherwise it takes four hunter-killer submarines or 500 aircraft sonobuoys to locate one submarine in an area of 100 square miles.

End of Summary

[Redacted] Comment:

In 1964 Gen.-Major Sukhanov signed the obituary of General-Major of Naval Aviation N. S. Aleksandrov, Red Star, 15 December 1964. Military Thought has been published by the USSR Ministry of Defense in three versions in the past -- TOP SECRET, SECRET, and RESTRICTED. There is no information as to whether or not the TOP SECRET version continues to be published. The SECRET version is published three times annually and is distributed down to the level of division commander.

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Ways of Combatting an Enemy Missile/Nuclear Attack
on Ocean and Sea Axes

by
General-Mayor of Aviation A. Sukhanov

An analysis of the state of the means of strategic attack of our probable enemies shows that by 1967 nuclear munitions that can be employed from ocean and sea axes in the initial strike only will constitute about 43 percent of all his operational-strategic means. Consequently, the most important task of our Navy is the partial disruption or the effective weakening of an enemy nuclear attack from these axes.

Analysis of the capabilities of our Navy shows that during a threatening period it is capable of the timely deployment of its forces, to combat nuclear/missile submarines, carrier strike ships, and surface missile-carrying ships in the most probable areas of their operations in the Barents and Norwegian Seas, the North Atlantic, the Sea of Japan, and the northwest part of the Pacific Ocean. Naval operations in the Mediterranean Sea will be difficult, and almost impossible in the Arabian Sea.

Should the aggressor unleash a surprise nuclear war, the conditions for the deployment of our naval forces will be extremely complex. The enemy may carry out the attack at the very moment when our main naval forces are located at their permanent or maneuver bases; and only submarines and surface ships that happen to be deployed in the areas of combat operations at that time, i.e., on combat service (The main forces in this case may be deployed within the same time limits that are required during a threatening situation.), and aircraft can participate in repelling the nuclear attack.

In this event, only those forces that are located in the areas of combat operations and are in contact with the enemy will be capable of using their weapons against him. The forces that are not in contact with the enemy prior to the beginning of the nuclear attack will, at best, be able

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to take action against him after the attack has begun, but it is more probable that they will begin their actions after the enemy submarines and surface missile-carrying ships have launched their missiles and while carrier-based assault aircraft are in the process of taking off. It should also be borne in mind that we cannot exclude the possibility that submarines with long-range ballistic missiles, that are located at their bases and do not require a great amount of time to deploy, will take part in repelling the nuclear attack.

Of course, it is possible to assume that not part, but all the main naval forces, can be employed for combat service. However, we should also consider the fact that it is not known when the aggressor will launch a nuclear war, and each submarine, ship, and aircraft has a definite overhaul life, at the conclusion of which periodic technical servicing and other repair work is required. In addition, personnel must be given time to rest and regain their efficiency. Therefore, it is necessary to find the most rational ways of building up reserves of forces and to devise precise plans to have the Navy on combat service for an extended period of time.

However, the timely deployment of naval forces alone does not ensure success in combatting the forces carrying out the missile/nuclear attack from sea and ocean axes. The main determining factor in this situation is the capability of the forces located in the probable areas of enemy operations to defeat the enemy before he uses his weapons. And this capability depends primarily on the readiness of the Navy to strike the enemy with its weapons upon receipt of the message from our command, and also on the amount of time needed by the enemy to make immediate preparations for the strike and to carry it out.

In determining the amount of time our naval forces will have to effectively weaken and partially disrupt the attack, we must take into account the fact that the enemy may deliver the first nuclear strike from the sea either at a predetermined time or after receiving the appropriate message. Also, operations initiated by a message permit the attacker to select any time he wishes to launch his strike and ensure him the greatest degree of surprise. We shall therefore discuss possible ways of disrupting a nuclear

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strike that are applicable to these conditions, and we shall particularly dwell on the case in which the enemy message for its naval forces to use nuclear weapons coincides (or almost coincides) with the time of strategic missile launch.

Upon timely receipt of the message to use missiles, the submarines and surface missile-carrying ships that are in firing positions are able to complete their launch within 30 minutes.* If we proceed from these norms, then to successfully weaken or disrupt the first nuclear strike by submarines and surface ships, our naval forces must take action against them within 15 minutes after detecting the launch of strategic missiles from positions located on the American continent. Otherwise our capabilities will be reduced; moreover, if the Navy begins operations 30 minutes or more after the launch of strategic missiles is detected, it will deliver a strike on an enemy who has already fired his weapons.

The disruption of a missile/nuclear attack by carrier strike groupings must also proceed from the fact that carrier-based assault aircraft with nuclear bombs can begin their takeoff 15 minutes after receiving the message. The average time needed for all aircraft to take off is approximately one hour. Consequently, to disrupt the takeoff of aircraft it is essential to deliver a strike against carrier groupings no later than 15 minutes after they receive the message to start military operations (the moment the launch of strategic missiles is detected). The greater our delay is in delivering the strike, the lower our capability will be to disrupt the takeoff of the assault aircraft; with a delay of 1 hour and 15 minutes, or more (after detecting the launch of strategic missiles), we would be operating against carriers on which there are no aircraft.

*The flight time of ballistic missiles from the American continent to Europe is 25 to 30 minutes. The preparation of the Polaris missile for launching from American submarines takes 15 minutes. It is also possible to launch 16 missiles from each submarine in 15 minutes. The launch of missiles from surface missile-carrying ships can be accomplished within approximately the same period of time.

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Speed in transmitting orders to our naval forces to use their weapons is of great importance in reducing the time needed to deliver strikes against the enemy. At the present time, to ensure speed and continuity of control over naval aircraft in the air the radio sets of all aircraft are in a state of constant readiness to receive messages from the naval aviation command post. This permits all crews to continuously follow the situation and to be ready to use their weapons against the enemy immediately, within 2 to 3 minutes.

The problem of effecting communications with submerged submarines is considerably more complicated (at best, they are required to broach (podvsplyvat) at specified times to receive radiograms from the shore command post). In order not to breach the security of their actions, various communications schedules are set up for them. This necessitates designating precise times for each submarine to broach to receive radiograms.

From all that has been said it is apparent that, in order to assure timeliness in the transmission of orders for the naval forces to employ their weapons, the transmission of radio signals to aircraft, submarines, and surface ships should be automated; and this includes finding the urgently needed solution to the problem of communicating with submerged submarines.

The determination of the amount of naval forces required to offer effective opposition to an enemy attack is a highly important problem. The number of antisubmarine submarines which must be deployed will depend on the number of enemy submarines and the number and size of the launching areas from which they can deliver a strike; the range of detection means available on antisubmarine submarines and missile submarines; the speed of our submarines and of enemy submarines; and the time limits for detecting each enemy submarine after the search begins.

Calculations show that to detect one nuclear submarine with existing hydroacoustical equipment in a launching area of 100 x 100 miles in one day, and to subsequently destroy it with a probability of about 70 percent, it would be necessary to have at least four nuclear antisubmarine submarines in that area. The capabilities of diesel

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antisubmarine submarines will be about four times lower than the capabilities of nuclear antisubmarine submarines. Just to weaken and partially disrupt a strike by submarines from the North Atlantic, even if the exact location of their launching areas is known, would require the simultaneous deployment of a large number of nuclear antisubmarine submarines. In addition, large forces of antisubmarine aircraft will be required. For example, for a single reconnaissance of one probable launching area of enemy missile submarines measuring 100 x 100 miles, it is necessary to set out about 500 aircraft buoys simultaneously, which would require seven long-range antisubmarine aircraft. To detect the thermal trail of a nuclear submarine requires a continuous search by at least two long-range antisubmarine aircraft in each launching area. To reconnoiter each launching area will require at least 16 flights daily by antisubmarine aircraft. A large quantity of submarines and aircraft will be required to disrupt the takeoff of carrier assault aircraft.*

It is quite clear that it is extremely difficult to satisfy all the requirements for combatting the enemy merely by having numerical superiority over him in submarines, ships, and aircraft.

The capabilities of the Navy to disrupt a missile/nuclear attack from ocean and sea axes will increase substantially with the use of artificial earth satellites, and also with the use by submarines, aircraft, and shore installations of ballistic missiles that are ready for launching within 1 to 2 minutes.

* According to approximate calculations, to destroy one carrier group consisting of a strike aircraft carrier, an anti-aircraft guided missile cruiser, and escort vessels, requires at least three nuclear-torpedo submarines, each with three nuclear torpedoes, or two regiments of naval missile-carrying aircraft with six nuclear missiles.

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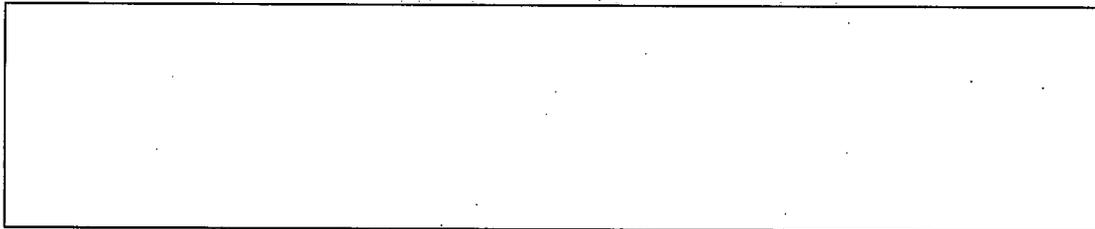
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Radar equipment and passive detection devices, based on the use of infrared, ultraviolet, and other types of radiation, can be installed on artificial earth satellites. With the aid of this equipment, as is now known, it is possible to detect ballistic missiles launched from submarines and surface ships at the moment of their launch and in the first seconds after the launch and to determine the parameters of their course.

Given the presence in outer space of a certain number of artificial earth satellites with detection means, it is possible in a short period of time to obtain information on the launch of ballistic missiles from submarines and surface missile-carrying ships from any point of the world ocean and to use this information to direct our forces to the enemy.

The capabilities of our Navy will also be significantly increased through the use by submarines, aircraft, and coastal installations of ballistic missiles with nuclear warheads and fueled with solid propellants.



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