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CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

12 June 1974

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MEMORANDUM FOR: The Director of Central Intelligence
SUBJECT : MILITARY THOUGHT (USSR): The Control of Naval Forces
in General Warfare

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 asserts that the stability of control of naval forces is one of the most important conditions determining success in directing combat actions at sea in modern warfare. A unified, duplicated, flexible and constantly operating system of control is necessary, one that is capable of ensuring continuous control of naval forces under all conditions. The system of controlling naval forces, consisting of a network of dispersed stationary and mobile command posts, radio centers, and communications centers, should not only be created in peacetime, but should also be carefully developed in the course of operational and military training of the fleets. This article appeared in Issue No. 2 (72) for 1964.

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. For ease of reference, reports from this publication have been assigned

William E. Nelson
Deputy Director for Operations

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Intelligence Information Special Report

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COUNTRY USSR

DATE OF INFO. Mid-1964

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SUBJECT

MILITARY THOUGHT (USSR): Assuring the Stability of Control of Naval Forces in a Missile/Nuclear War

SOURCE Documentary
Summary:

The following report is a translation from Russian of an article which appeared in Issue No. 2 (72) for 1964 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". The author of this article is Rear Admiral Yu. Ladinskiy. This article asserts that the stability of control of naval forces is one of the most important conditions determining success in directing combat actions at sea in modern warfare. A unified, duplicated, flexible and constantly operating system of control is necessary, one that is capable of ensuring continuous control of naval forces under all conditions. The system of controlling naval forces, consisting of a network of dispersed stationary and mobile command posts, radio centers, and communications centers, should not only be created in peacetime, but should also be carefully developed in the course of operational and military training of the fleets.

End of Summary

Comment:

Rear Admiral Yu. Ladinskiy was Chief of the Scientific Experimental Hydrographical Navigation Institute and a delegate to the Surprise Attack Conference in Geneva in 1958. His most recent article, about minesweeping, appeared in Voyenno-Istoricheskiy Zhurnal, No. 10, 1973.

February 1974. The SECRET version of Military Thought was published three times annually and was distributed down to the level of division commander. It reportedly ceased publication at the end of 1970.

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Assuring the Stability of Control of Naval Forces
in a Missile/Nuclear War

by
Rear Admiral Yu. Ladinskiy

The stability of control of naval forces has always been one of the most important requirements of naval art; without it, it is impossible to direct combat operations at sea successfully.

The disruption of the stability of control of naval forces, especially in the initial period of a war, can lead to the nonfulfilment of tasks assigned to the navy and to great materiel and personnel losses. The increasing importance of questions concerning control provides a basis for assuring that in a future war the headquarters, which are the basic control organs, particularly operational headquarters, will immediately, with the beginning of military actions, become one of the principal targets for strikes. There is no doubt that the enemy will employ all measures as quickly and as powerfully as possible to disorganize the operations of naval staffs and to disrupt the direction of military actions. Not to be excluded is that, with this goal in mind, nuclear strikes may be carried out by missiles launched from submarines, surface ships, aircraft, and ground launchers; and there may also be wide use of diversionary landing groups and active jamming of naval observation and communications means.

In modern warfare the use of nuclear weapons poses a real threat of instantaneous destruction or the putting out of action of entire links in the control of forces. This gives rise to the necessity of organizing and working out in peacetime a complete, continually functioning system of control which has sufficiently high viability and which can maintain uninterrupted control in any situation, even the most difficult.

We consider that such a system for the control of naval forces should be as simple as possible. It should allow control with a minimum of command echelons and lines of communications. This requirement is satisfied to a certain extent by the established procedure whereby the fleet commander exercises direct control over the operations of all submarines at sea, while control over missile-carrying aviation and the attached large units of long-range aviation are controlled through the commander of naval aviation. In order to ensure that operational groupings and strike and tactical groups at sea can independently carry out their assigned tasks at any distance from shore, even when control from above has been disrupted, it is necessary to have worked out in advance variants of combat actions for forces to conform to the expected conditions. Of

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course, the practical development of these variants by the appropriate groupings of forces should be carried out during exercises.

It is well known just what a control system is. Also well known are the requirements placed on it. We will only note that in satisfying these requirements a continuously functioning control system will be a very important element in the high readiness of naval forces for carrying out military operations at sea, especially in the initial period of a war. For this reason, such a control system must be prepared ahead of time, and the organizational structure and methods for reliably controlling the forces should be urgently developed under peacetime conditions.

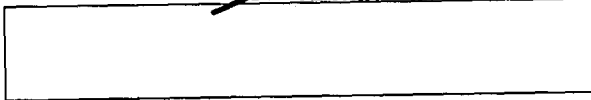
Practically speaking, what is the present state of affairs for assuring the stability of control over naval forces?

One must say that this question is frequently lost sight of by the naval command and becomes lost in general discussions of the problem of controlling forces under modern conditions. As an example of this, we may cite in particular military-scientific conferences which have been held in several fleets and in the Order of Lenin Naval Academy. In these conferences there was only vague talk about assuring the stability of control over naval forces in a missile/nuclear war, and the question was put only in the most general terms.

Therefore, we consider it necessary to devote attention in this article to the practical side and to examine possible recommendations in this area.

The stability of control of naval forces under modern conditions can be assured by the presence in the naval system of well protected stationary and mobile command posts for the Commander-in-Chief of the Navy and for the fleet commanders. The system of command posts for the navy, headed by the command post of the Commander-in-Chief of the Navy (the Main Naval Command Post), should be based on a network of powerful centers of communications and observation. These centers should be dispersed along the seacoast and deep in the territory of the country and should consist of a unified system of radio and radiotechnical equipment of the navy. This system should be tied in with similar systems of the other branches of the armed forces coordinating with the navy in carrying out operational and strategic missions.

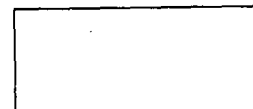
The Main Naval Command Post (GKP VMF) must assure reliable control of the fleets and have the capability of direct control over the main naval forces (submarines) regardless of where in the world ocean they may be



operating. The Main Naval Command Post must be able to direct the preparation for military actions and to control the deployment of naval forces in the prewar period in accordance with the plans for the first operations. Even now it is necessary for the Main Naval Command Post to exercise control over the forces of operational reconnaissance being conducted in support of the first operations of the initial period of the war. This naval command post must function constantly. In order to assure the stability of control it is obviously advisable to have two main naval command posts: the basic post and an alternate post. The basic (protected) Main Naval Command Post need not be used in peacetime. It should only be technically equipped, checked out, and prepared for being manned. The location of the basic Main Naval Command Post can be known to only a very limited circle of people.

In our opinion, control of the fleets in peacetime should be carried out from the alternate Main Naval Command Post which, as far as its technical equipment and engineer preparation are concerned, should not be counted on for use under the conditions of a nuclear war. It should only assure the possibility of reliable direction of the fleets under everyday conditions. With the beginning of military actions, the stationary alternate Main Naval Command Post will cease to function and its personnel, reinforced from the Main Staff and other control organs of the Commander-in-Chief of the Navy will move to the basic Main Naval Command Post. At the same time, the mobile alternate naval command post, with a communications group in vehicles, aircraft, and helicopters, will assure the capability of effecting control of naval forces in any area of ground or sea axes, depending on the conditions. Command posts of the fleets may also be used as alternate command posts for the Commander-in-Chief of the Navy during the course of a war.

Similar demands are made on the organization of fleet control posts. The flagship command post of the fleet is the basic post from which the fleet commander controls military actions at sea. As in the case of the Main Naval Command Post, the flagship command post of the fleet is prepared in peacetime under conditions of strict secrecy and is deployed only at the beginning of military actions. It must satisfy modern requirements for assuring viability and have all the necessary technical communications means for the control of fleet forces. The alternate fleet command post from which the forces are controlled in peacetime will be dissolved at the beginning of the war and its personnel sent to the flagship command post of the fleet.



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During a threatening period a mobile alternate fleet command post will be created, and control of fleet forces may be transferred to it before the main flagship command post of the fleet goes into operation. With the beginning of the war, the mobile alternate command post of the fleet will be used, as a rule, for carrying out the control of forces on this or that axis in order to assure effective direction of the fleet while preparing for operations and military actions; and it will also be used in case the flagship command post of the fleet is temporarily put out of action (for example, if it should move into a zone of radioactive contamination). The mobile alternate command post of the fleet is usually deployed under field conditions in trucks, or is placed on a special ship equipped with the necessary means of communications and control.

The fleet rear control post is deployed in a threatening period independently of the flagship command post and serves to assure the direction of all rear fleet organs. In organizing the fleet rear control post, and especially in determining its composition, it is necessary to take into account that in some circumstances it should have the capability of having the control of military actions at sea transferred to it.

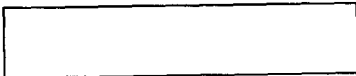
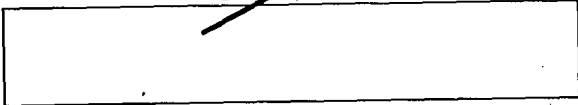
4
Command
Posts
Fleet

Command posts of fleet operational formations and large units are created to assure the control of subordinate forces under special conditions, both in peacetime and during time of war. In doing this, stationary command posts are organized for those fleet formations and large units for which control is possible and desirable from shore. It should be kept in mind that under modern conditions wide use will obviously be made of mobile command posts for formations and large units. The command posts for large units of surface ships will ordinarily be organized on board ships. Large units of guard ships of a sea area (OVR) will, as a rule, have stationary command posts on shore. Command posts for aviation large units will be organized in the area of an airfield complex. The distance between control posts of naval forces should be such as to preclude the possibility of their simultaneous destruction by nuclear munitions of medium yield.

This is the way we envision approximately a plan for the control of naval forces under modern conditions. A similar system for control, in our opinion, will assure stable direction of naval forces by the Commander-in-Chief of the Navy and the fleet commanders in a nuclear war. The presence of the aforementioned command posts provides a sufficient guarantee of viability and, consequently, reliability in the control of naval forces. The most important point at the moment consists of quickly



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~~completing the creation of a system of control and mastering it in its entirety, obtaining precise and effective operation by all existing and newly created control links of naval forces, and working toward automation in the use of these forces under the most difficult conditions.~~

~~Of great significance in assuring stability in the control of forces is firm mastery of the procedure and organization of transfer of control from one command post to another. It is very essential to master control from a lower level. We may cite, for example, control of all the fleets from the flagship command post of one fleet; control of a fleet from the command posts of its formations and large units, and also from the rear control post. In order to do this, it is necessary to prepare the fleet staffs and control posts ahead of time, provide them with the appropriate documentation and technical means of communications, and systematically work out the process of such a transfer of control in the course of operational and combat training. Increased viability of control can also be achieved on the basis of prior designation and the proper preparation of second and third deputy commanders (commanding officers) from the ranks of the commanders on the lower levels.~~

A continually operating system of control represents something like a material basis for the stability of control of naval forces. But stability of control depends also on a number of other factors which exert an influence or affect the degree of this stability. Among such factors are: the organizational structure of the organs of control of forces; and the methods of control and the technical equipment of the command posts and communications centers. The distance of the areas of combat actions of naval forces from their permanent basing areas (several thousand kilometers) requires the presence of technical means of communications which will assure continuous and reliable control of diverse forces at great distances, i.e., practically global communications systems.

The organizational structure of control organs (the operational staffs) will, for the most part, satisfy the requirements for assuring the stability of control in the case when it is set up on the principle of unity and centralization of command. Thus, for example, for a fleet this structure, in our opinion, will be the following: the fleet commander, a unified staff subordinate to him and including officer-operators, and officer-specialists for all the arms of naval forces (submarines, naval aviation, surface ships, and shore-based rocket/artillery troops), and also specialists in services (communications and observation, naval engineering, and hydrographic and chemical services). In addition to the fleet staff, there must also be a staff for the fleet rear services, which are subordinate to the fleet commander through his deputy for the rear who is in charge of rear services support, including the question of building up



personnel levels. In our opinion, such an organization is simpler and more economical and eliminates multiple intermediate and parallel links; and to a large extent it satisfies modern requirements for stability in the control of naval forces.

It should also be noted that the organization of the control of naval forces in peacetime should correspond to the basic demands for the control of forces in time of war, especially in the initial period of the war, and should assure control in this period without any sort of complex plan for restructuring the organization.

The methods for the control of forces also influence the degree of its stability. Under the conditions of a missile/nuclear war, it is extremely important to have the strictest centralization according to the principle "commander-executor", regardless of any intermediate levels. Such strict centralization most closely corresponds to the probable circumstances in which military actions will be carried out (active combat with radio-electronic means) and, consequently, will increase the stability of the control of forces. Of course, this centralization does not exclude the exercise of the broadest initiative on the part of commanders of submarines, aviation large units, and other naval forces in the selection of methods for carrying out their assigned tasks or in making independent decisions made necessary by the situation and responsive to the plan and intention of the commander. A healthy display of initiative will undoubtedly always further the stability of control of naval forces.

It should now be clear to all that the basic trend in the field of technical equipment of control systems is their automation. The assurance of stability in the control of forces requires the creation of an automated system of control of naval forces which includes all levels of control from fleet headquarters to ships and airplanes.

The basis of this system should be, to the extent possible, small computers. This system should include all modern means of communications and technical reconnaissance and observation, which will insure secure, quick, and sure control of forces. The automated system should also include: various devices which will enable staffs, commanders, and command posts to perform their work quickly; plotting board-screens to reflect the situation at sea; devices for the automatic input and output of information; equipment for quickly printing and reproducing operational-combat documents; etc.

The automated system for the control of forces must assure the rapid collection and processing of situation data and the storage and output of essential information; the calculation of input data for making decisions

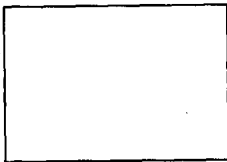


and the selection of optimal variants for the use of forces and means in the course of carrying out operations (military actions); the transmittal of orders and messages; and fire control for the command posts of large units. A high level of technical equipment in the system of control of naval forces will significantly increase its stability under the conditions of modern war.

The most important element in the system of control is communications. The naval communications system consisting of radio communications centers and communications centers located throughout the territory of the country and connected among themselves and with the fleet staffs and the Main Naval Staff by communications channels, should assure the capability of collecting, processing, and transmitting any kind of coded information, and radar and television images, to naval forces in any ocean or sea at any distance from shore. The fulfilment of all these requirements for the naval communications system should be considered one of the basic conditions for assuring its stability under the conditions of a nuclear war.

A serious problem in assuring the stability of the control of naval forces has always been security in the use of communications means. At present, the solution of this problem, as is known, is proceeding along the lines of the wide use of burst transmission systems which allow the transmission of the necessary volume of information in a fraction of a second. One very promising possibility for assuring security in radio communications, especially for communications with submarines, is the use of artificial earth satellites. The situation is somewhat worse with respect to assuring security in radio communications with aircraft and surface ships, and thus it is necessary to immediately equip the aircraft of naval aviation, especially long-range aircraft, and also naval surface ships, with burst transmission, jam-proof equipment with automatic security devices.

Stability of control is greatly dependent on the operating reliability of the means of communications. A completely necessary measure, without which it is impossible to attain stability of communications, is the protection of all main radio lines of control from enemy jamming. As we see it, this may be best attained by controlling forces by using short signals sent by burst transmission devices; by simultaneously making broad changes of frequencies and callsigns; and also by taking appropriate measures of radio security, particularly the use of false radio traffic. A very important question is that of assuring the reliability of information transmitted by radio means, especially when naval forces (submarines) are operating at great distances from their bases and command posts. It is very important to correctly evaluate the degree of this reliability. Serious attention should be devoted to methods for determining the degree



~~of reliability of information~~ under various conditions of use of radio communications means. //

Such are some of the basic considerations which, in our opinion, characterize modern requirements for assuring the stability of control of naval forces in a missile/nuclear war. The considerations that we have cited permit the following conclusions to be made:

1. The stability of control of naval forces is one of the most important conditions determining success in directing combat actions at sea in modern warfare. A unified, duplicated, flexible, and constantly operating system of control is necessary, one that is capable of ensuring continuous control of naval forces under any conditions, even the most difficult.
2. The system of controlling naval forces, consisting of a network of dispersed stationary and mobile command posts, radio centers, and communications centers, should not only be created in peacetime, but should also be carefully developed in the course of operational and military training of the fleets.
3. Assuring the stability of control of naval forces under modern conditions consists of a complex of measures directed at putting together staffs and at increasing their combat readiness by any means possible; and it also consists of excellent training of the admirals, generals, and officers of the staffs of operational formations and large units of the navy.
4. The complexity of controlling forces under the conditions of a missile/nuclear war and the probable surprise beginning of military actions without a prior threatening period, requires the presence in peacetime of an organization which would assure the stability of control of naval forces in the initial period of the war without substantially restructuring the organization.

The experience gained in operational and military training of our fleets testifies to the fact that the question of assuring stability in the control of naval forces unfortunately has not always been adequately reflected in the preparation and conduct of exercises. Meanwhile, this is an extremely important matter to which it is necessary to devote the most serious attention. A number of problems connected with assuring the stability of control of forces require that we conduct special research at experimental fleet exercises and research games at the naval academy; individual problems should be studied at the naval institutes.