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CENTRAL INTELLIGENCE AGENCY
WASHINGTON 25, D. C.

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3 JUL 1962

MEMORANDUM FOR: The Director of Central Intelligence

SUBJECT : MILITARY THOUGHT (SECRET): "Some Questions of
Combat with Enemy Nuclear Means", by Colonel
S. Lyshak and Colonel V. Parkhomenko

1. Enclosed is a verbatim translation of an article from the
~~SECRET~~ Collection of Articles of the Journal "Military Thought"
published by the Ministry of Defense, USSR, and distributed down
to the level of division commander.

2. For convenience of reference by USIB agencies, the
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Richard Helms
Deputy Director (Plans)

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DATE: DEC 2004

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COUNTRY : USSR

SUBJECT : MILITARY THOUGHT (SECRET): "Some Questions of Combat with Enemy Nuclear Means", by Colonel S. Lyshak and Colonel V. Parkhomenko

DATE OF INFO : December 1961

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Following is a verbatim translation of an article entitled "Some Questions of Combat with Enemy Nuclear Means", by Colonel S. Lyshak and Colonel V. Parkhomenko. This article appeared in Issue 6 (61) of 1961 of a special version of the Soviet journal Military Thought which is classified SECRET by the Soviets and is published irregularly.

Issue 6 (61) was sent to press on 7 December 1961.

[REDACTED] Comment: Military Thought is published by the USSR Ministry of Defense in three versions, classified RESTRICTED, SECRET, and TOP SECRET. The RESTRICTED version has been issued monthly since 1937, while the other two versions are issued irregularly. The TOP SECRET version was initiated in early 1960. By the end of 1961, 61 issues of the SECRET version had been published, 6 of them during 1961.

The article by Chief Marshal of Artillery Varentsov which this article is concerned with was [REDACTED]

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COMMENT ON A PREVIOUS ARTICLE

Some Questions of Combat with Enemy Nuclear Means

by

Colonel S. Lyshak

and

Colonel V. Parkhomenko

The article by Chief Marshal of Artillery S. Varentsov, "The Problem of Combat with Enemy Nuclear Means and Its Solution"* is devoted to one of the most urgent and, at the same time, complex questions of a modern operation. The author of the article effectively disclosed the essence of combat with enemy nuclear weapons and pointed out the manner in which it should be conducted. It is impossible not to note that, on the whole, the article constitutes a most conclusive treatment of this subject and presents it in an incisive and profound manner.

We completely agree with the author's conclusion on the need for a thorough review of views regarding the organization of combat with enemy nuclear means and for the development of "an orderly and all-embracing system, in which will be included all the forces and means necessary for reconnaissance and destruction, a well-organized rear area and, lastly, precise control". The introduction of such a system can be greatly facilitated by developing a special manual or set of instructions, as proposed by the author of the article. This set of instructions should clearly and precisely define the functions of the appropriate commanders and their staffs, the rights and responsibilities of the chiefs of missile troops and artillery concerning the organization and conduct of combat with enemy nuclear means, the general order of combat, the use of technical means, the norms of work, the contents and procedure for drawing up documents, etc.

* Collection of Articles of the Journal "Military Thought", No. 5 (80), 1961

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The mission of combatting enemy nuclear means must be raised to the level of a mission of primary importance in the practical work of commanders and staffs. It should be included among those questions that always occupy the center of attention of the front troop commander, the army commander, and their staffs during the preparation and conduct of an operation.

It is known that the necessary condition for the successful execution of an offensive operation is the gaining of fire superiority over the enemy. The battle for this superiority is a continuous process and remains exceedingly tense from the beginning of the operation to the end. Naturally, this battle must be part of the goal of the operation and of those combat and operational missions that are being resolved by the large units and formations of missile and ground troops.

For example, the goal of an army offensive operation, in general terms, may be defined as follows: the gaining of fire superiority over the enemy; the rout of the large enemy operational grouping in coordination with other armies and means of the front; the swift development of the offensive into the depth; and the seizure of areas that will ensure favorable conditions for conducting subsequent operations.

The essence of the immediate mission of the army: to destroy the means of nuclear attack; to rout the first and second echelons of the enemy field army; and the seizure of areas which will ensure favorable conditions for the subsequent development of the offensive. The subsequent mission of the army may be the destruction of the enemy means of nuclear attack located in the depth; the development of the offensive; the routing of the deep operational reserves; and the seizure of areas, the occupation of which is part of the goal of the operation.

During the assignment of combat missions to the second echelons, to the reserves, to the forward detachments, and to the landing forces, the destruction of enemy means of

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nuclear attack must be given as one of the basic missions.

In our opinion, all this will assist in a more complete definition of the goal of combat operations and of the scope and order of fulfilling the assigned missions. Accordingly, the questions of destroying enemy nuclear means will occupy a central place in the plans of the operation and battle.

In its significance and scope, as well as (especially) by its results, combat with nuclear means cannot be compared with counterbattery combat of World War II. Counterbattery combat was planned and executed (as it is still done) by artillery commanding officers and their staffs who had, and still have, the necessary forces and means for this purpose.

Combat with enemy nuclear means is radically different from counterbattery combat, despite the fact that it includes the destruction of artillery using nuclear warheads.

The following pertain to the basic principles of combat with nuclear means:

-- the preemptive nature of combat and its continuity;

-- the complex annihilation of all elements that enter into the concept of means of nuclear attack (nuclear warheads, launching mounts, guns, delivery aircraft, control centers and points, radiotechnical means, storage and assembly points, means of reconnaissance, etc.);

-- close coordination by missile troops, aviation, artillery and other means of destruction;

-- the organization of clear-cut control of fire and of maneuver by all weapons of destruction;

-- the assigning of strict responsibility for conducting this combat at front, army, and division levels, and the allotment of appropriate forces and means for this task.

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In his article, Chief Marshal of Artillery S. Varentsov soundly presented the question of allotting to the chief of missile troops and artillery the necessary reconnaissance means and a certain minimum amount of ammunition with nuclear and chemical filling, and of granting him the right to carry out single and group nuclear strikes against enemy means of nuclear attack. All this creates conditions that permit the existence of a single system for combat with enemy nuclear weapons, in which skillful combined use will be made of missile troops, artillery and other means of combat.

When organizing combat with means of nuclear attack, the greatest importance is attached to calculating enemy capabilities.

Depending on the enemy troop grouping in the army offensive zone, it is possible to expect up to 170 mounts and guns using nuclear warheads, as well as rear area installations connected with the supply of nuclear warheads. Besides this, a significant number of surface to air missile (ZURS) mounts, airfields of tactical aviation, and other targets will be located in the army offensive zone.

An important characteristic of enemy means of nuclear attack is the quantity and yield of his nuclear warheads, and also the manner of their distribution and echelonment.

In accordance with the accepted norms of reinforcement, a field army of the USA may receive 60 to 90 nuclear warheads, and on army corps 20 to 40, for a defensive operation. According to preliminary data, a British, West German or French corps may receive 20 to 30 nuclear warheads each. The significantly larger number of guns and mounts capable of using nuclear warheads, over the number of warheads which are actually allotted, to a certain degree, makes combat with enemy nuclear means more difficult and requires that particular attention be given to the dis-

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covery and destruction of nuclear warheads.

An analysis of materials from exercises shows that the Americans are striving to create large stocks of nuclear warheads on an administrative basis (on the basis of 1 or 2 operations for each field army, or on the basis of supporting troop combat operations for 20 to 30 days). Therefore, the reconnaissance and destruction of nuclear warheads at depots, and at points for the assembly and preparation of projectiles, must be the most important part of combat with enemy nuclear means. The successful destruction of these objectives and the disruption of his supply system may lead to the failure of the enemy offensive or to a sharp weakening of his activity on the whole. As shown by calculations, the restoration of a disrupted supply system for nuclear warheads may require from 2 to 4 calendar days, and, in a number of cases, even more.

When conducting combat with enemy nuclear means, the main mission of the army will be the destruction of tactical means of nuclear attack, which can be effectively destroyed by tactical missile and tube artillery fire. We note that 50 to 60 percent of the tactical weapons are 203.2mm howitzers, weapons which can be combatted effectively by tube and rocket artillery. Army missiles may be used to combat "Sergeant" ("Corporal") battalions, large control points, and also troop ZURS mounts. The remaining objectives, as a rule, are destroyed by the means of the front.

According to our calculations, an army comprising six divisions, plus its usual reinforcement of tube artillery from the Reserve of the Supreme High Command (RVGK) may, by using all the gun battalions, a large part of the howitzer battalions, and operational-tactical and tactical missiles, simultaneously destroy about 20 percent of the expected number of enemy nuclear means in the zone of its own offensive. By using artillery chemical ammunition as well, up to 30 percent will be destroyed.

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In view of the fact that, before our tactical means enter the fire zone, the nuclear means of the enemy will have been destroyed by operational-tactical missile and front aviation strikes, and, also, in view of the fact that these weapons are destroyed as they are discovered, it can be tentatively accepted that an army must have in constant readiness a quantity of means that would permit the simultaneous destruction of not less than 50 percent of the expected number of enemy nuclear means.

In our view, each division in the first echelon must have at its disposal an average of 4 to 5 gun and howitzer battalions, capable of conducting combat with the nuclear weapons of the enemy at ranges of 12 to 20km. For this purpose, an army must be considerably reinforced with artillery -- with 4 to 5 artillery regiments. Evidently, the best solution, as is proposed in the article, is to include long-range gun battalions, in addition to the howitzer battalions, in the TOE of the divisions.

On the basis of the tentative calculations cited above, it is possible to come to the conclusion that in order to effect the simultaneous destruction of the enemy means of nuclear attack and the destruction of his main grouping, an army needs to be reinforced with operational-tactical and tactical missile units: up to 1 to 2 battalions of operational-tactical missiles (OTR) and 2 to 3 battalions of tactical missiles (TR) (under the existing organization of missile units).

We agree with the author of the article that the planning of combat with enemy nuclear means must be carried out under the direction of the combined-arms staff and participated in by the chief of missile troops and artillery, by the commander of the air army (VA) (or his representative), and by the chiefs of chemical troops, PVO troops, communications, and engineer troops. In our opinion, however, there is no need to work out separate plans for combat with enemy nuclear means. The question of combat with enemy nuclear means must be Question No. 1 of the general

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plan of the operation.

In the staff of the missile troops and artillery, combat with enemy nuclear means is reflected in the plan for the combat employment of missile troops and artillery in an operation. This plan specifies the quantity of warheads with nuclear and chemical filling specifically allotted for combat with enemy nuclear means and allocates them by missions (the preparation period, the execution of immediate and subsequent missions (by the army)).

Our calculations show that 30 to 50 percent of all the nuclear warheads should be allotted to combat with enemy nuclear means. Each division commander in the first echelon should have at his disposal 3 to 5 nuclear warheads and missiles with chemical filling that may also be used to fulfil other important missions.

The allotting of ammunition for the specific purpose of combat with the means of nuclear attack is also necessary in order to ensure the timely issue of warheads with yields that will effectively destroy enemy nuclear means. According to research data, an R-170 at a range of up to 100km, with an air burst, requires 50 to 75 kilotons; and at a range of up to 150km, 80 to 100 kilotons (in a surface burst, the yield increases by 1.25 to 1.5 times); an R-30, at a range of up to 15km, requires 10 kilotons; and at a range of up to 30km, 15 to 20 kilotons.

In our opinion, the difficulty of conducting reconnaissance of nuclear means, the need for exceptional combat efficiency in combatting them, and the decisive role of missile troops in this type of combat, make it necessary to create, in the HQ's of missile troops and artillery, a fire control center (in the division a fire control point) headed by the chief of missile troops and artillery (chief of artillery). At the center there can

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be reconnaissance, planning and coordination, control, supply, and information groups. The composition of the center may include officers of the operations group of the air army staff and, when necessary, some officers of the front (army) staff.

The fire control center will be an organ of the front (army) troop commander for the control of fire weapons placed at the disposal of the front (army). The work of the center is organized on the basis of the troop commander's decision.

As is known, the reconnaissance of nuclear means is organized by the combined-arms staff in accordance with a single plan. The chief of missile troops and artillery should have at his disposal aerial reconnaissance means and fire-directing/reconnaissance aircraft for combat reconnaissance and for determining the results of strikes.

All data, obtained by all types of intelligence, are channeled to a single intelligence information collection and processing point. Information on the means of nuclear attack is sent simultaneously to the fire control center by means of radio relay (retranslyatsiya). The planning and coordination group headed by the chief of the center determines the objective, the means of destruction, and other data, and immediately assigns the mission to the missile troop subunits on duty to prepare for a strike. At the same time, the chief of the center reports to the front (army) troop commander concerning the objective and the action taken. While the final decision is being made, the subunits and units on duty prepare for launching and report on their readiness. After the decision is made, the fire control center gives the signal for the strike. In our opinion, such a system of work will significantly reduce the time taken for the preparation of a strike.

In order to destroy enemy nuclear means located at launch sites, the chief of missile troops and artillery

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must be given the right to deliver strikes independently, with a subsequent report to be made to the appropriate commander.

In our opinion, Chief Marshal of Artillery S. Varentsov is absolutely correct in proposing that ground missile units adopt some of the principles now being used by the PVO Troops of the Country. Among the principles that can be adopted are those on control, on the use of radio receivers directly at the fire batteries for receiving commands from control points, and on automation in the preparation of data and in aiming the missile at the target. The use of these principles will lead to a further reduction in the time required by ground missile units to prepare for combat employment.

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