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CENTRAL INTELLIGENCE AGENCY
WASHINGTON 25, D. C.

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6 JUL 1962

MEMORANDUM FOR: The Director of Central Intelligence

SUBJECT : MILITARY THOUGHT (SECRET): "The Use of Nuclear/ Missile Weapons in an Army Defensive Operation", by Colonel N. Pavlov

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 codeword IRONBARK has been assigned to this series of TOP SECRET CSDB reports containing documentary Soviet material. The word IRONBARK is classified CONFIDENTIAL and is to be used only among persons authorized to read and handle this material.

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Richard Helms
Deputy Director (Plans)

Enclosure

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cc: The Director of Intelligence and Research,
Department of State

The Director, Defense Intelligence Agency

The Director for Intelligence,
The Joint Staff

The Assistant Chief of Staff for Intelligence,
Department of the Army

The Director of Naval Intelligence
Department of the Navy

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COUNTRY : USSR

SUBJECT : MILITARY THOUGHT (SECRET): "The Use of Nuclear/Missile Weapons in an Army Defensive Operation", by Colonel N. Pavlov

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Issue 6(61) was sent to press on [redacted] 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 is issued monthly and has existed since 1937. The SECRET version is issued irregularly. By the end of 1961, 61 issues had been published, 6 of them during 1961. The TOP SECRET version was initiated in early 1960 and is also issued irregularly.

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COMMENTS ON ARTICLES PUBLISHED IN THE COLLECTION OF THE JOURNAL "MILITARY THOUGHT"

The Use of Nuclear/Missile Weapons in an Army Defensive Operation

by

Colonel N. Pavlov

It is, at present, a universally recognized proposition that nuclear/missile weapons not only sharply increase the firepower and the stability of a defense, but also permit the defender to attain decisive goals, up to the disruption of an enemy offensive. This is discussed in the article by Major-General of Artillery F. Tonkikh and Colonel N. Vasendin.[1]

At the same time, it is considered that defense will be carried on with a limited and even, in a number of cases, with an insufficient quantity of nuclear weapons. Thus, a certain contradiction results, and the main proposition on the decisive role of nuclear/missile weapons in defense is often not reflected in the combat and operational training of troops and staffs in the solution of the problems of organization and of the conduct of defense.

Defensive operations are justly given a secondary place and are subordinated to the interests of an offensive. But when a defender has insufficient nuclear means, the balance of forces becomes unfavorable to him, especially in the field of nuclear/missile weapons, and it therefore becomes more difficult to gain the objectives of the defensive operation. The insignificant quantity of nuclear warheads which are allocated for a defensive operation, given

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1. Collection of Articles of the Journal "Military Thought" No. I(56), 1961.

overwhelming enemy superiority in other weapons, will not enable a defender to break up an enemy offensive which is being prepared or which has already begun, even if all available nuclear/missile weapons are used simultaneously.

Take, as an example, an almost stereotyped case, fairly often encountered in the practice of operational exercises, when a combined-arms army made up of 4 or 5 divisions, in defense along a zone 130 to 140km in width, receives a total of 12 to 15 nuclear warheads for a defensive operation; and it is planned that the nuclear weapons of the front should deliver about 10 nuclear strikes within its defense zone, primarily against the deeply disposed nuclear weapons of the enemy. As we know, the tactical missiles with which the missile battalions of motorized rifle and tank divisions are equipped, have a limited effective range, and can be used only against enemy objectives which are not deeply disposed. As a result, a situation is created within the zone of defense of the army in which the advancing opponent has manifold superiority in nuclear warheads and in the means for their delivery to a target; he also has two or three-fold superiority in divisions, including superiority in the quantity of tanks and artillery.

In such circumstances, a defender has the natural desire not to risk the small amount of nuclear warheads, because he realizes that he cannot achieve decisive results by using all or the greater part of the warheads at once. Having no hope of breaking up the enemy offensive, and taking into consideration the need to conduct a prolonged and stubborn defensive battle, while carrying out counterattacks and counterstrikes, the defender divides his nuclear warheads into small groups to carry out the most important tasks in the operation. A few nuclear warheads (3 or 4, at the most, 5) are allotted for combat with the nuclear means of the enemy; approximately the same number for the repulse of his advance before he reaches the main line of resistance and for the conduct of combat operations

in the depth of our defense; about one half of the available nuclear warheads will be used to carry out counterattack and a counterstrike.

Such use of nuclear/missile weapons in an army defensive operation cannot be considered as massed use. Essentially, these weapons represent a qualitative strengthening of the army, but, as before, the main brunt of defensive engagements and battles is borne by the artillery, the tanks and the infantry.

The use of nuclear/missile weapons is adapted to defensive operations of the troops which, as a result, in spite of some modifications to bring them into conformity with the conditions of nuclear/missile warfare, do not differ substantially from the means and methods of operations in the defensive actions of the last war.

The most unfortunate fact here is that the defender is forced to dissipate the nuclear means which he has available, and that by doing so, even before the beginning of the attack, he yields the enemy the initiative in the use of nuclear weapons and in the choice of methods for subsequent operations. This allows the enemy, almost without hindrance, to move up and deploy his nuclear means, to organize and deliver nuclear strikes of a high yield and to build up a swift offensive, quickly exploiting the results of the strikes. If, in addition, we consider that as a rule, a defense will be set up in short periods of time, and thus can often not be sufficiently well prepared and developed, in an engineer respect, the extremely difficult conditions in which the defending troops find themselves become apparent.

Can nuclear/missile weapons play a decisive role in defeating the advancing enemy and in attaining the goals of the army's defensive operation in the given instance? It is clear that they cannot, because, having an entirely inadequate quantity of these weapons, the army is not capable of seizing the initiative from the enemy, and of inflicting upon him losses, in the zone of defense, which would drastically change the balance of forces to its (the army's) advantage.

It would seem that in such a situation the advancing enemy will attain his goals sooner than the defending army, unless the latter is substantially strengthened by the nuclear means of the front. However, in our training practice, an entirely different picture often emerges. At first "the opponent" achieves a certain success; he even manages to drive a wedge of 40 to 50km, or more, into the depth of the defense, but then, the defending troops turn him back by striking with 6 to 8 warheads, and by counterstriking with two or three divisions, despite his superiority in forces and means.

Such successful operations by defending troops who dispose of far fewer forces and means than the opponent, seem to us to be highly improbable. In practice, of course, this will not happen in a combat situation.

What, in fact, can be done by a defending army which has at its disposal the above-mentioned numbers of nuclear warheads? Within an army defense zone 130 to 140km in width, one can expect an attack by up to one full army of the enemy, able to use 100 or more nuclear warheads, and to put into battle 10 to 15 divisions, about 3000 tanks, and 2000 to 2500 guns and mortars.

Even if the defending army uses its nuclear warheads effectively, if nuclear strikes are delivered within its zone by the means of the front, and if nuclear/missile weapons are used by the divisions of the first echelon -- the army can only put out of commission about 15 nuclear launching mounts /two or three words missing/ 3 to 4 enemy divisions.1 As a result, the enemy's losses will not exceed 15 percent of his nuclear warheads, 5 to 7 percent of the means for their delivery and up to 30 percent of his troops.

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1. The destruction of the enemy's nuclear warheads at his depots must be approached with care. The point is that the enemy may store only a limited amount of warheads at the depots, having supplied the troops with them previously.

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There is no doubt that the enemy will not lose his striking power because of this, or that, as before, he will surpass the defender in nuclear weapons and other means. Moreover, calculations show that the enemy will retain his superiority in nuclear weapons even if all the nuclear warheads of the defender's army are used against his nuclear means.

Therefore, while giving due credit to the art of conducting engagements and battles, we consider that the quantity and the yield of nuclear warheads needed for the purposes of defense must be commensurate with the quantity and yield of those which are at the disposal of the enemy. An army in defense must always have at its disposal a quantity of nuclear warheads with the yield to permit their massed use, thus attaining decisive goals in breaking up an enemy offensive and fighting vigorously to seize the initiative in the use of nuclear/missile weapons from him. Modern defense can attain these goals only when it is capable of opposing the fire power of an attacking enemy, if not with the same fire power, then at least with one which is not so very inferior.

The presence of nuclear warheads in an army, and in its large units should provide for effective combat with the operational-tactical and tactical nuclear means of the first operational echelon of the enemy and the possibility of putting out of action the main part of the strike grouping of his troops. For example, in the case mentioned above, when an enemy offensive of up to field army strength is expected in the defensive zone of an army, one might suggest the following tentative estimate of the requirement for nuclear warheads.

In order to destroy the operational-tactical nuclear attack means, i.e. one group of launching mounts for "Redstone" missiles and three battalions of "Corporal" (one battalion for each army corps) 8 nuclear warheads will be needed (calculating 2 nuclear warheads for each objective).

When two army corps operate in the first operational echelon of the enemy, their composition may include, in addition to the organic weapons of the divisions, some means of reinforcement -- up to 6 battalions of "Lacrosse" guided

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missiles (URS), up to 6 battalions of "Honest John" guided missiles, (URS) up to 6 battalions of 203.2 howitzers, and a battalion of 280mm guns. The destruction of the 'Honest John" and of the 203.2mm howitzer batteries, which are in the complement of the divisions of the first echelons of the corps, and the destruction of the 203.2mm howitzer reinforcement battalions, will usually be assigned to the missile battalions of the first echelon divisions, to the army artillery and to the supporting aviation. The missile means of the army will be required to destroy 12 "Lacrosse" and "Honest John" guided missile battalions (calculating one warhead for each objective) and a 280mm gun battalion (3 warheads), expending a total of 15 nuclear warheads.

In order to break up an offensive by an enemy field army, it is necessary to put out of action a minimun of 50 percent of the 6 to 8 divisions of its first echelon, i.e., 3 to 4 divisions, including 2 armored divisions, which will require 18 to 24 nuclear warheads.

The result of this extremely tentative estimate is that, for the destruction by the army's missile troops of only a part of the nuclear means of the enemy's field army and of the troops of its first echelon, 40 to 50 warheads with a yield of 20 to 40 kt must be expended. In addition, a certain quantity of nuclear warheads are necessary for the conduct of a defensive operation. The experience of exercises shows that this quantity should amount to not less than 1/3 of all available warheads, i.e., in this case -- 12 to 15.

In accordance with this, an army should also have a quantity of means for delivering nuclear warheads to the target which will ensure their massed use. According to the existing TO& E tables, a combined-arms army, depending on the number of divisions included in its complement, can call on only 14 to 16 launching mounts for a simultaneous strike, more than half of them in the depth of the tactical zone.

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It seems to us that the number of launching mounts in an army should be increased, first by bringing a third battalion into the T/O & E of the army missile brigade, and secondly by doubling the numbers of launching mounts in the missile battalions of the motorized rifle and tank divisions. Together with this, the range of fire of the tactical missiles with which the divisions are equipped, must be increased to 60 to 90 km.

In addition to the adopted norms for the reinforcement of a front, it would be advisable to have, within its composition, 2 or 3 independent (otdelnyy) missile battalions of army-type missiles for the temporary reinforcement of the armies of the first echelon during both an offensive and in defense.

An increase in the numbers of launching mounts and nuclear warheads in an army, for massed use, will ensure the disruption of an offensive being prepared by the enemy. Only in this case can nuclear/missile weapons become a truly decisive force in defense.

It may be objected that a transition to the defensive, which happens most frequently during the course of an offensive, is a temporary phenomenon, especially on an operational scale, and that this is the reason why limited means are allotted for defense. But a temporary transition to the defensive does not mean that under these conditions defense need not be firm. A shortage of nuclear warheads may be only one of the reasons for a transition to the defensive, at a time when temporarily unfavorable circumstances for continuing the offensive have arisen. In passing to the defensive, all measures must be taken to frustrate the enemy's plan and to renew the offensive. To accomplish this a sufficient quantity of nuclear/missile means will be required.