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CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

27 May 1975

MEMORANDUM FOR: The Director of Central Intelligence

SUBJECT : MILITARY THOUGHT (USSR): Repelling an Enemy
Tank and Armored Infantry Attack in a Defense

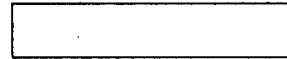
1. The enclosed Intelligence Information Special Report is part of a series now in preparation based on the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal 'Military Thought'. This article examines antitank capabilities in terms of the intended magnitude of damage to be inflicted and the initial ratio of antitank means to attacking tanks. These capabilities are used to determine operational-tactical norms as well as the specific weapons and methods of using them in a defense. This article appeared in Issue No. 1 (80) for 1967.

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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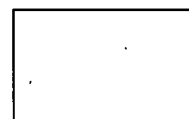
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Intelligence Information Special Report

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COUNTRY USSR

DATE OF
INFO. Early 1967

DATE 27 May 1975

SUBJECT

MILITARY THOUGHT (USSR): Repelling an Enemy Tank and Armored Infantry
Attack in a Defense

SOURCE Documentary

Summary:

The following report is a translation from Russian of an article which appeared in Issue No. 1 (80) for 1967 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal 'Military Thought'. The author of this article is Colonel V. Yerofeyev. This article examines antitank capabilities in terms of the intended magnitude of damage to be inflicted and the initial ratio of antitank means to attacking tanks. These capabilities are used to determine operational-tactical norms as well as the specific weapons and methods of using them in a defense.

End of Summary

Comment:

A Colonel Vladimir Vasilyevich Yerofeyev was identified in July 1968 as a special assistant for military affairs in Iran. He was noted as an official of the Main Engineering Directorate in Indonesia with the rank of first secretary (economic) from September 1960 to November 1962. 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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Repelling an Enemy Tank and Armored Infantry
Attack in a Defense

by
Colonel V. Yerofeyev

The repelling of massive enemy tank attacks following nuclear strikes delivered against defending troops is the high point of a defense. The main burden in repelling these attacks rests on the shoulders of the tactical level. What, then, are the antitank capabilities of our combined-arms large units, and what are the methods of determining them?

This question may be answered only after appropriate calculations of the relative strength of the forces and means of each side are made, taking into account the results of nuclear strikes and the combat characteristics of each antitank weapon.

Research conducted at the Military Artillery Engineer Academy i/n F.E. Dzerzhinskiy testifies to the fact that when determining the combat capabilities of antitank means, one must proceed from the intended magnitude of damage to be inflicted upon attacking tanks as a result of which the enemy would be forced to break off the attack, and also from the coefficient of the required initial ratio of the number of antitank means to the number of attacking tanks which would ensure infliction of the intended magnitude of damage upon the enemy.

Analysis of the experience of defensive engagements and battles during World War II shows that, as a rule, the attacking enemy, upon losing 30 to 40 percent of his tanks, broke off the offensive on a given axis. On this basis, one can assume that under present-day conditions the destruction of up to half the total number of tanks would also be sufficient to repel an enemy attack. We accept such a loss level as the necessary magnitude of damage to be inflicted.

At the same time, combat experience and calculations show that the number of tanks which may be destroyed by one or another antitank means is not a constant value. With all other conditions being equal, it depends on the initially established ratio of the number of attacking tanks to the antitank means of defense. It has been established, for example, that a group of 100mm antitank guns, when engaged in a battle against enemy tanks, outnumbering it two to one, is capable of destroying an average of 1.7 tanks with each of its guns. However, if the enemy advantage is four to

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one, the same gun can destroy an average of only 1.1 tanks. In the former case, one gun actually can handle two tanks, while in the latter case, only one.

As a result, it became necessary to introduce a coefficient of the necessary initial relative strengths. By this is meant that ratio of the number of attacking enemy tanks to the number of antitank means which will ensure the destruction of no less than 50 percent of the tanks. According to data of the Military Artillery Engineer Academy i/n F.E. Dzerzhinskiy, the value of such a coefficient for the conduct of fire under the most favorable conditions equals: for an antitank guided missile combat vehicle, 2.3; for a portable antitank guided missile launcher and an SPG-9 recoilless gun, 2.9; for a 100mm antitank gun, 2.6; and for a T-55 medium tank, 2.0. For example, a battery of 100mm antitank guns (six guns) is capable of repelling an attack by 15 or 16 tanks while destroying seven or eight of them.

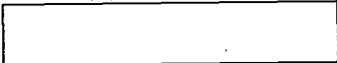
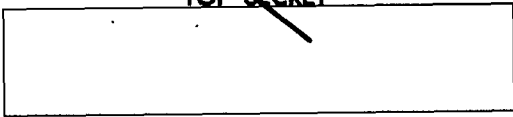
It is easy, on the basis of these data, to calculate that a motorized rifle division having the authorized amount of combat equipment and armament is capable of successfully withstanding a strike by an enemy tank grouping numbering up to 700 tanks while destroying up to 350 of them. If we assume that at the time of changing over to the defensive, the division is 30 percent understrength due to combat losses, these figures will be 500 to 250 respectively, i.e., it may be said that a motorized rifle division is capable of repelling an attack of up to one and a half divisions (including one armored or tank division) of our probable enemies. These calculations were made without taking into account the large number of hand-held antitank grenade launchers which, in close combat, are capable of destroying individual tanks which have broken through. The same is more or less true of tank division capabilities.

In our view, the very capabilities of a large unit to destroy attacking enemy tanks should be used as the basis for determining operational-tactical norms in defense. Of course, in each specific case one must proceed from the actual condition of the large units and allow for special terrain features, troop morale, their combat experience, and other factors of the combat situation.

We are implying here that, as a result of combat against his nuclear means, the enemy has not succeeded in delivering massive nuclear strikes against the defending forces. Otherwise, extremely unfavorable conditions would be created for the defense to accomplish its combat task.

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If, in order to simplify the discussion, we eliminate other factors and proceed from only a 70 percent troop strength, then we may assume that a combined-arms army having three divisions in the first echelon of the operational disposition is capable of withstanding an attack by an enemy grouping consisting of up to five or six divisions, i.e., up to two army corps, along a 100- to 120-kilometer front. To parry enemy attempts at increasing his efforts from the depth, the army must have one or two divisions in the second echelon or in reserve.

The above-mentioned method of calculating antitank capabilities also dictates specific principles for the use of antitank means in a defense. The latter must be committed to battle at each line of defense or firing line, not piecemeal, but simultaneously, in order to ensure powerful fire action against the enemy along his entire front of attack. When different types of antitank means with different ranges of fire are deployed at the firing line or in the defense area, it is advisable to create "pockets of fire" by placing long-range weapons (antitank guided missiles) in a deeper position at the base of the "pocket" and those having a shorter range (tanks, SPG recoilless guns) -- on its flanks.

In combined-arms large units at the present time, tanks themselves possess strong capabilities for combatting enemy tanks. In a defense, however, tank units and subunits are, as a rule, withdrawn to second echelons. Because of this, the first echelons of motorized rifle divisions often lack the necessary forces for repelling massive enemy tank attacks. This may lead to undesirable consequences.

Calculations indicate that even if all three motorized rifle regiments are in the first echelon and if each of them, likewise, has two motorized rifle battalions reinforced with a tank company, then in the first position (at 70 percent of unit strength) there will be 45 to 50 units of antitank means: 20 to 22 tanks, eight to ten SPG-9 recoilless guns, and 17 to 18 portable antitank guided missile launchers. In the very first echelon of an attacking grouping there may be deployed, within the limits of the division defensive zone, up to five tank and four motorized rifle battalions of the enemy (an armored tank division and one or two brigades of a US Army mechanized division). And this means that 200 to 250 tanks and 100 to 120 armored personnel carriers will take part in the attack. To repel them with the indicated number of antitank means will be difficult even with the help of artillery fire and obstacles.

Consequently, such a distribution of forces and means among the elements of a battle disposition in a defense does not, in our opinion,



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meet the specific conditions for carrying out the tasks confronting the troops. Apparently, until motorized rifle subunits are equipped with a large number of highly effective antitank means, the tank battalions of motorized rifle regiments must be used more extensively for reinforcing the strong points in the first position.

There also is a need for an efficient solution to the problem of combatting enemy infantry, in armored personnel carriers and combat vehicles, which is attacking jointly with tanks. Such combat is made difficult by the fact that the small arms of the subunits of motorized rifle regiments are ineffective against armored vehicles. The basic antitank means, as is obvious from the calculations cited, will be totally committed to the destruction of enemy tanks. It turns out that, until combat vehicles are introduced into the troops, the entire burden of combatting the numerous enemy infantry combat vehicles and armored personnel carriers falls upon the hand-held antitank grenade launchers. But they, in our opinion, will not be able to fully handle this task, and here is why.

Hand-held antitank grenade launchers have a short effective range of fire (300 meters), while the combat vehicles and armored personnel carriers in service in the armies of our probable enemy are equipped with long-range automatic cannon and machinegun armament. For example, the SPW armored personnel carrier (Federal Republic of Germany) has armor of up to 30mm thickness and is armed with a 20mm automatic cannon which has a range of over four kilometers. The MICV-65 combat vehicle, which is being developed in the US, also will be equipped with an automatic cannon and machinegun armament. Consequently, combat vehicles and armored personnel carriers, moving 300 to 400 meters behind attacking tanks, have the capability, with only slight threat to themselves, of destroying our antitank means and defending infantry with cannon and machinegun fire. In order to prevent this, more automatic cannons or long-range large-caliber machineguns, possessing sufficiently high armor-piercing capabilities, must be employed. This problem will be resolved favorably when our combined-arms large units and units are equipped with infantry combat vehicles.

The decisive destruction of enemy tank groupings which have penetrated into the depth of a defense is the prerogative of operational defense. Only a powerful counterstrike using all fire means can bring about the destruction of the advancing enemy and attainment of the goals of a defense.

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According to the experience of NATO troop exercises, the commitment to battle of army corps reserves is usually planned and carried out at a depth of 30 to 60 kilometers at the end of the first or the beginning of the second day of the offensive. Therefore, it is advisable to deliver the army counterstrike with the aim of piecemeal destruction of the groupings which have penetrated, as early as the first day of the operation, when large units of the first operational echelon are engaging the enemy in battle, are inflicting losses by stationary fire and obstacles, and are preventing him from maneuvering freely. If we assume that during the advance and the offensive within the first zone of the army defense, large units of the first echelon of the enemy will sustain up to 50 percent losses of personnel and equipment, then his main grouping which has penetrated may number up to 400 tanks and 450 to 600 armored personnel carriers.*

Approximated calculations attest to the fact that complete destruction of this grouping would require 12 to 16 nuclear warheads, 30 to 40 chemically armed missiles, two or three regimental fighter-bomber flights, and also the artillery of the large units operating on the counterstrike axis and in its immediate vicinity. However, for this purpose, the commander of the army may, as a rule, have at his disposal a limited quantity of nuclear warheads, which at best would allow him to put out of action only a small part of the tank or motorized rifle battalions which make up the grouping which has penetrated. Therefore, it would become possible to destroy it mainly with front nuclear means. If, however, the front cannot allocate such means, then the troops of the army will have to carry out the given task by using their own forces and means under more difficult conditions.

It must be taken into consideration here that the artillery of the defending forces will be significantly weakened as a result of combat losses by the time the counterstrike is to be delivered. Artillery fire from indirect fire positions using conventional ammunition will not have an appreciable effect on the tank groupings of the enemy. Artillery can effectively destroy enemy command posts, nuclear means, artillery in place and also motorized infantry subunits.

*This is based on a calculation that the nine to 12 tank and 12 to 16 motorized rifle battalions making up one armored division, and the one and a half to two motorized rifle divisions of an army corps, will have approximately half of the authorized combat vehicles.

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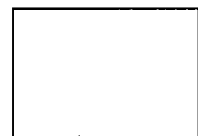
Consequently, in the preparation and conduct of our counterstrike, the main role in destroying the enemy tanks and armored personnel carriers will again be played by tank and antitank means conducting direct fire. In this connection, it seems advisable in a number of instances, before delivering a counterstrike, to use some of the tank units and subunits of the second-echelon large units of the army to destroy the enemy from the firing line on the axis of the upcoming active operations of these large units.

What kind of results may we expect from a counterstrike under these conditions? Let us imagine the following approximation of a defensive engagement. An enemy strike grouping which has penetrated the zone of defense of the army on a 30- to 40- kilometer front to a depth, let us say, of 20 kilometers, finds itself basically spread out along the perimeter of the area of penetration, which in this case is 60 to 70 kilometers. The enemy has an average tank density of six to seven and an armored personnel carrier density of eight to ten per kilometer of front. In this case, the grouping will be most dense at the point of the penetration spearhead and significantly weaker at its base, at which, naturally, the counterstrike should be aimed.

If, however, nuclear strikes are delivered against the main forces of the enemy grouping which has penetrated, then it may be advisable for the defending forces to conduct a frontal counterstrike. This will obviate any complicated maneuvering and allow the defeat of the enemy to be completed quickly.

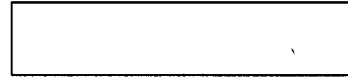
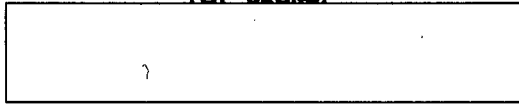
In the event that a tank division of the second echelon of the army does not sustain substantial losses from enemy nuclear strikes and deploys to deliver a counterstrike on a front of 15 to 20 kilometers, the average tank density on one kilometer of front will be 15 to 20; and for a motorized rifle division, 12 to 15. In other words, troops delivering a counterstrike will have double and even triple tank superiority on their main axis, which will ensure successive, piecemeal destruction of the enemy before his corps reserves and troops can be brought up from other axes.

However, these specific preconditions may become actual possibilities if, having penetrated the defense, the enemy is cut off from his reserves and if his freedom to maneuver is restricted by active defensive battles of



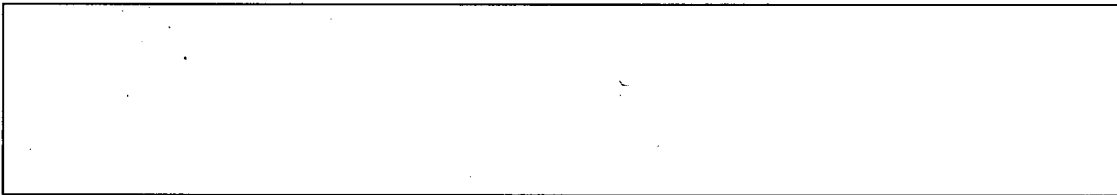
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the first-echelon troops of the army, and, chiefly, if he is hindered to the maximum in exploiting his nuclear superiority over the defending troops.



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