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CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

20 November 1973

MEMORANDUM FOR: The Director of Central Intelligence
SUBJECT : MILITARY THOUGHT (USSR): Combat Operations
Against Antitank Defenses

[Redacted]

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 briefly characterizes NATO antitank defenses and describes measures for defeating them. The author stresses the significance of reconnaissance of antitank defenses, followed by operations against them with a combination of conventional, chemical and nuclear weapons. This article appeared in Issue No. 2 (84) for 1968.

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.

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William E. Nelson
Deputy Director for Operations

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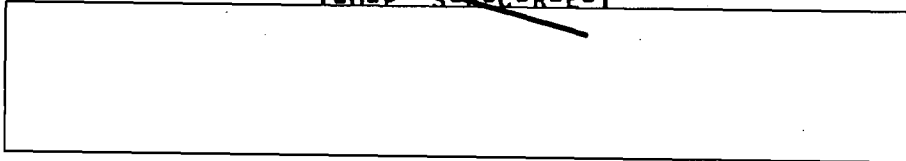
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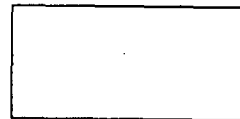
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[Redacted]

COUNTRY USSR

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DATE OF INFO.

Mid-1968

DATE 20 November 73

SUBJECT

MILITARY THOUGHT (USSR): Overcoming Antitank Defense

SOURCE Documentary

Summary:

The following report is a translation from Russian of an article which appeared in Issue No. 2 (84) for 1968 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". The author of this article is Colonel A. Tonkikh. This article briefly characterizes NATO antitank defenses and describes measures for defeating them. The author stresses the significance of reconnaissance of antitank defenses, followed by operations against them with a combination of conventional, chemical and nuclear weapons.

End of Summary

[Redacted] Comment:

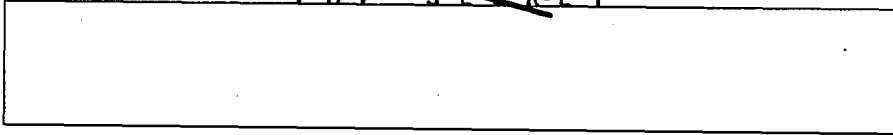
Colonel A. Tonkikh is the author of "Surmounting Antitank Defenses", published in the 4th quarter of 1969 by Voenizdat, and "Military Scientific Conferences--an Important Form of Military Scientific Work", Military Thought, Issue No. 12 for 1971. Military Thought has been published by the USSR Ministry 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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Overcoming Antitank Defense

by

Colonel A. Tonkikh

The basic concepts of antitank defense organization now held by the NATO bloc army command are: to create a deeply echeloned antitank fire system; to ensure a high density of antitank means (fifteen or more) per kilometer of front and to create solid zones of fire by overlapping the fields of fire of various antitank means; to make wide use of mixed minefields in front of the FEBA and in the depth of the defense; to make maximum use of favorable terrain conditions to increase defense stability and to contain the movement of attacking tanks; and to ensure the movement of reserves by preparing their deployment lines and their approach routes in advance to prevent a breakthrough by attacking tanks. On an operational scale, they envision the creation of "antitank screens" between intermediate defensive lines by the wide use of antitank guided missiles.

When using nuclear weapons, antitank defense stability is ensured by delivering nuclear strikes on the concentration areas of enemy tanks and by maneuvering antitank means. But when combat actions are conducted with conventional means of destruction, the stability of antitank defense is based on the fire of tanks, antitank guided missiles, and other special antitank means. In both cases, particular attention is paid to precisely coordinating the actions of all antitank defense means to repel massed enemy tank attacks in front of the FEBA and to inflict sufficient losses on the enemy to force him to abandon further active operations.

In organizing antitank defense, a great deal of attention is given to planning the combat use of all means for combatting tanks. After a thorough analysis of the situation which has developed in the defensive zone of a formation (large unit) and of the combat capabilities of the forces and means available to engage the attacking tanks in



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combat, an antitank defense plan is developed and the fire plan and engineer obstacle plan are amended to conform with it. Thus, a modern enemy antitank defense has a number of strong aspects, and overcoming it is one of the major tasks of an offensive operation (battle).

The basic burden of combatting enemy antitank means falls on the large units and units operating in the first echelon of attacking forces. However, the higher operational echelons also must take an active part in the organization of combat with enemy antitank means.

It is appropriate to mention here that even during the past war, when, as we know, the combat characteristics of enemy antitank means were not very high, and the density of his weapons per kilometer of defended front was several times lower than it is now, the problem of overcoming antitank defense demanded the attention not only of the commanding officers of units and subunits, but also of the operational command, right up to the troop commander and the staff of the front. Thus, the 22 May 1945 directive of the commander of the armored and mechanized forces of the First Belorussian Front to commanders of armies, large units and units pointed out the need "to organize the study of enemy antitank means and his tactics in their use...to pay the strictest attention to combat with tank destroyers armed with Faustpatrone and antitank rocket launchers."*

However, the problems of organizing and conducting combat with enemy antitank means at that time were all solved somewhat more simply. The enemy struck the majority of our tanks and assault guns basically at close range, which to a certain degree facilitated combatting his antitank means. Tanks were greatly assisted by the infantry operating with them in mutual support. Now the number of antitank means in the large units of our probable enemies has greatly increased, and their combat characteristics have improved so much that combatting them in battle and in

* Collection of Combat Documents of the Great Fatherland War, Number 15, Voenizdat, 1952, pp 32-33.

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operations has become one of the major tasks of the ground forces.

Its successful accomplishment at present is inconceivable without the precise organization and conduct of continuous and effective reconnaissance of antitank means by all available means and methods, without planning the use of the means of destruction to rapidly and reliably neutralize antitank defenses, and without special measures by the troops to reduce the possible losses of tanks and combat vehicles to enemy fire.

The reconnaissance of antitank means must occupy the center of attention of all the staffs of front units, large units, and formations. Besides conducting field reconnaissance, whose basic methods are surveillance, the combat actions of attacking troops, and reconnaissance in force, there should also be engineer, radiotechnical, and aerial reconnaissance to uncover all enemy antitank defense systems. Each of these methods and types of reconnaissance should be used creatively and in close coordination, proceeding from the specific conditions of the situation.

The experience of the past war and of troop exercises conducted in recent years provides grounds for considering observation the basic method of field reconnaissance of enemy antitank means in an offensive. Therefore, the observation system in formations, large units and units must be formed in such a way as to ensure surveillance of terrain throughout the field of combat actions and to the greatest possible depth. Reconnaissance by observation uses the various technical means of artillery reconnaissance (artillery reconnaissance sets, reconnaissance theodolites, stereoscopic rangefinders, and others). Field experience has shown that they are highly accurate in spotting the enemy fire system and in locating the positions of his antitank and other fire means. At the same time, in order to obtain more complete intelligence, it is necessary to supplement surveillance from ground posts with helicopters from our own forces. The effectiveness of this method is corroborated by the experience of exercises.

The combat actions of our attacking forces can provide valuable information on the nature of enemy antitank defense during a battle. The reason this is possible is that a defending enemy is forced to expose his fire system at the

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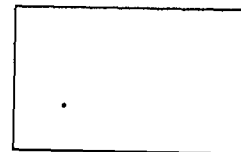
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beginning of an offensive. His fire means give themselves away by advancing to their fire positions or by firing. This affords real possibilities for quickly spotting and destroying them. Therefore, special significance is attached to the thorough organization of battlefield surveillance by all personnel of attacking units and large units and to the maintenance of continuous target designation and coordination among them. In a number of instances, if the situation permits, the reserves of enemy antitank means can be reconnoitered by small groups of reconnaissance personnel sent out from first-echelon large units and units. These groups, exploiting breaches and gaps in enemy combat dispositions, penetrate his positions and locate concentration areas and likely deployment axes of enemy antitank and tank reserves in the depth of his defenses.

Reconnaissance in force has not lost its significance. The reason is that, in repelling the advance of subunits conducting reconnaissance in force, the enemy involuntarily exposes his antitank fire system and, as a result, enables us to locate the strong and weak points in his defenses.

In the preparation for an offensive and during it, engineer and radiotechnical reconnaissance play an important role in revealing the nature of the enemy defense. The first permits the timely spotting of antitank mixed minefields and other means of combatting tanks; the second, having determined the location (position) of field level radar sets, helps establish the approximate locations of company and battalion strongpoints, which in turn, makes it possible to more purposefully direct the efforts of other types of reconnaissance toward exposing antitank means in strongpoints.

The vast scope of modern operations has moved aerial reconnaissance to the forefront; it permits rapid observation of large sectors of terrain and immediate reporting of observation data to the staffs of formations and large units. Visual observation and technical means enable aerial reconnaissance to spot concentrations of enemy tank groupings and antitank reserves, and their advance toward deployment lines, as well as the locations of tanks and self-propelled antitank guided missile launchers in areas of defense. If the situation permits, the information obtained is refined and supplemented with aerial photography



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of those defended areas where the majority of enemy antitank means are thought to be located.

Effectiveness in the reconnaissance of enemy antitank means depends to a considerable extent on the proper and precise coordination of the efforts of all of its types and means, and on steady and continuous cooperation among them. Particular care must be taken in organizing coordination among the intelligence organs sent out from large units and units of the first echelon of the attacking forces, and among artillery, engineer and aerial reconnaissance. The sum total of data obtained by the various types and methods of reconnaissance permits a detailed study of the enemy antitank defense system and the most effective use of available means of destruction for the reliable neutralization of his centers of resistance, which, in turn, creates favorable conditions for a rapid offensive.

The neutralization of antitank defense. The principal efforts of forces in an offensive first are directed to accomplishing the main mission: the destruction of enemy means of nuclear attack and his artillery and tank groupings. Meanwhile, as we already mentioned, the antitank means available in large quantity play an important role in the stability of enemy defense, and it is difficult to expect success in an operation without destroying them. This circumstance must be considered in planning the use of our means of destruction.

X The great bulk of enemy antitank means will be destroyed at the same time his troop groupings are struck with ~~nuclear and chemical weapons~~. These strikes will be delivered in concentration areas, on lines of deployment from which counterstrikes (counterattacks) are to be launched, and during an engagement (battle). However, in order to more effectively neutralize the enemy antitank defense and ensure the conditions our troops need to overcome it successfully, nuclear strikes, especially low-yield ones, should be planned and carried out against his centers of resistance and strongpoints which have an enormous number of antitank means. If weather conditions are favorable, thus ensuring the safety of attacking troops from toxic agents, chemical means may be used against these targets.

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X The selection of targets for nuclear and chemical strikes to neutralize the enemy antitank defense mainly depends on whether enemy forces are conducting a mobile defense or an area defense.

X ~~In an offensive against a mobile defense~~ In which, as we know, most of the antitank and other fire means are located in the depth (in areas of corps or division reserves), and also on the flanks of the "pocket of fire", nuclear and chemical strikes should be carried out basically against concentration areas of enemy reserves and against counterattacking groupings. It is desirable to neutralize strongpoints in the forward defense area with artillery using conventional and chemical munitions; and, as the troops go over to the attack, the fire of attacking tanks and motorized rifle subunits and units can also be used. Depending on the method of going over to the offensive, low-yield nuclear strikes may also be carried out against these targets. 11

X ~~If the enemy has an area defense, in order to overcome his antitank defense successfully, nuclear strikes should be carried out first against the strongpoints of the first-echelon brigades, and then against the divisional reserves.~~ The reason for this is that in this type of defense, as a rule, the enemy concentrates the great bulk of his antitank means within the forward area in order to hold it more firmly. The destruction of strongpoints with nuclear and chemical weapons will create gaps in the enemy combat dispositions and, consequently, reduce the density of his antitank means. The attacking forces will then be able to carry out their tasks more successfully. But even when the enemy has sustained great losses in his antitank means, research shows he will still be able to offer serious resistance to our forces. The reason is that some of the antitank means, basically self-propelled antitank guided missile launchers, tanks and assault guns, are located outside the strongpoints, and therefore may not be damaged by nuclear and chemical weapons. Because of this, the role of artillery fire and supporting air strikes has grown immensely. 11

The reliable neutralization of modern enemy antitank defenses requires the use of all types of artillery and of mortars and antitank guided missiles during the preparatory fire and during the fire support of our offensive.

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X Tube artillery fire first should be concentrated on neutralizing those strongpoints either not destroyed or insufficiently damaged by nuclear and chemical weapons, and specifically those containing a large number of antitank means. Proper fire distribution is of great importance to the accomplishment of fire tasks. The antitank means observed from ground surveillance posts have to be destroyed by separate guns and tanks assigned to direct-laying fire, or by batteries (platoons) firing from indirect fire positions. Antitank guided missile subunits may be assigned in those instances when a given target must be neutralized immediately and the fire of other means does not produce positive results.

Estimates show, however, that even when a combined-arms large unit is reinforced by three or four artillery battalions, it still will have insufficient capabilities for effective combat with enemy antitank means throughout the zone of the offensive. Consequently, we should always keep in mind that combined-arms large units advancing in the first operational echelon, especially on the axis of the main strike, require additional fire support from army and front means.

Hence, commanders and staffs of operational formations planning an offensive operation must consider not only the need for the reliable destruction of enemy nuclear attack means, and of his troop groupings as a whole, but also the effective destruction of his principal antitank means. Proceeding from these specific conditions, we should determine the degree to which large units operating in the first echelon should be reinforced by fire support artillery, if they cannot successfully overcome the resistance of the defending enemy with their own forces.

Thus, combat conditions require that all conventional fire means be brought as close as possible to first-echelon subunits and units, especially while they are overcoming the enemy forward defense area which contains an extremely large number of antitank means. At this time, aviation is confronted with a highly complex mission. Besides routing enemy tank groupings and antitank reserves as they reach the deployment lines, and directly on these lines, aviation must be ready to respond to requests by commanders of combined-arms large units to bomb and strafe enemy

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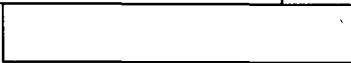
strongpoints and centers of resistance which stand in the way of our attacking troops.

Mutual fire support of attacking tanks and motorized rifle subunits and units acquires particularly great importance in combat with antitank means. During a battle a situation may arise in which motorized rifle subunits have to advance ahead of the tanks and clear the way for them with their own fire. This could happen, for example, when tanks approach nearly impassable terrain or are in a zone of mixed minefields and, sometimes, when attacking enemy strongpoints containing an enormous number of antitank means. Therefore, prior planning of the distribution of tank fire and the fire means of motorized rifle subunits is important in order to destroy the antitank means of the enemy.

The conditions for combatting antitank means will be more favorable when our troops negotiate intermediate lines of enemy defense which, as a rule, the enemy has occupied in a very short time. Antitank defense on these lines is organized under the direct fire of our attacking forces. The great bulk of antitank means is positioned without sufficient camouflage, which allows them to be spotted more quickly and effectively neutralized by tank fire and other fire means.

The destruction of helicopters equipped with antitank guided missiles definitely complicates the overall system of combatting enemy antitank means. The reason is that tanks and infantry combat vehicles are not armed with antiaircraft weapons. For the time being, therefore, the antiaircraft means of large units and formations have full responsibility for combatting helicopters. This situation requires more flexible use of antiaircraft means and high-quality training of crews to perform this mission under various conditions of the combat situation.

Tank and other combat vehicle losses incurred while actively combatting enemy antitank means may be reduced by having the troops take special measures. These may include: using smokescreens during combat actions; moving tanks on the battlefield to take advantage of protective terrain features; camouflage; radio countermeasures; and others.



More effective results in reducing tank losses due to enemy antitank fire may be obtained by combining the measures mentioned above. For example, moving tanks on the battlefield with the use of camouflage terrain features should be coordinated with the use of smoke. However, the independent use of one measure or another is not ruled out. This depends on the specific conditions of the situation, the terrain, the nature of enemy combat actions, and the effectiveness of his antitank fire.

The success of combat with enemy antitank means under modern conditions depends to a great extent on the level of training of our forces to perform this task. During exercises, therefore, we must address ourselves very seriously to the problems of overcoming enemy antitank defense.

