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CENTRAL INTELLIGENCE AGENCY

WASHINGTON, D.C. 20505

25 August 1978

3679

MEMORANDUM FOR: The Director of Central Intelligence

FROM : John N. McMahon
Deputy Director for Operations

SUBJECT : MILITARY THOUGHT (USSR): Engineer Support
for the First Offensive Operation of a
Combined-Arms Army in the Initial
Period of a War

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 is a critique of a book on engineer support published by the Military Academy of the General Staff in 1962. Although conceding the merits of the book, the author of the article points out its deficiencies in such areas as: support for assault crossings of water obstacles, supplying of army troops with water, control of engineer troops, etc. He concludes that better editing would have rendered the book more understandable. This article appeared in Issue No. 3 (70) for 1963.

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

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Intelligence Information Special Report

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COUNTRY USSR

DATE OF INFO. Late 1963

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SUBJECT

MILITARY THOUGHT (USSR): Engineer Support for the First Offensive Operation of a Combined-Arms Army in the Initial Period of a War

SOURCE Documentary

Summary:

The following report is a translation from Russian of an article which appeared in Issue No. 3 (70) for 1963 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal 'Military Thought'. The author of this article is Colonel Yu. Rebrikov. This article is a critique of a book on engineer support published by the Military Academy of the General Staff in 1962. Although conceding the merits of the book, Rebrikov points out its deficiencies in such areas as: support for assault crossings of water obstacles, supplying of army troops with water, control of engineer troops, etc. He concludes that better editing would have rendered the book more understandable.

End of Summary

[REDACTED] Comment:

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. [REDACTED]

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Engineer Support for the First Offensive Operation of a
Combined-Arms Army in the Initial Period of a War

by

Colonel Yu. REBRIKOV

The appearance of major published works on the subject of engineer support for operations and battle is not a frequent occurrence. The book entitled The Problems of Engineer Support for Present-Day Operations and Battle, which was prepared in 1958 by a group of authors of the Military Engineer Academy i/n V. V. KUYBYSHEV, is essentially the sole theoretical investigation within this field. In this book primary attention was devoted to improving the types of engineer structures, the system for engineer preparation of the terrain, and the means of engineer armament, as well as to the problems about mechanizing key engineer tasks and to discovering the most expedient methods of carrying them out. But regarding the organization of the fulfilment of the entire system of tasks of engineer support for operations, this problem was not fully analyzed in the book, and engineer support for rocket troop actions was not discussed at all. Problems of improving the organizational structure of the engineer troops were also not worked out.

This was only natural. At that time many theoretical propositions on the methods of conducting operations in a missile/nuclear war were still in the study and research phase, and therefore problems about engineer support for such operations could not be fully resolved. At the present time all of the most important problems of operational art and tactics have been for the most part resolved and the working out of new problems about engineer support for troop combat actions is one of the principal tasks of our military academies and military-scientific organs.

In this connection, the book of General-Major of Engineer Troops G. A. BULAKHOV, Engineer Support for the First Offensive Operation of a Combined-Arms Army in the Initial Period of a War,* published by the Military Academy of the General Staff, has aroused our interest.

* General-Major of Engineer Troops G. A. BULAKHOV, Engineer Support for the First Offensive Operation of a Combined-Arms Army in the Initial Period of a War. Publication of the Military Academy of the General Staff, 1962, 119 pages plus four appendices.

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In this book primary attention is devoted to engineer support for the actions of army rocket troops, to the protection of troops against weapons of mass destruction, to the support of a meeting engagement, to the negotiation of zones of radioactive contamination, to moving troops forward during an operation at a rate of up to 100 kilometers a day, and to the support of assault crossings of water obstacles. Considerable space is given to the problems of planning engineer support for an offensive operation and of employing engineer troops in it, and to recommendations on improving the T/O&E, weapons, and engineer equipment of these troops.

The author shows clearly that with its existing organizational structure, the army engineer-combat engineer brigade is capable of accomplishing engineer support tasks primarily in a defense. In order to successfully accomplish the tasks of engineer support for an offensive operation, the brigade must have, first of all, engineer reconnaissance, road, pontoon bridge, and camouflage units and subunits. Furthermore, for engineer support for the combat actions of tactical airborne forces, it is recommended that it have an airborne engineer battalion in its complement.

General BULAKHOV correctly points out the deficiencies in the existing organization of pontoon bridge units, which combine mobile (pontoon bridge) subunits and non-mobile (bridge construction) subunits. In this connection, he proposes that the army pontoon bridge regiment only have pontoon bridge battalions (with a pontoon bridge set). This will make it possible for an army to make successive assault crossings over a number of water obstacles without having to reduce its rate of advance.

Worthy of particular interest are the author's observations on the questions of ensuring the independence of combined-arms large units. He shows that the former principle of carrying out engineer tasks by moving engineer troops about is no longer useful, since the execution of these moves requires much time in withdrawing subunits from combat in one area, in transferring them to another area, and in organizing cooperation with the troops being supported in the new area. And when army troops are operating on axes, especially under conditions of intense radioactive contamination of the terrain, movement by engineer forces and means may be altogether impossible.

In the book it is emphasized that when the rates of advance are up to 100 kilometers per day, the time limits for the accomplishment of engineer tasks will be very short and that only the presence of engineer equipment directly in the units and subunits of the branch arms will permit them to carry out engineer support tasks from the march without losing time in

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calling up engineer subunits. Therefore, a key condition for the successful engineer support of an offensive operation will be, insofar as possible, the independent accomplishment by large units, units, and subunits of the engineer tasks that arise. To do this, it will be necessary to considerably reinforce with engineer equipment the combat engineer battalions of divisions and the combat engineer companies of regiments, and to equip branch arms with this equipment, first of all the infantry and tanks, and to also include engineer subunits (combat engineer platoons) in the T/O&E of motorized rifle and tank battalions.

The book being reviewed contains many practical recommendations on matters concerning the equipping of military posts for the permanent garrisoning of troops, on combat alert assembly areas and concentration areas, on the amount of the work, on the methods and time limits for the engineer preparation of siting areas for missile and surface-to-air missile units, on supporting their relocation during an operation, and also on supporting assault crossings.

Let us dwell in more detail on those problems which, in our opinion, require refinement and expansion.

Engineer support for the forward movement and deployment of army troops. The greatest difficulties in resolving the tasks of engineer support for the forward movement and deployment of troops will be under conditions of the initial combat actions, since in the very first hours of a war the enemy may knock out road junctions and individual road sections, but most importantly, bridges. It will be a particularly complex matter to support the forward movement of an army, and above all, of its missile units that are deploying a considerable distance away from the enemy's state borders.

In such a situation, the missile units will move forward to their siting areas, most likely without daytime halts, and over the last section of the route without even halting for rests, which will significantly reduce the time limits of engineer work for the elimination of possible damage to the movement routes of these units. Resolving this task will be complicated by the fact that the heavy-duty transport vehicles and trailers available in the missile units cannot move off the roads, and that when roadbeds are damaged, we must prepare effective detours and bridges with enhanced cargo-carrying capacity.

In essence, the author bypasses all of these difficulties. He concentrates his main attention on investigating the subject of engineer

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support for the forward movement and deployment of an army that is deploying in immediate proximity to our state borders and under conditions where the initiation of a war has been preceded by a period of threat, permitting the on-alert rocket troop subunits of the army "to alternately occupy several missile siting areas" and the missile battalions to relocate on the army's line of deployment from one siting area to another after the basic engineer work "has been accomplished" in the new area (pages 11-12 and 14).

The following should be noted. The section where this subject is examined is entitled "Engineer Support for the Forward Movement, Deployment, and Antinuclear Protection of Army Rocket Troops," although practically nothing is said in it about support for the forward movement.

The book examines engineer support for the operational camouflage of an operation (pages 32-39) in a very one-sided manner, in essence only for conditions when there is a period of threat.

Also far from being covered fully is the important matter of supporting the simultaneous forward movement of large units toward the army's line of commitment to battle, as well as that of supporting the army's deployment for an offensive from the march. After all, it is well-known that only the simultaneous movement of large units can ensure the organized initiation of an offensive, but the main thing is to immediately exploit the results of the first nuclear strike delivered against the enemy.

Accomplishing this task upon the initiation of military actions involves great difficulties. Allocating the forces and means of the engineer troops subordinated to the army only for support of the forward movement of missile and surface-to-air missile units will be clearly inadequate. The amount of engineer work may be very great, but the forces and means for carrying it out will, as a rule, be limited. In peacetime, and consequently, at the beginning of a war, as the author himself points out, instead of an engineer-combat engineer brigade, the army may have only a combat engineer regiment, and sometimes only a battalion. Therefore, so as to support the forward movement of the rocket troops and first-echelon large units of the army, we will have to bring in local road organizations and, in certain cases, even the combat engineer battalions of the divisions that have remained in the reserve (second echelon) of the army.

We also cannot fully concur with the author's recommendation to employ an army pontoon bridge regiment for "the pontoon bridge coverage of

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crossings" (page 29). In carrying out pontoon bridge coverage, the regiment will lag behind the troops: such a utilization of it is permissible only when an army is moving forward in a period of threat, and upon the initiation of war, only when there will be no need in the very first day of the operation to make assault crossings of water obstacles in the zone of the forthcoming offensive. Otherwise, pontoon bridge support should be carried out, in our opinion, by front forces and means.

In order to cover an army's forward movement and deployment against the ground enemy's attacks, the author proposes we organize a defensive position in the zone of the terrain between the state border and the troop concentration areas (pages 31-32).

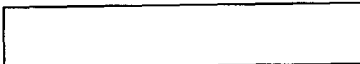
In our opinion, such a recommendation is unacceptable. Coverage of the forward movement and deployment of army troops will be carried out now not by defending a position "with limited forces and means," but by destroying threatening enemy groupings with the nuclear strikes of the on-alert rocket troop batteries and with powerful forward detachments which will exploit the results of the nuclear strikes. Therefore, in accomplishing this task, the efforts of the engineer troops should be focused first of all on supporting the forward movement and deployment of the rocket troops, as well as on supporting the combat actions of the forward detachments.

Supporting assault crossings of water obstacles. The book devotes little attention to engineer support for assault crossings by rocket troops. Research on this problem is of particular interest, because the army missile brigade has such bulky equipment as, for example, saddle cranes and ground transporters which cannot be accommodated even on the self-propelled tracked ferries. It is only possible to cross these on prefabricated ferries. In doing so, as the experience of exercises has shown, it is advisable to cross elongated equipment on 25-ton lengthened ferries and launching assemblies on the 50-ton large-size ferries.

Organizing an assault crossing will be made even more complex due to the fact that the missile subunits will have to be crossed over to the opposite bank in a complement that will permit them to immediately launch their missiles and also owing to the fact that the rocket troops will most often be crossed clear to the side of the assault crossing sectors of the other army forces. That is why, in order to support the crossing of an army missile brigade, we are often required to allocate special pontoon units which are not involved with the crossing of combined-arms large units.

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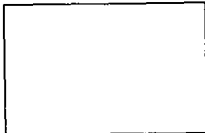
The presence of bulky equipment will even complicate the bridge crossings of the rocket troops since the approach routes will have to be straightened out so as to ensure the unobstructed movement of this equipment on the curves. In addition, it should be kept in mind that the movement speed of this equipment, particularly that of saddle cranes on floating bridges, will not exceed three to four kilometers per hour because the width of their passage is almost the same as the width of the roadways of the bridges from the heavy pontoon bridge set.

The book does not reflect the fact that when the first-echelon large units of an army make assault crossings over water obstacles, they will often carry this out in cooperation with tactical airborne landing forces.

The landing of airborne forces to seize a bridgehead will be carried out primarily in the interests of supporting the assault crossing of water obstacles from the march by forward detachments made up of tank regiments. The seizure of a bridgehead by an airborne landing force will allow tanks to begin crossing along the bottom of the river as soon as they come up to the river. Tanks do not have to wait until infantry forces or amphibious tank forces seize the opposite bank in sufficient depth to make it possible for us to prepare crossing points for those tanks which are to cross on the river bottom. We may not even have to prepare crossing points if this work is accomplished by the forces of the engineer subunits of the airborne landing force by the time the tanks arrive at the river.

Supplying army troops with water. In general, the author did not throw light on this subject, although the supplying of troops with water will be a complex problem when the belligerents employ nuclear weapons extensively.

Under these conditions, water will be needed not only for drinking, for filling up vehicles, and for servicing needs, but also for decontamination. There may be a particularly large expenditure of it after negotiating zones of radioactive contamination when, and of course the situation permitting, it will be necessary to carry out the complete personnel decontamination of those troops who have received maximum tolerable doses of radiation. There may be no water reservoirs nor local sources of water in the surroundings outside the contaminated areas. It is unlikely that engineer troop forces will be able to drill boreholes, since this requires a great deal of time with present well-drilling means. To wait for these wells to be dug under conditions of high rates of advance means they will lag very much behind the other army troops.



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Consequently, the problem of supplying troops with water, given the current level of development of water supply means, must be solved not so much by engineer measures as by operational measures. One of these measures, evidently, will be that of having the forces of the forward detachments and of the airborne landings seize water sources on the axes of attack and of having the main bodies of the large units move up rapidly to these water sources and also up to the water obstacles and water reservoirs.

Controlling engineer troops. No matter how well an operation is planned, upon initiating combat actions we are always required to make corrections in the tasks of the army troops and, in a number of cases, to arrive at new decisions concerning troop employment. Particularly drastic changes in the employment of troops may take place when war is unleashed by surprise. That is why problems of controlling troops, including engineer troops, are so very important in the operations of the initial period of a war.

Engineer troops often operate throughout the offensive zone and along the entire depth of the operational dispositions of the army troops. Even during the years of the Great Patriotic War this caused many difficulties in organizing stable troop control. Organizing control over engineer troops is even more complex under present-day conditions when an army's operations will develop over a considerably wider frontage, to a greater depth, and along axes, and when the offensive itself will be conducted at rates of advance that are three to four times higher than formerly.

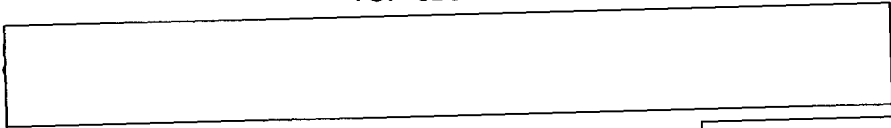
At present, the chief of engineer troops is required to not only control the engineer troops and direct the activities of unit engineers, but to also maintain continuous communications with the chief of the army's rocket troops and artillery and with the chief of the air defense troops. Without these communications, successful engineer support for the combat actions of missile units and surface-to-air missile units is not possible.

These topics were not properly dealt with in the book. They require further study and resolution.

Touching upon the engineer support plan, the author suggests drawing it up on a 1:200,000 scale map showing the engineer preparation of the terrain in enemy territory and possible changes in it at the beginning of the offensive, the nature of the terrain in the army's zone of forward movement and deployment, and, specifically, data on the roads, water obstacles, bridges, protective and camouflage characteristics, and local

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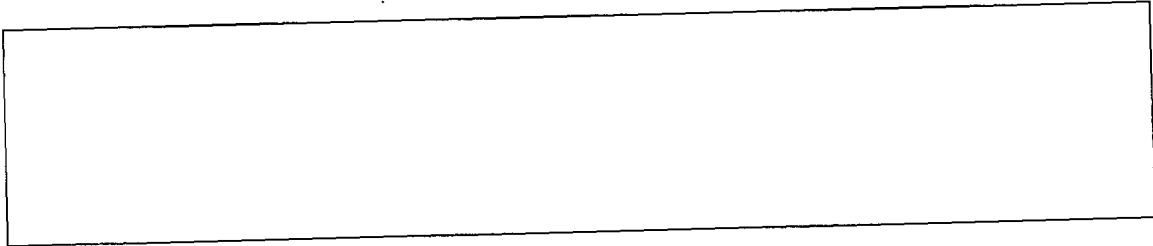
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features, as well as with an indication of possible radar surveillance fields of the enemy, sources of water, stocks of construction materials, and other data necessary for the organization of engineer support.

This map, as the author points out, should indicate the principal engineer support tasks, the time limits for their accomplishment, and their executors. It should also show the grouping of engineer troops when preparing for and in the course of the operation (pages 95-96).

It seems to us that it will be very difficult to show all of this on a single map. Furthermore, such a task takes a great deal of time. It is more likely that several maps will be prepared, and sometimes the engineer plan will also be prepared in text form.

Overall, the above-mentioned deficiencies do not lower the value of the book's theoretical propositions or practical recommendations. One can only wish that when such works are published, higher requirements would be imposed upon their editing. At times it is difficult to understand the imprecise wording which is found in a considerable portion of the material in the book.



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