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CENTRAL INTELLIGENCE AGENCY
WASHINGTON 25, D. C.

7 MAY 1962

MEMORANDUM FOR: The Director of Central Intelligence

SUBJECT : ARTILLERY COLLECTION: "On the Problem of the Mission and Substance of Fire Planning and Preparation for Firing by Heavy Rocket Artillery"

1. Enclosed is a verbatim translation of an article which appeared in a Soviet Ministry of Defense TOP SECRET publication entitled Information Collection of the Artillery (Informatsionnyy Sbornik Artillerii).

2. In the interests of protecting our source, this material should be handled on a need-to-know basis within your office. Requests for extra copies of this report or for utilization of any part of this document in any other form should be addressed to the originating office.

Richard Helms
Deputy Director (Plans)

Enclosure

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

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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 NEWS: "Road Support During the Combined Regrouping of Troops", by Colonel I. Nikolayev

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Following is a verbatim translation of an article entitled "Road Support During the Combined Regrouping of Troops", by Colonel I. Nikolayev. This article appeared in Issue No. 34, 1961, of the Soviet military publication Collection of Articles of the Journal Military News (Voyennyy Vestnik). This publication is classified SECRET by the Soviets and is published by the USSR Ministry of Defense.

According to the Preface, Issue No. 34 was sent for typesetting on 14 December 1960 and released to the printer on 25 January 1961. The Preface states that articles express the opinions of their authors and are published as a form of discussion. Distribution of Issue No. 34 was to officers from regimental commander upward.

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SPECIAL TROOPS

ENGINEER TROOPS

Road Support During the Combined Regrouping of Troops

by

Colonel I. Nikolayev

Under modern combat conditions, and especially in the initial period of war, the traffic capacity of the railroads will apparently be strictly limited in a number of cases, and therefore troop regroupings will often have to be carried out by combined means. Equipment with a large cruising range (mainly wheeled) will proceed under its own power, but slower vehicles with a small cruising range (mainly tracked) will be transported on railroads. This method of regrouping will have special significance for a tank army, which is assigned missions to the greatest depth in an offensive operation.

Command-Staff exercises, exercises with troops, and also military-scientific conferences held in our army show that it is advisable to conduct a combined regrouping during moves of over 300 to 500 km.

The combined regrouping of troops has a number of special features. They have a considerable influence on the planning and organization of all aspects of combat support, including road support, and this support is based on the preparation of a sufficient number of routes to ensure the approach of troops moving under their own power to the concentration areas simultaneously with the combat equipment transported by rail. The lagging of wheeled transport behind the rail echelons in relation to the time of concentration at the appointed area may lead to delay in carrying out the combat mission.

On exercises we practiced the following variants of road support: 1 or 2 routes were provided for the wheeled transport of each division; besides these, 1 or 2 army routes were set up. In a number of cases the routes had up to 70 to 100 percent of hard-surface roads. This made it possible to plan an average speed of 20 to 25 kph for the move. Sometimes the route did not have more than 40 percent of hard-surface roads. Under these conditions the average speed of the move decreased to 10 to 15 kph.

The depth of the column also influences the speed of the regrouping (march) to a considerable extent. A column of wheeled vehicles of a tank division will have a depth of 50 to 60 km, or 2 to 3 hours of march, when moving along one route. The short time that the route is in use makes it possible to use the same routes for the wheeled vehicles of the second echelon divisions.

When carrying out combined regrouping for moving wheeled equipment, we consider that it is sufficient to allot one main route for a division, and 3 or 4 main routes for a tank army. The main efforts of engineer road units and subunits should be concentrated on maintaining these routes. Besides this, in the zone of the regrouping, alternate routes and lateral roads for maneuvers are designated particularly before large rivers, towns, and railroad junctions.

Engineer measures along the routes must ensure the overcoming of natural obstacles (rivers, canals, ravines) and marsh-ridden and contaminated areas. In the main, these measures are carried out by the forces and means of the regrouping troops and only in isolated cases by front troops. The crossing of large water obstacles is ensured by front and army engineer units.

Along the routes an engineer reconnaissance is conducted to note: the conditions of the road and road structures; natural obstacles; availability of local construction materials; the defensive

and camouflage qualities of the area; reconstruction, reinforcement, or construction of new bridges and other road structures; road repairs; and the preparation of detours and marking the routes for movement by day or night.

The engineer reconnaissance must find detours around destroyed sections of the road and road structures, because the reconstruction or repair of these objectives requires a great expenditure of time and energy. Thus, for example, assuming that a day's march for the wheeled vehicles, during a forced march, is 400 km, and having one main route for a division on which it will be necessary to find at least 1 or 2 exits to the alternate route, and vice versa, and also to inspect thoroughly at least one road construction for each 10 km of route, the engineer reconnaissance will require about 20 to 22 hours.

In our view, engineer reconnaissance of routes for ensuring a deep combined regrouping should be organized in two directions: reconnaissance of the whole depth of the zone of regrouping; and a reconnaissance of the depth of a day's march of the army troops.

The reconnaissance of the whole depth of the area should provide information before completion of the planning of the regrouping. The reconnaissance information will enable the command to select the main and alternate routes, lateral roads, and the exits to the alternate routes. Besides this, the information supplied by the engineer reconnaissance should show the nature of large natural obstacles and the existence of any artificial constructions on them; it should, also, show the general nature of defensive and camouflage capabilities of the terrain, especially in the areas selected for daily halts and troop concentration. We consider that it is advisable to conduct such a reconnaissance in one day, using aircraft. The most suitable means for this purpose will be a helicopter.

The reconnaissance to the depth of a day's march is done by the forces of the regrouping troops themselves. As a rule, it should be done before the move and be completed 3 to 4 hours before the beginning of the move so that its results can be passed down to the troops. Reconnaissance up to a depth of 400 km can be carried out by using the organic MI-1 and MI-4 helicopters and by organizing one or two intermediate refueling points along the route of the proposed flights. Timely receipt of information from the reconnaissance group may be ensured by radio.

Understandably, in carrying out this reconnaissance, cognizance is taken of the atomic and radiation situation which has taken place. In our opinion, it should be conducted under the direction of a responsible officer from the combined-arms staff. Besides the engineer scouts, the reconnaissance group should also include chemical personnel with radiation instruments.

The results of the reconnaissance of the depth of the whole area of regrouping must be taken into consideration in making the reconnaissance of the routes on behalf of the engineer troops who will carry out the work necessary to ensure the movement of troops. This reconnaissance is best conducted by two, three, or more reconnaissance groups along each route. For this, it is advisable to divide the route into sectors. The groups for the more distant sectors should be sent out earlier.

The engineer work on the routes may be considerable. Assuming that during a day's march the troops will have to cross over to a parallel alternate route once or twice, which is 3 to 5 km removed from the main one, and after a given time return to the main route, and also will have to move laterally before a large water obstacle once (a day's wheeled transport march is assumed to be up to 400 km); then it will be necessary to prepare 6 to 10 km of exits to the alternate route,

10 to 15 km of lateral roads, and also 2 to 3 km of road turn-offs to the river. In addition, it will be necessary to improve separate sectors of dirt roads, which cannot be bypassed due to the tactical situation. This will require the grading or construction of approximately 10 to 15 km of dirt road a day.

As the regrouping troops approach the front, in all probability the density of enemy atomic strikes will increase.

If we consider that in the zone of a medium yield atomic strike 2 or 3 small road structures will be put out of action, the approximate volume of work on their restoration can be estimated (restoration of large bridges is not taken into consideration, because they are restored, as a rule, by specially detailed forces and means).

Apparently, therefore, on some days along only one route it may be necessary to establish 3 to 6 bridge crossings of medium rivers and to reinforce (restore) existing bridges. The need may also arise for engineer work in connection with overcoming centers of fire and destruction.

The successful completion of road and bridge work on the routes will depend first of all on their proper organization, the availability of engineer troops, and on their being equipped with road and bridge construction equipment. Road and bridge work is made even more difficult, because, under conditions of regrouping, the possibility of using such highly efficient and roadable tracked vehicles as the MTU, BAT, and others is highly restricted.

It is quite obvious that if the routes are not prepared beforehand (and this is most typical for the initial period of war), then the engineer work on the routes may be carried out beforehand only if the road-engineer subunits are provided with transport

means and engineer vehicles having a speed and cruising radius identical to that of the basic wheeled troop transport. We consider that engineer reconnaissance and road subunits should be provided with the following types of vehicles - MAB, BAV, KMM, D-144; and also with wheeled armored personnel carriers for the transport of personnel, especially in areas contaminated with radioactivity, and with vehicles to transport road and bridge elements and structures. In addition, helicopters should be widely used for transporting personnel and a number of prefabricated elements of road constructions and organic equipment.

For convenience in carrying out engineer work, it is advisable to divide the route of a day's march into 2 or 3 sectors, depending on the actual circumstances. These sectors should not be equal. As a rule, the more distant sectors of the route will be of shorter length and require a smaller volume of work.

The time for starting work on each sector of the route will be dictated by two basic factors: the maximum permissible separation of the road subunits (OOD) [otryad obespecheniya dvizheniya - traffic control detachment) from the main body; and the time of arrival of the main body at the terminal borderline of the sector. It is desirable that some work on the more distant sectors should be carried out with the use of helicopters (for transporting personnel, road and bridge elements; laying of structures across obstacles, etc.).

It should be noted that in preparing routes it is not advisable to separate the OOD and the main body by more than 50 to 60 km. A greater separation makes the control of the OOD difficult. We consider that engineer work should be so organized that the main body should pass the road and bridge subunit at the end of a sector of the route. The road and bridge subunit lets the troops through its sector (possibly at several points) and then goes into reserve. In our opinion, engineer support for a combined regrouping operation should consist of one road (combat engineer) battalion.

To prepare routes to a great depth in a short time, it is necessary to use helicopters more widely, both for the engineer reconnaissance and for road and bridge work. If, in addition, the other engineer tasks in modern, highly mobile battle are examined , then it becomes clear that the time has come when it is necessary to equip engineer troops with helicopters.

So far as the road and bridge, excavating, and other engineer equipment is concerned, despite all the good qualities of a tracked chassis, it is essential also to have equipment on wheeled chassis, allowing execution of maneuvers at high speeds. We think that other self-propelled, wheeled, road construction and excavating machines must be used by the troops together with the motorized road grader.

The problems of control of engineer units and subunits have also not been adequately resolved. The radio equipment supplied to these engineer units does not ensure mobile control of these units at a considerable distance.

To accelerate the planning and organization of engineering work, it would be quite useful to compile route charts for certain axes, with a good characterization of the road network, rivers, and bridges and a description of the terrain.