MEMORANDUM FOR: The Director of Central Intelligence

SUBJECT: MILITARY THOUGHT (USSR): Certain Problems in Moving a Tank Army to Its Area of Operational Assignment and Committing It to an Engagement from the March

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, in a general examination of the problems encountered in moving a tank army from the interior to a theater of military operations in the initial period of a war, emphasizes the difficulties of combining organic means and rail transport, ensuring night march capabilities and a number of support measures. The major technical support problem, the replacement of tank tracks, can best be alleviated through improving track design. Fuel needs can be met by establishing central depots in the theater in advance and laying pipelines in operational areas. Other important support measures examined include reconnaissance, air defense, engineer support and traffic control. The actual commitment of the tank army to an engagement involves disrupting an enemy strike, slowing the enemy advance to the army's line of attack, or breaking through and pursuing enemy defending forces. The author considers the combat capabilities of present-day tank regiments insufficient due to inadequate rear services support and lack of antiaircraft capability. This article appeared in Issue No. 3 (79) for 1966.

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William E. Nelson
Deputy Director for Operations

Page 1 of 17 Pages
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MILITARY THOUGHT (USSR): Certain Problems in Moving a Tank Army to Its Area of Operational Assignment and Committing It to an Engagement from the March

Summary:
The following report is a translation from Russian of an article which appeared in Issue No. 3 (79) for 1966 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal "Military Thought". The author of this article is General of the Army I. Yakubovskiy. This article, in a general examination of the problems encountered in moving a tank army from the interior to a theater of military operations in the initial period of a war, emphasizes the difficulties of combining organic means and rail transport, ensuring night march capabilities and a number of support measures. The major technical support problem, the replacement of tank tracks, can best be alleviated through improving track design. Fuel needs can be met by establishing central depots in the theater in advance and laying pipelines in operational areas. Other important support measures examined include reconnaissance, air defense, engineer support and traffic control. The actual commitment of the tank army to an engagement involves disrupting an enemy strike, slowing the enemy advance to the army's line of attack, or breaking through and pursuing enemy defending forces. The author considers the combat capabilities of present-day tank regiments insufficient due to inadequate rear services support and lack of antiaircraft capability.

Comment:
Ivan Iglatyevich Yakubovskiy attained the rank of Marshal of the Soviet Union in 1967; he currently holds the positions of First Deputy Minister of Defense and Commander-in-Chief of the Combined Armed Forces of the Warsaw Pact Countries.
Certain Problems in Moving a Tank Army to Its Area of Operational Assignment and Committing It to an Engagement from the March

by

General of the Army I. Yakubovskiy

Depending on their disposition in peacetime, tank armies will be committed to an engagement and will conduct operations in different ways. Thus, tank armies located in border military districts and in border-area groups of forces set about fulfilling a combat task directly from their areas of permanent deployment. Armies which are garrisoned in interior districts must first be brought to full combat readiness, including full mobilization, and then moved to the area of their operational assignment for their ensuing commitment to an engagement. In so doing, a tank army can be moved into a theater of military operations either as part of a front or independently. The latter, in our opinion, can occur only when, by decision of the Supreme High Command, the army will be transferred to the front carrying out the first offensive operation.

In anticipation of the unleashing of war, the actions of a tank army in an interior military district will begin by alerting the troops by a combat alert signal and moving them immediately into concentration areas, thereby preventing their destruction by enemy nuclear strikes delivered by ballistic missiles and strategic aviation. The time used to move the army out on a combat alert must be minimal. The experience of exercises shows that, with good organization of the notification and assembly of troops during an alert, the necessary preparation of equipment, depots, inventories and access routes, and the required level of training of personnel and staffs, subunits and units are able to leave military posts in a shorter period of time than prescribed. Troops cannot be permitted to remain in areas of permanent deployment longer than the allotted time after an alert is declared under conditions of nuclear war.

In order to significantly reduce the time required for troops to move out from permanent deployment points on combat alert, it is necessary in peacetime to prepare and train drivers for every tank, combat vehicle, armored personnel carrier, truck, and prime mover in the subunits and units; and, for the equipment which is in long-term storage, flow charts indicating the time needed to remove the equipment from storage and bring it to full combat readiness must be compiled in advance and actually checked.
A rapid mobilization expansion depends primarily on the full manning of units and subunits with highly qualified young specialists called up from the reserve who are capable of skilfully handling the combat equipment in service with the troops. This situation makes it incumbent upon the commanders of units and subunits to give primary consideration to the quality of the training of this category of servicemen during training courses.

The troops of an army can also be brought to full combat readiness under conditions of the initial nuclear strike of the enemy. In this situation, it is necessary to immediately call out the troops on combat alert; move them to assembly points (the latter must not be located near areas where nuclear strikes may be delivered); and then collect data on the nuclear strikes, evaluate the radiation situation, and, taking that into consideration; specify the full mobilization areas.

The collection of data on nuclear strikes delivered by the enemy and the forecast of the radiation situation must be accomplished quickly and with a sufficient degree of accuracy. It is necessary to work out and implement the following measures in peacetime: organize a permanent information service to fulfil this task through the utilization of the network of garrison and civil defense posts, and military commissariats; systematically inform the staffs of armies and large units of the average wind; in the staff of a tank army and its large units, have trained computation groups, equipped with mechanical means for determining the radiation situation, which can complete all the tasks in the collection of data and evaluation of the radiation situation in a short time.

A change in the areas of full mobilization and concentration will raise a whole series of new tasks in the army staff and in the large units. In particular, it is necessary to determine new link-up points for personnel and transport arriving from the national economy during mobilization, and to organize radiation and chemical reconnaissance in the new areas as well as traffic control and the provost-traffic control service.

In the course of the mobilization expansion, a grouping of troops of the army must be formed immediately in order to move the army to the theater of military operations. In so doing, one must reckon with the obvious fact that the garrisoning of a tank army in an interior military district, in a number of cases, is determined not just by operational considerations but also by the state of organization of combat readiness and also by the barracks and training resources available. Hence, a
different task arises. In planning the bringing of troops to full combat readiness, this task consists of establishing for large units and units concentration areas, the occupation of which by troops at the declaration of a combat alert would assure the formation of the appropriate grouping for movement to the area of combat actions. If this is not possible it is necessary, as the large units and units are ready, to move them in the course of the mobilization directly to the departure areas for the movement.

Some consider that until a directive is received from the General Headquarters it makes no sense to form a grouping of the troops of an army since the direction of movement and the tasks which must be accomplished are not known to the commander. We do not share this view. In all cases, when bringing the troops to full combat readiness, the troops must immediately be deployed in such areas and in such a formation as to assure the fulfilment of any task connected with the conduct of a march.

The commander of the tank army makes the decision to move out based on the directive of the military district (front) commander. The basic idea behind this decision is to form the most advantageous troop grouping in the final concentration area for the commitment of the troops to an engagement from the march. In connection with this, in the course of a march changes can be introduced in the initial grouping formed earlier.

The march formation of an army must correspond to the concept for its actions when committed to the engagement and when conducting the operation. It must assure: organized deployment and commitment of the army to the engagement from the march; well-timed delivery of nuclear strikes against the main forces of the enemy and organization of preparatory fire and fire support for the offensive; organization of all types of support; stable control of the troops during their movement, commitment to the engagement, and during the development of the offensive operation.

Thus, the march formation of a tank army, as a rule, can consist of two echelons which subsequently, when committed to the engagement, form the operational echelons and the reserve. Depending on the operational situation, the conditions of movement, the number of routes, and the nature of the forthcoming actions, the first march echelon may include two or three tank divisions, a missile brigade, artillery and surface-to-air missile units, and units of special troops intended for forming the army reserves. The second echelon may have one or two tank divisions, including heavy tanks, and rear units and facilities.
Experience of exercises in recent years shows that in moving a tank army from the interior of the country to the Western Theater of Military Operations, the army can be assigned a zone of movement or five to seven through routes. With seven routes, the army can move three divisions in the first echelon by designating two routes for each of them and can move army units on the other one. If the army is allotted five routes, then obviously the first echelon must include only two tank divisions. It is also possible to move one tank division ahead of the first march echelon; its purpose can be to contain a specific enemy grouping in order to ensure the deployment of the main forces of the first echelon and their delivery of a flank attack. Other variations are possible in the distribution of routes. However, in all cases, the march formation of a tank army must be such as to have the strongest grouping, comprised of not less than three tank divisions, in the first operational echelon when it is committed to the engagement.

To ensure the movement of first-echelon troops, units of the special troops and of the rear which form a sort of support echelon in the march formation of the tank army, will have to be moved forward beforehand.

The second march formation of the army must follow at a distance of 80 to 100 kilometers from the columns of the first echelon. This is necessary first, to give freedom of maneuver to the second echelon and, second, to ensure its commitment to the engagement from the march no later than during the second half of the first day or 24 hours from the moment the first echelon is committed to the engagement.

The movement forward of a tank army in the initial period of a war will take place in a very complex situation. Troops will have to negotiate or bypass zones of radioactive and chemical contamination, areas of destruction, flooding, etc. Judging by the experience of exercises, the NATO command considers one of the most important tasks of a nuclear offensive to be to prevent the approach of our reserves to the front line. With that in mind, the command plans to set up so-called nuclear defensive barriers on important natural lines. They plan to use up to 20 percent and more of the nuclear warheads allocated for the operation and up to 60 percent of the sorties of the tactical air forces to prevent the approach of our troops from the interior of the country to the area of combat actions. As a result of such measures, the enemy expects to seriously reduce the flow of reserves on railways and roads.

From this the fundamental requirements for the organization of the movement of a tank army become clear: concealed and rapid march;
maintenance of a high level of troop combat readiness; reliable air defense and continuous comprehensive support of the troops; and stable troop control.

A great deal has been written in recent years on the methods of moving troops great distances. A common opinion was reached that the movement of troops in a nuclear war by organic means will be the most reliable. This assures the compactness of the army, a high level of constant combat readiness for deployment from the march and for conduct of combat actions in the most desirable grouping, and stable troop control. Accomplishing a march by organic means, a tank army retains great capabilities for maneuvering when negotiating areas of destruction and zones of contamination. And finally, using this method of movement, during the march combat teamwork can be achieved in units and large units which have just been mobilized.

But movement by organic means has its disadvantages, the most important of which is the rapid wearing out of the tracks of the running gear of combat equipment, especially of tanks. Besides this, as a result of prolonged strenuous marches personnel become very fatigued, especially the drivers of vehicles, which naturally lowers the combat effectiveness of the troops. In the course of the past war, rail transport was used on a wide scale for the purpose of conserving mileage reserves.

In examining the role of different modes of transport in moving troops, some consider that in a nuclear war troop transport by rail will be limited. It is impossible to agree with that. Calculations show that with the well-organized reconstruction of railroads, approximately 40 to 50 percent of their traffic capacity can be preserved. Of course, it will be difficult to ensure the through movement of trains in all theaters of military operations; however, in important sectors it is possible to maintain normal traffic. Along with this, it must be kept in mind that when there is a high volume of cargo shipments from the rear to the front, motor transport and air transport will not be able to handle the task. Not only railroads but highways and airfields as well will be subject to destruction. For this reason, it would be incorrect to ignore the importance of rail transport for the shipment of military cargo. For instance, if tanks and tracked vehicles are transported by rail, even only 750 to 800 kilometers, then the resultant saving in mileage reserves thereby enables a tank army to conduct an offensive operation throughout the depth of the theater of military operations without a change of tracks. And this provides a massive gain both in time and in economizing on spare parts.
However, it should be noted that, as experience of exercises shows, combined movement (by organic means and by rail) of large units of the first echelon of the army is not always expedient since the army loses its compactness and combat readiness for deployment in an offensive from the march. When using such a method of movement, it is therefore necessary to plan railway transport so that the loading and dispatch of the tanks of each division does not take longer than one 24-hour period and that the trains are strung out across the minimum distance, no more than 400 to 500 kilometers. This will allow the division commander, if the operation of the railroads is disrupted, to unload the trains and assemble the division in the course of a 24-hour period. If it takes two days to load the heavy equipment, then at the end of the second day the trains can be strung out across 800 to 1,000 kilometers; this will complicate the control of units and, most important, will not permit the rapid assembly of the division, especially when rail traffic is disrupted.

With combined movement of a tank army it is extremely important to coordinate the movement of columns of wheeled transport with the movement of trains. From this point of view, the march of columns of wheeled vehicles from the mobilization area should begin when the first train is dispatched with the tracked equipment. This recommendation is borne out by the following calculations. A column of wheeled vehicles covers 250 to 300 kilometers in one day's march. Trains travel 450 to 500 kilometers in a 24-hour period; that is, they will always be ahead of columns of wheeled transport and this is very important. In the case of disruption of rail traffic, all of the tracked equipment is unloaded ahead of the columns of wheeled transport and can be included in the columns of the divisions which are following by organic means. Thus, if a column of wheeled vehicles begins a march at the same time as the trains are dispatched, then it arrives at the final concentration area at the moment the heavy equipment arrives after it has been unloaded. And, as has already been noted, such a method of coordinating a movement creates the most favorable conditions for the assembly of a division if it is necessary to unload the trains before the end of the march.

Unloading areas for troops transported by railroad must be fixed at a distance not greater than one day's march from the final concentration area or departure area from which the tank army is committed to the engagement. This is necessary in order to assemble all large units and units of a tank army and to bring them to the assigned areas at full combat readiness.

The march capabilities of tank troops have been studied quite thoroughly in recent years. Regulation norms for the speed and length of
day's marches, as shown by the experience of exercises, are achievable. Along with this, it is necessary to note once more that the fulfilment of the norms of march set by regulation requires maximum physical exertion by personnel, especially the driver-mechanics, and precise organization and all-round support of the march. In connection with this, it is extremely important that there be one person in a tank crew who can drive the tank and who could periodically spell the driver-mechanic during the march.

In order to maintain the concealment of the march, it is advisable for the movement of a tank army to the area of combat actions to occur during the dark hours of the day. However, it is very difficult to accomplish a march of 200 to 250 kilometers in a night in summer. In this case, the movement of troops for a regular march must begin two to five hours before darkness sets in so that the large units of the army will have completed the march one to 1.5 hours before dawn and will have had time to camouflage themselves in the new areas for the day's rest.

As regards the last march, it must begin and end in all cases while it is dark. Thus, its length must be shorter. In exercises carried out in the Kiev Military District, such a march prior to the commitment of the tank army to an engagement from the march did not exceed 100 to 200 kilometers. This made it possible to cover the whole route in darkness, top off the tanks with fuel, carry out some measures in preparation for the offensive, and, undoubtedly very important, save the strength of tank crews for the ensuing actions.

As experience shows, in the interest of allotting a maximum amount of time for movement on marches which do not exceed 200 to 250 kilometers, it is not advisable to make long halts. For equipment checks and short rests for personnel, it is best to organize halts of 30 minutes duration for every 2.5 to three hours of movement. Long halts (three or four hours) for equipment maintenance, meals and rest for personnel should be designated only in those cases when the length of the march exceeds 250 kilometers. It is necessary to resort to such marches only when it is urgent (not more than once during the course of the movement forward) as excessive physical strain drains the strength of personnel, lowering their combat effectiveness.

In determining the length of a day's march and the duration of troop movement, it is necessary to proceed from the fact that, on the average, maintenance of equipment in the area of the day's halt takes three to four hours; a twice-daily serving of hot meals, one to 1.5 hours; rest for personnel, seven to eight hours; the placement of vehicles and their
camouflage, as well as the movement of columns from the area of the day's halt to the departure point, one to 1.5 hours. Altogether, the execution of these measures will take up to 12 to 14 hours. Thus, 10 to 12 hours remain for movement, which at an average speed of march of 20 kilometers per hour will cover 200 to 240 kilometers.

Great emphasis is given to problems of supporting the movement of a tank army as well. This support includes a whole complex of measures implemented by the commander and his staff with the goal of creating the conditions for the unhindered movement of troops to the area of combat actions. In these measures are included reconnaissance, road traffic control service, air defense, engineer and materiel-technical support, the protection of the troops from weapons of mass destruction, and others. As the experience of exercises shows, the stated measures should be organized one or two days ahead of the marching troops and some of them, such as air defense and materiel-technical support, for example, which are provided with the assistance of forces and means of higher levels, should be organized throughout the entire depth of the movement.

Reconnaissance. The primary source from which reconnaissance data can be obtained is the staff of the front. Not limiting itself to that, however, the staff of the army utilizes all possibilities for obtaining more complete information about enemy actions, the radiation situation, the nature of destruction in the zone of movement, and the condition of the projected rest areas. As the troops of a tank army approach the departure area for their commitment to the engagement, reconnaissance must provide complete data on the enemy grouping and the nature of enemy actions in the zone of commitment to the engagement, especially on enemy means of nuclear attack. For this reason, reconnaissance detachments and movement support detachments from the army and divisions make the march leading the main forces of the first echelon by one or two days' march or more.

Cover for a tank army against an air enemy in the course of the movement forward and during commitment to the engagement is provided by a common system of air defense organized by the Supreme High Command, allied countries, and the front troop commander. This system is augmented by the forces and means of the army. Its cover must be most reliable during the last two marches and in the area of deployment for commitment to the engagement.

Technical support of a march over a great distance is an exceptionally complex problem. The fact is that the movement of a tank army and the conduct of an offensive operation are completely ensured by the
between-overhaul engine mileage reserve of T-55 tanks. At the same time, the operating life of tracks is limited to 2,000 to 2,500 kilometers, and for heavy tanks it is even shorter. After running this distance, tank tracks must be completely replaced. In connection with this, the commitment of a tank army to an engagement from the march and the successful development of the offensive will largely depend on the capabilities of rear services and repair organs to carry out the vast amount of work involved in delivering and replacing tracks. If we consider that one set of tracks for a medium tank weighs about 2.7 tons, then it would take about 170 five-ton trucks to deliver them to each tank division. The army does not have such capabilities. It is hardly possible to find such capabilities even in a district. A way out of this situation can be, for instance, the establishment of track depots in advance in the theaters of military operations. It is possible to transport the tanks up to the last or next-to-last march on large-load trailers. Available experience in using this method has given positive results. However, to transport the tanks and tracked vehicles of an entire tank army a great many special vehicles are required. It is evident that this is an acceptable method for transporting only individual tank units or at best divisions, but not an entire army.

For this reason, a more promising solution to the problem of the operational reliability of the running gear of tanks is to immediately improve the design of tracks and to extend the life of the tracks to the level of the engine mileage reserve of tanks, that is, up to five to seven thousand kilometers. Tracks designed with rubber-metal articulated joints, which are now undergoing tests and refinement, according to their operating characteristics, can last such a distance. It is fully understood that the tanks of the troops deployed in interior districts must be fitted out with them first.

It is an extremely complicated matter to provide a tank army with fuel. It is enough to say that when a tank army moves 1,100 to 1,200 kilometers the fuel required is: two to 2.5 thousand tons for each division; 12 to 14 thousand tons for the whole army. The mobile reserves of fuel in a tank army, consisting of two fuelings of automobile gasoline and 3.15 fuelings of diesel fuel (not counting secondary capacity), are sufficient for a march by the army of up to 600 kilometers (three marches). This means that six or seven refuellings of diesel fuel are needed for a tank army just to complete the march. For the conduct of an offensive operation, fuel needs will consist of at least one refueling for every day of combat actions. Consequently, in order to ensure the movement of the army and the conduct of the operation throughout the depth of the theater.
of military operations, a tank army will require about 35 to 40 thousand tons of fuel.

The solution of this problem can be found in the establishment in advance of a system of central depots for POL in the theaters of military operations. We have in mind the construction of technically up-to-date structures, well protected against means of mass destruction and able to ensure stable functioning under conditions of great activity by the aviation and rocket troops of the enemy. The capacity of the depots must be sufficient to supply the overall needs of troop groupings for fuel when conducting operations throughout the depth of the theater of military operations.

While the tank army is moving to its area of operational assignment, the transport of fuel and the fueling of large units must be carried out by forces and means of the front and, partially, army transport, and also by the transport of units subordinate to the center. For this, a portion of the motor transport subunits of the army together with other units and subunits which are supporting the march must be moved forward in order to transport fuel and carry out refueling in areas where troops are located for day's halts.

In the course of the development of an operation, the most reliable means of transport for bringing up supplies of POL will be, in our view, by pipeline. Therefore, in the offensive zone of the army, it is necessary to have at least one pipeline. The speed at which it is laid should be no slower than the rate of advance of the tank army, that is, in the range of 100 kilometers per 24-hour period.

The most important tasks of engineer support for the movement of a tank army will be engineer reconnaissance of routes, water obstacles, and concentration areas for rest; the clearing, reconstruction, and repair of damaged sections of roads; the construction of crossings over water obstacles, the repair and reinforcement of bridges; the preparation and camouflage of areas of day's halts; and support of the deployment of troops of the army at their commitment to the engagement from the march.

The road traffic control service occupies a special place in the support of the march of an army. It should be centrally organized by decision of the Supreme High Command and the front troop commander from the forces and means of road traffic control brigades with the attachment of army road traffic control battalions. Traffic control points should be established especially carefully; with the aid of these points it is
possible to monitor the passage of columns through the departure points and movement phase control lines. It is necessary to disengage an army road traffic control battalion when the tank army enters the final concentration area so that it can be utilized for provost traffic control service when the army is committed to the engagement.

The movement forward of a tank army is completed with the entrance of the troops into the final concentration area which may correspond to the departure area from which they are to committed to the engagement. The departure area is fixed at a distance not greater than 100 to 120 kilometers from the enemy. From this area the army moves to the deployment lines during the last night prior to commitment to the engagement. Fixing the departure area at such a distance from the enemy, as experience shows, is most advantageous since the concealment of the disposition of the troops from enemy ground radar means can thereby be ensured, the troops are beyond the range of tactical missiles, and it becomes possible to move to the attack line during darkness and then to attack in the space of 24 hours with only one refueling. In light of this, the waiting areas for divisions can be set not at 40 to 50 kilometers from the line of commitment, but rather at 100 to 120 kilometers.

Rocket troops must move to siting areas before the divisions enter the waiting areas in order to be ready to destroy the enemy nuclear means of attack which have been detected.

An army missile brigade can move to siting areas earlier, in accordance with the plan of the front for the delivery of a massed nuclear strike or to take part in stabilizing the position of the forward-operating troops, especially in the zone of commitment of the army to the engagement. Tactical missile units and artillery units must be ready to deliver nuclear strikes and to conduct preparatory fire and fire support of the offensive at least two hours before the first echelons of the divisions approach the line of commitment.

The commitment of a tank army to an engagement. One of the main preconditions for the successful commitment of an army to an engagement is the disruption of a possible nuclear strike by the enemy. It seems to us that, by the time a tank army approaches the departure area, the enemy's nuclear strength will be neutralized to a significant degree by the first and subsequent strikes of the strategic rocket forces and long range aviation, and by the nuclear means of the fronts of the first operational echelon. Of course it is difficult to count on the complete destruction of the enemy's nuclear means: some portion of aviation, operational-tactical
missiles, and nuclear artillery will still survive and could deliver a
nuclear strike against the troops of the tank army at the moment of its
commitment.

The commander organizes the disruption of an enemy nuclear strike
before the commitment of the army to the engagement. Under certain
conditions, some of the missile launchers of an army brigade may be
assigned to fulfill this task.

A more difficult situation for the commitment of a tank army to an
engagement may be created when the enemy launches a counterattack or
offensive. In order to stabilize the situation of the troops operating in
the zone of commitment, that is, to stop or slow down the enemy's advance
so that the divisions of the first echelon of the army can move up to the
assigned lines, deploy and attack, the following measures are being worked
out in exercises which are being conducted: strikes are delivered with
nuclear weapons and conventional means to destroy the reserves and weaken
the enemy troops who are developing the offensive; to reinforce
forward-operating troops, antitank reserves, mobile obstacle construction
detachments, and engineer units are moved out in order to establish
obstacle zones to delay or slow the enemy's advance; forward detachments
are sent from the divisions of the first echelon with the task, together
with forward-operating troops, to stop the advance of the enemy at the
lines designated for deployment and attack; for this reason, the
forward-operating troops organize and carry out counterattacks.

The divisions of the first echelon are deployed and committed to the
engagement against the advancing enemy, following the nuclear strike by the
front, under cover of the forward detachments sent from the divisions and
with fire and air support. The massed nuclear strike by the front prior to
the commitment of the army to the engagement must be intense and with
maximum participation in it of operational-tactical missiles and aviation
which enable the ground forces groupings and surviving nuclear means of the
enemy to be reliably destroyed in the whole zone of the offensive and on
the flanks.

The strike is delivered by tank divisions with the maximum possible
number of tanks in the attacking echelons. With that end in view, it is
advisable to place tank battalions and regiments of the first echelons of
the divisions in a one-echelon formation. Entering the engagement, the
large units of the army immediately move rapidly into the depth, blocking
or circumventing the surviving strong points of the enemy.
At the commitment of a tank army to an engagement when the enemy is carrying out defensive actions it is necessary to consider: first, that divisions can go over to the offensive from areas 100 to 120 kilometers from the line of combat actions without occupying waiting areas; second, that the switch to the offensive must be preceded by preparatory fire. In order to do this, the artillery moves to siting areas in advance so that it is ready to open fire two to 2.5 hours prior to the attack. The main forces of the divisions of the first echelon are deployed and approach the attack line during the period of preparatory fire for the offensive under cover of the forward-operating troops. Forward detachments do not have to be designated to cover the movement of the army to the line of commitment in the presence of a stable front. They are assigned after the breakthrough of the enemy defense for the capture of important lines and installations in the depth.

When committed to an engagement against a retreating enemy, the large units of the first echelon of the tank army move immediately from the march into rapid pursuit. In this case the forward detachments of the divisions must advance at maximum speed and, exploiting the results of nuclear strikes and gaps in battle formations, burst from the march into the disposition of the enemy troops and capture important installations and lines, thus supporting the commitment of the main forces of the divisions.

If the enemy shows no resistance, then the divisions of the first echelon of the army are not deployed in battle formation; rather, advancing in battalion and company columns, they move to the lines and targets, the capture of which is the task of the first day of the offensive.

The divisions of the second echelon of the army follow the first echelon at a distance which assures their commitment to the engagement no later than four to seven hours after the decision to commit them is made.

In conclusion, we would like to give some consideration to the capabilities of a modern tank army. As is known, after the end of the Great Patriotic War, in connection with the increase in the quality and quantity of armament and combat equipment, the organizational composition of tank troops was periodically modified. In place of tank corps, tank divisions were established, and instead of tank brigades, tank regiments. On the whole, the fire and striking power of a tank division doubtless exceeds the fire and striking power of a tank corps of the war period. However, the combat capabilities of tank regiments are still insufficient.
In view of the fact that tank regiments were essentially deprived of their rear services organs, they have lost their former independence and depend on the rear services organs of higher levels in matters of materiel and technical support. In this case we come up against a clear contradiction: on the one hand, we consider it necessary to conduct combat actions with tank regiments along separate axes; on the other hand, tank regiments have no rear services organs supporting their combat actions.

An especially acute problem is combat against enemy aviation, especially against low-flying aircraft. The capabilities of a tank division in combat against an air enemy are extremely limited. During the Great Patriotic War, heavy-caliber antiaircraft machineguns were mounted on tanks. For reasons which are not clear they have been removed and nothing has replaced them. This situation has to be corrected. Besides this, every regiment should have an antiaircraft artillery battalion or a surface-to-air missile battalion.

So long as a tank regiment is faced with independent actions along a separate axis, it is recommended that organic tactical nuclear means and one armored infantry battalion be included in it.

In our opinion, the organization of a tank division should be standardized somewhat. It would be advisable to have four uniform tank regiments of medium tanks in it.

As regards tank armies, they should have motorized rifle divisions as well as tank divisions. Depending on the task which a tank army will fulfil in a front offensive operation and also on the availability of forces and means, four to six, and sometimes more, divisions of which one or two are motorized rifle divisions, can be included in an army.

The problems of bringing the troops of tank armies garrisoned in interior military districts to full combat readiness, the organization of their movement over a great distance, and their commitment to an engagement from the march are urgent. For their rapid resolution, a wide exchange of opinions and a summarization of the experience of exercises are needed.