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CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

13 October 1978

MEMORANDUM FOR: The Director of Central Intelligence
FROM : John H. Stein
Acting Deputy Director for Operations
SUBJECT : MILITARY THOUGHT (USSR): Combat Readiness
of Troops and Network Diagrams

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 describes how network diagrams facilitate both planning and control of the process of bringing troops into combat readiness. The explanation is illustrated by a typical diagram of the process at the army level. This article appeared in Issue No. 3 (82) for 1967.

2. Because the source of this report is extremely sensitive, this document should be handled on a strict need-to-know basis within recipient agencies. For ease of reference, reports from this publication have been assigned

John H. Stein

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Intelligence Information Special Report

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COUNTRY USSR

DATE OF
INFO. Late 1967

DATE 13 October 1978

SUBJECT

MILITARY THOUGHT (USSR): Combat Readiness of Troops and Network Diagrams

SOURCE Documentary

Summary:

The following report is a translation from Russian of an article which appeared in Issue No. 3 (82) for 1967 of the SECRET USSR Ministry of Defense publication Collection of Articles of the Journal 'Military Thought'. The author of this article is Colonel P. Skachko. This article describes how network diagrams facilitate both planning and control of the process of bringing troops into combat readiness. The explanation is illustrated by a typical diagram of the process at the army level.

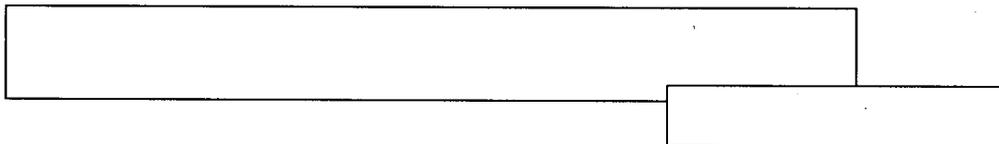
End of Summary

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.

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Combat Readiness of Troops and Network Diagrams

by

Colonel P. SKACHKO

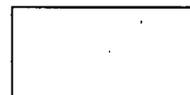
Further reducing the time required for bringing troops to combat readiness is an important task of the Armed Forces.

Many units, large units, and formations have already achieved considerable success in this field, and it is now a question of exploiting the latent capabilities existing in the troops, internal resources, and reserves of time so that this task can be carried out in the shortest possible time.

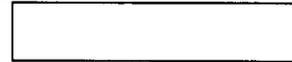
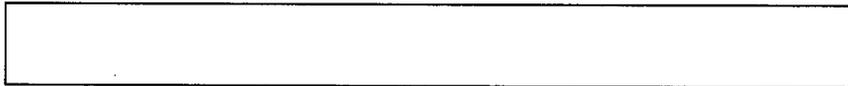
The network method of planning and control is an ideal way to make it possible to determine the minimum time required for bringing troops to combat readiness, at the same time avoiding any ungrounded decisions.

It should be kept in mind that the network method of planning and control does not nullify existing methods of planning. Rather, it represents a further development and extension of methods now available and in use among the troops. Just as differential and integral calculus were a further development of elementary mathematics, so the network method of planning and control is a further improvement of existing methods. This method makes it possible to carry out planning and control more precisely, since the entire planning process is regarded as a single process with all of its multilateral connections which exert a decisive influence on the course of the process.

Under existing planning and control methods, however, planning is often carried out by parts or by blocks. The technological and logical connections between the parts (blocks) of the process are disregarded or are overlooked because of the methods themselves. But these connections sometimes play a decisive role. As a result, it is not possible under existing planning methods to discover and exploit reserves of time and resources available for the planning process.



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Giving their due to existing methods of planning the bringing of the troops of an army into combat readiness, let us consider the advantages of the network method of planning over the traditional methods.

First, employing the planning methods in use [word missing], it is very difficult to determine exactly the [total] duration of the process of bringing an army to combat readiness, since in this case it is not possible to [take into account] all of the interconnections and the technology of the process to the necessary degree. The network method of planning, however, makes it possible to determine exactly the time required for bringing troops to combat readiness, taking into account the specific conditions in which they find themselves.

Second, under existing methods, we cannot succeed in finding out accurately enough what events are limiting factors in achieving the overall goal, nor can we succeed in showing up bottlenecks to which the attention of the commander and his staff should be directed in order that [he may] carry out the assigned task. Hence the attention of the commander and his staff is divided among many events which sometimes do not [play] a major role. The network method of planning and control, however, [makes it possible] to pick out from the entire mass of interconnections those principal ones upon whose correct [handling] the whole process of bringing the army to [full combat] readiness depends. In other words, the network method makes it [possible to concentrate] the attention of the command on a narrow circle of events [and not] dissipate it among all stages of the process.

Third, the methods in use do not [words missing] answer the question of how to accelerate the process of bringing [troops to full] combat readiness.

The network method, however, makes it possible to [plan the carrying out of a task on the basis] of the specific conditions and to adopt a decision [on the correct method of bringing] troops to combat readiness. This situation ... [Remainder of paragraph, and the two following paragraphs containing points four and five, are available only in fragmentary form.]



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[Using a network] model of the bringing of army troops [to full] combat readiness, it is easy, through monitoring to be done in the units [and large units of the army,] to test the feasibility of a formulated plan. If the individual executors manage to do everything in the times provided for by the plan, then the whole complex process of bringing the troops of the army into combat readiness will be done at the scheduled time.

And finally, the network diagram makes it possible to transmit information on the progress of bringing troops to combat readiness without encipherment and thus accelerates the collection and processing of information. The numbers given to the events and tasks serve as codes for information transmission.

These are the main advantages of the network method of planning and control over existing methods.

Let us consider the application of this method by means of a specific example. Let us assume that it was necessary to plan the process of bringing the troops of a combined-arms army to full combat readiness, with the troops to occupy the waiting area for an offensive located 40 to 80 kilometers from their areas of permanent garrison.

During this process, the troops were initially to be brought to increased, and then full, combat readiness. Restrictions: the time limit for bringing the troops to increased combat readiness was 24 hours; the army missile brigade and army mobile missile technical base had to occupy the combat-alert areas planned for them and be ready to launch and assemble missiles in no more than 2.5 hours, and tank and motorized rifle divisions and the rest of the army units in no more than 4.5 hours after receiving the signal to bring the troops to full combat readiness.

Planning for the bringing of the army troops to increased and full combat readiness was conducted as follows.

The army staff, having received its orders, transmitted orders to the large units and the separate army units. The latter, on the basis of these orders and the specific conditions, compiled their own individual network diagrams, which were then combined into a single army network diagram. This diagram showed the technological and logical sequence of all operations and tasks which had to be carried out by the troops, beginning from the moment they received the signal to bring the troops to increased

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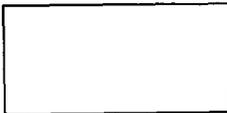


or full combat readiness and ending with the final tasks testifying that the army troops had fulfilled their task and had occupied the planned area.

Then a reading of the initial network diagram was made, as a result of which an exact time was obtained for the movement of the large units and separate army units into the waiting area and for their readiness to go over to the offensive.

The table gives the results of reading such a network diagram.

Designation of large unit	Calculated time hours	Directive (arbitrary) time hours	Required reduction of time to bring troops to full combat readiness hours
4th Army Missile Brigade	4.5	2.5	2.0
4th Army Mobile Missile Technical Base	6.5	2.5	4.0
4th Army Field Artillery Brigade	2.7	4.5	0
4th Army Antitank Artillery Regiment	3.0	4.5	0
Field headquarters	3.2	4.5	0
1st Motorized Rifle Division	5.0	4.5	0.5
2nd Tank Division	5.5	4.5	1.0
3rd Motorized Rifle Division	6.0	4.5	1.5
4th Motorized Rifle Division	3.0	4.5	0
5th Tank Division	3.0	4.5	0
4th Army Combat Engineer Brigade	3.0	4.5	0
4th Army Pontoon Bridge Regiment	2.7	4.5	0
4th Assault Crossing Battalion	3.0	4.5	0
Alert antiaircraft artillery units of large units	3.1	4.5	0
4th Surface-to-Air Missile Regiment	6.0	4.5	1.5
14th Antiaircraft Artillery Regiment	6.0	4.5	1.5
Army rear services units	3.0	4.5	0





As is evident from the table, according to the initial network diagram, the following did not stay within the time specified by directive: 4th Army Missile Brigade, 4th Army Mobile Missile Technical Base, 1st Motorized Rifle Division, 2nd Tank Division, 3rd Motorized Rifle Division, 4th Surface-to-Air Missile Regiment, and 14th Antiaircraft Artillery Regiment, the discrepancy being respectively 2, 4, 0.5, 1.0, 1.5, 1.5, and 1.5 hours.

In order to stay within the specified time, the initial plan was revised and improved (optimized). Optimization of the network diagram was carried out by altering the technology of the process of bringing the army troops to increased and full combat readiness. For example, in the initial diagram it was planned to begin the forward movement of the 4th Army Missile Brigade, 4th Army Field Artillery Brigade, 4th Surface-to-Air Missile Regiment, and 14th Antiaircraft Artillery Regiment into the waiting area after receipt of the signal to bring the troops to full combat readiness, but in the optimized chart this was to be done two hours earlier. If the signal to bring the troops to full combat readiness does not arrive within two hours after the beginning of the movement, then the advance of the large units can be halted. A time reduction was achieved in the 1st and 3rd Motorized Rifle Divisions and the 2nd Tank Division through simultaneous fulfillment of certain tasks, selection of new routes of movement, and revision of the disposition areas in the waiting area.

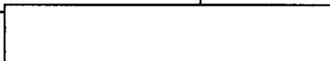
Calculation of the optimized diagram indicated that after the measures were conducted, the conditions set by the higher command were fulfilled, i.e., the army stayed within the specified time limit. Following this, the scale network diagram shown in the illustration was drawn up.

We notice that on the network diagram events are designated by circles. The numbers inside the circles indicate the number or code of the event. Arrows connecting circles express a task to be performed. Above the arrow is written the designation of the task and beneath it a number expressing its duration (in minutes in this case). Tasks are encoded by the numbers of the events between which they are enclosed. For example, the task 'Notification of 4th Army Missile Brigade' has the Code 0-1; the number 3 beneath the arrow of this task means that its duration is three minutes. Dotted lines preceding tasks or extending them indicate the time reserve expressed to scale. The whole path on the diagram signifies the sequence of tasks from the initial to the final event within the network.

A scale network diagram is constructed on millimeter graph paper. For convenience and speed in filling it out, two graduated time scales are



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entered, at the bottom and at the top. It is advisable to make scales to different proportions, to show part of the scale in minutes and part in hours. This is done in order to make it possible to have room above the arrows to put the name of tasks of short duration. The event 0 here means that the signal for bringing the army troops to increased combat readiness has been received, event 57 means that the signal for bringing the army troops to full combat readiness has been received, and event 186 that the army troops have been brought to full combat readiness and have occupied their waiting areas for the offensive.

The right side of the diagram -- from the initial event 0 to event 57 -- depicts the process of bringing the troops to increased combat readiness; and the left side -- from event 57 to the final event 186 -- the process of bringing the army troops to full combat readiness, with their arrival in the waiting areas. The diagram was constructed on the basis of the specific conditions of a task created especially for this purpose. One should [several lines missing]

as it were, a planning table of cooperation of the army troops while they are being brought into increased and full combat readiness. It ties in the actions of all the large units and separate army units in their logical and technological sequence in time and space. The critical path in this particular diagram passes through events 0-3-8-16-57-62-75-104-125-140-155-167-186. Tasks lying on this path determine how long it will take to bring the army troops to full combat readiness, with their arrival in the waiting area for going over to the offensive. The time of the critical path is the minimum time required for the army, under the given conditions, to complete the entire process, since during optimization all available internal time reserves were utilized and the entire process was condensed to the utmost.

Thus the network method is a tool by means of which it is possible on the basis of scientific analysis to reduce the time required to bring troops to combat readiness.

We note that the scale network diagram is not only a tool for planning but also a tool for operational control of troops during the process of bringing them to full combat readiness. Let us assume, for example, that the 4th Army Mobile Missile Technical base has for some reason delayed for two hours the assembly of the first two warheads to the operational-tactical missiles (task 30-34). In order to transmit this information, it suffices for the commander of the 4th Army Mobile Missile Technical Base to



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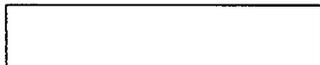
transmit a short signal consisting of four numbers, namely 30-34-120-05, where the first two numbers (30-34) are the code for the task "Assembly of two warheads to operational-tactical missiles" (see illustration, task 30-34), the number 120 signifies the length of the delay in minutes, and the last number 05 explains the reasons for the delay.

Having received such a report, the army commander and his staff locate this task on the chart and immediately know from the task codes which process has been delayed and for how long.

Looking over all of the connections on the chart, the commander and staff can determine how the particular delay will affect the entire process. In our example, task 30-34 is delayed by 120 minutes. Having received the report, and locating these tasks, the commander establishes that they do exert an influence on the process of bringing the 4th Army Missile Brigade to combat readiness and on the work of the 4th Army Mobile Missile Technical Base. Thus, all tasks coming after event 37 in the 4th Army Missile Brigade and after event 34 in the 4th Army Mobile Missile Technical Base will be postponed by 120 minutes because of this delay and will be carried out later. Looking over the task reserves (represented on the diagram by dotted lines without arrows), the commander sees that the task reserves in the 4th Army Missile Brigade are 170 minutes (45-48) and in the 4th Army Mobile Missile Technical Base are 120 minutes (54-94). These task reserves will accordingly be used, and this delay will actually not have any effect on the final result of bringing the 4th Army Missile Brigade and the 4th Army Mobile Missile Technical Base to combat readiness. However, if the delay is greater than the total task reserves lying on the paths of the 4th Army Missile Brigade and the 4th Army Mobile Missile Technical Base, the commander will decide in each specific instance what measures must be carried out in order to achieve completion of the process within the calculated time. Thus, the army commander is able to control the process effectively, following it at all times on the scale network diagram.

We believe that network methods, constituting a reliable tool for planning and control, will find very wide distribution among the troops in carrying out a large number of tasks.

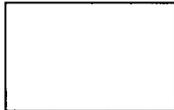
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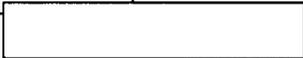
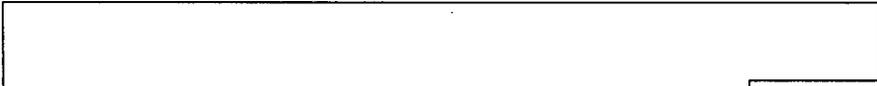


Key to Network Diagram

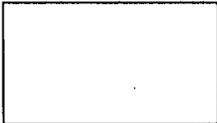
As explained on page 8, arrows represent tasks, and numbered circles represent events. Each task is designated by the pair of numbers labelling the two events between which that task occurs.

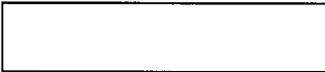
- ✓0-1 Notification of 4th Army Missile Brigade, 3 minutes.
- ✓0-2 Notification of 4th Army Mobile Missile Technical Base, 5 min.
- ✓0-3 Notification of large units, 2 min.
- ✓0-4 Notification of 4th Surface-to-Air Missile Regiment and 4th Separate Missile Technical Base, 1 min.
- ✓0-5 Notification of antiaircraft artillery units, 2 min.
- ✓1-6 Notification of personnel of combat units of 4th Army Missile Brigade, travel to combat equipment parks, preparation of launchers to move out, 33 min.
- ✓2-7 Notification of personnel of 4th Army Mobile Missile Technical Base, 5 min.
- ✓3-8 Notification of units, 3 min.
- ✓4-9 Notification and placement on alert of technical battalion, travel to siting area, set-up of technical battalion at technical site, 120 min.
- ✓4-10 Bringing of 4th Surface-to-Air Missile Regiment to Readiness No. 1, 10 min.
- ✓5-11 Bringing of [antiaircraft artillery units] to Readiness No. 1, 5 min.



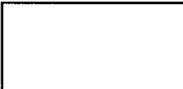


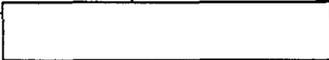
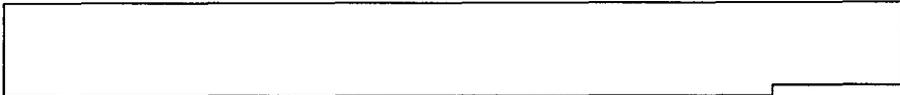
- ✓ 5-12 Notification of personnel of 14th AAA Regiment of light antiaircraft artillery, placement on combat alert, and arrival in area of assembly on alert, 35 min.
- ✓ 6-13 Travel of combat units to exercise area, 60 min.
- ✓ 7-14 Travel of personnel to parks and preparation of vehicles, 30 min.
- ✓ 3-15 Summoning of officer personnel from TDY and leaves, 420 min. 7 hr.
- ✓ 8-16 Return of units from training centers and exercises, refinement of tasks for large units and units, 240 min.
- ✓ 9-17 Preparation of 22 S-75 missiles (two lines, 11 missiles per line in 16 hours), 960 min. 16 hr.
- ✓ 10-18 Performance of combat-alert duty by 4th Surface-to-Air Missile Regiment, 1,341 min.
- ✓ 12-19 Travel to exercise area of 4th Army Missile Brigade to cover it, 90 min.
- ✓ 7-20 Travel of personnel to depots, 15 min.
- ✓ 14-20 Travel of vehicles to depots, 10 min.
- ✓ 15-21 Transfer of the sick to stationary hospitals, 420 min.
- ✓ 16-22 Loading of mobile reserves, 120 min. 2 hr.
- ✓ 16-23 Removal of combat equipment from reserve storage and bringing it into combat readiness, 120 min. 2 hr.
- ✓ 16-24 Loading [illegible], 80 min.
- ✓ 16-25 Transfer of officer personnel to barracks status, 180 min. 3 hr.
- ✓ 16-26 Preparation of servicemen's families for evacuation, 600 min.





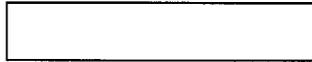
- ✓ 16-27 Preparation and surrender of equipment not being taken on the march, 420 min.
- ✓ 17-28 Rest for personnel, 270 min.
- ✓ 19-29 Deployment of 14th Antiaircraft Artillery Regiment.
- ✓ 20-30 Setting up of assembly shops and preparing for work, [90] min.
- ✓ 20-31 Setting up of technical battery, 40 min.
- ✓ 25-32 Combat preparation, 560 min.
- ✓ 29-33 Performance of combat-alert duty by 14th AAA Regiment to cover 4th Army Missile Brigade, 960 min.
- ✓ 30-34 Two warheads, 145 min.
- ✓ 30-35 Assembly of 15 warheads for tactical missiles (one salvo is 15 warheads, duration of salvo is 65 minutes), 520 min.
- ✓ 33-36 Receipt of signal to relocate and preparation to move, 45 min.
- ✓ 33-37 Deployment of 4th Army Missile Brigade in exercise area, 90 min.
- ✓ ⁴30-37 Delivery of two warheads, 120 min.
- ✓ 34-38 Two warheads, 145 min.
- ✓ 37-39 Two missiles, 120 min.
- ✓ 38-39 Delivery of two warheads, 120 min.
- ✓ 38-40 Two warheads, 145 min.
- ✓ 39-41 Two missiles, 120 min.
- ✓ 40-41 Delivery of two warheads, 120 min.
- ✓ 40-42 Two warheads, 145 min.





- ✓41-43 Two missiles, 120 min.
- ✓42-43 Delivery of two warheads, 120 min.
- ✓42-44 Two warheads, 145 min.
- ✓43-45 Two missiles, 120 min.
- ✓44-45 Delivery of one warhead, 120 min.
- ✓44-46 Two warheads, 145 min.
- ✓31-47 Conversion of operational-tactical missile [illegible] from Readiness No. 6 to Readiness No. 5.
- ✓44-47 Delivery of two warheads, 10 min.
- ✓45-48 One missile, 120 min.
- ✓46-49 Two warheads, 145 min.
- ✓46-50 Delivery of two warheads, 10 min.
- ✓48-51 Receipt of signal to move forward and packing up. Transmission of signal [to units], 30 min.
- ✓49-52 Delivery of two warheads, 10 min.
- ✓52-53 [unlabelled] 30 min.
- ✓55-54 Receipt of task and packing up, 40 min.
- ✓49-54 Receipt of task and packing up, 40 min.
- ✓53-54 Receipt of task and packing up, 40 min.
- ✓51-55 Relocation of rear services of 4th Army Missile Brigade to siting area, deployment and camouflaging of them, 260 min.
- ✓51-56 Relocation of 4th Army Missile Brigade to siting area, 180 min.





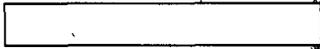
- 8-57 Checking routes of control post movement to designated areas, reconnaissance of them, movement of communications center to forward command post, and setting it up, 420 min.
- ✓ 16-57 Bringing of ammunition into filled and fuzed form, 1,195 min.
- ✓ 32-57 Rest for personnel.
- ✓ 4-58 Performance of combat-alert duty by 4th Separate Missile Technical Base, 1,441 min.
- ✓ 11-58 Performance of combat-alert duty by AAA units of the large units, 1,435 min.
- ✓ 18-58 Performance of combat-alert duty by 1st Battalion of 4th Surface-to-Air Missile Regiment, 90 min.
- ✓ 28-58 Packing up of technical battalion, 91 min.
- ✓ 57-58 Notification of air defense troops, [2] min.
- ✓ 56-59 Deployment of 4th Army Missile Brigade in siting area, 90 min.
- ✓ 57-60 Notification and placement on combat alert of army rear services units, 10 min.
- ✓ 57-61 Transmission of combat-alert signal to 4th Army Field Artillery Brigade and notification of personnel, 5 min.
- ✓ 57-62 Notification of field headquarters of 4th Army upon combat alert, 5 min.
- ✓ 57-63 Notification and placement on combat alert of 4th Army Tank-Destroyer Artillery Regiment, 10 min.
- ✓ 57-64 Notification and placement on combat alert of 1st Motorized Rifle Division, 10 min.
- ✓ 57-65 Notification and placement on combat alert of 2nd Tank Division, 10 min.



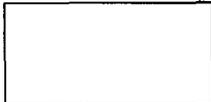


- ✓57-66 Notification and placement on combat alert of 3rd Motorized Rifle Division, 10 min.
- ✓57-67 Notification and placement on combat alert of 4th Motorized Rifle Division, 10 min.
- ✓57-68 Notification and placement on combat alert of 5th Tank Division, 10 min.
- ✓57-69 Notification and placement on combat alert of 4th Army Engineer/ Combat Engineer Brigade, 10 min.
- ✓57-70 Notification and placement on combat alert of 4th Army Pontoon Bridge Regiment, 10 min.
- ✓57-71 Notification and placement on combat alert of 4th Assault Crossing Battalion and 4th Army Maintenance and Repair Section, 5 min.
- ✓60-72 Travel of rear services personnel to motor transport and preparation of vehicles for moving, 20 min.
- ✓61-73 [Unlabelled]
- ✓61-74 Travel of personnel to motor transport and preparation of vehicles for moving, 30 min.
- ✓62-75 Assembly of chiefs of [branch arms] and services and issuing of instructions to them, 10 min.
- ✓64-76 [Unlabelled]
- ✓64-77 Travel of personnel of rear services subunits to motor transport and preparation of vehicles for moving, [35] min.
- ✓65-78 [Unlabelled]
- ✓65-79 Travel of personnel of rear services subunits to motor transport and preparation of vehicles for moving, 20 min.
- ✓66-80 [Unlabelled]





- ✓66-81 Travel of personnel of rear services subunits to motor transport and preparation of vehicles for moving, 20 min.
- ✓67-82 [Unlabelled]
- ✓67-83 Travel of personnel of rear services subunits to motor transport and preparation of vehicles for moving, 20 min.
- ✓68-84 [Unlabelled]
- ✓68-85 Travel of personnel of rear services subunits to motor transport and preparation of vehicles for moving, 25 min.
- ✓69-86 Travel of personnel of 4th Army Engineer/Combat Engineer Brigade to parks and preparation of vehicles to move out, 20 min.
- ✓70-87 Travel of personnel of 4th Army Pontoon Bridge Regiment to parks and preparation of vehicles to move out of parks, 25 min.
- ✓71-88 Travel of personnel of 4th Army Assault Crossing Brigade and 4th Army [Repair and Maintenance Section] to parks and preparation of combat equipment to move out, 25 min.
- ✓58-89 Relocation of technical battalion to waiting area, [85] min.
- ✓58-90 Coverage of troops in permanent garrison areas and in areas of assembly on combat alert, 45 min.
- ✓8-91 Packing up of 2nd and 3rd Battalions of 4th Surface-to-Air Missile Regiment, 120 min.
- ✓36-92 Relocation of 14th Antiaircraft Artillery Regiment to siting area of 4th Army Missile Brigade, [180] min.
- ✓72-93 Travel to points of assembly on alert, 5 min.
- ✓54-94 Relocation of 4th Army Mobile Missile Technical Base to waiting area, 120 min.
- ✓61-95 Placement on combat alert and travel of personnel to parks, 15 min.



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- ✓73-95 Warming up and preparation of prime movers to move out, 20 min.
- ✓61-96 Assembly of headquarters officers, 5 min.
- ✓75-96 Refinement of tasks, 15 min.
- ✓63-97 Travel of personnel to parks and preparation of combat equipment and motor transport to move out, 20 min.
- ✓75-97 Refinement of task, 15 min.
- ✓75-98 [Unlabelled]
- ✓64-99 Travel of personnel to parks, 15 min.
- ✓76-99 Warming up and preparation of combat vehicles to move out, 20 min.
- ✓64-100 Assembly of headquarters officers, 5 min.
- ✓75-100 Refinement of task of 1st Motorized Rifle Division, 20 min.
- ✓65-101 Travel of personnel to parks, 15 min.
- ✓78-101 Warming up and preparation of combat vehicles to move out, 20 min.
- ✓65-102 Assembly of headquarters officers, 10 min.
- ✓75-102 Refinement of task of 2nd Tank Division, 15 min.
- ✓66-103 Travel of personnel to parks, 15 min.
- ✓80-103 Warming up and preparation of combat vehicles to move out, 20 min.
- ✓66-104 Assembly of headquarters officers; 10 min.
- ✓75-104 Refinement of task of 3rd Motorized Rifle Division, 20 min.
- ✓67-105 Travel of personnel to parks, 15 min.

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- ✓82-105 Warming up and preparation of combat vehicles to move out, 15 min.
- ✓67-106 Assembly of headquarters officers, 5 min.
- ✓75-106 Refinement of tasks of 4th Motorized Rifle Division, 15 min.
- ✓68-107 Travel of personnel to parks, 15 min.
- ✓84-107 Warming up and preparation of combat vehicles to move out, 15 min.
- ✓68-108 Assembly of headquarters officers, 5 min.
- ✓75-108 Refinement of task of 5th Tank Division, 15 min.
- ✓86-109 Travel to points of assembly on combat alert, 15 min.
- ✓87-110 Travel to points of assembly on combat alert, 10 min.
- ✓88-111 Travel to points of assembly on combat alert, 10 min.
- ✓89-112 Setting up of technical battalion, [120] min.
- ✓90-113 Packing up of 1st Battalion of 4th Surface-to-Air Missile Regiment, [90] min.
- ✓90-114 Packing up of anti-aircraft artillery units of the large units, [10] min.
- ✓91-115 Relocation of 2nd and 3rd Battalions of 4th Surface-to-Air Missile Regiment to waiting area, [90] min.
- ✓94-116 Setting up of 4th Army Mobile Missile Technical Base, 90 min.
- ✓93-117 Refinement of tasks, 5 min.
- ✓75-118 Relocation of control post to [training] area and setting up of command post, [120] min.

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- ✓96-119 Issuing of instructions to staff and refinement of tasks for units, 15 min.
- ✓97-120 Travel to points of assembly on combat alert, 20 min.
- ✓75-121 Control of troops from staff, 30 min.
- ✓98-121 Travel of operations group to alternate command post and assumption of control, 30 min.
- 122 [Not used]
- ✓100-123 Issuing of instructions to staff and refinement of tasks, 10 min.
- ✓102-124 Issuing of instructions to staff and refinement of tasks, 10 min.
- ✓104-125 Issuing of instructions to staff and refinement of tasks for units, 10 min.
- ✓106-126 Issuing of instructions to staff and refinement of tasks for units, 10 min.
- ✓108-127 Issuing of instructions to staff and refinement of tasks for units, 10 min.
- ✓109-128 Refinement of combat tasks, 5 min.
- ✓110-129 Refinement of tasks, 5 min.
- ✓111-130 Refinement of tasks, 5 min.
- ✓113-131 Relocation of 1st Battalion of 4th Surface-to-Air Missile Regiment to [waiting] area, [80] min.
- ✓114-132 Relocation of antiaircraft artillery units, 90 min.
- ✓112-133 [Deployment of antiaircraft artillery regiment], 15 min.
- ✓117-134 Travel of army rear services units to area of deployment of forward army base, 135 min.

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- ✓ 119-135 Conveyance of refined tasks to units, 10 min.
- ✓ 120-136 Travel of 4th Army Tank-Destroyer Artillery Regiment to waiting area, 130 min.
- ✓ 121-137 Relocation of 4th Army commander to forward command post, 30 min.
- ✓ 123-138 Conveyance of refined tasks to units, 10 min.
- ✓ 124-139 Conveyance of tasks to combat and rear services units, 15 min.
- ✓ 125-140 Conveyance of refined tasks to units, 10 min.
- ✓ 126-141 Conveyance of refined tasks to units, 10 min.
- ✓ 127-142 Conveyance of refined tasks to units, 10 min.
- ✓ 128-143 Travel of units of 4th Engineer/Combat Engineer Brigade to waiting areas of the large units and to their own areas, 130 min.
- ✓ 129-144 Travel of subunits of 4th Army Pontoon Bridge Regiment [illegible] final reconnaissance of crossings, 120 min.
- ✓ 130-145 Travel of [4th Army Repair and Maintenance Section to take down the command post] and of 4th Army Assault Crossing Brigade to waiting area, 120 min.
- ✓ 132-146 Deployment, 15 min.
- ✓ 115-147 Deployment of 2nd and 3rd Battalions of 4th Surface-to-Air Missile Regiment, 120 min.
- ✓ 95-148 Travel to points of assembly on alert, 10 min.
- ✓ 74-149 Travel to points of assembly on alert, 13 min.
- ✓ 121-150 Control of troops from [forward] command post, 30 min.
- ✓ 99-151 Travel to points of assembly on alert, 15 min.

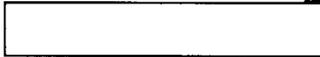
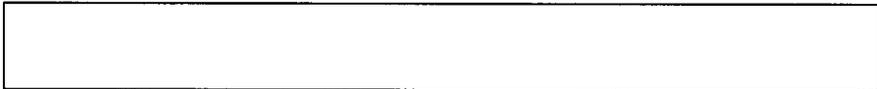
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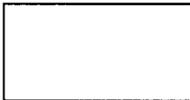
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- ✓77-152 Travel of rear services subunits to points of assembly on alert, 10 min.
- ✓101-153 Travel to points of assembly on combat alert, 15 min.
- ✓ 79-154 Travel of rear services subunits to points of assembly on combat alert, 15 min.
- ✓103-155 Travel of combat units to points of assembly on combat alert, 15 min.
- ✓81-156 Travel of rear services subunits to points of assembly on combat alert, 15 min.
- ✓105-157 Travel of combat units to points of assembly on combat alert, 10 min.
- ✓83-158 Travel of rear services subunits to points of assembly on combat alert, 15 min.
- ✓107-159 Travel of combat units to points of assembly on combat alert, 10 min.
- ✓85-160 Travel of rear services subunits to points of assembly on combat alert, 10 min.
- ✓135-161 Travel of command post to waiting area, [80] min.
- ✓150-162 [Illegible]
- ✓138-163 Travel of command post to waiting area, [90] min.
- ✓152-164 Travel of rear services to waiting area, [90] min.
- ✓139-165 Travel of command post to waiting area, 80 min.
- ✓154-166 Travel of rear services to waiting area, 90 min.
- ✓35-167 [An incomplete line terminating in the vicinity of event 185 should presumably read: Delivery of three warheads for tactical missiles to 3rd Motorized Rifle Division, 200 min.]

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- ✓155-167 Travel of combat units to waiting area, 135 min. ✓
- ✓140-168 Travel of command post to waiting area, [80] min.
- ✓156-169 Travel of rear services to waiting area, [75] min.
- ✓35-170 Delivery of three warheads for tactical missiles to 4th Motorized Rifle Division, 110 min.
- ✓157-170 Travel of combat units to waiting area, 70 min.
- ✓141-171 Travel of command post to waiting area, [45] min.
- ✓158-172 Travel of rear services units to waiting area, [60] min.
- ✓35-173 Delivery of three warheads for tactical missiles to 5th Tank Division, 110 min.
- ✓159-173 Travel of combat units to waiting area, [75] min.
- ✓142-174 Travel of command post to waiting area, 60 min.
- ✓160-175 Travel of rear services units to waiting area, 65 min.
- ✓148-176 Travel of combat units to waiting area, [deployment, and] camouflaging, 110 min.
- ✓149-176 Travel of rear services to waiting area and camouflaging, 110 min.
- ✓161-176 Deployment of command post, [30] min.
- ✓162-177 Relocation of forward command post, 60 min.
- ✓118-178 Control from command post, 60 min.
- ✓162-178 Travel of commander to command post, 60 min.
- ✓35-179 Delivery of three warheads for tactical missiles to 1st Motorized Rifle Division, 160 min.



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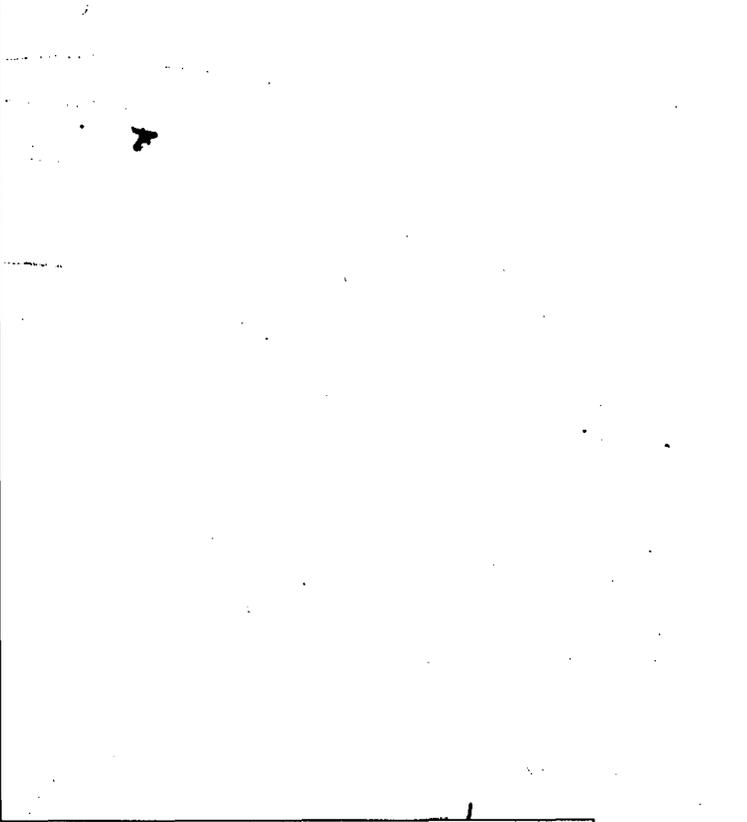
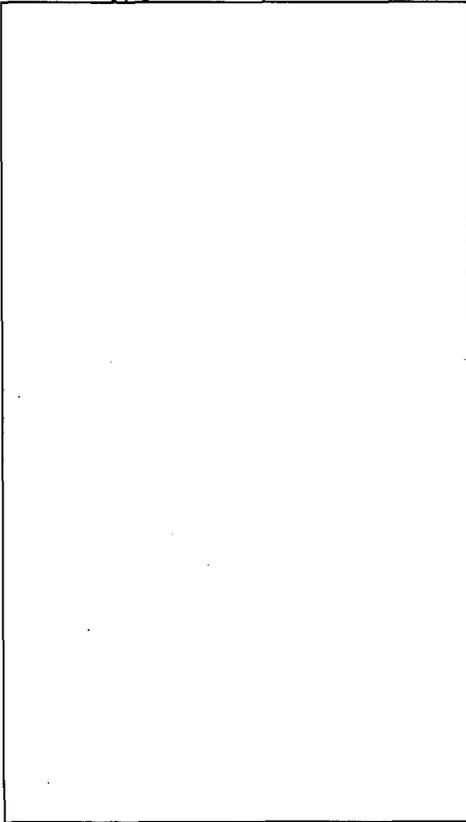
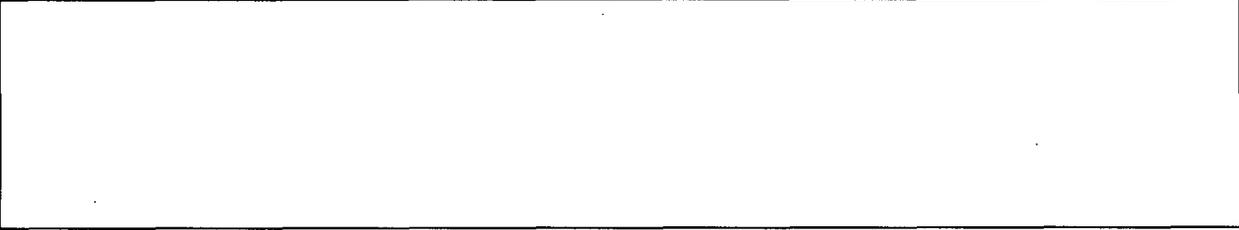
- ✓151-179 Travel of combat units to waiting area, 120 min.
- ✓135-180 Delivery of three warheads for tactical missiles to 2nd Tank Division, 160 min.
- ✓153-180 Travel of combat units to waiting area, 120 min.
- ✓170-181 Mating of tactical missiles with warheads and camouflaging, 65 min.
- ✓171-181 Deployment of command post, [30 min.]
- ✓172-181 Camouflaging of rear services, 65 min.
- ✓173-182 Mating of tactical missiles with warheads and camouflaging, 65 min.
- ✓174-182 Deployment, [30 min.]
- ✓175-182 Camouflaging of rear services, 65 min.
- ✓133-183 Performance of combat-alert duty, 145 min.
- ✓163-184 Deployment of command post, 30 min.
- ✓164-184 Deployment and camouflaging, 65 min.
- ✓178⁹-184 Mating of tactical missiles with warheads and camouflaging, 65 min.
- ✓165-185 Deployment of command post, 35 min.
- ✓166-185 Deployment and camouflaging, 65 min.
- ✓180-185 Mating of tactical missiles with warheads and camouflaging, 65 min.
- ✓167-186 Mating of tactical missiles with warheads and camouflaging, 65 min.
- ✓168-186 Deployment of command post, 30 min.
- ✓169-186 Deployment and camouflaging, 55 min.

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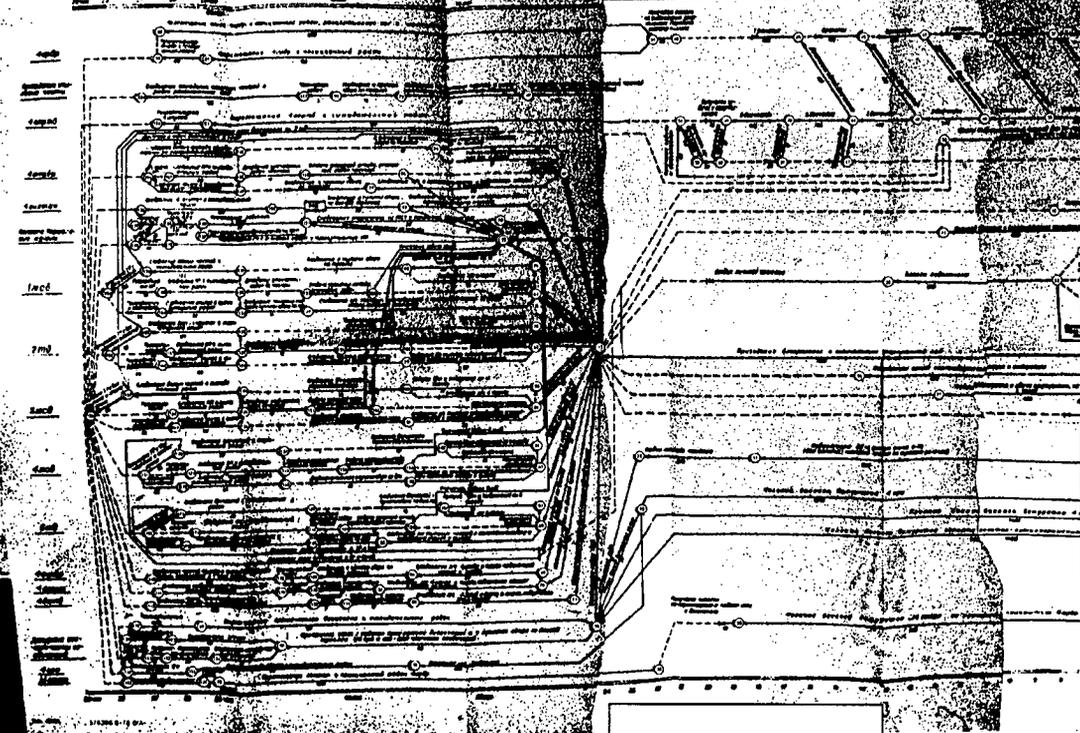


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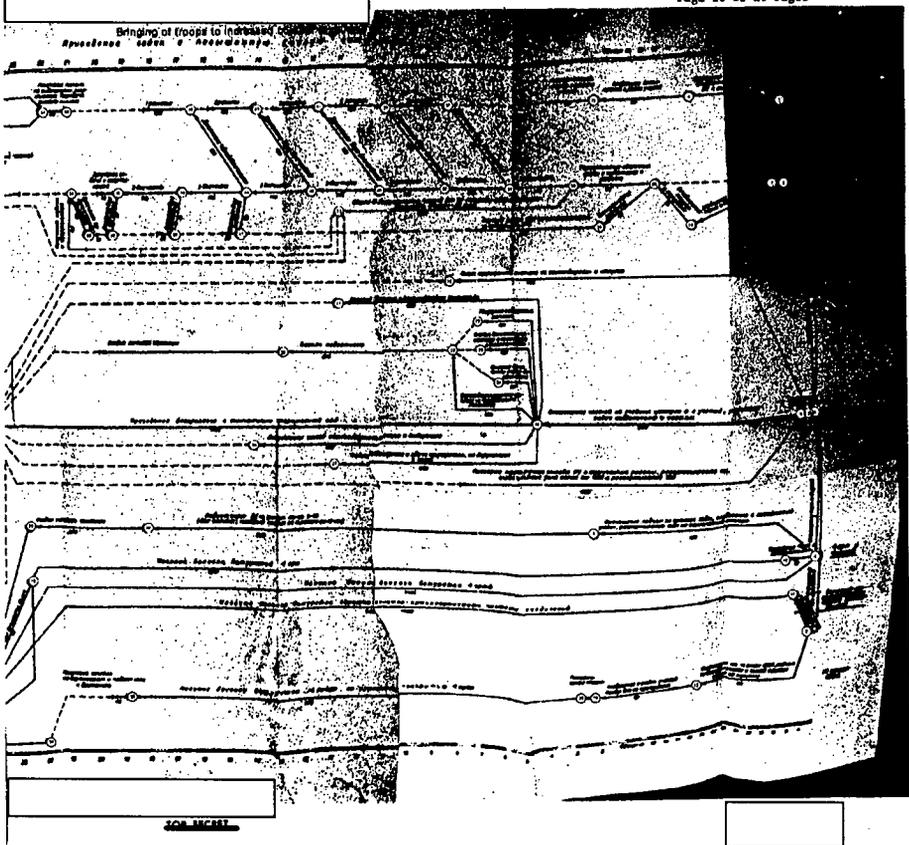
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Bringing of troops to full combat readiness
Приведение войск к полной боевой готовности

Bringing of troops to maximum combat readiness
Приведение войск к максимальной боевой готовности



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