[redacted]

~~TOP SECRET~~

[redacted]

2970

ORDERS OF LENIN AND SUVOROV
MILITARY ACADEMY OF THE GENERAL STAFF
OF THE ARMED FORCES OF THE USSR
i/n K. Ye. VOROSHILOV

TOP SECRET
Copy No. 1

FRONT OFFENSIVE OPERATIONS

Textbook
for the Military Academy of the General Staff
of the USSR Armed Forces i/n K. Ye. VOROSHILOV

Approved by the Chief of the General Staff
of the Armed Forces of the USSR

APPROVED FOR
RELEASE DATE:
19-Nov-2009

Moscow -- 1974

TS #798245
Copy # 1

~~TOP SECRET~~

[redacted]

HR70-14

~~TOP SECRET~~

[redacted]

~~THIS DOCUMENT MAY NOT BE REPRODUCED~~

CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

27 September 1979

[redacted]

MEMORANDUM FOR: The Director of Central Intelligence

FROM : John H. Stein
Acting Deputy Director for Operations

SUBJECT : Front Offensive Operations

1. The enclosed Intelligence Information Special Report is a translation of a TOP SECRET textbook issued by the Soviet General Staff Academy in 1974. It deals systematically with all aspects of an offensive operation that are the direct responsibility of the front command. Oriented chiefly towards the Western Theater of Operations, the manual shows no radical departure from previous doctrine. Two items that stand out are some fairly straightforward statements on the offensive use of "special," i.e., chemical or biological, weapons and repeated references to airborne assault units, which are always associated with helicopter landings.

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.

[redacted]

John H. Stein

FIRDB-312/01997-79

TS #798245
Copy # 1

[redacted]

~~ALL PORTIONS CARRY CLASSIFICATION AND CONTROLS OF OVERALL DOCUMENT~~

[redacted]

~~TOP SECRET~~

FIRDB-312/01997-79

Distribution:

The Director of Central Intelligence

The Joint Chiefs of Staff

The Director, Defense Intelligence Agency

The Assistant to the Chief of Staff for Intelligence
Department of the Army

Director of Naval Intelligence
Department of the Navy

The Assistant Chief of Staff, Intelligence
U. S. Air Force

Director, National Security Agency

Deputy Director of Central Intelligence

Director of the National Foreign Assessment Center

Director of Strategic Research

Director of Scientific Intelligence

Director of Weapons Intelligence

TS #798245
Copy # 1

[redacted]

~~THIS DOCUMENT MAY NOT BE REPRODUCED~~

Intelligence Information Special Report

COUNTRY USSR

FIRDB - 312/01997-79

DATE OF INFO. 1974

DATE 27 September 1979

SUBJECT

Front Offensive Operations

TE Documentary

Summary:
The following intelligence report is a translation from Russian of a TOP SECRET textbook prepared for students of the General Staff Academy. Nearly 20 officers of the Academy faculty had a hand in its preparation, and it deals systematically with all aspects of an offensive operation that are the direct responsibility of the front command. Oriented chiefly towards the Western Theater of Operations, the manual shows no radical departure from previous doctrine: The offensive is expected to advance at a rate of 40 to 60 kilometers a day, nuclear operations are discussed separately from conventional ones, constant nuclear readiness is stressed, and logistics and control are each subjects of entire chapters. Two items that stand out are some fairly straightforward statements on the offensive use of "special," i.e., chemical or biological, weapons and repeated references to airborne assault units, which are always distinguished from the more familiar airborne landing forces and are associated with helicopter landings.

End of Summary

[redacted] Comment:
Although this document is not as recent as the front operations manual disseminated as FIRDB-312/00013-79, it is being made available for several reasons: The areas covered are not identical; the present text bears evidence of much more thorough preparation and editing; and, being a group product, it has to represent a larger cross-section of military thinking.

TS #798245
Copy # 1

[redacted]

ORDERS OF LENIN AND SUVOROV
MILITARY ACADEMY OF THE GENERAL STAFF
OF THE ARMED FORCES OF THE USSR
i/n K. Ye. VOROSHILOV

TOP SECRET
Copy No.___

FRONT OFFENSIVE OPERATIONS

Textbook
for the Military Academy of the General Staff
of the USSR Armed Forces i/n K. Ye. VOROSHILOV

Approved by the Chief of the General Staff
of the Armed Forces of the USSR

Moscow -- 1974

TS #798245
Copy #1

The textbook Front Offensive Operations was written by the professors and instructors of the Orders of Lenin and Suvorov Military Academy of the General Staff of the USSR Armed Forces i/n K. Ye. Voroshilov in accordance with Order No. 064 of the USSR Minister of Defense of 24 April 1971.

Authors' collective: Professor General-Leytenant F. F. GAYVORONSKIY -- director of the collective; Candidate of Military Sciences, Assistant Professor General-Mayor P.G. YANOVSKIY (deputy director of the authors' collective and author of the Introduction, of Sections 1, 2, 3, 5, and 6 of Chapter 1, part of Sections 1 and 4 of Chapter 2, Sections 8 and 9 of Chapter 4, and Appendices 1, 2, 3, 4, 6, 7, 8, and 15); Doctor of Military Sciences, Professor General-Leytenant P. K. ALTUKHOV (Sections 1, 2, 3 of Chapter 2 and all of Chapter 8); General-Mayor B. A. GUSEV (part of Section 4 of Chapter 1, Sections 1 through 7 of Chapter 4, and Appendices 5, 12, 13, and 14); Candidate of Military Sciences General-Mayor A. P. SAPRYKIN (part of Section 4 of Chapter 2, all of Chapters 3 and 5, and Appendices 9, 11, and 16); Doctor of Historical Sciences, Assistant Professor Colonel (Reserve) Ye. R. SAKHAROV (Chapter 6); Candidate of Military Sciences, Professor General-Leytenant A. S. SKOVORODA (Chapter 7 and Appendix 17); Candidate of Military Sciences, Assistant Professor General-Mayor V. F. PELEKH.

The following participated in writing individual items: Candidate of Military Sciences, Assistant Professor General-Mayor of Aviation P. F. BOGZA; Colonel M. I. BORISOV; Candidate of Military Sciences Colonel S. A. GLADYSH; Assistant Professor General-Mayor of Artillery A. K. GORLINSKIY; Doctor of Historical Sciences, Senior Scientific Staff Member General-Mayor A. N. GRYLEV; Candidate of Military Sciences Colonel V. D. SOLOVYEV; Doctor of Military Sciences, Professor Colonel V. I. SPASOV; Candidate of Military Sciences, Assistant Professor Engineer General-Mayor S. I. STEMASOV; Candidate of Military Sciences, General-Mayor of Technical Troops I. M. AFANASOV.

Edited by General of the Army I. Ye. SHAVROV.

TABLE OF CONTENTS

I. General principles of a front offensive operation 18

1. Role and place of the front in a strategic operation in a theater of military operations 18
2. Objective of an offensive operation and the tasks of the front 23
3. Scope of an offensive operation 29
4. Strength and combat capabilities of a front. Principles of the employment of nuclear and special weapons, branch arms, and aviation of a front 34
5. Methods of conducting a front offensive operation. Selection of the axes of the main and other thrusts 63
6. Operational disposition of troops 74
7. Principles of support of the combat actions of troops 81

II. Preparation of a front offensive operation 89

1. Content and conditions of the preparation of an offensive operation 89
2. Adoption of the decision for an offensive operation and conveyance of the tasks to the troops 94
3. Planning of a front offensive operation 109
4. Preparation of front troops for the offensive 150

III. Conduct of a front offensive operation with the use of nuclear weapons 173

1. Delivery of the initial nuclear strike of the front and elimination of the aftereffects of an enemy nuclear strike 173
2. Transition of front troops to the offensive, defeat of a defending enemy, and development of the offensive 189
3. Defeat of the enemy in a meeting engagement 214
4. Defeat of reserves and disruption of counterthrusts of the enemy.. 220
5. The assault crossing of wide water obstacles 224
6. Commitment of the second echelon of the front to the engagement 231

TS #798245
Copy # 1

7. Pursuit of a withdrawing enemy 235
8. Regrouping of front troops during an offensive operation 239
9. Conclusion of an offensive operation 244

IV. Conduct of an offensive with the use of conventional means of destruction 246

1. Participation of the front in the air operation in a theater of military operations and repulse of the strike of enemy aviation 247
2. Transition of front troops to the offensive and breakthrough of the enemy defense 251
3. The breakthrough of fortified areas 265
4. Defeat of enemy reserves in a meeting engagement and when repelling a counterthrust 269
5. The assault crossing of wide water obstacles 278
6. Encirclement and destruction of a large enemy grouping 288
7. Commitment of a second-echelon army to the engagement 295
8. Taking of large cities and industrial areas 304
9. Transition of front troops to actions with the use of nuclear weapons 311

V. Special features of the preparation and conduct of front offensive operations on coastal axes and in mountain, desert, and northern areas 320

1. Special features of offensive operations on coastal axes 320
2. Special features of the preparation and conduct of offensive operations in mountain, desert, and northern areas 329

VI. Political work in a front offensive operation 344

1. Importance and tasks of political work in a front offensive operation 344
2. Party political work during preparation of an offensive operation 347
3. Party political work during an offensive operation 355

VII. Rear services support of troops in a front offensive operation 361

1. Organization of rear services support 361
2. Rear services support during an offensive operation 375

VIII. Troop control in a front offensive operation..... 385

1. Content and main principles of troop control and the requirements imposed on it..... 385
2. Organs and means of control of front troops..... 389
3. Organization of troop control..... 396
4. Troop control during the operation..... 407
5. Organization of the performance of operational calculations in the processes of troop control..... 414

List of appendices*

1. Tasks of front troops in an offensive operation
2. Methods of conducting a front offensive operation with the use of nuclear weapons (variants)
3. Methods of conducting a front offensive operation without the use of nuclear weapons (variants)
4. Methods of defeating large enemy groupings in a front offensive operation (variants)
5. Operational disposition of front troops in an offensive operation (variants)
6. Plan of the offensive operation of a front (variant)
7. Plan of the initial nuclear strike of a front
8. Chart of the organization of the initial nuclear strike of a front (variant)
9. Conduct by front troops of an offensive operation with the use of nuclear weapons
10. Methods of defeating enemy counterthrust groupings in a front offensive operation (variants)
11. Commitment of a second-echelon army of the front to the engagement with the use of nuclear weapons
12. Breakthrough of a prepared enemy defense by front troops with the use of conventional means of destruction
13. Establishment of attack groupings of troops for breaking through an enemy defense with the use of conventional means of destruction (variants)
14. Defeat of the enemy in a meeting engagement in a front offensive operation without the use of nuclear weapons (variants)

---

* Separate publication [not available]

15. Transition of front troops to actions with the use of nuclear weapons during an operation begun with the use of only conventional means of destruction

16. Conduct of a front offensive operation in mountainous conditions with the use of nuclear weapons (variant)

17. Disposition of the front rear services in an offensive operation

INTRODUCTION

Like the theory of operational art as a whole, the theory of a front operation first began to be worked out by Soviet military science in the 1920's, with due regard for the experience of the First World War and the Civil War in the USSR.

A prominent role in establishing the fundamentals of Soviet military science belongs to V. I. LENIN, who developed and enriched Marxist teaching about war and the army and worked out the scientific theory of armed defense of the workers' socialist homeland. He formulated the principles on the class revolutionary nature of Soviet military science, the need to master all forms and methods of armed conflict in order to achieve victory over the enemy, on the relation between offense and defense, the axis of the main thrust, the need to develop in every way possible an emerging success until complete victory, and also on the importance of surprise actions, the need to consider the balance of forces of both sides, and on the exceptional importance of conducting continuous reconnaissance in a modern-day war. V. I. LENIN revealed and substantiated the significance of the morale factor and the decisive role of the individual in war, the need for well-organized rear services in order to achieve victory over the enemy, and a number of other basic problems of military science. All these principles and instructions of V. I. LENIN underlie the development of the theory of the front operation.

The theory and practice of front operations have traversed a long and complex path of development since the moment of their conception. The need for this development, like the very existence of armed forces in a socialist state, is caused first of all by the military threat on the part of imperialism.

Imperialism is the main source and primary cause of the occurrence of wars. In the lifetime of only a single generation it brought down upon mankind two devastating world wars. And under present-day conditions the foreign policy of imperialism is unfailingly affirming its reactionary, aggressive nature. Thus, in the years since the Second World War, the imperialists have unleashed more than 30 wars and armed conflicts of varying size. This forces the Soviet state to combine its peaceful policy with a further strengthening of the country's defense might and to see to it that its armed forces have at their disposal the most modern means for protecting the homeland and that they constantly maintain military theory at the proper level.

The development of military science, including the theory and practice of a front operation, is decisively influenced by the leading role of the Communist Party of the Soviet Union, by the level of the economy of our state and the technical equipping of the armed forces, by the principles of Soviet military strategy, by the status and trend of development of the armed forces of our probable enemies, and by their views on the conduct of military actions.

Modern war involves all areas of the state's activities. In one way or another broad masses of the population participate in it. Along with military actions, the struggle is also conducted in the area of economics, policy, ideology, etc. Therefore, only by combining into a single organ the control of all the state's activities during a war is it possible to conduct it in the most successful manner.

In the years of the Civil War and during the Great Patriotic War of 1941 to 1945, all the victories of the Soviet Armed Forces were achieved primarily as a result of the Communist Party's vast organizing, mobilizing, and directing activities. And under present-day conditions, there is not a single major matter in military development, including the development of Soviet military science, in which the Central Committee and the Politburo of the Communist Party of the Soviet Union would not be directly involved. In the historically short period of time of the existence of the Soviet state, it is due to the direction of the Communist Party that the sociopolitical foundation and materiel-technical base to continuously increase the defense capability of the country were established. The development of military equipment, weapons, and Soviet military art, the training of officer cadres and indoctrination of personnel, and all life and activities of the Army and Navy are under its direct control.

The scientific and technical progress caused by the rapid development of nuclear physics, radioelectronics, cybernetics, and many other sciences and the continuous growth of the country's economy in the postwar period have made it possible to equip all branches of the armed forces with nuclear weapons and new means for delivering them to targets and have ensured the quantitative growth and qualitative improvement of conventional types of weapons, as well as the introduction into the troops of means of automation and radioelectronic warfare. All of this has significantly raised the combat capabilities of the formations and large units of all branches of the armed forces and branch arms and it has led to radical changes of views on the methods of conducting war, operations, and combat actions and, essentially, to a revolutionary transformation in all the areas of military science.

The nature of present-day operations has also changed. They differ from the operations of the last war by a sharp increase in the decisiveness of objectives and in spatial scope, by rapid changes in the operational situation, by the appearance of new methods of conducting combat actions, by the variety of conditions of their initiation and conduct, and by an increase in the significance of firm and continuous control of troops and of their cooperation and comprehensive support.

Strategy, being the higher area of military art, also has a direct influence on the development of operational art as a whole and on the development of the theory of front operations in particular. It involves the theory and practice of the training of armed forces for war, the planning and conduct of war, the employment in war of the branches of the armed forces, and the control of them. Strategy reflects the policy of our Party in the area of the defense of the country, which is expressed in the plans for preparation of the country and the armed forces to disrupt an aggressor's attack and defeat him with all the available forces and means of the Soviet state and the friendly socialist countries.

In accordance with the principles of the military doctrine of our state, Soviet military strategy at present believes that the objectives of a future war can be achieved by carrying out a system of operations and combat actions of the different branches of the armed forces and, in a nuclear war, nuclear strikes of the Strategic Rocket Forces.

In the continental part of a theater of military operations, one of the principal forms of strategic actions is the strategic operation. Its objective will be the rout of groupings of the enemy's armed forces to the entire depth of the theater, seizure of the main areas of his territory, and removal from the war of individual states or a group of states of the enemy coalition.

Integral parts of a strategic operation may be nuclear strikes of the Strategic Rocket Forces, initial and subsequent offensive operations of fronts, air operations of Long Range Aviation, operations of the Navy, airborne landing operations, and combat actions of the Air Defense Forces of the Country.

Consequently, the front offensive operation, which is being examined in this textbook, is an integral part of a strategic operation in a theater of military operations. It is the sum total of strikes, coordinated as to target, time, and place, with nuclear weapons, special weapons, and conventional means of destruction and of a swift attack of front troops to

achieve an operational or strategic objective.

The content and conditions of the initiation and conduct of a front offensive operation are closely bound up with the scale and nature of the war and with the methods by which an aggressor unleashes it.

Soviet military strategy is based on the fact that contemporary wars, depending on their scale, can be local, i.e., limited to the participation of two or several states, or world wars -- those between two systems of states into which a significant part or even all of the countries of the world will be drawn. According to the means of conducting them, wars can be both with the use of nuclear weapons and with the use of only conventional means of destruction.

Local wars of individual capitalist states against individual socialist states will more than likely be conducted with the use of conventional weapons only. A world war between several capitalist and socialist states may begin with the use of only conventional means of destruction. Subsequently, in a crisis situation the belligerents may use tactical nuclear weapons against individual groupings of troops and installations. However, it should be borne in mind that any variant of the limited use of nuclear weapons harbors the danger of going over to massed employment of the entire arsenal of nuclear means. In this connection, our troops must be constantly prepared to respond with all our nuclear might to the enemy's limited use of nuclear weapons.

A world war between the capitalist and socialist states with unlimited use of nuclear weapons and other means of warfare may begin with massed nuclear strikes by both sides, or it can arise as the continuation of a war begun with conventional means of destruction.

In order to correctly determine the trends in the development of the theory of the front offensive operation and develop the most effective methods of repelling an aggressor and routing an enemy during a front operation, we must take into consideration the condition of the probable enemies' armed forces, their views on conducting military actions, and their strong and weak points.

At present our probable enemies, primarily the US and their NATO partners, have all the modern means of armed warfare at their disposal. They are continuing to build up their nuclear potential and they are intensively developing their armed forces.

As for their views on conducting military actions, they result from the aggressive essence of the policies and strategy of imperialism. The imperialist states have not resigned themselves to the loss of their influence and strategic positions in important areas of the world and they do not intend to give up their aggressive endeavors. The policy of deterrence expressed in the military strategy of "realistic deterrence," which was adopted by the United States in 1971, has been the basis of their relations toward the Soviet Union and the countries of the socialist commonwealth. This strategy is a sort of modernization of the strategy of "flexible response" adopted in 1967 and the "Nixon doctrine" proclaimed in 1969. As the Report of the Central Committee of the CPSU to the XXIV Congress of our Party pointed out, the adoption of the strategy of "realistic deterrence" is a result of the fact that the imperialist states are now being forced to adapt to the new conditions of the international situation, to seek new forms and methods of attaining their aggressive goals, and to develop the corresponding political and military strategy.

According to the strategy of "realistic deterrence," it is assumed that a nuclear war in Europe will be conducted without using the strategic nuclear forces of the US. The latter "guarantees" the European NATO partner countries the "support of a nuclear shield," but requires a maximum mobilization of resources from them and a buildup of their military potential in order to conduct all types of wars. At the same time, the European NATO member countries, not having any particular confidence in the American "nuclear shield," are expressing their desire for the creation of "European nuclear forces," which would lead, of course, to a sharp increase in the nuclear potential of our probable enemies and to the aggravation of international tension.

According to the views of the military-political leadership of the US and NATO, two types of war are possible between the NATO member countries and the countries of the socialist commonwealth: a general nuclear war or a limited war (a war which does not reach the scale of a general nuclear war).

When conducting major exercises, the NATO command studies two possible variants of the outbreak of a general nuclear war. The first variant is when the US and its NATO allies are the first to carry out a nuclear attack, beginning with a surprise preemptive missile/nuclear strike. For its successful development they envisage carrying out offensive operations to a great depth. According to the second variant, NATO ground forces initially carry on defensive actions with the use of conventional weapons, while missile/nuclear forces and delivery aircraft are kept in combat

readiness and carry out a nuclear attack should the outcome of the border engagement be unfavorable.

A limited war, according to the views of the NATO command, is an armed conflict in which the belligerents pursue limited political and strategic objectives. When they do, the limitations may be in respect to the number of participating countries, the area of military actions, and the means for conducting the war. It is believed that in such a war the opposing sides will endeavor to conduct combat actions with the use of conventional means of destruction only, particularly in the initial stage of the conflict, or else with limited use of tactical nuclear weapons. At the same time, when a limited war is enlarged in scale, it can develop into a general nuclear war within a definite interval of time.

While carrying out an active peace policy, the Communist Party of the Soviet Union is doing everything to deter new wars and to eliminate them from the life of human society. As a result of this, at the beginning of the 1970's some success was achieved in relaxing international tension and in stamping out the hotbeds of war in Southeast Asia, Hindustan, and the Near East.

At the same time, taking into consideration imperialism's threat to unleash a new world war, our Party, the Central Committee, and the Soviet Government are not relaxing their efforts to strengthen the Armed Forces of the USSR. As written in the Program of the Party, "the CPSU believes it necessary to maintain the defense might of the Soviet State and the combat readiness of its Armed Forces at a level which ensures the decisive and complete rout of any enemy who dares to encroach upon the Soviet homeland."

It follows from the brief analysis of the principles of Soviet military strategy and of the views of our probable enemies that a front offensive operation can be carried out under diverse conditions. It can be initiated and conducted both with the use or without the use of nuclear weapons, or it can be initiated and conducted for some time with the use of only conventional means of destruction and then develop into actions with the limited or unlimited use of nuclear weapons.

Depending on the methods by which an aggressor unleashes a war and the conditions of the situation, a front can begin an offensive operation with a surprise attack against the enemy under the conditions of an operational troop deployment which has been or is being completed and also after part of the forces have repelled an enemy attack (invasion). At the beginning of the operation the troops may negotiate the enemy forward security zone

(cover zone), break through a defense line he has occupied hastily or in advance, or conduct a meeting engagement with an enemy who has gone over to the offensive.

Each operation will have its own peculiarities and when being prepared and implemented it will require in-depth analysis and thorough consideration of the specific conditions of the situation and manifestation of intelligent initiative and creativity in the activities of the command and staffs of all levels.

Within the context of a strategic operation in a theater of military operations, a front usually carries out a first and subsequent offensive operations. The basic problems of the preparation and conduct primarily of the first offensive operation are set forth in this textbook in accordance with the program of instruction for academy students.

The development of the textbook has been based on the requirements of the orders of the Minister of Defense of the USSR concerning the training of the Armed Forces of the USSR, on the directives of the General Staff concerning the operational training of staffs, and also on the views which have now evolved in the Soviet Armed Forces on the preparation and conduct of front offensive operations.

The textbook examines the problems of the preparation and conduct of a front offensive operation as they apply to the conditions of the Western Theater of Military Operations. At the same time, certain peculiarities of offensive operations in other theaters are also briefly considered.

Here it should be borne in mind that the recommendations set forth in the textbook cannot be regarded as immutable. By virtue of objective laws, Soviet operational art is continuously developing, and views on the problems of front operations change accordingly. Therefore, in practical work the doctrines of the textbook have to be applied in a creative manner with due regard for the changes that are occurring and the specific conditions of the situation.

CHAPTER 1

GENERAL PRINCIPLES OF A FRONT OFFENSIVE OPERATION

1. Role and place of the front in a strategic operation in a theater of military operations

The front, as an operational formation of the Ground Forces, was first established organizationally in the Russian Army during the First World War of 1914 to 1918. Establishment of a front formation was dictated by the conduct of combat actions with massive armies over large areas, by the appearance of more improved, and for that time new, means and methods of conducting a war, and also by the requirements for centralized troop control. At that time, front formations were designated to accomplish operational-strategic and even strategic tasks.

In the Red Army, fronts were established during the Civil War in the autumn of 1918 (the Northern, Southern, and Eastern Fronts in September, the Western Front in November). At first they were designated to accomplish strategic tasks, but as the scale of the war and the number of fronts subsequently increased they began to be entrusted mainly with operational-strategic tasks.

In the Great Patriotic War of 1941 to 1945, front formations were designated to fulfil operational tasks, and only in individual cases did they accomplish strategic tasks -- for example, the 1st Ukrainian Front in the Lvov-Sandomierz operation in June to August of 1944, and the Karelian Front in the Petsamo-Kirkenes operation in October to November of 1944. The achievement of strategic objectives was usually entrusted to a group of fronts.

The combat capabilities of the front sharply increased in the postwar period in connection with the rapid development of nuclear weapons, various-purpose missiles, aircraft, tanks, artillery, and the complete motorization of troops. The present-day front is a higher-level operational formation of the Ground Forces and it is designated to accomplish both operational and strategic tasks in a theater in cooperation with the Strategic Rocket Forces, with large units and formations of Long Range Aviation, with the Navy, and with the Air Defense Forces of the

Country.

The role of the front in a strategic operation in a theater of military operations, i.e., the level of its participation in routing enemy armed forces, depends upon the concept of this operation, the objective of the front operation, the content of the combat tasks of the front, its combat strength, the scale of employment of nuclear weapons, the nature of the cooperation with formations of other branches of the armed forces and with adjacent fronts, and also the conditions of the theater of military operations and other factors.

When examining the role of the front in a strategic operation, it is first of all necessary to take into consideration the sharp increase in recent years of the capabilities of its nuclear means and conventional weapons.

Nuclear weapons are the principal and most powerful means of destroying an enemy. In their destructive and ruinous effect, these weapons are many times superior to conventional means of destruction. They hit troops and produce destruction over a large area in an extremely short time, literally calculated in seconds and minutes. Suffice it to say that in order to incapacitate the sheltered personnel of an enemy motorized infantry battalion situated over an area of and to inflict casualties of it is necessary to use only one nuclear warhead with a , whereas to inflict such destruction on a battalion with conventional aviation weapons will require the use of no less than two bomber air divisions.

The radius at which personnel situated in the open are incapacitated from the burst of a nuclear warhead with a Of course, the radii at which personnel and combat equipment are destroyed from bursts of more powerful nuclear warheads considerably exceed those cited above (see Table 3 on page 38).

In essence, a revolutionary leap in all areas of military science has occurred as a result of the wide-scale introduction of nuclear weapons into all branches of the armed forces in the past one-and-a-half to two decades. The strategic nuclear forces established under the direction of the Communist Party of the Soviet Union, especially the Strategic Rocket Forces, and also the nuclear means of fronts and fleets have become the

fundamental and decisive means of routing any aggressor in a nuclear war. In his book On Guard for Peace and the Building of Communism, the Minister of Defense of the USSR writes about the question of the role of nuclear weapons: "We realize that missile/nuclear weapons will be the decisive means of armed warfare in a future world war, if one is unleashed by the imperialists."*

The means available within a front for the delivery of nuclear weapons to targets -- operational-tactical and tactical ballistic missiles, front aviation delivery aircraft, and artillery using nuclear warheads -- ensure the infliction of decisive destruction on the enemy throughout the depth of the operational disposition of his forces and means over the entire offensive zone. In the initial nuclear strike, a front can potentially destroy all the detected operational-tactical missile/nuclear means and up to 15 divisions of ground forces, incapacitate nuclear warhead depots, the control posts of army corps, of field and air armies, and of an army group, and the most important aviation and air defense warning, guidance, and control centers, partially destroy tactical aircraft on airfields, and neutralize a large part of the surface-to-air missile batteries of the enemy.

In a **strategic operation** in a theater of military operations when nuclear weapons are used, a front will have to carry out with its own nuclear means the rout of the principal forces of a directly opposing enemy, complete the rout of those enemy groupings against which strikes have been delivered with strategic nuclear means, and also rout enemy groupings which have not been hit by these means in the depth of the theater of military operations. In an operation conducted with the use of conventional means of destruction only, a front carries out within its own zone the rout of all enemy forces to the entire depth of their disposition.

Consequently, in a **modern strategic operation** conducted both with the use of nuclear weapons and with the use of only conventional means of destruction, fronts have the leading role in routing enemy armed forces in the continental part of a theater. And when accomplishing such important* tasks as the seizure of individual operational-strategic areas of enemy territory and the interdiction of their subsequent utilization for conducting armed warfare, fronts play a decisive role, since, as higher operational formations of the ground forces, they have the necessary forces and means at their disposal for this.

---

* A. A. GRECHKO, On Guard for Peace and the Building of Communism, Moscow, 1971, page 55.

If a strategic operation begins with the use of only conventional means of destruction, an air operation to rout the aviation and missile/nuclear groupings of the enemy can, according to the plan of the Supreme High Command, be carried out within the context of the strategic operation. In addition to Long Range Aviation and Air Defense Forces of the Country, the air armies and air defense troops of fronts will participate in this operation. Operational training experience and past research indicate that out of the total number of the enemy destroyed in a front zone by all our forces participating in an air operation, front aviation neutralizes and destroys up to one-third of the enemy's airfields, nearly three-fourths of his surface-to-air missile batteries, and a significant part of his detected operational-tactical and tactical missile launchers and control posts. When repelling an enemy massed raid, the destruction of up to two-thirds of the enemy aircraft in a front zone falls to the fighter aviation and air defense forces of a front. Consequently, fronts in a theater will have a very important role also in an air operation to rout the aviation and missile/nuclear groupings of the enemy.

The place of a front in a **strategic operation** in a theater of military operations depends on its position within the strategic disposition of troops. With the initiation of a war it can attack as part of the troops of the first operational echelon or it can be in the second echelon and be committed to the engagement during the war.

The offensive operations of first-echelon fronts will have an enormous influence on the success of a strategic operation -- and in a non-nuclear war, a decisive influence -- since the rout of the principal forces of the enemy's strategic grouping in a theater -- including his missile/nuclear means, tactical aviation, troops of army groups, and deep reserves -- is achieved as a result of the conduct of front operations.

While operating in the second echelon, a front may, depending on the concept of the **strategic operation**, conduct an offensive operation on the axis of the main or secondary thrust, in the center or on the flank of the strategic grouping of troops in the theater. Thus, for example, in the **Belorussian Strategic Operation** in June to August of 1944, the 2nd Belorussian Front advanced on the Mogilev operational axis and was the link between the 3rd and 1st Belorussian Fronts, which accomplished the main tasks in that operation while delivering attacks against the flanks of the German-Fascist Army Group "Center." In the East Prussian Strategic Operation in January 1945, the 2nd Belorussian Front played the main role, since it delivered the deepest thrust from the area to the north of Warsaw to Danzig, cutting off Army Group "North," which was operating in East

Prussia, from the main forces of the German-Fascist troops in Germany, which was of decisive importance to the success of this strategic operation.

A front of the second operational echelon usually moves forward to a theater from the interior of the country and it is committed to the engagement on the axis of the main thrust. The substance of its tasks may include exploitation of success in a strategic offensive, rout of enemy reserves in the depth of the theater, disruption of his intentions to go over to a counteroffensive or establish a stable defense on a strategically important line, and removal from the war of any one country of the enemy coalition, etc.

Success in a strategic operation is achieved by the joint efforts of the different branches of the armed forces and branch arms. In so doing, formations and large units accomplish their tasks in the context of the strategic operation in a theater of military operations with due regard for the interests of the operations of fronts, while exerting favorable influence on the successful accomplishment of the tasks set for them.

Thus, the Strategic Rocket Forces and Long Range Aviation, with nuclear strikes against enemy missile/nuclear means, against the home airfields of tactical and strategic aviation, against the enemy's deep reserves, his mobilized contingents, and his important control posts, can disrupt or considerably weaken the enemy's nuclear strikes, change the balance of forces and means in a theater in our favor, and thereby create favorable conditions for conducting a front offensive with troops at high rates of advance and for achieving the objective of the operation within shorter time limits.

The actions of naval forces to destroy aircraft carrier and missile-carrying forces of the enemy, deliver strikes against his shore installations, as well as to cover the coastal flank of the attacking troops from the action of missile-artillery ships of an enemy fleet from the seaward side and participate in putting amphibious landing forces ashore will render vital assistance to a front in the rout of an enemy coastal grouping, in the seizure of islands and straits, and in the accomplishment of other tasks on a coastal axis.

Large-scale airborne landing forces employed according to the plan of the Supreme High Command will assist a front in the rout of deep reserves, the seizure of important enemy installations, or in the negotiation of large natural obstacles.

Large units and formations of the Air Defense Forces of the Country, fulfilling their own tasks in cooperation with front air defense troops to weaken the enemy aviation grouping, contribute to preservation of the combat effectiveness of front troops and create favorable conditions for front formations and large units to successfully conduct the offensive.

In its turn, the successful conduct of the offensive operation by a front will have a great influence on the operations and combat actions of the formations and large units of other branches of the armed forces. Thus, for instance, the neutralization of enemy air defense means and the destruction of his aviation on airfields and in the air by front forces will contribute to the fulfilment of tasks by Long Range Aviation, and -- on a coastal axis -- by the Navy. The rout of an enemy coastal grouping by front troops, the seizure, in conjunction with our naval forces, of straits zones, ports, and naval bases, as well as the destruction by the front of that enemy aviation which can deliver strikes against our naval forces at their basing points and at sea, will have great significance for the success of the combat actions of the naval forces. The destruction of the strike forces of enemy tactical aviation on airfields and in the air by front means, as well as the joint actions of front air defense troops with large units of the Air Defense Forces of the Country when repulsing the strikes of enemy aviation will have a favorable influence on the successful accomplishment of the tasks of the Air Defense Forces of the Country.

A front offensive operation can be conducted in different conditions of theaters of military operations: on internal operational axes or on coastal axes; on axes accessible for actions of all branch arms; or on difficult terrain in mountain, desert, northern, and other areas. Because of the specific conditions of theaters, each offensive operation will have its own peculiarities with regard to its objectives, the tasks of the front, the composition of its troops, and the methods of conducting the operation.

2. Objective of an offensive operation and the tasks of a front

The objective of an offensive operation is the final result which a front must achieve when conducting a given operation in military, political, economic, and other fields. All the efforts of the troops and all the creative activities of the command, staffs, political organs, and rear services of a front are directed toward its achievement.

The objective of an offensive operation and the tasks of a front are determined by the Supreme High Command. They depend on many factors, primarily on the political objectives of a war, the concept of the strategic operation in the theater, and the strength and nature of actions of the enemy.

The political objectives of a war, as is well known from LENIN's teaching, arise directly from the policy of a state under given historical conditions. Giving concrete expression to the Marxist conception of the essence of wars and their class nature, V. I. LENIN revealed the correlation between war and policy: "With reference to wars, the main thesis of dialectics... consists in this... that 'war is simply the continuation of a policy by other (i.e., violent) means...' And that was always the point of view of MARX and ENGELS, who regarded every war as the continuation of the policy of given interested powers -- and of the different classes within them -- at a given time."*

The political leadership of the Soviet State determines the objectives of a war, in case the imperialist aggressors unleash one, on the basis of a comprehensive analysis of the conditions of the international situation and the policy of the CPSU. They have a direct influence on the objective of a strategic operation in a theater of military operations and on the objectives and tasks of front operations. When determining the objectives and tasks of front operations, the Supreme High Command, in a most careful manner, takes into consideration the arrangement of the enemy's class and military forces in a theater, the nature of the international and internal policy of each state of the hostile coalition which is located on the axis of the offensive of this or that front, and also the existing contradictions -- territorial, economic, national, etc. -- between the states of the aggressive bloc.

International duty and the liberating mission of the Soviet Armed Forces will often have a decisive influence on determination of the content of the objective of a front operation. The offensive operations of fronts of the Soviet Army to liberate Bulgaria, Poland, and Yugoslavia in 1944 and the operation of the 1st Ukrainian Front to render assistance to Prague, the capital of Czechoslovakia, in 1945 are striking examples of such influence.

---

* V. I. LENIN, Complete Works, Volume 26, page 224.

The concept of a strategic operation has a direct influence on the objective of a front operation. It is the concept that defines for the front which grouping of the enemy is to be routed and in what sequence, and what territory of his is to be seized by what time period. In one case the front will be required to carry out the rout of an enemy grouping in the continental part of a theater; and in another case, to rout a coastal grouping, seize a straits zone, and support the removal of naval forces to the open sea.

When defining the objective of an offensive operation and the tasks of a front, one takes into consideration the strength of the enemy it is to rout. Thus, in the Western Theater of Military Operations, where the principal mass of troops of the aggressive NATO bloc is located, a front may be opposed by an army group which even in peacetime is made up of 10 to 12 combat-ready divisions, including several tank divisions, 120 to 150 or more operational-tactical and tactical ballistic missile launchers, 100 to 200 atomic artillery guns, 3,000 to 3,200 tanks, 1,700 to 1,800 field artillery guns and mortars, 600 to 800 combat aircraft, 200 to 450 of which are nuclear weapons delivery aircraft, and 500 to 600 antitank guided missile launchers. But by the beginning or in the first days of a war the enemy can potentially increase this grouping approximately 1.5 to two times by carrying out mobilization measures or regrouping troops to the front zone from other axes. During an offensive on a coastal axis, a front will also be opposed by enemy naval forces, whose principal striking power consists of carrier-based aviation and missile submarines.

In other theaters, the enemy grouping in the front zone can be different both in troop strength and technical equipping. For example, in the Southwestern or Middle East theaters of military operations the enemy will have fewer nuclear means, aircraft, tanks, artillery, and air defense means as compared to a grouping in the Western Theater, while the Eastern Theater will be characterized by the large numerical strength of ground forces personnel not too badly armed but poorly equipped technically. The difficult physical and geographical conditions for an offensive in these theaters must be taken into consideration -- conditions which can essentially compensate for the insufficient provision of enemy troops with weapons and combat equipment, The front will be required to employ such methods of action and measures for support of the operation as will minimize the negative effect of the physical and geographical conditions of the theater.

Thus, when defining the objective of an offensive operation and the tasks of a front, diverse factors and conditions are taken into consideration in their totality and interdependence.

The specific content of the objective of a front offensive operation is first of all to rout all the enemy's forces in the front zone -- his groupings of missile/nuclear means, ground forces, tactical aviation, and air defense forces and means -- and to seize important areas of his territory. In addition, under present-day conditions the presence in theaters of military operations of coalitions of enemy states which are interconnected politically and economically and make up aggressive military blocs makes it necessary to include in the content of the objective of a front operation the removal from the war of individual states of the enemy coalition in order to thereby break up the stability of the entire enemy aggressive bloc and create conditions for defeating it rapidly.

Consequently, the objective of a front offensive operation is to rout the enemy's groupings of missile/nuclear means and groupings of ground forces and aviation, disrupt his mobilization measures, seize important areas of his territory, and remove individual states of the enemy coalition from the war.

If, for example, one takes into consideration that in the Western Theater of Military Operations the total depth of the disposition of the troops, forces, and means of an army group and the basing of enemy tactical aviation may reach 400 to 500 kilometers, while the territory on which the reserves of the high command and the large units of the national troops of the states of the enemy coalition are situated reaches a depth of as much as 600 to 800 kilometers, then, consequently, the objective of a front offensive operation in this theater may be achieved at a depth of 600 to 800 kilometers. The depth of a front offensive operation is mainly determined by this.

The objective of an offensive operation is determined as the same for conducting the operation both with the use of nuclear weapons and with the use of only conventional means of destruction. This is first of all due to the singleness of the objective of the strategic operation, the identical composition of the front and the opposing enemy forces which have to be routed, and also to the fact that it is difficult to foresee with sufficient accuracy in advance which weapons will be used at the beginning of and during the conduct of the operation.

In an offensive operation with the use of nuclear weapons, the objective is achieved through the delivery of nuclear strikes by the Strategic Rocket Forces and those of the front, aviation, and artillery using nuclear warheads in combination with strikes using conventional means of destruction against the most important enemy groupings of nuclear means, ground forces, aviation, and other targets to the entire depth of their disposition and with the timely exploitation by front troops of the results of the nuclear strikes through a rapid and continuous offensive. In an operation where only conventional weapons are used, the objective is achieved through strikes by rocket troops and aviation and the use of all the power of artillery fire in combination with a decisive offensive by front large units and formations to successively rout enemy groupings as well as a timely buildup of attacks on selected axes.

To achieve the assigned objective, the Supreme High Command defines for a front the tasks of the initial nuclear strike and an immediate and a subsequent task (Appendix 1). Determination of the sequence of the execution of tasks is dictated by the need for specific and purposeful planning of the use of available forces and means and for efficient organization of the cooperation of troops within the front, with the formations and large units of different branches of the armed forces, and with adjacent units according to task, time, and place and also by the need for careful planning and implementation of measures for comprehensive support of the combat actions of the troops in the operation.

The substance of the tasks of the initial nuclear strike of a front is to destroy the enemy's operational-tactical and tactical nuclear attack means, to inflict decisive damage on the principal groupings of his troops, aviation, and air defense forces and means, and to destroy the most important control posts and rear services installations. The Supreme High Command can indicate the depth of delivery of the initial nuclear strike by the front or the demarcation line between strikes of strategic and front nuclear means, as well as the areas in the front zone in which enemy targets are to be destroyed by the means of the Supreme High Command.

The immediate task of a front is to destroy the enemy's nuclear attack means, defeat the principal forces of his opposing troops and tactical aviation, and seize the most important areas of territory or targets whose capture achieves impairment of the enemy's operational stability and brings about favorable conditions for developing the offensive into the depth of the theater at high rates of advance. The depth of the immediate task of a front can reach 250 to 350 kilometers or more.

TS #798245
Copy #____

During execution of the immediate task, in its own zone a front is required to carry out the rout of the enemy's operational-tactical and tactical missile/nuclear means, the main forces of his army group, his allied tactical air force, and his air defense means and also to disrupt his mobilization measures in the operational depth. Front troop actions during the execution of the immediate task must be carried out with such determination as to give the enemy no opportunity to withdraw his troops into the depth or stabilize the front of his defense.

The subsequent task usually includes the destruction of newly-detected nuclear attack means of the enemy, the rout of his deep reserves, the seizure of important areas and targets in the depth of the theater of military operations, and the achievement of the objective of the front offensive operation. The depth of the subsequent task can reach 350 to 500 kilometers. The enemy can set up nuclear means, reserves, and additional aviation forces in the depth of a theater of operations both through the conduct of mobilization measures and through a regrouping of these forces and means to the zone of the front from other axes and even from other theaters. In this connection, during the operation front troops will be faced with the task of disrupting enemy attempts to commit fresh forces to the engagement in an organized manner.

The substance of the immediate and subsequent tasks of a front may also include the seizure of major administrative and political centers, the capital of a state, or an important industrial area; the assault crossing of wide water obstacles; the removal of individual states of an enemy coalition from the war; and so forth.

During a front offensive on a coastal axis the substance of the front's tasks will include the rout of the enemy coastal grouping, the seizure of a straits zone, individual islands, naval bases, ports, and other important installations and areas, and also the organization and conduct of the defense of the seized coastline.

During an offensive operation the substance of the immediate and subsequent tasks can be changed and revised when necessary, depending on the results of the use of nuclear weapons and conventional means of destruction and on the success of the offensive of front attack groupings, and also as a result of changes in the overall situation on the given operational axis. However, such revisions will be justified only if they lead to a more rapid defeat of the enemy and achievement of the objective of the operation.

3. Scope of an offensive operation

The scope of an offensive operation is understood to be the indices of its depth, width of zone, daily average rates of advance of troops, and duration of the operation. The scope of an offensive operation is determined by the Supreme High Command which, along with the objective of an operation and the tasks of a front, also indicates the time limits for their fulfilment and the offensive zone.

The indices of the scope of an offensive operation are not constant. They depend on the concept of the strategic operation, the objective of the front operation and the tasks of the front, the availability of the forces and means in the front, the strength and nature of actions of the enemy, the physical and geographical conditions of the theater, and the materiel support of the operation. The tasks to be accomplished by an adjacent front (fleet) have considerable influence on the scope of an operation. Sociopolitical conditions -- the attitude of the population and army of the enemy toward the war, the mutual relations between the national armies of the hostile coalition, and other things -- also have an influence.

Below are listed data on the scope of several front offensive operations of the Soviet Army according to the experience of the Great Patriotic War and postwar views (Table 1).

Indices of the scope of several front offensive operations according to the experience of the Great Patriotic War and postwar views

No.	Name of Operation	Depth, kilometers	Width of zone, kilometers	Duration, days	Average rates of advance, km per day
	According to the experience of the Great Patriotic War				
1	Klin-Solnechnogor (Western Front, December 1941)	70-100	175	15	6-7
2	Stalingrad (Southwestern Front, November 1942)	140-160	250	11	15*
3	Ostrogozhsk-Rossosh (Voronezh Front, January 1943)	140	240	14	10
4	Kiev (1st Ukrainian Front, November 1943)	145	230	10	14
5	Belorussian (1st Baltic Front, June-July 1944)	200	160	12	17
6	Lvov-Sandomierz (1st Ukrainian Front, July-August 1944)	300	440	23	13
7	Iasi-Kishinev (2nd Ukrainian Front, August 1944)	250	330	10	25
8	Vistula-Oder (1st Belorussian Front, January 1945)	550	230	21	26**
9	Berlin (1st Belorussian Front, April 1945)	160	175	17	About 10
10	Manchurian (Transbaikal Front, August 1945)	380-820***	1,500	10	38-82***
	According to the experience of exercises in the postwar period				
1	In exercises in the period 1949 to 1953 (prior to the introduction of nuclear weapons into the troops)	300-400	250-300	12-15	25-35 40-50****
2	In exercises conducted in the years 1957 to 1960 with the use of nuclear weapons	400-800	250-550	9-13	45-60
3	In exercises in 1961 with the use of nuclear weapons	1,000	450	14-15	up to 70
4	According to the experience of exercises in 1966 and 1967	600-800	350-400	9-12	60-70
5	According to present-day views	600-800	300-400	12-15	40-60

* Tank and mechanized corps advanced at a rate of 20 to 25 kilometers per day.
** Tank armies advanced at a rate of 40 to 50 kilometers per day.
*** Depth of operation and rates of advance of the 6th Tank Army.
**** Rates of advance of the tank armies.

From an analysis of the above table one can see that during the years of the Great Patriotic War there was a tendency for the depth of offensive operations and the rates of advance to increase and for the duration of an operation to decrease. This phenomenon was due to a continuous increase in the combat strength of fronts, particularly in the number of tank troops, artillery, and aircraft, to an increase in their capabilities to rout the enemy, and to the growth in the density of artillery and tanks on the axes of the main attacks and in sectors of breakthrough of an enemy defense.

In the postwar period the further increase noted in the scope of offensive operations was a consequence of the considerable increase in firepower, striking power, and maneuverability of troops on the basis of technical progress, rearmament, and complete motorization of the large units and formations of the Ground Forces.

In nuclear war conditions, the scale of use of nuclear weapons has a decisive impact on the scope of an operation.

The depth of a front offensive operation depends first of all on the objective of the operation.

As has already been pointed out in the previous section, the depth of an operation in the Western Theater of Military Operations may reach 600 to 800 kilometers. In other theaters it can be greater or less, depending on the strength and depth of operational disposition of the enemy and the remoteness of those vitally important areas of territory whose taking achieves the objective of the operation.

The width of the zone of offensive of a front must allow the possibility of establishing attack groupings on selected axes and rapidly maneuvering forces and means across the front and from the depth; it must ensure the establishment of superiority over the enemy and the achievement of the necessary densities of artillery and tanks on the attack axes and in the sectors where his defense is to be broken through. At the same time, the width of the zone must permit the dispersed positioning of all elements of the operational disposition of front troops in order to establish conditions for protecting them from weapons of mass destruction. When determining the width of the offensive zone, one takes into consideration the strength of front and enemy troops as well as the physical and geographical features of the theater and the capacity of operational axes.

The division, which under the conditions of the Western Theater can attack in a zone 15 to 20 kilometers wide, is usually taken as the basic

operational calculation unit when determining the width of an offensive zone for an army and a front. A combined-arms army having four to five divisions in its first echelon can attack on the axis of the main thrust in a zone from 60 or 80 up to 100 kilometers wide, and even wider on other axes; the width of the offensive zone for a tank army can be as much as 60 to 80 kilometers. If three to four armies are attacking in the first echelon of a front, then the width of its offensive zone for the conditions of the Western Theater of Military Operations will be 300 to 400 kilometers.

In other theaters of military operations the width of the offensive zone can be considerably greater.

Rate of advance is the average daily progress of troops during an offensive, which is calculated in kilometers. It mainly depends on the combat strength of front and enemy troops, the scale of use of nuclear and conventional weapons, and the level of damage to the enemy, as well as on the nature of the terrain and the weather conditions.

The rates of advance will be greatly influenced by the art of commanders and staffs in directing troops during the operation and the organization of measures directed at achieving high rates of advance.

According to present-day views, which are based on the experience of combat and operational training, the average rates of advance for troops in an operation with the use of conventional weapons under conditions of the Western Theater of Military Operations may be 40 to 60 kilometers per day. When breaking through a prepared enemy defense the average rate indices may be reduced to 25 to 30 kilometers, and, conversely, when developing an offensive into the depth they can be increased.

During an offensive with the use of nuclear weapons, troops will have to expend great efforts and considerable time in negotiating zones of radioactive contamination and zones of destruction, floods, and fires and in eliminating the aftereffects of enemy nuclear strikes. For these reasons, average rates of advance for an offensive of troops with the use of nuclear weapons in European theaters, where both sides have enormous nuclear capabilities, will not differ significantly from rates of advance with the use of only conventional means of destruction. In other theaters, where the superiority of the Soviet Armed Forces in nuclear and conventional weapons will be considerable, rates of advance may be higher as compared to those listed above.

Under difficult physical geographic conditions of a theater of military operations, rates of advance can be negatively influenced by such factors as the increase caused by complex terrain conditions in the time for the deployment and commitment to battle of units and large units, the limitation on troop maneuvering, and also the reduction in effectiveness of the use of weapons and military equipment on the battlefield.

Thus, determining the rates of advance should be approached in a creative manner. The task of the commander and staff of a front when adopting a decision and planning an operation is to specifically determine, on the basis of an in-depth analysis of the elements of a situation and on the basis of anticipating the changes in it, the rates of advance for troops when accomplishing each particular task of the front in the process of achieving the assigned objective.

The duration of an offensive operation is calculated in days and it covers the time from the beginning of combat actions until the achievement of the objective of the operation. It is determined by the Supreme High Command, based on the concept of the strategic operation, the depth of the front operation, and the possible rates of advance of troops. For the conditions of the Western Theater of Military Operations, at average rates of 40 to 60 kilometers per day, the duration of a front offensive operation with a depth of 600 to 800 kilometers may average 12 to 15 days.

Thus, under present-day conditions the scope of a front offensive operation, when applied to the Western Theater of Military Operations, can be characterized by the following average indices: depth of an operation, 600 to 800 kilometers; width of the offensive zone, 300 to 400 kilometers; average rates of advance of the troops, 40 to 60 kilometers per day; average duration of an operation, 12 to 15 days.

In other theaters of military operations the indices of the scope may deviate significantly from those listed above. For instance, in the Southwestern Theater the depth of an operation may be between 450 to 500 and 600 to 800 kilometers; rates of advance may average up to 30 kilometers per day; duration of an operation may be from 15 to 20 or 30 days; and the width of the offensive zone may be from 250 to 300 to as much as 600 kilometers or more.

4. Strength and combat capabilities of a front. Principles of the employment of nuclear and special weapons, branch arms, and aviation of a front

a) Combat strength of a front.

The combat strength of a front is those forces and means with which a front fulfils the assigned combat tasks in an operation. The strength of a front is determined by the Supreme High Command for each offensive operation, depending on its objective, the role and place of the front in the strategic operation, the substance of front tasks, the strength and possible nature of the actions of the opposing enemy, and also the significance and conditions of the theater of military operations.

The most important criterion in determination of the combat strength of a front is the need for forces and means to accomplish the specific tasks of a front operation, with due regard for the establishment of the requisite superiority over the enemy, particularly on the axis of the main thrust, and the buildup of efforts during the operation.

At the same time, the combat strength of a front also depends on the economic capabilities of the state for the production of weapons and combat equipment. Thus, during the Great Patriotic War the Communist Party and the Soviet Government, relying on the advantages of the Soviet social and governmental system, mobilized human and material resources in short periods of time and shifted the country's economy to the needs of the war, which subsequently made it possible for the Supreme High Command to continuously increase the strength of front formations and supply them with all the combat means and materiel necessary for the successful rout of the enemy.

The overall tendency to continuously increase the combat strength of fronts during a war can be seen below in Table 2. At the same time, from the same table it is evident that the number of formations, large units, tanks, artillery, and aircraft in a front depended on its role in a strategic operation.

Table 2

Strength of fronts in several offensive operations of the Great Patriotic War

Operation and Fronts	Combined-arms armies/ Tank armies	Rifle divisions	Separate mech. corps, Tank/cavalry corps	Separate tank brigades, regiments, SP arty bdes, regts	Tank and self-propelled guns	Guns and mortars, 76-mm and up	Aircraft
Stalingrad Operation, November 1942:							
Don Front	3	24	1	6	161	1,722	246
Southwestern Front*	2/1	25	4/2	4	465	4,420	388
Lvov-Sandomierz Operation, July-August 1944:							
1st Ukrainian Front*	7/3	74	3/2	46	2,206	14,135	3,246
Iasi-Kishinev Operation, August 1944:							
2nd Ukrainian Front*	6/1	51	2/1	12	1,283	9,698	915
3rd Ukrainian Front	4	37	2	9	671	6,697	1,037
Belorussian Operation, June-July 1944:							
2nd Belorussian Front	3	22	--	--	276	3,989	528
3rd Belorussian Front*	4/1	33	2/1	25	1,810	7,134	1,804
Vistula-Oder Operation, January-February 1945:							
1st Belorussian Front	8/2	68	2/2	47	3,220	14,820	2,190
1st Ukrainian Front	8/2	66	4/1	33	3,244	14,748	2,582
Berlin Operation, April-May 1945:							
1st Belorussian Front*	9/2	77	2/2	51	3,150	13,600	3,188
2nd Belorussian Front	4	36	4	14	959	6,380	1,360
Manchurian Operation, August 1945:							
Transbaikal Front*	3/1	52	3/1	21	2,416	6,977	1,334
2nd Far Eastern Front	4	11	--	9	1,280	4,427	1,095

---

* Fronts operating on the axis of the main thrust.

When examining the combat strength of a modern front it is necessary to take into consideration the vast qualitative changes in all the branch arms and branches of the armed forces brought about by the wide-scale introduction of missile/nuclear weapons and radioelectronic means, by the increased effectiveness of conventional means of destruction, by the complete motorization of troops, and by the improvement of their organizational structure. These changes have led to a sharp increase in front combat capabilities in spite of the fact that, as compared to the last war, the number of combined-arms formations and large units making up a front has been reduced.

According to the experience of operational training, in order to conduct an offensive operation, for example in the Western Theater of Military Operations, a modern front can be made up of three to five armies (including one, and sometimes two, tank armies), an air army, three to five separate motorized rifle or tank divisions, two front missile brigades, one to two front surface-to-air missile brigades, one to two artillery divisions, one to two high-powered artillery brigades, one to two tank destroyer brigades, two to four surface-to-air missile regiments, an antiaircraft artillery division, an airborne assault brigade, and front large units and units of special troops. In a number of cases a front, by order of the Supreme High Command, may be allocated an airborne division to be used as an operational airborne landing force.

If, as a variant, a front has three to four armies and the other troops listed above, it may number 22 to 25 divisions (eight to ten of which are tank divisions), 148 to 172 operational-tactical and tactical missile launchers, 48 to 96 guns and mortars which use nuclear warheads, 4,400 to 5,300 field artillery guns and mortars, 5,700 to 6,600 tanks, 3,000 to 3,500 antitank artillery pieces and antitank guided missile launchers, 1,500 to 1,600 infantry combat vehicles, 6,200 to 7,000 armored personnel carriers, 3,500 to 4,000 surface-to-air missile and antiaircraft artillery systems, 600 to 800 combat aircraft, and 180 to 230 combat helicopters.

In other theaters, a front may not have a tank army and there will be a smaller number of tank divisions, but along with combined-arms armies there may be army corps. The composition of the air army will be different. The number of means of destruction and support of combat actions must be determined not only by the substance of combat tasks but by the specific character of natural conditions in the theater.

b) Principles of the employment of nuclear and special weapons.

Nuclear weapons, which have enormous destructive and hitting power and rapid effect, can be used in a particularly effective manner to destroy the enemy's means of nuclear attack, groupings of his armed forces, his control posts, junctions of transportation lines, and rear services installations, and they can also be used to create large zones of radioactively contaminated terrain. That being the case, under all circumstances enemy nuclear means are targets of paramount importance and they are to be destroyed immediately after they are detected.

The means in a front for delivering nuclear weapons to targets are operational-tactical and tactical missiles, which are launched by front and army missile brigades and by division missile battalions; delivery aircraft of the air army; ~~(and high-power guns and mortars of the Reserve of the~~ Supreme High Command.

In the variant of front combat strength considered, 350 to 470 delivery means can be allocated to deliver the initial nuclear strike. They include 150 to 220 operational-tactical and tactical missile launchers, guns, and mortars and 200 to 250 delivery aircraft, which, in a single launch and sortie, can hit 350 to 470 individual targets, such as a battalion, an artillery battalion, a guided missile battery, a free-rocket battery, a surface-to-air missile battery, an airfield, a depot for nuclear warheads or conventional weapons, a command post, and an aviation or air defense guidance (control) center. The specific number of enemy targets to be destroyed in the initial nuclear strike will depend on the total number of nuclear warheads supplied for the front operation and on the concept of that operation.

The nuclear weapons delivery means available in a front make it possible to use various warheads with yields from two to 300 kilotons. The data listed in Table 3 on the knockout of targets from low air nuclear bursts testify to the enormous destructive power of nuclear weapons.

Nuclear weapons are used by surprise and massed on the main axes against reliably reconnoitered targets.

Table

~~Knockout~~ radii for certain targets with low air nuclear bursts (in summer)*, in kilometers

Target	
Personnel in the open	
Personnel in trenches	
Personnel in tanks	
Personnel in light shelters	
Ballistic missiles	
Atomic artillery guns	
Heavy & medium tanks	
Vehicles with bus-type bodies, motor vehicle radio & radio-relay sets	
Jet fighters	
Jet bombers	

---

* Manual on the Destructive Effect of Nuclear Weapons. Publication of the Ministry of Defense of the USSR, 1972. Part One, Tables 1.5 and 1.19.

TS #798245
Copy #____

Massed, grouped, and single nuclear strikes can be delivered, depending on the substance of the combat tasks being fulfilled by the troops, the availability of delivery means, the nature and disposition of enemy targets, and the required level of their destruction.

A massed nuclear strike is delivered at the level of an operational formation in an extremely short time with a large number of nuclear warheads in order to destroy a single large grouping of troops or several of them, plus other important enemy targets located in a specific area. A massed nuclear strike delivered at the beginning of a front offensive operation or in the process of its development when going over to the use of nuclear weapons is an initial front nuclear strike, which is carried out by the initial launch of missiles, by the initial sortie of delivery aircraft, and by one or several rounds of guns (mortars) which use nuclear warheads.

Follow-up massed nuclear strikes can be delivered during the operation -- for example, to rout the enemy when negotiating defense lines, in a meeting engagement, and when routing counterthrust groupings, aviation groupings, and naval forces on coastal axes.

A grouped nuclear strike is delivered simultaneously with several nuclear warheads against a single major target or a group of targets when the assigned level of destruction cannot be achieved with a single warhead. Grouped nuclear strikes in a front offensive operation can be delivered against operational-tactical missile battalions, large nuclear warhead depots, ground forces large units, areas where reserves are being formed up, army group control posts, and other major enemy targets.

A single strike is a strike against one target or a group of closely-situated targets with a single nuclear warhead which ensures the required level of destruction. These strikes can be delivered, for instance, against operational-tactical missile launchers, a battalion of tactical launchers, a battery of atomic artillery guns, a surface-to-air missile battery, an airfield, a small nuclear weapons depot, a large unit command post, an aircraft warning and control post or center, a motorized infantry (tank) battalion, an artillery battalion, a railroad bridge, etc.

In a front offensive operation air bursts will be employed most extensively, making it possible to exploit the basic casualty-producing elements of nuclear weapons and, at the same time, not create zones of intense radioactive contamination of the terrain.

Air bursts can be high or low. High bursts are used against enemy troops located outside of shelters or in open fortifications, as well as against other targets consisting of less solid structures, whereas low bursts are used to destroy troops located in more solid structures.

Ground bursts are used to destroy and annihilate targets dug into the ground which are located in the enemy's operational depth -- fixed missile sites, airfields with delivery aircraft, nuclear warhead and missile depots, and large control posts. A zone of radioactive contamination with a high radiation level is formed in the area of the ground burst and in the wake of the cloud. Therefore when using ground bursts, the possibility of subsequent actions by our own troops in zones of contamination must always be taken into consideration, or measures for bypassing those zones must be stipulated.

The front is the principal command level organizing the use of operational-tactical nuclear weapons. On the basis of the instructions of the Supreme High Command, the front commander personally makes the decision on the use of nuclear weapons. He determines the tasks which should be accomplished by those weapons and the targets they are to destroy; he allocates nuclear warheads among the armies and according to the tasks of the operation, leaving some of the warheads in his own reserve; he assigns tasks for the use of nuclear warheads by front means; he monitors the use of nuclear warheads in subordinate formations (large units); and he is responsible for the constant combat readiness of rocket troops, artillery, and aviation and for their fulfilment of tasks for the delivery of nuclear strikes.

Utilizing electronic computer calculations, the front staff must prepare data in a timely manner for the commander to make a decision on the use of nuclear weapons; it must plan the delivery of nuclear strikes, convey tasks to the troops, organize the reconnaissance and final reconnaissance of the targets to be destroyed, ensure continuous control of the means allocated for the delivery of nuclear strikes, and also monitor the fulfilment of all the measures dealing with the use of nuclear weapons. Among the most important of these measures one may list the following: analysis of the targets according to their composition, nature, and level of protection; determination of their dimensions and coordinates; selection of the types of nuclear weapon delivery vehicles; determination of the number of nuclear warheads and their yields in order to ensure the required level of destruction, of the types and altitudes of bursts, and of the safe distance for our own troops from the planned ground zero of the bursts; and organization of the monitoring and assessment of the results of the nuclear

strikes.

The chief of rocket troops and artillery of a front participates personally and through his subordinate staff in the front staff's planning and development of all measures dealing with the use of nuclear weapons and, in accordance with the decision of the commander, he works out in detail all problems directly involving the use of nuclear warheads by missile large units and units and by artillery. He is responsible for maintaining the continuous combat readiness of missile and artillery large units and units, for the timely fulfilment of the tasks assigned them, for controlling them during the operation, and for carrying out measures to protect them from weapons of mass destruction.

The commander and staff of the air army participate in planning the use of nuclear weapons and work out a detailed plan of the use of nuclear bombs by the air army. The commander of the air army is responsible for coordinating the actions of large units and units of the [air] army with the actions of front rocket troops when delivering nuclear strikes. The staff of the air army must also organize the aerial reconnaissance and final reconnaissance of enemy targets to be destroyed by the nuclear means of the missile and artillery large units and units.

When calculating destruction by nuclear means, all targets are subdivided into pinpoint targets and dimensional targets. Probability of destruction (P) is used as an effectiveness index for pinpoint targets; mathematical expectation of destruction (M) and portion of target reliably destroyed (So) are the indices for dimensional targets.

To destroy pinpoint targets, the probability of destruction (P) must be no less than 90 percent. Nuclear strikes against dimensional targets can be delivered for the purpose of neutralizing or destroying them. Destruction is the infliction of such damage that the target completely loses its combat effectiveness or is disabled. Neutralization is partial destruction, whereby the target is disabled for the specific time required by the situation, e.g., for the duration of the operation.

In calculating destruction by nuclear means, the radius of destruction (Rd) of the nuclear warhead and the probable error (Pe), which express strike accuracy, are taken into consideration, while the calculations themselves are produced separately for each target -- pinpoint, circular, and line targets -- with the aid of special tables available in the guides issued by the Ministry of Defense and with the aid of various devices and

electronic computers.

When producing calculations on destruction by nuclear means in a front operation, one usually has to deal with group targets such as a battalion of ballistic missiles or surface-to-air missiles or a division, brigade, and regiment of ground forces. This being the case, for destruction of such targets as a division, brigade, and regiment, the concept of "basic combat subunits" is introduced. Tactical missile and atomic artillery battalions, tank and motorized infantry brigades, artillery battalions, and large unit command posts are basic combat subunits. It is believed that a division will be disabled when no less than 60 percent of the total number of its basic combat subunits are destroyed.

On the basis of the decision of the front commander, and with due regard for the above-mentioned conditions, the front staff along with the staff of the rocket troops and artillery and the staff of the air army produce detailed operational-tactical calculations on the use of nuclear weapons by all front means, and on a coastal axis this is done with due regard for the means of the navy. The use of rocket troops is mainly planned for the destruction of stationary, area, and low-mobility targets, and delivery aircraft are to be used to destroy small-sized and mobile targets. Artillery is also allocated for the destruction of small-sized targets as well.

Special weapons are used in a front offensive operation to sharply reduce the combat effectiveness of troops and to disrupt the operation of the enemy's control organs and rear services by the mass incapacitation and debilitation of personnel and by the contamination of combat equipment and terrain on enemy territory. They are used by rocket troops, aviation, and artillery on the main axes, by surprise and massed, in combination with other means of destruction and against targets having the greatest density of personnel and the least protection for them.

The principal method of using these weapons is the delivery of massed strikes by rocket troops, aviation, and artillery. Under conditions of the delivery of nuclear strikes, special weapons are used against targets which are not to be hit with nuclear warheads.

The characteristic combat feature of special weapons is their capability to inflict heavy losses on the enemy not only in the areas of their combat use but also at considerable distances away from them, in the direction of the wind. Therefore, when these weapons are used our own troops must be warned and the necessary measures taken to ensure their

safety.

Incendiary agents are a very effective means for destroying the personnel, combat equipment, and materiel-technical reserves of the enemy. They can be used by rocket troops, aviation, artillery, and flamethrower units.

When incendiary agents are used in a surprise manner and on a wide scale, the level of damage to the enemy increases significantly and fires break out in the centers of destruction, troops are deprived of the capability of positioning themselves in forests and population centers, and they are forced to constantly carry out fire-prevention measures and divert forces and means for extinguishing fires.

c) Combat capabilities and principles of the employment of the branch arms and aviation of a front.

The combat capabilities of a front are its abilities to destroy and rout enemy groupings of missile/nuclear means, ground forces, and aviation and also to comprehensively support combat actions when fulfilling the tasks of an offensive operation. They depend on the combat strength of the front and first of all on the quantity and quality of the means of employment of nuclear weapons, of conventional weapons of destruction, and on the maneuvering capabilities of the troops, which are characterized by their motorization and the level of equipping with tanks and other armored equipment. They also depend on the availability of nuclear and conventional munitions and the capabilities of the technical means of control and support of combat actions. The combat capabilities of a front are greatly influenced by the morale and political consciousness, psychological state, and level of training of the troops.

The combat capabilities of a front are calculated in each specific case based on the accomplishment of this or that combat task, the conditions of the situation, and the enemy opposition.

Combined-arms armies and tank armies constitute the backbone and most numerous part of the combat strength of a front. In an offensive operation they are intended for routing the opposing groupings and reserves of the enemy, destroying his missile/nuclear means, seizing important objectives and areas of enemy territory, and achieving the objective of the front operation. The armies accomplish these tasks in cooperation with one an-

other, with front missile brigades, the air army, air defense forces, airborne landing forces, and also with adjacent armies, and -- on a coastal axis -- with amphibious landing forces and naval forces.

The combat capabilities of combined-arms and tank armies depend on the quantity and quality of the motorized rifle and tank divisions, the missile/nuclear means, the army large units and units, and the reinforcement means that are available to them. As a variant, a combined-arms army may have an average of five to six divisions (including one to two tank divisions) and a complement of army large units, units, and facilities of branch arms, special troops, and rear services. A tank army can consist of four tank divisions or three to four tank and one motorized rifle division, and a complement of army large units, units, and facilities of branch arms, special troops, and rear services. A combined-arms army at such strength can have approximately 1,200 to 1,500 tanks and 940 to 1,130 guns and mortars, not including antitank defense means, while a tank army can have approximately 1,200 to 1,300 tanks and 590 to 670 guns and mortars.

Provided that one division is in the second echelon, a combined-arms army, with its own forces and means, can, with a single launch of operational-tactical and tactical missiles, hit 28 to 32 enemy targets such as a battalion, an artillery battalion, a free rocket battery, a surface-to-air missile battery, and a control post. In other words, it can inflict damage on approximately three enemy divisions with destruction of no less than 60 percent of their basic subunits, while a tank army can hit from 24 to 28 such targets, or two to three enemy divisions.

When attacking a prepared enemy defense, a combined-arms army is capable of establishing the following average tactical densities in a breakthrough sector eight to ten kilometers wide: approximately 60 to 70 guns and mortars and 40 to 50 tanks per kilometer of front (provided that all the tanks of two divisions are employed). If the army is reinforced with one artillery division, then the artillery density in the above sector can be increased to 100 to 120 pieces. / A tank army in a sector eight kilometers wide can, with its own means, establish tactical densities of approximately 45 to 50 guns and mortars (85 to 90 guns and mortars when reinforced by one artillery division) and 65 to 75 tanks per kilometer of front. /

A modern army is equipped with highly efficient crossing means, which make it possible for its forward detachments to make an assault crossing from the march over a medium water obstacle in five to six hours, and for

all the forces of the army to do so in 18 to 20 hours.

While having great capabilities for destroying the enemy, a combined-arms army and a tank army can successfully conduct highly mobile offensive actions and accomplish the most diverse tasks both with the use of nuclear weapons and with the use of conventional weapons only. At the same time, when employing armies in a front operation, it is necessary to take into consideration the specific characteristics of their organizational structure and technical equipping. Thus, for instance, a combined-arms army has the best capabilities for breaking through a prepared defense and fortified areas, making assault crossings from the march over wide water obstacles, conducting combat actions in mountainous and forested terrain, seizing cities and industrial areas, and performing other tasks under conditions where it is difficult to maneuver tank large units.

As concerns a tank army, it can accomplish the same tasks as a combined-arms army, but, at the same time, it is capable of operating more effectively on terrain suitable for tanks when exploiting the results of nuclear strikes against the enemy, in a meeting engagement, in pursuit, and during development of an offensive on an outer front of encirclement of the enemy.

The unique features of the organizational structure of a tank army consist in the fact that it has less artillery than a combined-arms army and, in some instances, fewer tanks. However, its tanks are concentrated in a compact manner -- the number of personnel covered by armor in tank divisions and regiments is greater than in a combined-arms army. These qualities give a tank army great striking power and protection from the effects of nuclear weapons, and the stripped-down nature of its army rear services increases its mobility and maneuverability on the battlefield.

With the extensive introduction of nuclear weapons and the development of conventional means of destruction, combat capabilities have increased, and the substance of tasks and the nature of actions of armies have changed.

A combined-arms army can now not only break through the enemy's defense and successfully rout his opposing troops but it can also swiftly develop an offensive into the operational depth and conduct highly mobile actions there similar to the way a tank army operated during the Great Patriotic War.

A tank army has the necessary combat capabilities to decisively rout a directly opposing enemy and his reserves and to develop an offensive operation at high rates of advance. Accordingly, a tank army in an offensive operation can operate successfully in both the first echelon or in the second echelon of a front, but, as a rule, in both cases it will attack on the axis of the main thrust.

According to their substance and depth, the combat tasks of a tank army will be analogous to the tasks of a combined-arms army in the majority of cases, and under favorable conditions it can receive a task to the entire depth of a front operation. However, the nature of its actions can and should be characterized by particular decisiveness and fluidity and by an endeavor to avoid protracted battles and engagements, to seize enemy objectives and lines, as a rule, from the march, to bypass centers of defense and major population centers, to carry out extensive maneuvering to the enemy's flank and rear, and to rapidly shift efforts to a new axis.

The task of the front commander will consist in exploiting most fully the positive qualities of combined-arms and tank armies to successfully rout the enemy.

Rocket troops are one of the principal means of employing nuclear weapons to destroy the enemy. The presence of operational-tactical and tactical missile systems in a front makes it possible to hit groupings of troops, forces, and means of the enemy by surprise to the entire depth of his disposition and to destroy any targets, irrespective of the time of the year, time of day, meteorological conditions, or the condition of the enemy's air defense. The principal targets for rocket troops to destroy will be nuclear attack means (launchers, delivery aircraft on airfields), nuclear warhead depots, troop groupings and primarily tanks and artillery, air defense means and particularly surface-to-air missile batteries, control posts, radioelectronic targets, and important rear services installations.

The combat capabilities of rocket troops for destroying the enemy depend on the quantity and technical characteristics of the missile systems, the level of readiness of the launch batteries, the number and yield of the nuclear warheads used, and the accuracy in determining the coordinates of targets. If, in the variant we are taking here of front combat strength, all 60 to 72 operational-tactical launchers and up to 50 to 60 percent of the tactical launchers (44 to 60 of them) are allocated for the delivery of the initial nuclear strike, then that number can hit 104 to 132 separate targets simultaneously. If we take the existing

calculated norms for the destruction of standard targets by nuclear weapons (12 to 14 nuclear warheads to destroy the main forces of an enemy division, 12 nuclear warheads for a Pershing missile battalion, etc.), then in a simultaneous launch front rocket troops can destroy one to two Pershing missile battalions (12 to 24 platoons), two to three Sergeant missile battalions, four to five nuclear warhead depots, 10 to 12 home airfields of tactical aviation, four to five divisions, five to six major control posts, and three to four surface-to-air missile battalions.

The depth of hitting the enemy with operational-tactical missiles is 240 to 250 kilometers and with R-900 missiles it is 600 to 650 kilometers when the distance of their siting areas from the forward edge is 40 to 60 kilometers and 200 to 300 kilometers, respectively.

When preparing to deliver missile/nuclear strikes, it is necessary to take into consideration the levels of readiness of missile launchers, whose characteristics are listed in Table 4.

To prepare a repeat launch with a change of launch sites a tactical launcher requires a time period of up to one hour, and an operational-tactical launcher requires up to two hours.

The capabilities of a front to employ nuclear weapons are substantially increased by the use of artillery which uses nuclear warheads. One high-powered artillery* brigade can destroy 48 separate targets in a single salvo, i.e., up to four or five first-echelon brigades of the enemy at a depth of up to 12 kilometers from the front line. During the initial nuclear strike this brigade, under favorable situational conditions, can fire several salvoes. The use of artillery which uses nuclear warheads makes it possible to destroy enemy targets located near our troops, since the safe distance limit during the blast of the artillery nuclear warheads does not exceed two kilometers.

Artillery is a powerful means for destroying the enemy and plays an important role in an offensive operation; in an operation where only conventional means of destruction are used it is the main firepower of the Ground Forces. New models of guns and mortars accepted into service have significantly increased its firing and maneuvering capabilities. Suffice it to say that the BM-21 launcher fires 40 rockets in a single salvo over a distance of more than 20 kilometers; the VASILEK 82-mm automatic mortar is capable of firing more than 100 rounds in one minute over a distance of up to 4.3 kilometers.

---

* [redacted] Comment: According to the unclassified Soviet Military Encyclopedia, high-powered artillery [artilleriya bolshoy moshchnosti] usually consists of guns, howitzers, and mortars of 175 to 240 mm.

Table 4

Launch time for missiles, depending on level of readiness of launch batteries

Levels of readiness of batteries	Launch preparation time for missiles, in minutes		Maximum length of time at indicated level of readiness
	Tactical	Operational-tactical	
Readiness No. 3 Launcher with missile is at primary or launch site; weather data is being received; continuous communications are being maintained with the battalion commander.	19	25/39* Without counting time for getting to launch point	12 months
Readiness No. 2 Launcher is over launch point and is aimed at target area; [guidance] equipment is in place; coordinates of target are absent; personnel are at their positions.	16	19/31*	24 hours
Readiness No. 2a Launcher is over launch point; missile (operational-tactical) is in vertical position and ready for launch to target; guidance equipment has not been removed; personnel are at their positions; electrical power supply is disconnected from missile.	7-8	7/12*	24 hours
Readiness No. 1 (Same as No. 2a but missile is under electrical power.)	1	4	R-900 -- 0.5 to 2 hours R-300 -- 2 hours R-65 -- 0.5 hour
Transfer of strike to new target from Readiness No. 1.	15	12	----

---

* The time for the R-300 launcher is indicated in the numerator and the time for the R-900 launcher is in the denominator.

The most important tasks of artillery will be to destroy and neutralize the enemy's tactical nuclear means, his personnel, fire means, and combat equipment, primarily the guns and mortars, tanks, antitank guided missiles, and armored personnel carriers, as well as radiotechnical stations, control posts, and tactical reserves when breaking through the enemy's defense lines, making assault crossings over water obstacles, in a meeting engagement, and when accomplishing other tasks during an operation.

The basic principles of the combat use of artillery are massing it on the axis of the main thrust and in the breakthrough sectors of the defense, surprise destruction of the enemy, extensive maneuvering of fire and artillery units, coordination of artillery fire and maneuver with strikes of rocket troops and aviation and with the attack of motorized rifle and tank units, continuity of fire support and close support of the troops during an offensive, and efficient control of artillery groupings.

The capabilities of front artillery to perform fire tasks are a combination of the fire capabilities of troop and army artillery and reinforcement artillery. The front strength examined above ensures the establishment of artillery densities of 90 to 120 guns and mortars per kilometer of a breakthrough sector (sectors) having a total width of 22 to 25 kilometers. That being the case, the capabilities of artillery which can be allocated for the artillery preparation of an attack make it possible to achieve 25 to 30 percent destruction of the enemy defending himself in that sector.

Using special warheads, front artillery, in a one-minute fire strike, can neutralize the sheltered personnel of 24 to 25 enemy motorized infantry and artillery battalions and their corresponding subunits.

The availability of self-propelled artillery and artillery prime movers with high cross-country capability sharply increases the maneuverability of artillery on the battlefield and permits it to accomplish marches over great distances at a speed of more than 30 kilometers per hour.

The time it takes for artillery to deploy and open fire is also an important index of its combat capabilities. For this an artillery battalion requires 20 to 30 minutes; an artillery group composed of two to four battalions takes up to 40 minutes; and an entire artillery division, one to 1.5 hours. To prepare the artillery of an army to conduct the artillery preparation for an attack (counting movement forward, deployment, organization of reconnaissance and planning of fire) requires no less than

four to six hours.

The air army of a front is intended for joint combat actions with ground forces and -- on coastal axes -- with naval forces. In a theater of military operations it can be allocated to participate in air and airborne landing operations which are being conducted according to the plan of the Supreme High Command.

The role of the air army in a front offensive operation is determined by the scope and importance of the operational tasks that it is to fulfil.

Being a powerful and maneuverable front striking force, an air army is able to deliver massed strikes with the use of nuclear weapons, special weapons, and conventional means of destruction against the enemy's troops and targets in the depth of his operational disposition and effectively destroy mobile and small-sized targets under fair or adverse meteorological conditions during the day or at night.

The following are the main tasks of an air army in a front offensive operation: covering front troops and targets against enemy air strikes and aerial reconnaissance; destroying enemy aircraft on airfields and in the air; searching for and destroying his missile/nuclear means; carrying out air support for advancing combined-arms (tank) armies; destroying and neutralizing operational reserves; conducting aerial reconnaissance; and also supporting the landing of and carrying out air support for airborne and amphibious landing forces. The majority of the above tasks are carried out in cooperation with the combined-arms armies and tank armies and the rocket troops and air defense troops of the front.

The combat strength of an air army and the number of nuclear bombs allocated to it and the flight resources for a front offensive operation are determined by the Supreme High Command. In reference to the Western Theater of Military Operations, an air army can be made up of two to three fighter air divisions, one to two fighter-bomber air divisions, one bomber air division, two to three air reconnaissance regiments, a SPETSNAZ radio air regiment, three to four army aviation helicopter regiments, and several regiments (squadrons) of auxiliary aviation. The [air] army can have 600 to 800 combat aircraft, including 400 to 500 nuclear weapons delivery aircraft.

The armament of units and large units of front aviation is made up of modern supersonic aircraft which have powerful missile and bomb armament,

new aiming equipment, and means of automation, making it possible to detect and reliably destroy ground and air targets to a depth of 300 to 400 kilometers or more from the front line.

When determining the combat capabilities of an air army in an operation it is necessary to proceed from its combat strength, the combat characteristics of aircraft and armament, the number of aviation nuclear munitions and flight resources allocated for the operation, the sortie rate, the means of destruction to be used, the assigned level of destruction of enemy targets, and their distance from home airfields. They also depend on the opposition of the air defense forces and means of the enemy, the meteorological conditions, the time of year and time of day, the training level of flight personnel, and the combat and rear services support capabilities.

A front air army has great capabilities for the use of nuclear weapons, particularly under the conditions of high-maneuver troop actions during an offensive operation. Nowadays not only bombers and fighter-bombers, but fighters also, are capable of carrying nuclear bombs. With a combat readiness coefficient for delivery aircraft of 0.9 to 0.95, and with due regard for support of the delivery vehicles (an average of one to two aircraft per delivery vehicle), an air army at the strength indicated above can employ 200 to 250 nuclear bombs in the initial nuclear strike of a front.

Based on the calculation that the destruction of a motorized infantry (armored) division on the march or in a concentration area requires the use of 12 to 14 nuclear bombs with a yield of 20 to 50 kilotons and that the destruction of an individual small-sized target requires one nuclear bomb with a yield of 20 to 100 kilotons, then the amount of nuclear munitions of an army indicated above as a variant can destroy 11 to 12 divisions, one to two Pershing battalions, three to four Sergeant or Lance battalions, two to three surface-to-air missile battalions, and 20 to 30 other enemy targets. It should also be taken into consideration that when delivering nuclear strikes an air army will simultaneously use special and conventional means of destruction, which increase its total combat capabilities for destroying enemy troops and targets.

In determining the combat capabilities of an air army when it uses conventional means of destruction, the following calculation data on the requisite allocation of modern aircraft are employed:

-- to neutralize a tank (motorized infantry) battalion, with incapacitation of 25 to 30 percent of personnel and equipment -- up to one regiment of bombers or two air squadrons of fighter-bombers;

-- to destroy a missile launcher -- a pair of fighter-bombers;

-- to neutralize a command post (of a division, corps) -- five to six fighter-bombers or a squadron of bombers;

-- to neutralize an artillery battery at a firing position -- a flight of fighter-bombers;

-- to destroy a control and warning center (control and warning post) -- five to six fighter-bombers;

-- to blockade an airfield -- a flight of fighters;

-- to neutralize a Hawk surface-to-air missile battery -- a flight of fighter-bombers;

-- to destroy one reinforced concrete shelter at an airfield and destroy the aircraft in it -- two to three fighter-bombers or up to two flights of bomber aircraft.

The combat capabilities of an air army are most indicative when it delivers a massed strike. In one such strike an air army at the strength we are taking can destroy enemy aircraft on six airfields (with incapacitation of the landing strips), five to six forward radar sites, three control and warning posts, six to eight fire platoons of operational-tactical Pershing and Sergeant missiles, 10 to 12 Hawk batteries, and two command posts, and it can blockade six airfields. Consequently, the [air] army can deliver a strike against a total of 50 to 60 enemy targets. In addition, after allocating two regiments of fighter-bombers for air support of troops, it can destroy up to 20 tanks and neutralize up to eight enemy artillery batteries.

The combat capabilities for destroying enemy aircraft in the air are determined with due regard for the combat effectiveness coefficient of modern fighters. Thus, for the destruction of enemy aircraft in the air in independent search areas over enemy territory beyond the radar coverage zone this coefficient is 0.15 to 0.25, and in the radar coverage zone it is 0.4 to 0.5. Consequently, an air army having two fighter air divisions can

destroy 60 to 70 enemy aircraft in the air in a single sortie.

Cover of troops and rear services installations of a front is carried out by the air army's fighter aviation forces in cooperation with the forces and means of front air defense troops, frontline formations of the Air Defense Forces of the Country, and, on a coastal axis, with naval forces. The modern fighter aircraft of an air army begin covering troops by destroying enemy aircraft independently over enemy territory on the distant approaches at 150 to 200 kilometers or more. On the near approaches and over its own territory it accomplishes this task in cooperation with air defense troops and adjacent air armies; cover of troops is carried out by repelling massed attacks with centralized control of fighter forces and also by repulsing small groups and individual aircraft according to the decision of the commanders of the fighter air divisions in assigned combat action zones (zones of responsibility), which usually coincide with the dimensions of offensive zones of the first-echelon armies of the front.

The destruction of enemy aircraft on airfields and in the air in areas where they are based is carried out for the purpose of achieving and maintaining the air superiority at which our Ground Forces, Navy, and Air Forces will have a chance to fulfil the tasks assigned to them without substantial opposition from the aviation and air defense of the enemy.

When combat actions are conducted with conventional weapons, the destruction of the enemy's missile/nuclear means and delivery aircraft on airfields and in the air is the most important task of a front air army. An air army fulfils this task at the beginning of the war and during the entire front offensive operation by participating in the air operation to rout the enemy's air and missile/nuclear groupings according to the plan of the front.

The search for and destruction of enemy missile/nuclear means are carried out continuously, regardless of whether nuclear weapons are being used at the time. When data are available from continuously conducted reconnaissance, the air units and large units of the air army immediately destroy the detected missile/nuclear means and their control system. To fulfil this task, combat action zones 150 to 200 kilometers in frontage and depth are specified for fighter-bomber air divisions, and bomber aviation fulfils this task over the entire radius of action throughout the front zone.

Air support for combined-arms armies and tank armies is carried out in close cooperation with missile, artillery, tank, and motorized rifle units and large units, which makes it possible to immediately use air strikes to exploit the success of a troop offensive. Support for troops is conducted by army aviation to a depth of 25 to 30 kilometers and by fighter-bomber aviation to a depth of 40 to 70 kilometers.

The following are the principal targets of the actions of aviation when conventional and nuclear means are used: tactical missile/nuclear means, atomic and field artillery, tanks, control posts, strongpoints, centers of resistance, and important water crossings, mainly in the tactical zone and in the immediate operational depth.

The strike delivery time for a fighter-bomber squadron from the moment of issue of the order for a sortie against targets located at a depth of up to 70 kilometers is as little as 15 minutes for a sortie from Readiness No. 1, and as little as 25 minutes from Readiness No. 2

The destruction and neutralization of the enemy's operational reserves are also important tasks of an air army during a front offensive operation. They are carried out for the purpose of inflicting destruction on and delaying the advance of reserves from the depth, which will provide our troops with the opportunity to fulfil their assigned tasks according to plan.

Crossings, road junctions, and troops on the march or in a concentration area will be the principal targets of air strikes. To fulfil this task the main forces of bomber aviation are allocated over the entire radius of action, and part of the forces of fighter-bomber and fighter aviation are allocated against immediate operational reserves.

Aerial reconnaissance is conducted to the entire depth of a front operation for the purpose of discovering troop groupings, missile/nuclear means, aircraft, the air defense control system, and other important targets. Aerial reconnaissance is divided into operational and tactical reconnaissance, depending on the assigned targets and the depth of conduct.

In addition to organic operational and tactical reconnaissance air regiments and reconnaissance drone subunits, non-organic air squadrons of bomber, fighter-bomber, and fighter air regiments are allocated to fulfil aerial reconnaissance tasks.

The capabilities of an air army to conduct aerial reconnaissance depend on the number of reconnaissance aircraft, the training level of reconnaissance crews, and the capabilities of special reconnaissance equipment. On the average, one crew can reconnoiter two to three enemy targets per sortie. The modern aircraft of operational reconnaissance air regiments make it possible to conduct aerial reconnaissance to a depth of 800 to 1,000 kilometers; and tactical reconnaissance air regiments, to a depth of 300 to 400 kilometers; the reconnaissance equipment of reconnaissance aircraft makes it possible to determine the coordinates of targets with an accuracy of 200 to 500 meters with visual observation, and 25 to 200 meters with aerial photography (depending on the scale of the photographs). Aerial reconnaissance data (target coordinates) can be received at troop command posts from on board the aircraft within three to five minutes after the beginning of reconnaissance (final reconnaissance) of the target, and from aerial photography data within twenty to thirty minutes according to the results of wet film interpretation.

Army aviation is intended for joint combat actions with motorized rifle and tank large units and units in a battle and operation and it can fulfil the following tasks: carry out fire support for troops; land tactical airborne landing forces and support their combat actions; land reconnaissance and special groups in the enemy rear; transport troops, combat equipment, and materiel; support control and communications; conduct aerial, radiation, chemical, and engineer reconnaissance and adjust artillery fire; carry out the laying of mixed minefields; and conduct search and rescue operations and evacuation of the wounded.

Army aviation is made up of air units and subunits (front and army complements) equipped with combat and transport helicopters and tactical reconnaissance drones.

In a single sortie a helicopter regiment of army aviation (front complement) can land a tactical landing force consisting of a motorized rifle battalion to a depth of as much as 50 to 70 kilometers; with allowance for a combat readiness factor of 0.8 and a damage effectiveness factor of 0.3 to 0.5, a helicopter regiment (army complement) having in its armament 42 combat helicopters with antitank guided missiles, free rockets, and bombs can, in a single sortie, destroy 40 to 60 enemy tanks or neutralize a motorized infantry battalion in a concentration area, incapacitating up to 30 percent of the enemy's combat equipment and personnel.

Air defense troops are intended for reliably covering the troops and rear services installations from air strikes and also destroying enemy airborne landing forces and airmobile troops in flight. They are capable of conducting combat against different air targets at low, medium, and high altitudes and in the stratosphere.

Our probable enemies are developing their aviation in every way possible and they are increasing the effectiveness of its strikes with the use of nuclear and chemical weapons and conventional means of destruction. Therefore, the role of air defense in achieving the objectives of a front offensive is continuously increasing. Under modern conditions it is an integral part of the combat actions of front troops and it is implemented in order to inflict decisive damage on the enemy in the air, repel his strikes against front troops and installations, maintain the firepower and striking power of troops, and ensure their freedom of maneuver and their successful fulfilment of combat tasks.

The main tasks of front air defense troops in an offensive operation are to repel the initial massed nuclear strike of an air enemy, to cover the main troop grouping from air strikes when fulfilling immediate and subsequent tasks, and to cover the control posts, most important rear services installations, and transportation lines of the front. They fulfil these tasks in cooperation with air army fighter aviation, large units of the Air Defense Forces of the Country, and air defense forces and means of adjacent fronts, and -- on a coastal axis -- with air defense means of the Navy.

Present-day front air defense troops are a mass branch arm incorporated into operational formations and combined-arms large units, units, and subunits. They are armed with complex and diverse equipment, of which surface-to-air missile systems of different classes and types are the backbone. This makes it possible to establish mixed groupings of antiaircraft means and to construct a fire system for all altitudes.

If one takes into account the air defense means of armies, a front can have its complement, as a variant, four to six KRUG-A surface-to-air missile brigades, one to two S-75, one to two S-125, and 13 to 15 KUB and OSA surface-to-air missile regiments, an antiaircraft artillery division, nine to ten light antiaircraft artillery regiments, a radiotechnical brigade, and three to five army air defense radiotechnical battalions.

The combat capabilities of front air defense troops are first of all characterized by the number of expected losses of enemy aircraft when his

massed strikes against front troops and installations are repulsed. These losses depend on the composition of the air defense troops, the level of their combat readiness and participation in repelling the raid, the technical reliability of the armament, the probability of destruction of air targets by missiles and shells, the effectiveness of control, and also on the nature of the air enemy's actions. When calculating combat capabilities, the effect of the factors listed above are taken into account with the appropriate coefficients. In addition to this, the combat capabilities of air defense troops depend on the availability of surface-to-air missiles (antiaircraft ammunition).

Taking all those conditions into consideration in the aggregate it is possible to expect that when repelling a massed attack of enemy aviation, front air defense forces and means are capable of destroying 15 to 20 percent of the total number of air targets participating in the attack.

Radiotechnical large units and units of front air defense troops in cooperation with frontline large units (formations) of the Air Defense Forces of the Country can establish a solid radar reconnaissance zone throughout the front zone and on the approaches to it, beginning from low altitudes and going up to 30 to 40 kilometers. The detection range of air targets by radar reconnaissance means can be as follows: up to 20 to 40 kilometers at altitudes of 100 to 200 meters; up to 50 to 70 kilometers at altitudes of 300 to 500 meters; and up to 100 to 250 kilometers at altitudes of 1,000 meters or more.

The maneuver capabilities of large units and units of the air defense troops ensure continuous cover of front troops during combat actions.

The basic principles of air defense are concentration of the principal efforts for cover of the main troop grouping of a front; timely and extensive maneuver during an operation; continuous cooperation of different air defense means among themselves, with fighter aviation, with the air defense troops of adjacent fronts, and with the Air Defense Forces of the Country; stability and a constant high level of combat readiness for repelling air strikes; continuous and flexible control of combat actions.

An airborne assault brigade is a highly mobile large unit capable of delivering surprise attacks from the air and on the ground in short time periods against different targets in the enemy rear. It can be used both independently and in cooperation with front and army aviation and with advancing large units of first-echelon troops to destroy missile/nuclear means, nuclear and conventional warhead depots, tanks, artillery and air

defense means at their positions, radioelectronic targets, and control and communications posts. The combat task of this brigade may also include seizure and retention of important road junctions, bridgeheads at water obstacles, and mountain passes and gaps; completion of the rout of a small enemy grouping after delivery of a nuclear strike against it, etc. With fire of the onboard antitank guided missiles it is capable of destroying as many as 50 to 80 enemy armored targets; using bombs and inflammable mixtures and firing free rockets it can neutralize up to two battalions on the march and in concentration areas; and in a ground attack of airborne assault battalions supported by combat helicopters, it can destroy one motorized infantry battalion in a defense or knock out three to four enemy targets such as a large unit command post, a battery of missile launchers, etc.

Depending on the nature of the tasks to be fulfilled and the situational conditions, the brigade can operate at full strength or as individual subunits.

The airborne division is the basic operational-tactical large unit of airborne troops. It can be used according to the instructions of the Supreme High Command as an operational airborne landing force in support of a front offensive operation.

While operating in the enemy rear area, an airborne division can fulfil different tasks, e.g., destroy missile/nuclear means and nuclear weapons bases and depots; seize and hold airfield complexes, mountain passes and gaps which are important from an operational standpoint, and crossings and bridgeheads at wide water obstacles; complete the rout of individual groupings which have been subjected to a massed nuclear strike; seize islands, straits, and naval bases and ports; and disrupt troop control and the operation of the enemy's rear services.

The airdrop (landing) depth of an airborne division is determined by the concept of a front operation. Accordingly, the following are taken into consideration: the scales of employment of nuclear and conventional weapons, the capabilities for destruction of the enemy's air defense system in the transit zone and in the landing area and of his aviation and reserves which can oppose the airborne force, and also the radii of operation of military transport aircraft, the capabilities of the division itself to conduct combat actions in the enemy's rear, and the capabilities of front troops to support and ensure those actions. Taking into consideration the factors listed above, the landing depth of an airborne division can average 200 to 400 kilometers, i.e., within the limits of the

immediate task of a front.

To conduct reconnaissance, a front has agent, special, aerial, radio, radiotechnical, radar, radiation, and chemical reconnaissance forces and means.

Agent reconnaissance is one of the principal types of reconnaissance, especially in peacetime. It is organized and conducted in accordance with separate instructions and tasks.

Special reconnaissance is conducted only after the beginning of a war. To conduct it, a front can have a separate special-purpose battalion capable of allocating up to 40 reconnaissance groups and it can also have special-purpose companies of combined-arms armies and tank armies, each of which can set up eight to ten groups. Consequently, a front having four armies can infiltrate up to 80 special-purpose reconnaissance groups into the enemy rear and reconnoiter 80 to 160 targets (areas). The infiltration depth of front groups can reach 1,000 kilometers.

The capabilities of radio and radiotechnical reconnaissance are mainly determined by the number of deployed posts and the availability of equipment. To conduct this reconnaissance, a front may have one OSNAZ radio regiment and one OSNAZ radiotechnical regiment. Every combined-arms army has one OSNAZ radio battalion and one OSNAZ radiotechnical battalion, and a tank army has an OSNAZ radio battalion.

An OSNAZ radio regiment can conduct reconnaissance in a zone up to 500 kilometers wide and to a depth of up to 1,000 kilometers. An OSNAZ radiotechnical regiment carries out radiotechnical reconnaissance in a zone 400 to 500 kilometers wide and to a depth of up to 450 kilometers.

A significant amount of reconnaissance information is also obtained by the forces and means of field, artillery, and engineer reconnaissance, which should be taken into consideration when organizing reconnaissance in a front operation.

SPETSNAZ radio and radiotechnical units are intended for electronic neutralization. A front may have one SPETZNAZ-F radio regiment or radio battalion, one SPETSNAZ-F radiotechnical regiment or battalion, and one SPETSNAZ-F helicopter squadron. Each combined-arms army and tank army has one SPETSNAZ-A radio battalion, one SPETSNAZ-A radiotechnical battalion, and one SPETSNAZ-A helicopter squadron. An air army has a SPETSNAZ radiotechnical battalion and a SPETSNAZ radio air regiment.

Such a complement makes it possible for SPETSNAZ radio units to simultaneously and effectively jam 100 to 200 shortwave radio contacts, 70 to 100 ultra-shortwave radio contacts, and 80 to 150 radio-relay communications lines. In reference to an enemy grouping in the Western Theater of Military Operations, these means can jam the control radio communications of the staffs of an army group, an allied tactical air force, and two national tactical air forces, or those of two army corps and two national tactical air forces. Army SPETSNAZ radio units can simultaneously jam the radio communications of six to ten of the enemy's first-echelon divisions.

Front and army SPETSNAZ radiotechnical units are able to cover the sites of front and army missile brigades and the principal groupings of front and army troops against precision bombing; interdict flights of enemy aircraft at low and extremely low altitudes on the principal axes of their flight; neutralize ultra-shortwave radio communications for guiding tactical aviation aircraft to ground targets in an area 400 to 500 kilometers in frontage and 50 to 150 kilometers in depth; and prevent guidance to a target area with the aid of the Tacan radio navigation system of 400 to 600 enemy aircraft to a depth of 60 to 300 kilometers.

The basic principles of the use of SPETSNAZ radio and radiotechnical units are to mass them on the main axes and to use them by surprise at decisive moments of a front operation in coordination with the actions of front troops and with the measures for the destruction of the enemy's control posts and most important radioelectronic installations.

Engineer troops are intended for performing the most complex and labor-intensive tasks of engineer preparation which require the use of engineer equipment and special training of personnel.

With army engineer units included, a front can have as a variant one to two engineer/combat engineer brigades, one to two engineer road- and bridgebuilding brigades; four to five engineer/combat engineer regiments; six to seven pontoon bridge regiments; one engineer position preparation regiment; five to six amphibious crossing battalions; four to five engineer obstacle battalions; two to three obstacle clearing battalions; one battalion for control post preparation and one for field water supply; one to two engineer camouflage battalions; and two to three engineer repair battalions.

At that strength engineer troops are able to fulfil the tasks assigned them for the preparation of a front departure area in eight to nine days,

including the departure areas of first-echelon divisions in four to five days; prepare 8,000 to 10,000 kilometers [sic] of tracks and routes in one day; clear from 80 to 100 to as many as 150 or 160 lanes through enemy minefields, depending on the types of sweeps used; have mobile obstacle detachments set up minefields at the rate of up to 85 kilometers per hour with the expenditure of one set; and support the crossings of troops on amphibious means and ferries over a water obstacle 150 to 200 meters wide for a total of up to one division per hour, and two divisions per hour over bridges. On the whole, engineer troops of that strength ensure that a front fulfils the diverse tasks of an offensive operation.

The basic principle of the combat employment of engineer troops is to mass them for the fulfilment of the most important tasks on whose accomplishment the success of an operation primarily depends. On the main axis of a front are concentrated the main efforts not only of front engineer units but also those of units of the Reserve of the Supreme High Command arriving to reinforce the front.

Chemical troops are intended for fulfilling chemical support tasks in an offensive operation, such as obtaining data on the coordinates and parameters of nuclear bursts; conducting radiation, chemical, and non-specific biological reconnaissance; monitoring the level of contamination of troops, combat equipment, reserves of materiel, and terrain contaminated by radioactive and toxic agents; conducting complete decontamination treatment of troops, chemical decontamination of roads, biological decontamination, and insect control; and using flamethrower subunits and camouflage smokes.

Chemical troops subordinate to a front can include a chemical defense brigade, two to three chemical defense battalions, one to two terrain chemical decontamination battalions, a technical battalion, one to two separate chemical decontamination battalions, two to three special monitoring battalions; four to six radiation and chemical reconnaissance companies, and two computation and analysis stations. In addition, one squadron of helicopters (aircraft) is usually used to conduct radiation reconnaissance.

If division and army chemical units are added to the above units, then a front can have a total of 70 to 80 rated battalions in its complement. The overall capabilities of the large units and units of chemical troops make it possible to fulfil the following volume of tasks: take fixes on 360 to 400 nuclear bursts, determine their parameters, and process the data

in the front zone in three to four hours; carry out in one hour the aerial radiation reconnaissance of 3,000 to 3,600 kilometers of roads or 7,000 to 9,000 square kilometers of terrain; in two to three hours conduct ground radiation and chemical reconnaissance of 100 to 120 routes at a speed of 20 to 30 kilometers per hour, and of 20 to 24 areas up to 600 square kilometers each; and carry out decontamination treatment of 12 to 18 divisions in six to eight hours, chemical decontamination of 70 to 90 kilometers of roads, and chemical and biological decontamination of 35,000 to 50,000 sets of summer uniforms in 10 hours.

Communications troops are used to provide stable and continuous control of the troops, forces, and means of a front in an offensive operation. The complement of front communications units usually includes a separate communications regiment to allow for two locations for the communications center of the command post, a forward command post communications battalion, a rear control post communications regiment, a communications battalion of auxiliary communications centers, two radio-relay battalions, two long-range communications battalions, two construction and maintenance battalions, communications line battalions according to the number of armies and front missile brigades, a mixed communications air regiment, two centers and three stations for courier and postal communications, and other subunits.

Thus, from an analysis of the combat strength and capabilities of a modern front it is evident that in an offensive operation it can successfully accomplish the most diverse tasks under different situational conditions. The capabilities of a front to use nuclear weapons, the high degree of saturation of its troops with tanks, artillery, air defense means, and other modern combat equipment, and the presence of powerful aviation in its complement make it possible to inflict decisive damage on the enemy within short time periods and carry out the rout of large operational groupings of his troops, forces, and means both with the use of nuclear weapons and with the use of only conventional means of destruction.

In examining the combat capabilities of a front, it is necessary to also take into consideration the political consciousness, morale, and level of psychological preparation and combat training of the troops and not to forget the decisive role of the human element in an operation. Owing to the high morale and political qualities of personnel, their political consciousness, boundless devotion to the cause of the Communist Party, love for their socialist homeland, and also their awareness of their international duty, the Soviet Armed Forces have enormous advantages over the armies of the imperialist states and they are the most important source

of victory over any enemy.

The saturation of the troops with complex and diverse combat equipment requires that personnel who operate this equipment be highly qualified. The effectiveness of the use of modern means of destruction and military equipment is directly dependent on the level of training and the combat skill of all categories of military personnel, on the training and teamwork of units and large units, and on the organizational abilities of commanders and staffs.

The continuous development of the armament, combat equipment, and organizational structure of the troops is an objective process, a dialectical law. Therefore, a most important obligation of the commander and staff of a front is to constantly take into consideration the changes that are occurring and to be able to rapidly assess and utilize to the maximum all the increasing combat capabilities of their troops.

5. Methods of conducting a front offensive operation. Selection of axes of the main and other thrusts.

By the method of conducting an offensive operation we mean a definite employment procedure for the troops, forces, and means of a front to achieve the objective of an operation. Accordingly, "employment procedure" includes an entire series of elements, such as the substance of front tasks in the process of achieving the objective of an operation, the axes of the main and other thrusts [attacks], the methods of using nuclear and other types of weapons, the methods of routing enemy groupings and accomplishing intermediate tasks with troops, and the nature of troop cooperation in accomplishing the tasks and achieving the objective of an operation. All these elements, taken as a whole under the specific conditions of a situation, determine the essence of any one method of conducting an operation.

The use of the most expedient method of conducting an operation is of decisive importance for its success, since it predetermines the complete rout of the enemy and the achievement of the objective of the operation in short time periods and with the fewest losses to the front. V. I. LENIN at the VIII Congress of the Party assigned the Red Army the task of mastering all the methods of conducting a war, because he saw this as one of the important conditions for victory over a strong enemy.

The methods of conducting an operation depend first of all on the quantity and quality of the weapons and combat equipment to be used in the operation. V. I. LENIN repeatedly pointed out this dependence: "Military tactics," he wrote in 1906 in his article "Lessons of the Moscow Uprising," "depend on the level of the military equipment..."*

The change in methods caused by the extensive introduction of nuclear weapons, missile technology, and radioelectronics is convincing confirmation of the correctness of this Marxist-Leninist principle. With the emergence and development of nuclear weapons, new branches of the armed forces and branch arms made their appearance; it became possible to simultaneously destroy the enemy to the entire depth of his disposition and to rout him in short time periods; methods of employing front aviation, tanks, artillery, and combined-arms large units and formations on the battlefield changed, and so did the tasks and content of measures to support combat actions and control troops; and the scope of operations increased.

Determining the method of conducting any one specific front offensive operation depends on the concept of the strategic operation, the combat capabilities of the front, the strength, operational position, and anticipated actions of the enemy, and the physical geographic conditions of a theater.

Under conditions of the unrestricted use of nuclear weapons, the basis of the methods of conducting an offensive will be the infliction of decisive damage on the enemy with nuclear weapons and a rapid offensive by tank, motorized rifle, airborne assault, and airborne landing troops to rout the enemy and seize his territory within short time periods.

The most effective method of conducting an operation under these conditions will be to inflict decisive damage on the enemy in the initial and subsequent nuclear strikes to the entire depth of his operational disposition, to conduct a rapid offensive with our troops which have maintained and reestablished their combat effectiveness in cooperation with airborne assault large units (units) and airborne landing forces along the shortest axes toward the areas where the objective of the operation is to be achieved, and to split up the enemy's main groupings and destroy them in detail (Appendix 2).

---

* V. I. LENIN, Complete Collected Works, Volume 13, page 374.

Splitting up the enemy's groupings disrupts his operational stability and troop control and it creates favorable conditions for their rapid defeat in detail with simultaneous development of the offensive to a great depth at high rates of advance. Such actions disperse the enemy's efforts by axes, contain the maneuver of his forces and means, and impede his use of nuclear weapons.

When the contour of the front line is to our advantage, a method which can be used is the infliction of damage on the enemy with nuclear weapons and an offensive by front troop groupings along converging axes for the purpose of encircling and destroying his directly opposing main forces, with the simultaneous development of an offensive into the depth. As this takes place, and depending on the enemy's position, his encirclement and destruction can be carried out independently by front troops or in cooperation with an adjacent front.

The use of nuclear weapons, airborne landing forces, and airborne assault large units (units) and also the high maneuver capabilities of front troops on the offensive make it possible to rapidly split up the enemy, penetrate into the depth of his operational disposition, get to the flanks and rear of troop groupings, and create favorable conditions for the rapid destruction of his main forces. However, one should take into consideration the fact that, in order to oppose the encirclement, the enemy can also use nuclear weapons and exploit the high maneuver capabilities of his own troops. Therefore, advancing front troops must reliably safeguard their own flanks and defeat enemy attempts to oppose the encirclement.

Under certain conditions of a situation, a method of conducting an offensive operation which can be used is the infliction of decisive damage on the enemy with nuclear weapons and a rapid offensive by the main forces of a front along the shortest axes into the depth of his disposition, with a simultaneous enveloping attack by a portion of our forces on the flank and rear of the enemy grouping in order to pin it against a large natural obstacle and subsequently destroy it. This method can be used, for instance, in conducting an offensive operation on a coastal axis, when a front cuts off an enemy coastal grouping, pins it to the sea, and destroys it in cooperation with naval forces, or when conducting an operation in mountainous areas and other areas that have natural obstacles against which separated enemy groupings can be pinned and subsequently destroyed by advancing troops.

It should be taken into consideration that, under the conditions of the increased scope of an offensive operation and of the possible abrupt

changes in the operational situation during an offensive, in order to achieve the objective of an operation the use of not one but several methods of conducting an operation in different combinations may be required. Thus, when fulfilling the immediate task of a front it is possible to inflict decisive damage on the enemy with nuclear weapons and to carry out an offensive with front troop groupings along converging axes for the purpose of encircling and destroying the enemy; and when fulfilling the subsequent task, to hit the enemy with nuclear weapons and conduct a rapid offensive with troops along several axes for the purpose of routing the enemy's deep reserves and successfully completing the front operation. Other combinations of different methods are possible in one operation.

In an offensive operation where only conventional weapons are used, the destruction of the enemy is achieved by massed strikes of rocket troops and aviation and by the powerful fire of artillery, tank, antitank, and other fire means, while the main role in routing enemy groupings will belong to tank and motorized rifle troops, in close cooperation with airborne assault large units (units) and airborne landing forces. Taking into consideration the limited capabilities of conventional weapons as compared to nuclear weapons, the basis of the methods for conducting an operation will be the successive rout of the enemy across the front and depthwise. To successfully conduct an operation requires the establishment of a decisive superiority in forces and means, especially on the axis of the main thrust, and the use of gaps and weak spots in the enemy's operational and combat disposition in order to carry out a bold troop maneuver to the flank and rear of his opposing groupings and destroy them in detail.

The methods of conducting an offensive operation with the use of only conventional means of destruction will mainly be distinguished by the successive rout of the enemy, by the more frequent breakthrough of a defense and the use of maneuver to surround and cut off his troop groupings, and by a significant increase in the insensity of use of artillery and aircraft for the fire destruction of the enemy and the support of advancing troops.

A unique feature of the conduct of a front offensive operation with the use of conventional means of destruction is the participation of the front air army in an air operation in a theater of military operations.

One of the principal methods of conducting an offensive operation with the use of conventional weapons can be the destruction of the enemy through massed strikes of rocket troops and aviation and powerful artillery fire,

delivery of a frontal attack on several axes by troops, and the fragmentation and successive destruction of enemy groupings in detail with the simultaneous development of an offensive into the depth and towards the flanks (Appendix 3).

The delivery of attacks by front troops along converging axes will be used more often in an operation where conventional weapons are used than in one where nuclear weapons are used in order to surround and destroy the opposing enemy, with simultaneous development of the offensive into the depth, particularly when the configuration of a front line favors an encirclement.

When conducting an offensive operation on a coastal axis it may be advisable to deliver a frontal attack from the interior of the mainland and to simultaneously deliver an enveloping attack along the seacoast in order to isolate the enemy's coastal grouping from the support of his fleet and to destroy it in cooperation with our naval forces. When large natural obstacles (mountains, areas of wooded swampy terrain, lagoons, or wide river estuaries) are present, it is more advantageous to deliver an enveloping attack from the interior of the mainland towards the coast in order to cut the enemy's coastal grouping off from his troops operating on land and to subsequently destroy it in cooperation with the naval forces.

In an offensive operation a front will have to carry out the rout of the enemy's major individual groupings, which differ in their function, strength, and operational position. By major grouping we mean that grouping of troops, forces, and means which can bring about important changes in the operational situation by its actions. A major grouping may include from one to several army corps with their missile/nuclear, antiaircraft, and other means of destruction. Both during the preparation of an operation and during its conduct, it is therefore extremely important to detect the enemy's individual groupings in time and to determine such a procedure for their destruction that should result in the establishment of favorable conditions for the successful conduct of the front offensive operation.

The methods of routing the enemy's major groupings (Appendix 4) depend on their composition and operational position and the nature of their actions, as well as on the combat capabilities and position of our own troops. The most effective method of routing an enemy grouping with the use of nuclear weapons will be to deliver a massed nuclear strike with the number of nuclear warheads which will ensure its reliable destruction and complete loss of combat effectiveness. A highly effective method can be to

deliver a massed nuclear strike against an enemy grouping in combination with a rapid offensive of the troops which complete the destruction of this grouping. In those instances when a front requires considerable time to prepare a massed nuclear strike, or if there are insufficient data on the position of enemy targets to deliver such a strike against them, the rout of a major grouping can be carried out through the successive delivery of several grouped nuclear strikes in combination with a rapid troop offensive.

When only conventional means of destruction are used, the basis of routing the enemy's major groupings will be to inflict damage on him with strikes by rocket troops, front and army aviation, and artillery fire in combination with fire from and an attack by tank and motorized rifle troops. Depending on the conditions of a situation, advancing troops participating in the rout of a major enemy grouping can deliver frontal splitting attacks against it and enveloping attacks on the flank and rear of the enemy for the purpose of rapidly destroying him in detail, or they can deliver attacks along converging axes in order to surround and destroy the enemy grouping. While routing the major enemy grouping, front troops must simultaneously develop the offensive into the depth at high rates of advance.

Closely connected with determination of the method of conducting an offensive operation is the selection of the axis of the main thrust [main attack]. The main thrust is the thrust delivered by the main grouping of troops, missile/nuclear means, and aviation of a front on an axis of decisive importance for routing the enemy's principal forces and achieving the objective of the operation.

Correct selection of the axis of the main thrust predetermines the success of an offensive and it is therefore the basis of the decision for an operation. V. I. LENIN considered the establishment of an overwhelming superiority of forces at a decisive moment and at a decisive point as a necessary condition for the achievement of not only military but political success.

Selecting the axis of the main thrust requires an in-depth analysis of the military, sociopolitical, economic, and physical geographic conditions of a situation with due regard for the possible changes in it. The skill with which this axis is selected manifests a commander's level of training, operational competence, and leadership ability.

TS #798245
Copy #____

The selection of the axis of the thrust to rout DENIKIN's army in the fall of 1919 can serve as a characteristic example of skilful consideration of political, economic, and military factors in determining the main thrust. As compared to the thrust of the Southwestern Front from the Tsaritsyn area to Novorossiysk, the delivery of the main thrust of the Southern Front from Orel and Voronezh through Kursk, Kharkov, and the Donbass to Rostov proved to be more advantageous because, first of all, it permitted the establishment of the attack grouping of the Southern Front in a short time; second, in the path of the offensive our troops were able to count on the active support of the working class and the poorest peasants; and, third, the Red Army, advancing on this axis, liberated the important industrial centers and coal[-producing] areas of the Ukraine, which was of immense economic importance to the young Soviet Republic.

Military, sociopolitical, and economic factors were also constantly taken into consideration when selecting the axes of thrusts in the front operations of the Great Patriotic War. The main thrusts were usually delivered against vulnerable spots in the enemy's defense (in sectors defended by the less combat-effective troops of Fascist Germany's satellites or by undermanned German large units as well as against the boundaries and flanks of defending troops) and on axes where there were major administrative and political centers, the capitals of states, and industrial areas.

Determination of the axis of the main thrust is directly influenced by the concept of the strategic operation and also by the composition, position, and anticipated nature of actions of the enemy's main grouping whose destruction is the objective of the offensive operation. Moreover, in the first offensive operation one should consider not only the enemy grouping set up in peacetime and located in the border areas but also its possible increase in size, through full mobilization of troops and the execution of maneuver to the front zone from other axes. In addition, prior to the initiation of military actions the enemy can of course carry out the rebasing of his aviation and the regrouping of his troops to selected axes of attack, and this makes it necessary to take him into consideration not only in a static situation but also in a fluid one.

In a subsequent front offensive operation the selection of the axis of the main thrust will be substantially influenced by the actual position of the front troops from the standpoint of the possibility of establishing attack groupings in short time periods without special regrouping, because complex regrouping may lead to a tapering off of the offensive and even to

a certain pause between the first operation and the subsequent operation, which must not be permitted.

The delivery of a main thrust against a vulnerable location of the enemy, particularly in an offensive where conventional means of destruction are used, has indisputable advantages, since this will make it possible to penetrate into the enemy's disposition more rapidly than on other axes and with fewer losses, make a breach in his defense, and get to the flanks and rear of his main troop grouping.

At the same time -- and this is confirmed by the experience of the Great Patriotic War -- a main thrust can also be delivered where the enemy is sufficiently strong and aggressive, if this is dictated by the concept of the strategic operation, particularly in the event that nuclear weapons are used. But then on this axis it will be necessary to establish decisive superiority over the enemy in nuclear means, aviation, tanks, and artillery in order to inflict such damage on him with the massed use of nuclear and conventional weapons, with rocket troops, artillery, front and army aviation, and air defense means (against the enemy in the air) that it will lead to the loss of his combat effectiveness and create favorable conditions to complete his destruction with the rapid actions of motorized rifle, tank, and airborne assault troops and airborne landing forces.

The axis of the main thrust is usually defined to the depth of the immediate task of the front, since it is difficult in advance to take into consideration the changes in a situation during fulfilment of the subsequent task. Sometimes the axis of the main thrust can be defined to the entire depth of an operation. It is not out of the question to change the axis of the main thrust during an operation, if the situation warrants it.

Like the objective of an offensive operation, the axis of the main thrust is defined to be the same regardless of whether the operation will begin with the use of nuclear weapons or with the use of only conventional means of destruction.

The axis of the other thrust (thrusts) is defined in support of the main thrust of a front and in support of the rout of the enemy's main grouping. By delivering other thrusts, one will split up the opposing enemy and achieve his destruction in detail in shorter time periods.

Established and operating on the axes of the other thrusts are groupings of front forces and means which would be superior in strength to

the opposing enemy and would ensure his defeat and the conduct of an offensive at high rates of advance both with the use of nuclear weapons and with the use of only conventional means of destruction.

The number of thrusts in an offensive operation of a front is determined by its capabilities to establish the necessary superiority in forces and means over the enemy on each axis. Taking into consideration the strength and capabilities of a modern front, in its first offensive operation there can be two to three axes of thrusts, including one main axis. We cannot exclude the delivery of a thrust by a front on a single axis, for instance, when two armies will be operating in its first echelon.

In addition to front strength, the number and capacity of axes accessible for an offensive by operational troop groupings will have a great influence on the selection of the axes of thrusts under special conditions of a theater of military operations.

During the conduct of a subsequent operation when the enemy's grouping in a theater will be weakened and his troop cooperation disrupted, the number of thrusts can be increased.

For the offensive on the axes of thrusts, main and other attack [thrust] groupings, respectively, are established. Their composition is determined when making a decision for the operation and it includes first- and second-echelon formations and large units of the front with their reinforcement means which are operating on any one axis, air defense forces and means, and front reserves with account taken of both the troops available in peacetime and those which will be mobilized in the territory of the military district (group of forces) or will be added to the front from the interior of the country.

The need to establish front attack groupings is dictated by the most important principle of military art, which consists in the massing of forces and means and the establishment of superiority over the enemy at a decisive point. In his article "Elections for the Constituent Assembly and the Dictatorship of the Proletariat" written in December of 1919, V. I. LENIN pointed out that to have a superiority of forces at a decisive moment and at a decisive point is a law of military success.

The experience of the Great Patriotic War fully confirmed that Leninist principle. Thus, the total width of the breakthrough sectors where the efforts of a front in offensive operations were concentrated

varied from 14 to 16 to as much as 40 to 60 kilometers, which amounted to from 7 to 9 to as high as 20 or 25 percent respectively of the entire width of the offensive zone of a front. Included in the complement of the main grouping of a front were 40 to 60 to as high as 75 percent of the rifle troops, 40 or 50 up to 70 or 80 percent of the artillery, 60 to 80 or 90 percent of the tanks and self-propelled guns, and nearly all the forces (80 to 100 percent) of aviation. This skilful massing of forces and and means made it possible on the axes of thrusts to establish a three- to fivefold superiority over the enemy in troop personnel, a five- to eightfold superiority in tanks and artillery, and a three- to fivefold superiority in aircraft. At the same time, such operations were also conducted when Soviet troops, having negligible superiority, and only in terms of individual indices at that, successfully achieved the objectives of the operation (the Western Front in the Moscow counteroffensive in December 1941, the Southwestern Front in the Stalingrad counteroffensive in December 1942). These examples confirm that to achieve success in an operation the art of the commander and staff of a front in organizing an operation and in commanding the troops when conducting it is of paramount importance.

The methods of defining the necessary superiority of forces over the enemy and also the densities of tanks and artillery are based on the combat capabilities of these means for destroying the enemy under the specific conditions of a situation.

To determine the necessary tactical density of tanks in an offensive, let us take a defending mechanized division of the US Army as an example. Its numerical strength consists of approximately 400 single items of antitank defense means, including 243 tanks. Even if 30 to 40 percent of the means which can be destroyed by artillery and motorized infantry fire and by air strikes are excluded from this number, then the portion remaining to be destroyed by tanks will be about 240 to 280 single items. In that instance where the above division is defending itself in a 20- to 25-kilometer zone, advancing troops may encounter (within the limits of the entire depth of a defense zone) 10 or 11 to 12 or 14 single antitank items per kilometer of front. If, as taught by the experience of the Great Patriotic War and of troop combat training, we proceed from the fact that an attacker requires approximately three tanks to destroy one dug-in tank, antitank gun, or antitank guided missile in a defense, then in the policy adopted by us for the successful breakthrough of a prepared enemy defense, advancing first-echelon divisions must have 30 to 42 tanks (10 x 3 = 30 and 14 x 3 = 42) on each kilometer of a breakthrough sector. Out of that number, the density of direct support tanks will be 15 to 20 to one kilometer of front.

The necessary superiority in the number of tanks is usually determined from a calculation of their organic numerical strength. In the variant we are taking, the enemy will have approximately 10 to 12 tanks to one kilometer of front (243 ÷ 20 kilometers = approximately 12; 243 ÷ 25 kilometers = approximately 10). If we divide the necessary number of tanks of the attacker by the number of tanks of the defending enemy on each kilometer of a breakthrough sector, then the result will be approximately three- to fourfold superiority (42 ÷ 10 = 4.2 and 30 ÷ 10 = 3).

The need to establish superiority over the enemy in artillery stems from its requirements for the accomplishment of fire tasks, allowing for the infliction of losses of 30 to 40 percent on the enemy. Under modern conditions, to successfully neutralize the artillery of the defender, it is necessary for the attacker to have two to three times as much artillery as the enemy. But in addition to this, the attacker, as shown by calculations, requires roughly that much [more] artillery to fulfil other fire tasks, such as neutralizing tanks, individual guns, personnel, fire means in strongpoints, radars, control posts, and other targets. Consequently, to break through a prepared enemy defense, the attacker, in all, will need to have roughly a four- to fivefold superiority in artillery in the breakthrough sector.

To rout the enemy when breaking through a hastily occupied defense, the indices of the necessary superiority and tactical densities will be reduced to a considerable degree, since in this case the fire means and personnel of the enemy will be less sheltered and a smaller number of tanks and artillery will be needed to destroy them.

The need to establish superiority during an offensive where conventional weapons are used entails concentrating forces and means towards the axes of thrusts and breakthrough sectors and significantly tightening up a front troop grouping, which under modern conditions can be exploited by the enemy to inflict damage through the massed use of nuclear weapons. In order to lessen this danger it is necessary to reliably cover the troops against strikes from the air and to take effective protective measures against nuclear weapons. For this same purpose, in the departure area for the offensive it is necessary to carefully shelter and camouflage the troops and to exploit the protective properties of the terrain for their disposition. With the transition to an offensive it is necessary to bring first-echelon large units up to the selected breakthrough sectors in the shortest possible time periods, and after the breakthrough, particularly with the growth of the threat of enemy use of nuclear weapons,

it is necessary to disperse them through a more rapid advance into the depth and towards the flanks. Prior to being committed to an engagement (battle), second-echelon and reserve large units and units are to be positioned in a dispersed manner, if possible beyond the range of the enemy's atomic and long-range artillery and tactical missiles.

6. Operational disposition of troops

An operational disposition is taken to mean a grouping of the troops, forces, and means of a front established to fulfil the tasks of an offensive operation.

An operational disposition should correspond to the concept of an operation and to the method selected for conducting it, ensure the possibility of establishing the attack groupings of the front and building up efforts on the axes of thrusts, and create favorable conditions for the dispersed disposition of troops on the terrain, for their maneuvering from the depth and across the front, for the tightening up of the battle formations of troops to break through a defense during an offensive where conventional weapons are used, and for the implementation of continuous cooperation and firm troop control. The above-mentioned requirements for an operational disposition must be fulfilled not only in the departure position but also during the offensive.

The operational disposition depends mainly on the concept of the front operation, the strength and depth of disposition of the enemy, the combat strength of a front, and the physical geographic conditions of a theater of military operations.

The experience of the offensive operations of the first period of the Great Patriotic War indicates that in connection with the lack of forces in the composition of fronts, their operational dispositions usually had one echelon. As a rule, there were no major forces at the disposal of the commander to decisively augment attacks during an offensive operation.

The subsequent increase in front combat strength and, on the other hand, the increase in the depth and strength of the defense of German-Fascist troops led to an increase in the depth of the operational disposition. In the summer and fall campaign of 1943, the operational disposition of a front, besides having a first echelon, often included a second echelon made up of a combined-arms army, an air army, and a mobile

group which included a tank army or a mechanized (cavalry) corps.

In the third period of the war, particularly in 1945, the presence of a strong first and second echelon and of a mobile group in a front operational disposition became a common occurrence. But, in addition to that, combined-arms, tank, and antitank reserves, plus reserves of engineer and chemical troops, were established.

Thus, as the numerical strength of Soviet troops grew, so did that of the operational echelons, the mobile groups, and the combined-arms and special reserves of a front, which enabled it to successfully accomplish tasks for the reliable neutralization of the enemy, rapid breakthrough of his deeply echeloned defense, buildup of efforts, and the development of an offensive at high rates of advance.

According to present-day views, the operational disposition of a front in an offensive operation (Appendix 5) can include first-echelon armies; a second echelon; groupings of rocket troops, front and army aviation, air defense troops, and special troops; airborne landing forces, and -- on a coastal axis -- amphibious landing forces, and an airborne assault large unit; combined-arms and antitank reserves; a mobile obstacle detachment; and reserves of engineer and chemical troops.

A two-echelon disposition will occur when there are enough forces in the front to set up not only a first echelon but also a second echelon, and also when it is necessary to rout an enemy grouping that has a deeply echeloned disposition. Such an operational disposition is most characteristic of the conditions in the Western and Southwestern theaters of military operations. In other theaters a front will often have a one-echelon disposition.

The first echelon of a front can include combined-arms armies and a tank army, or only combined-arms armies. In some theaters it can also have army corps in its complement. This echelon is intended for routing an opposing enemy grouping in the offensive zone, destroying the enemy's nuclear means, rapidly developing the offensive into the depth, disrupting mobilization measures, taking important enemy objectives and areas of territory, and fulfilling the immediate task of the front. Subsequently, the first echelon must develop the offensive to rout operational enemy reserves and achieve the objective of the front operation.

As a rule, a tank army in the complement of a first echelon is used on the axis of the main thrust of the front. The presence of tank-accessible

terrain, where a tank army can use its striking power and maneuver capabilities with greatest effectiveness, and the reliable neutralization of enemy antitank means on the axis of the tank army's offensive are the most important conditions for the actions of this army in a first echelon.

Depending on front strength and terrain conditions, the depth of the disposition of the first-echelon troops of a front can extend 100 to 120 kilometers, and sometimes even more.

First-echelon armies can have a two-echelon or a one-echelon disposition, with a combined-arms reserve being allocated in the latter case. Moreover, second-echelon divisions or the combined-arms reserve of the army are positioned in such a manner that they can be put into the first echelon of an army in short time periods and without complex regrouping when necessary, for example, to increase troop density for the purpose of breaking through the enemy's defense line with the use of only conventional means of destruction or to replace first-echelon divisions.

The second echelon of a front is intended for developing the offensive on the main axis, routing the enemy's deep reserves, and achieving the objective of a front operation. The second echelon can be committed to the engagement in order to deliver an attack on a new axis and repel a strong enemy counterthrust. Committing the second echelon to the engagement must result in sharp changes in the operational situation to the advantage of the front and create favorable conditions for an offensive into the depth of a theater of military operations at high rates of advance and for completion of the operation in short time periods.

There is usually one (tank or combined-arms) army in the second echelon of a front. Under special conditions of a theater of military operations, an army corps can be used as a second echelon.

Depending on the situation and the substance of tasks, a second-echelon army is positioned at a distance of 200 to 250 kilometers from the forward units of a front first echelon in a manner calculated to avoid its being hit by the enemy's tactical and operational missiles (such as the Sergeant) and to provide the possibility for the army to maneuver to any possible axis of commitment to the engagement.

Front missile large units are positioned in the operational disposition of the front with due regard for the possibility of ensuring damage to the most important enemy targets located in the operational depth -- the enemy's operational-tactical missile launchers, home airfields of

tactical aviation (primarily of delivery aircraft), nuclear weapons depots, control posts of formations, and the most important rear services installations.

In a front zone, missile large units are positioned at siting areas in a dispersed manner at the following distances from the enemy's forward units (forward edge of defense): an R-300 missile brigade -- 40 to 60 kilometers; and an R-900 brigade -- 200 to 300 kilometers. The dimensions of the siting area of an R-300 missile brigade can be 30 to 40 kilometers across the front and the same in depth; and that of an R-900 brigade can be up to 50 kilometers across the front and in depth.

Primary and alternate siting areas are prepared for each missile brigade. The distance between these areas must be 30 kilometers on the average, and that between the siting areas of the adjacent battalions within a brigade should be 10 to 15 kilometers.

An air army in the front departure area should be based in such a manner that it can, in cooperation with front air defense troops, successfully repel a strike of the enemy from the air and deliver an initial massed strike against him with all its forces. Airfields are to be positioned at such a distance from each other as to ensure the freedom of maneuver of the air large units and units, the immediate takeoff and commitment to the engagement of the maximum number of an air army's forces, and also ensure that aviation is supplied with all the means necessary to conduct combat actions. Based on these requirements, and also taking into consideration the tactical operating radius of the aircraft and the capabilities of the radar means of air target detection, it is most advisable for fighters and fighter-bombers to be positioned at airfields 150 to 200 kilometers from the front line and for bombers to be 150 to 350 kilometers from the front line. To intercept enemy aircraft more successfully and also to continuously support the offensive of the combined-arms and tank armies, in a number of instances the forward airfields can be closer to the front line but beyond the range limits of the enemy's tactical missiles.

The rebasing of aviation during an operation is carried out with due regard for ensuring the continuous support and cover of advancing front troops, particularly troop groupings operating separated from the remaining front forces, and with due regard for the delivery of strikes against targets located in the enemy's deep rear.

Up to six active airfields and two to three alternate airfields are allocated to each air division; it is advisable for an air regiment to be positioned at two airfields. Reconnaissance aviation should be positioned in such a manner as to exploit its tactical operating radius to the maximum and ensure the rapid delivery of reconnaissance data to staffs concerned.

At alternate airfields the necessary materiel-technical reserves are to be established and the aviation control means are to be prepared in advance.

The large units and units of air defense troops subordinate to the front -- surface-to-air missile brigades and regiments, the antiaircraft artillery division, and the air defense radiotechnical brigade -- deploy their battle formations in the operational disposition of a front with due regard for the composition and probable axes of attack of enemy aviation and for the grouping of Air Defense Forces of the Country in the zone of the front and in such a manner so as to most reliably cover the front forces and means operating on the axis of the main thrust, the front missile brigades, the principal home airfields of the air army, the control posts, and most important rear services installations of the front.

The intervals between S-75 battalions can be from 10 to 30 kilometers; between S-125 battalions, six to eight kilometers; between KRUG-A battalions, 10 to 40 kilometers; and between KUB batteries, eight to 15 kilometers. Establishing one to two lines of radar posts, the air defense radiotechnical brigade enhances the radar reconnaissance zone of the air defense radiotechnical battalions of the armies.

The airborne landing forces in a front offensive operation can consist of units of motorized rifle troops, usually landed in helicopters, and of airborne landing large units and units allocated to the front according to the plan of the Supreme High Command to be landed by military transport aviation.

The departure area for the landing of an airborne force is determined with due regard for the depth of the landing, the flight radius of military transport aviation, the availability of airfields, and the different conditions of the situation. The distance of the departure area from the front line can be between 600 and 800 kilometers for troops landed in aircraft and no closer than 40 to 60 kilometers for units landed in helicopters.

An airborne assault brigade is positioned in the departure area at a distance of up to 100 to 150 kilometers from the enemy. When necessary it can be allocated a waiting area closer to the front line, in which the refueling of helicopters is carried out and the combat task is refined.

An amphibious landing force can be used in a front offensive operation to seize islands, straits, naval bases, ports, and important objectives, as well as sections of the coastline and to assist advancing troops in the rout of enemy groupings in coastal areas. It is usually composed of naval infantry and of motorized rifle large units (sometimes units) of the front that is advancing on the coastal axis. An amphibious landing force will often accomplish its tasks of seizing enemy islands, straits, and sections of coastline in conjunction with the airborne landing force.

At the prescribed time, the large units and units allocated to the amphibious landing force move forward in naval assault transports to waiting areas several kilometers from the points of embarkation and they are positioned in them in a dispersed manner, with due regard for the requirements of camouflage and protection against weapons of mass destruction.

The combined-arms reserve of the front is intended for building up the efforts of the first echelon, replacing large units which have lost their combat effectiveness, routing individual enemy groupings remaining in the rear and on the flanks of advancing first-echelon armies, destroying enemy airborne (amphibious) landing forces, holding lines and objectives which have been seized, and also for fulfilling other tasks which suddenly arise during an operation. The combined-arms reserve can be made up of several motorized rifle and tank divisions, and it is desirable to have a larger combined-arms reserve when the disposition of the front has one echelon than when it has two.

The large units of a combined-arms reserve are positioned in a dispersed manner across the front and in the depth and they relocate behind front first-echelon troops in dispersed dispositions.

The front antitank reserve is formed from tank-destroyer brigades of the Reserve of the Supreme High Command. In its complement there can be one to two brigades positioned in one area or in different areas on probable axes of their actions.

The antitank reserve is intended for repelling, in conjunction with the troops, the counterthrusts of enemy tank groupings, covering the

deployment and commitment to battle of the second echelon of the front, safeguarding the gaps and exposed flanks of attack groupings, and repelling an enemy amphibious landing force during an offensive on a coastal axis.

A mobile obstacle detachment is established to lay mixed minefields on the axis of the enemy counterthrust, and also to cover troop deployment areas, gaps, and threatened flanks with obstacles. In a front there can be one to two detachments, each in the strength of an engineer obstacle battalion or an engineer/combat engineer battalion with obstacle means and means for the mechanized laying of minefields. In modern operations a mobile obstacle detachment can operate in specially-equipped helicopters.

In the departure area the antitank reserve and the mobile obstacle detachment are located behind first-echelon armies or in their disposition, and they relocate on the axes where they will most probably be used. They usually operate jointly, as well as independently and in cooperation with first- and second-echelon troops and with the combined-arms reserve.

The reserve of engineer troops is intended for reinforcing the first- and second-echelon formations of a front which are operating on the most important axes or large units subordinate to the front which are being committed to the engagement, for replacing engineer units which have lost their combat effectiveness as a result of enemy action, and for performing engineer support tasks which have suddenly arisen. It is formed from the large units and units of engineer troops of a front and the Reserve of the Supreme High Command.

The reserve of chemical troops is intended for reinforcing the first- and second-echelon formations of a front and large units under front subordination, for replacing subunits and units of chemical troops which have lost combat effectiveness, for performing tasks that have suddenly arisen during the operation, and, primarily, for eliminating the aftereffects of the enemy's massed nuclear and chemical strikes. It is formed from the large units, units, and subunits of the front and the Reserve of the Supreme High Command.

In the departure position for the offensive, the reserves of engineer and chemical troops are positioned in a dispersed manner, usually behind the first-echelon armies, and during the operation they relocate on the most likely axes of their employment.

7. Principles of the support of the combat actions of troops

The support of combat actions is one of the most important conditions for the successful accomplishment of tasks and the achievement of the objective of an offensive operation. Its significance in modern operations has grown in connection with the widespread introduction into the troops of new, powerful means of destruction, particularly nuclear and special weapons, with the motorization and mechanization of troops, the saturation of them with a large quantity of radioelectronic means, and the resultant changed nature of operations.

The purpose of support of combat actions in a front offensive operation is to bring about the most favorable conditions for the surprise, effective use of nuclear weapons and other means of destruction, the conduct of high maneuver actions by troops, the retention of their combat effectiveness under conditions where the enemy uses weapons of mass destruction, and for hindering the enemy in the use of his forces and means.

The main types of support of combat actions are reconnaissance, protection against weapons of mass destruction, operational camouflage, radioelectronic warfare, and engineer, chemical, topogeodetic, hydrometeorological, and rear services support.

Reconnaissance is organized and conducted in order to obtain reconnaissance data, which make it possible to determine in a timely manner the beginning of the enemy's direct preparation for an attack, discover the concept of his impending actions and the time and methods of attack, determine the composition, national affiliation, and grouping of the means of nuclear attack, ground forces, aviation, air defense means, and naval forces, and also ascertain in a timely manner the changes in the composition and grouping of these forces and means during the operation.

The principal tasks of reconnaissance are to ascertain the presence, composition, and location of the enemy's nuclear attack means and his groupings of ground forces, tactical aviation, air defense forces and means, and reserves; to discover the troop and weapons control system, enemy measures for the protection of troops and rear services installations against weapons of mass destruction, for operational camouflage, and warfare against ground radioelectronic means; to ascertain the political and morale condition, combat effectiveness, and the system of rear services support of the enemy troops; to determine the results of the use of nuclear

and other types of weapons against the enemy; and to determine the nature of the enemy's measures for the preparation of defense lines and the system of engineer obstacles, particularly nuclear ones. On a coastal axis reconnaissance must reveal the composition, areas of combat maneuver, and the nature of actions of the enemy's naval forces, particularly his carrier strike large units.

The main efforts of reconnaissance are concentrated on discovering the composition and grouping of the nuclear attack means and the enemy's capabilities and intentions for their use, and also on conducting the reconnaissance and final reconnaissance of enemy targets in order to destroy them with nuclear weapons, particularly in the initial nuclear strike.

In connection with the increased role of reconnaissance, the requirements levied on it have increased. It must be conducted continously, vigorously, and purposefully and it must ensure the timely acquisition of reliable reconnaissance data and a high level of accuracy in the coordinates of reconnoitered targets. The data obtained by reconnaissance are processed and transmitted to the commander, staff, and chiefs of the branch arms and services of the front.

Successful fulfilment of reconnaissance tasks is achieved through the coordinated efforts of all the reconnaissance forces and means of a front, of Long Range Aviation, Air Defense Forces of the Country, border guard troops operating in the front zone (prior to the start of war), and the forces and means of the navy on a coastal axis.

Protection against weapons of mass destruction is a new aspect of combat support in comparison to past wars. The need for it has been caused by the appearance and widespread introduction of nuclear, chemical, and biological weapons among our probable enemies. Its purpose is to prevent massive losses in personnel, equipment, and materiel, thereby preserving the combat effectiveness of troops, the survivability of control organs, and the efficiency of rear services and ensuring the successful fulfilment of the tasks of a front offensive operation.

The protection of troops and rear services installations is organized to the full extent both when conducting combat actions with the use of weapons of mass destruction and when conducting them with the use of only conventional means of destruction.

The basic measures for protection are to determine the coordinates and parameters of nuclear bursts; to continuously conduct radiation, chemical, biological, and engineer reconnaissance; to warn troops about the immediate threat of enemy use of nuclear, chemical, and biological weapons and about zones of contamination and areas of destruction, floods, and fires, and also to notify personnel about radioactive and chemical contamination and other types of contamination; to disperse troops, units, and rear services facilities; to utilize the protective properties of the terrain; to camouflage and change the disposition (location) areas of troops, home airfields of aviation, and rear services units and facilities; to carry out engineer preparation of areas and positions occupied by our troops and to prepare routes for maneuvering; to conduct constant dosimetric, chemical, and biological monitoring; and to ensure the safety of personnel when operating on contaminated terrain and in areas of destruction, floods, and fires. Protection also includes conducting antiepidemic, sanitary-hygienic, and special preventive medical and veterinary measures, restoring the combat effectiveness of troops that have been subjected to a nuclear, chemical, and biological attack, and eliminating the aftereffects of enemy use of weapons of mass destruction.

Simultaneously with protection, measures are taken to detect and immediately destroy the enemy's means of mass destruction with strikes by missiles, aircraft, and artillery fire.

Measures for protection against weapons of mass destruction are carried out by all the troops and rear services organs of the front, and special tasks are carried out by the large units and units of chemical and engineer troops and by the medical facilities available in a front. Conducting these tasks must not hold up fulfilment of combat tasks by the troops.

Operational camouflage in modern operations acquires even greater significance as the most important means of achieving surprise, of increasing the effectiveness of the combat actions of front troops, forces, and means, and of preserving their combat effectiveness. Its purpose is to confuse the enemy as to the true intentions and concepts of the command, the strength, disposition, and nature of the actions of our troops, and the forces and means, targets, and time of use of nuclear weapons and other means of mass destruction. The most important tasks of operational camouflage are to conceal from the enemy the true disposition of the main grouping of the troops, aviation, and missile/nuclear means and the maneuvering and regrouping of troops, and to show dummy targets, particularly of means of mass destruction, to the enemy.

The principal methods of operational camouflage are concealment, simulation, diversionary actions, and disinformation.

Concealment is provided by eliminating or reducing the identifying features that are characteristic of the different forces and means, installations, actions, and measures. To be concealed as a first priority are the scale and nature of the preparation of an operation, the concentration of attack groupings along axes, nuclear weapons depots, missile and surface-to-air missile systems, troop groupings, missile technical bases, control posts, and the most important rear services installations. It is achieved by the skilful implementation of all types of camouflage: optical, radio, radiotechnical, radar, thermal, radiation, magnetometric, and acoustic; by the observance of camouflage discipline by troops; and by the preservation of state and military secrets and adherence to the requirements of secure control and of routines and regulations for the use of radioelectronic means.

Simulation calls for setting up dummy installations (rocket troop siting areas, airfields, disposition areas of large units and formations, etc.) and a false situation by deliberately reproducing the principal identifying features that are characteristic of these installations (or of a situation).

Diversionary actions consist in deliberately showing the activities of real troops by moving and rebasing them, by setting up dummy groupings, and conducting combat actions and other actions for the purpose of diverting the enemy's attention from those areas where our main troop groupings are concentrated or are operating.

Disinformation consists in transmitting false information to the enemy via technical communications means, with the aid of the press and documents, and by other means.

The success of operational camouflage is achieved by its centralized planning, aggressiveness, continuity, flexibility, diversity, convincingness, and the accurate fulfilment of planned measures.

To fulfil the tasks of operational camouflage in a front offensive operation one allocates the necessary number of combined-arms large units and units, engineer troops, units and subunits of different branch arms and services, combat and transport equipment, electronic means, table-of-equipment camouflage means, simulation equipment, smoke means, and press, radio, television, and other means of information.

The purpose of engineer support in a front offensive operation is to create the necessary conditions for the timely and covert deployment of troops, for conduct of the offensive at high rates of advance, and for protection of personnel and combat equipment against weapons of mass destruction. This is achieved by accomplishing diverse tasks, which are fulfilled by all branch arms and special troops during both the preparation and the course of the operation.

Engineer support includes conducting engineer reconnaissance of the enemy and the terrain; preparing departure and waiting areas for the offensive, including lines and positions for the covering troops, siting areas for rocket and surface-to-air missile troops, artillery positions, airfields, aircraft shelters, and control posts; preparing and maintaining routes and crossings over water obstacles; setting up and supporting the negotiation of obstacles and demolitions; carrying out engineer measures for the protection of troops and rear services installations, for the elimination of the aftereffects of enemy use of weapons of mass destruction, and for troop and operational camouflage; obtaining and purifying water and preparing water supply points; supplying troops with engineer equipment; and providing technical support for engineer troops.

The purpose of chemical support is to maintain the constant readiness of front troops for going over to the offensive and to ensure that this offensive is conducted at high rates of advance under conditions of the use of weapons of mass destruction.

Chemical support includes protecting troops and rear services against radioactive and toxic substances and biological means, using flamethrower-incendiary means and smoke to camouflage troops and installations, and supplying the front with chemical equipment and means of protection. In addition to that, one of the tasks of chemical support is to organize and carry out safety measures when special weapons are used by our own troops.

Radioelectronic warfare in modern operations acquires extremely important significance in view of the increasing role of electronic means in support of troop and weapons control.

In a front offensive operation it is organized for the purpose of disrupting or hindering the enemy's control of missile weapons, troops, aviation, naval forces, and air defense means and of ensuring the stable control of our own forces and means under conditions of electronic neutralization on the enemy's part and of joint operation of a large number

of radioelectronic means in limited areas.

Radioelectronic warfare includes electronic neutralization, electronic defense, and direct electronic reconnaissance. Each of these component parts is carried out by the appropriate methods and means.

Topogeodetic support in modern operations is one of the important conditions for the successful fulfilment of combat tasks by troops. Accordingly, topogeodetic support of the combat actions of front rocket troops and artillery acquires great significance, since using them without topogeodetic preparation is unthinkable. Under conditions of the conduct of an operation with the use of nuclear weapons, the importance of this type of support increases to an even greater degree, particularly after massed nuclear strikes, as a result of which considerable changes can take place on the terrain -- even a change in its relief.

The purpose of topogeodetic support is to prepare and transmit to the front commander, staff, and troops the topogeodetic data and materials necessary for studying and assessing the terrain, for supporting the use of nuclear weapons, and for carrying out calculations in the preparation for and conduct of a front operation. It is carried out by the forces and means of subunits and units of the military topographic service and also by subunits of the topogeodetic service of the large units and units of rocket troops and artillery, of the air army, and of the air defense troops of the front.

Hydrometeorological support is also extremely important in modern operations conducted with the extensive use of weapons of mass destruction. Meteorological conditions considerably affect the accuracy of missile launchings and artillery fire, the combat actions of aviation, radioactive cloud movement, and the spread and persistence of special substances and biological means. Therefore, assessing the hydrometeorological situation is one of the necessary conditions for assessing a situation when the decision is being adopted by the front commander.

The purpose of hydrometeorological support of combat actions is to determine and calculate the effect of hydrometeorological conditions on troop combat actions and particularly on the conduct of measures for protecting troops and rear services installations against weapons of mass destruction. It includes the preparation for the commander, staff, chiefs of branch arms and services, and troops of the data necessary for the effective use of the weapons and combat equipment of branch arms, special troops, and aviation, for forecasting and calculating radioactive and

chemical contamination plus other types of contamination, and for assessing the effect of hydrometeorological conditions on fulfilment of measures for protecting troops and rear services installations against means of mass destruction.

Data on the meteorological and hydrological situation are obtained by continuous hydrometeorological observation and reconnaissance carried out by hydrological and meteorological posts using modern technical means of the meteorological service, sounding the upper layers of the atmosphere, and studying hydrometeorological descriptions of combat action areas, weather forecasts, and data about the condition of rivers, canals, lakes, and swamps.

Information on the hydrological and meteorological situation and on its forecasts is processed by the hydrometeorological service of the front.

Rear services support is one of the important types of support which directly affects the fulfilment of tasks and the achievement of the objectives of an offensive operation. Its purpose is to satisfy the needs of the troops for different materiel-technical means in a comprehensive and uninterrupted manner for successful accomplishment of the combat tasks facing them, to create the necessary conditions for the sustenance and everyday activity of the troops, and to implement medical-sanitary measures and the recovery and repair of damaged combat equipment and armament.

Rear services support includes a system of measures for materiel, transportation, technical, airfield engineer, airfield technical, medical, veterinary, and billeting support and other types of support of troops (forces) and for the use of local resources and captured equipment.

Front rear services are the main link in the system of rear services support of troops in a theater of military operations. They include rear services large units, units, and facilities which are in the complement of the front and which are capable of providing troops with everything they need for combat actions and sustenance over a long period of time.

Under present-day conditions the rear services of a front must always be prepared for uninterrupted support of troops from the very beginning of combat actions, regardless of how the operation will begin or be conducted -- with or without the use of nuclear weapons. This is achieved by setting up single groupings of rear services units and facilities, positioning them in echelons on the main operational axes, stockpiling reserves of materiel to satisfy the maximum requirements of the troops in an operation, implementing to the full extent measures for protecting the rear services against weapons of mass destruction, and ensuring the stability of operation of transportation lines and of all types of transport.

CHAPTER 2

PREPARATION OF A FRONT OFFENSIVE OPERATION

1. Content and conditions of the preparation of an offensive operation

The comprehensive, deeply thought-out, and carefully conducted preparation of an operation largely predetermines its successful conduct.

The content of the preparation of an operation includes a large group of measures which are carried out by the commander, the control organs, the party political apparatus, and by the troops for the organization, planning, and comprehensive support of the operation. Of these measures the principal ones are adopting a decision and conveying tasks to the troops; planning the operation; organizing troop cooperation; organizing and carrying out party political work and all types of support and troop control; preparing troops for the accomplishment of the tasks in the operation and maintaining them at a constantly high level of combat readiness; having troops prepare and occupy the departure area for the offensive, etc.

All the measures for the preparation of an operation are inseparably linked to one another. They are carried out according to the decision of the front commander in accordance with the instructions of the Supreme High Command and the General Staff, and they are coordinated with the measures being carried out by adjacent fronts and cooperating formations (large units) of the other branches of the armed forces.

The scope, time, and procedure for carrying them out are defined by the commander and they are carefully planned by the front staff. For this purpose a calendar plan for the preparation of an operation is drawn up as a working document of the front staff. Usually it is worked out in any form desired, but it must reflect the content of each measure for the preparation of the operation, the responsible executors, and the time and order of fulfilment. The calendar plan is signed by the chief of staff and the chief of the operations directorate and it is approved by the front commander. The executors are given copies of the parts of the plan which concern them.

The staff of the front organizes the monitoring of the timely and accurate fulfilment of the measures for the preparation of an operation in accordance with the calendar plan and the instructions of the front commander and monitoring of strict observance of measures for the security and secrecy of the operation that is being prepared.

The conditions of the preparation of each operation will not be identical. They depend on the tasks facing the front, the actions of the enemy, the nature of the theater of military operations, and also on other elements of a situation. And they will have their own distinctive features in the preparation of the first and subsequent offensive operations, in the commitment of a front to the engagement after advancing from the interior of the country, in the preparation of an operation on a coastal axis, under special conditions of the theater of military operations, and in other instances. The difference in these conditions is reflected in the scope, content, and methods of carrying out measures for the preparation of an operation. What has the greatest influence here is the time which a front has at its disposal for preparing the operation. This time can vary greatly. For example, in the Great Patriotic War the Belorussian and Vistula-Oder offensive operations were prepared in 1.5 to two months. In this time all the measures for preparing the operations were carefully planned. The enemy and the terrain were studied in detail. Reconnaissance was conducted prior to adopting decisions. Front large unit attack groupings were brought up to full strength in personnel, armament, and equipment. The regrouping and combat preparation of troops, engineer preparation of the departure area, and stockpiling of ammunition and other materiel were carried out systematically. A developed network of control and communications posts was set up. A great deal of political work was conducted with the personnel of subunits, units, and large units; and party and Komsomol organizations were strengthened.

At the same time, in a number of instances during the last war fronts prepared their operations in extremely short time periods -- from several days to two or three weeks. Among such operations can be included the East Pomeranian offensive operation of the 2nd Belorussian Front and the operations to rout enemy groupings in Yugoslavia, Hungary, etc. When they were prepared, decisions were adopted during the enemy's aggressive actions, and troop preparation and the stockpiling of materiel were implemented in an extremely limited time.

The scope and content of the measures for preparing modern operations are becoming increasingly complicated in connection with the use of nuclear weapons, the significant increase in the maneuver capabilities of troops,

and the increased expenditure of materiel. The significance of the time element is increasing even more.

Offensive operations should be prepared with due regard for the possibility of their initiation and conduct both with the use of nuclear weapons and with the use of only conventional means of destruction under the diverse conditions of an operational situation.

The operational directive of the Supreme High Command, the instructions of the General Staff, and the specific conditions of the operational situation are the initial data for the preparation of a front offensive operation.

The following are usually defined for a front in the operational directive of the Supreme High Command: the objective of the offensive operation and the tasks of the front, its combat strength, the time to be ready for accomplishing the tasks of the operation, and the allotted limit of nuclear and conventional munitions and other means. The directive can also indicate the procedure for the cooperation of front troops with the Strategic Rocket Forces, Long Range Aviation, airborne landing forces, the Air Defense Forces of the Country, adjacent fronts, and -- on a coastal axis -- with naval forces. The General Staff may give instructions about the procedure for conducting measures for the preparation of the operation, the organization of control and communications, for radioelectronic warfare, secure troop control, and for operational camouflage.

As a rule, first operations are planned in peacetime, with the involvement of a limited group of assigned personnel. The preparation of these operations is carried out according to peacetime reconnaissance data on the enemy and with the front not at full combat strength. In connection with this, abrupt changes in the situation are possible by the start of the offensive, which will require making refinements in the decision and plan of the operation, in the procedure for deploying and setting up attack groupings of troops, and in the methods of going over to the offensive. In addition, definite mobilization measures will be conducted during this period, and new large units, units, and installations will be brought into the complement of the front. It will be necessary to implement the reception and allocation of officer personnel for the strengthening of control organs.

The situation will be most complex when the enemy preempts front troops in the deployment of his forces and delivers a surprise attack. Under such conditions the need will arise to refine the decision for the

operation and the tasks for the troops during their movement forward and deployment in departure areas, and it will also be necessary to organize the commitment of the troops to the engagement from the march.

In order to exclude the possibility of a surprise enemy attack at the beginning of combat actions and to ensure that the troops go over to the offensive in an organized manner and conduct a successful operation, it is necessary to constantly maintain a high level of troop combat readiness in peacetime, particularly in a period of threat.

By combat readiness we mean the definite condition of troops which characterizes their capability to engage in war in an organized manner and to successfully fulfil assigned combat tasks. It is ensured by maintaining operational formations, large units, and units at a definite level of strength in personnel, armament, and combat equipment; by availability of the necessary supplies and materiel to them; by the condition and degree of readiness of weapons and combat equipment for combat use; by the level of combat and political training of troops and by the combat cooperation of large units, units, and subunits; by the organizational skills and training of command cadres and staffs; by the capability of troops to fully mobilize in prescribed time limits, bring themselves to a combat-ready status, and get to assigned areas in order to conduct combat actions; by a high level of military discipline; and also by the vigilance of troops on combat alert.

Setting up troop groupings in advance, in accordance with the concept of the first operations, is also one of the decisive conditions of a high level of combat readiness. Under peacetime conditions, the troops of a border military district (group of forces) must be positioned in a dispersed manner but with due regard, on the one hand, for ensuring their protection against enemy nuclear strikes and, on the other hand, for ensuring a rapid advance and deployment in order to conduct the first operation.

Under peacetime conditions, troops and aviation engage in daily routine activities while being constantly ready to fulfil combat tasks and carry out mobilization measures. Specially allocated units and subunits are kept on combat alert status.

The procedure for maintaining and storing armament, equipment, and various materiel and technical reserves in line units is determined in such a way as to ensure that large units and units are put on combat alert in prescribed time limits.

When there is an increased threat of a war being unleashed by the enemy, measures must be undertaken to raise the combat readiness of troops (forces and means) and control organs for the fulfilment of combat tasks. In this period the duty of the subunits and units on alert and that of the 24-hour detail, the security and defense of important installations, and the patrolling in garrisons are increased. The protection of troops and installations against enemy means of mass destruction is organized. The implementation of these and other measures makes it possible to bring troops to readiness in shorter time limits for the fulfiment of combat tasks. In the event of subsequent exacerbation of a situation, troops (forces and means) and control organs are brought to the highest (full) combat readiness, i.e., a readiness which ensures that they are capable of immediately fulfilling assigned combat tasks.

Thus, the transition of troops (forces and means), control organs, and rear services from a peacetime to a wartime condition is made during the buildup of combat readiness.

Measures for bringing troops to combat readiness are worked out with due regard for the combat function of the large units and units and their specific tasks in the first operation, and they are carried out under concealment with the observance of the necessary camouflage measures.

The principal measures which ensure the timely transition of troops from constant combat readiness to a higher level [of readiness] are a well-thought-out system of warning troops and putting them on combat alert; maintenance of large units and units at a high level of combat readiness when going out to exercises, training grounds, camps, and to other locations outside of permanent garrison areas; precise regulation of the maintenance of armament, equipment, and materiel and technical reserves and of bringing them to readiness; timely implementation of organization and mobilization measures; and the constant monitoring of the combat-readiness condition of troops by commanders and staffs.

When bringing troops to combat readiness, much attention is devoted to the political, psychological and morale preparation of personnel, to the observance of camouflage measures, and to the vigilance and constant readiness of large units, units, and subunits for their immediate commitment to battle.

Subsequent offensive operations are usually prepared during completion of the fulfilment of the tasks of the preceding offensive operation. In preparing them, commanders, staffs, and other control organs will have to

provide firm and continuous control of the troops for completion of the fulfilment of the tasks of the operation being carried out and, at the same time as this, to adopt in short time limits a decision for the new operation, to plan it, to convey the tasks to troops in a timely manner, to organize, if necessary, their regrouping, and to create conditions for going over without a stop to the fulfilment of new tasks. Also possible are such conditions under which, while completing the operation being conducted, the troops of the front will be conducting intensive battles against the enemy's approaching reserves, and will be repelling their counterthrusts or disrupting the enemy's transition to the counteroffensive. Nor is it out of the question that a front will have to begin a subsequent operation with a regrouping of the principal forces to a new axis.

For the nonstop development of one offensive operation into another, in all instances the commander and staff of a front must foresee the development of the operation and, on the basis of a prediction of the situation, implement in a timely manner the maneuver of combined-arms large units and formations, rocket troops, artillery, aviation, air defense troops, and the units and subunits of special troops, and direct them to the fulfilment of new tasks.

In support of the successful conduct of a subsequent operation it is also necessary to increase reconnaissance of the enemy, to stockpile and supply nuclear, special, and conventional ammunition, fuel, and other materiel to the troops in a timely manner, to relocate control posts and rear services units and facilities closer to the troops, and to purposefully carry out party political work among the troops. A great deal of attention will be required to maintain and restore the combat effectiveness of large units and units which have sustained heavy losses in previous battles and to bring them to full strength in personnel and combat equipment.

2. Adoption of the decision for an offensive operation and conveyance of the tasks to the troops

The decision of the front commander for an offensive operation is the basis for carrying out all the measures for preparation of the operation and for control of troops during its conduct. Defined in it are the concept of the operation; the tasks, targets, and procedure for use of nuclear weapons; the tasks of first- and second-echelon armies (army

corps); the tasks of rocket troops and artillery, the air army, and air defense troops; the tasks of airborne landing forces, of an airborne assault large unit, and -- during an offensive on a coastal axis -- those of an amphibious landing force; the composition and tasks of combined-arms and antitank reserves, mobile obstacle detachments, and the reserves of special troops; and the organization of cooperation, of support of the operation, and of troop control.

Adopting a decision is an extremely responsible and creative process. It consists of ascertainment of the assigned task, assessment of the situation, and, on the basis of this, adoption of the decision itself. In-depth operational foresight is of paramount importance in this process.

The front commander personally adopts the decision for an offensive operation and bears personal responsibility for it, but in his work he relies on the staff and takes into consideration the proposals of the chief of staff and the chiefs of branch arms, special troops, services, the rear, and the political directorate of a front.

A large role in the timely adoption of a well-founded decision belongs to the front staff, which has to ensure the rapid collection, analysis, and comprehensive assessment of the situation and from it prepare conclusions and proposals for the commander concerning the decision. The chief of staff coordinates the activity of the chiefs of branch arms, special troops, services, and the rear to prepare the necessary data and proposals for adopting the decision.

The methods of adopting a decision for an operation can be diverse. They depend on the nature of the assigned tasks, on the specific conditions of the situation, first of all the time available for the preparation of the operation, and also on the level of preparedness and coordination of the front field headquarters and on the personal qualities of the commander. Upon receiving the directive of the Supreme High Command, he can begin to study it and to assess the situation together with the chief of staff and the members of the Military Council, exchanging opinions with them about the most important matters of the decision for the operation. The chief of the operations directorate of the front staff, as well as several chiefs of branch arms, may participate in this work.

When ascertaining the assigned task the commander must correctly understand the concept of the strategic operation in the theater of military operations, the objective and tasks of the front offensive operation, the sequence and time limits for their fulfillment, the place and

role of the front in the strategic operation, the tasks of adjacent fronts and operational formations (large units) of the other branches of the armed forces, and how the use of nuclear weapons by the Strategic Rocket Forces and Long Range Aviation, the conduct of the air operation for the rout of the enemy's aviation and missile/nuclear groupings, and the actions of adjacent fronts, Air Defense Forces of the Country, airborne landing forces, and naval forces (during an offensive on a coastal axis) will affect the fulfilment of front tasks.

Having ascertained the task, the front commander can, personally or through the chief of staff, conduct an operational briefing, i.e., familiarize the chiefs of branch arms and special troops (services), the chiefs of staff directorates (departments), the chief of the rear, and the chief of the political directorate with the part of the assigned task which concerns them. At the same time he indicates to the chief of staff what preliminary orders to issue to the troops, which measures for the preparation of the operation to begin carrying out immediately, what data he will require at what time from the chiefs of branch arms, special troops, and services and from the chief of the rear for adopting the decision.

The assessment of a situation consists of the analysis and conclusions about its many elements, of which the principal ones are the enemy, one's own troops, the radiation, chemical, biological, and radioelectronic situation, the time, the terrain, and the hydrometeorological conditions, the economic condition of the area of combat actions, the social and class composition and the political frame of mind of the local population and their attitude towards the war and towards our troops. The analysis and assessment of each of these elements is carried out from the standpoint of ascertaining their effect on the accomplishment of the overall task of the operation and of defining, taking this into account, the substance of intermediate tasks and the methods of the actions of front troops in the operation.

The sequence in assessing data about the enemy may be as follows: the military and political situation in the theater of military operations; the enemy's total strength and the nature of his actions in the front zone and in front of adjacent units; the strength and grouping of nuclear attack means, including according to branches of the armed forces, and their capability to deliver a nuclear strike with both on-alert means and with all combat-ready means; the strength and grouping of the ground forces throughout the front zone and by axes, the possible axes on which their main efforts are to be concentrated, and the strength of the operational

echelons and anticipated reinforcement of them by the beginning of and during the operation; the grouping of the air forces, their strength and combat capabilities for delivering strikes with nuclear and conventional means, and the conditions of the basing of aviation; the grouping of naval forces (when conducting a front offensive on a coastal axis), its strength, the probable nature of its actions against front troops, and its capabilities to deliver nuclear and air strikes against them and to oppose the debarkation of amphibious landing forces; the grouping and strength of air defense forces and means, the possible areas in which its main efforts are to be concentrated; the enemy's system of troop and weapons control (radioelectronic situation); the enemy's measures for protection against weapons of mass destruction; the nature of engineer preparation of the terrain; the enemy's system of rear services support of troops.

The conclusions from the assessment of the enemy are reported to the commander by the chief of intelligence or by the chief of staff of the front. Depending on the situation and the time available, the conclusions can be detailed (for each element) or short, but in all cases they must contain the possible concept of the enemy for the use of nuclear and conventional weapons and conduct of the operation; the axes on which the main efforts are to be concentrated and the composition of ground forces and tactical aviation groupings along the main axes; the possible readiness time for the enemy and the probable nature of his actions with the use of nuclear weapons or with the use of only conventional means of destruction; the enemy's strengths and weaknesses; the main targets whose destruction can considerably reduce his combat capabilities; and the reconnaissance tasks during the preparation and course of the operation. The assessment of the enemy and his combat capabilities must be done in terms of quantitative and qualitative indices with due regard for the national affiliation of his troops.

The following are determined on the basis of this comprehensive assessment: the enemy's main grouping whose destruction will disrupt his operational stability, the most expedient methods of destroying it, the axes of the main and other thrusts, and the targets of the initial nuclear (massed air) strike.

When assessing our own troops it will be necessary to analyze and assess their combat strength, operational position and grouping, the availability and order of arrival of nuclear warheads and missiles according to their level of readiness and warhead yields, the combat effectiveness of the troops, their strength level, the availability and condition of the combat equipment, the quantitative and qualitative balance

of forces and means of both sides, the level of radioactive irradiation of personnel, the conditions for the basing of aviation, the position and condition of the rear services, the materiel support of the troops, the presence of the wounded and sick, the position, tasks, and nature of actions of adjacent units, and the conditions for cooperating with them.

As a result of the analysis and assessment of the data about our own troops, and with due regard for the assessment made of the enemy, the front staff should draw conclusions about the capabilities of the troops, aviation, and air defense forces and means of the front to fulfil the combat tasks in the operation, about tasks and targets where nuclear weapons and conventional means of destruction are to be used, about the most favorable axes of the main and other thrusts, about the operational disposition of troops and their deployment procedure in departure areas, and about the necessary measures to support the operation.

If weapons of mass destruction have been used prior to the adoption of the decision, which is typical in the preparation of a subsequent operation, then it will be necessary to ascertain and assess the condition of our own troops that have been subjected to nuclear weapons strikes and to the effects of other means of mass destruction, to assess areas and the level of radioactive, chemical, and biological contamination, the areas of destruction, fires, and floods, the types of pathogens in centers of biological contamination, and other data.

When assessing terrain it is necessary to study and assess the relief, its passability, and its protective and camouflage properties in the departure position and along the axes of offensive, the possible terrain changes from the use of nuclear weapons, the possible directions of approach of enemy aviation at extremely low altitudes, the condition of routes for maneuver, transport, and evacuation, the water supply conditions, the character of natural obstacles, and also hydraulic-engineering works whose destruction can hinder troop combat actions, plus other problems.

Simultaneously with the data on the terrain, the front staff, along with the chief of the rear, assesses the availability and condition of local medical facilities, industrial enterprises, and materiel resources and the possibilities of using them for the support of front troops.

Also studied and assessed are the data concerning the social and class composition and the political frame of mind of the local population, their attitude towards the war and towards our troops, and also data about weather

conditions and the forecast for the period of conduct of the offensive operation.

The chief of staff must personally be in charge of the work of assessing the situation and he should establish a strict procedure for the collection, processing, and reporting of new data on the situation and the procedure for using the computer center to carry out calculations.

When assessing a situation it is necessary to predict with particular care the capabilities and effectiveness of the use of nuclear weapons and conventional means of destruction, the capabilities of branch arms and aviation to accomplish each task of the operation, the situation after carrying out the initial nuclear strikes, the time required for the troops to prepare and fulfil the assigned tasks, the balance of forces and means, and the requirements for support forces and means.

To obtain definite conclusions concerning these matters it will be necessary to carry out a large volume of calculations which can be done in short time periods only with the aid of electronic computers according to methods worked out in advance. Among these calculations must be first of all calculations on the combat capabilities of the enemy and our own troops for the accomplishment of various tasks with the use of nuclear weapons or only conventional means of destruction, on the repulsion of the strikes of an air enemy, on the delivery of the initial nuclear strike and the allocation of nuclear warheads according to the tasks of the operation, on the movement forward and deployment of troops for the offensive, and calculations for predicting the radiation, chemical, and biological situation and areas of flooding, destruction, obstructions, and fires. With the aid of mathematical models of operations and with computers it is possible to analyze different variants of the decision for an operation and the possible results of combat actions under the given conditions of a situation.

Collecting, analyzing, and assessing the data of a situation, performing calculations, and preparing conclusions can take a great deal of time. Because of this, the front staff should first of all assess those data which are required precisely at a given moment to adopt a decision.

As a rule, the chief of staff of the front reports the overall conclusions from the assessment of the situation to the commander. They usually indicate the enemy's capabilities regarding the use of nuclear weapons and other means of mass destruction, the grouping of troops, the possible intentions, the time of initiation and nature of the enemy's

actions, his strengths and weaknesses, the capabilities of front troops to accomplish assigned tasks, and the effect of the nature of the terrain and the weather on troop actions when the offensive operation is being prepared and conducted.

In the proposals concerning the decision, the chief of staff reports on the possible concept of the operation, the expedient distribution of troop efforts by axes, the tasks of subordinate formations (large units), and the organization of troop control.

Regarding the assessment of the combat capabilities and employment of our own troops in the operation and also the organization of the rear services, the commander can hear the reports of the respective chiefs of branch arms and services and the chief of the rear of the front.

When time for preparing the operation is limited, the front commander usually does not hear the conclusions of the chief of staff from the situation assessment, his proposals regarding the decision, nor the reports of the chiefs of branch arms and services. Under these conditions, in the course of ascertaining the task and assessing the situation, he can ask them for just the necessary brief rundown and the calculations, and he can exchange opinions with the chief of staff and the other persons in charge about the assessment of the separate elements of the situation and about matters of the decision. In this case, the primary attention of the staff is directed towards rapidly conveying the tasks to the troops and organizing their combat actions.

The concept of an operation is the basis of the decision. In it are defined the enemy's main grouping, the methods of routing it, the axes of the main and other thrusts, and the operational disposition of troops with due regard for accomplishing tasks to rout the enemy and achieve the objective of the operation under diverse conditions of the initiation and conduct of combat actions both and without the use of nuclear weapons.

The complement of the enemy's main grouping includes his principal forces -- combined-arms large units with their reinforcement means, rocket troops with reserves of nuclear weapons, tactical aviation, and air defense forces and means by whose defeat the enemy loses his stability and conditions are created for a rapid troop advance into the areas where the objective of the front offensive operation is achieved.

Based on the concept of the operation, tasks for the front formations and large units are defined the same for their accomplishment with the use

of nuclear weapons or with the use of only conventional means of destruction.

Defined for first-echelon armies are their composition, reinforcement and support means, the axis of the main thrust, the tasks in the initial nuclear strike of the front, the immediate and subsequent tasks, and the time limits for fulfilling them. In addition, the task for the first day of the operation can be defined.

In the initial nuclear strike armies may be assigned the tasks of hitting the enemy's nuclear means, troop groupings, control posts, air defense means, and other targets in their offensive zones.

Included in the substance of the immediate task of an army will be the rout of the enemy's opposing troops of the first operational echelon and the immediate operational reserves, and the seizure of an important area (line) by whose capture conditions are created for the successful development of the offensive. In depth this task may take in the disposition of the main first-echelon forces of the enemy army group, and it can extend 100 to 150 kilometers or more. The task of the first day of an operation may be to rout the first-echelon divisions and the reserves of army corps.

The subsequent task of an army can be to destroy the enemy's newly detected nuclear attack means, complete the rout of his opposing forces and operational reserves, and seize an important area (line) by whose capture the objective of the army operation is achieved. The depth of the subsequent task may be as great as 150 to 200 kilometers. The total depth of the tasks of first-echelon armies usually corresponds to the depth of the immediate task of the front and it can be 250 to 350 kilometers or more.

The depth of a subsequent army operation can coincide with the depth of the subsequent task of the front.

Prescribed for a front second-echelon army are the concentration (disposition) area prior to the commencement of the operation; the time limits for occupying and preparing it; the zone of responsibility for combat against enemy airborne landing forces, sabotage and reconnaissance groups, and agents; the presumable areas (lines) and time of commitment to the engagement; the axis of attack and the probable tasks -- immediate and subsequent; the zone or routes of moving forward for commitment to the engagement; and the means of reinforcement during commitment to the

engagement.

Defined for the missile brigades of the front are the targets to be destroyed in the initial nuclear strike; the quantity and yield of nuclear warheads for each target and the types of bursts; the tasks for the destruction of the enemy by missiles with nuclear, special, and conventional warheads during fulfilment of the immediate and subsequent tasks of the front; the siting areas; the time limits for deployment in them before the beginning of the operation; and also the measures for maintaining rocket troops in constant readiness to deliver a nuclear strike.

Specified for artillery are the allocation of the artillery of the Reserve of the Supreme High Command, the fire tasks, the procedure for conducting the artillery preparation of an attack, the artillery support of an attack, the close support of the troop offensive into the depth, and the expenditure of ammunition.

Defined for the air army are the tasks in the initial nuclear strike of the front; the tasks for the actions in the air operation in the theater of military operations during fulfilment of the immediate and subsequent tasks of the front, including participation in preparatory fire and fire support of its troop offensive; the tasks for combating the enemy's nuclear attack means and his reserves; the tasks for combating his aviation and for covering troops and rear services installations; and also the procedure for supporting the offensive of each of the armies of the front and for supporting the landing and combat actions of the airborne and amphibious landing forces.

Specified for the air defense troops are the tasks during the preparation and course of the operation; which troop groupings and other installations the main efforts are to be concentrated on covering; the tasks of surface-to-air missile (antiaircraft artillery) large units and units of front subordination; the procedure for repelling the air enemy's massed strikes; the procedure for cooperating with fighter aviation and the troops of the formation (large unit) of Air Defense Forces of the Country; the procedure, time, and areas of deployment; the level of readiness by the beginning of the operation; and also maneuver during the operation.

Specified for an airborne assault large unit are the departure area, the combat tasks, and the procedure and time limits for their fulfilment.

Prescribed for an airborne landing force are its composition, landing area, and tasks, means and procedure of landing, departure areas, the time to get to those areas, the time to be ready for the landing, the procedure for safeguarding the flight of the landing force and for support of combat actions after the landing.

Defined for an amphibious landing force are its composition; the embarkation and loading points; the area, time, and procedure of disembarkation; the tasks ashore; the procedure for covering the landing force from the enemy's air strikes; measures regarding support while embarking on the ships and during sea transit; the procedure for cooperation with naval forces, rocket troops, aviation, and troops advancing on the coastal axis.

Prescribed for reserves are their composition, their disposition areas, what tasks they are to be ready to accomplish, and the procedure for relocation during the operation.

Concerning troop control, the decision indicates the locations and time limits for the deployment of front control posts, the axes of their relocation during the operation, and the deputy commanders.

The decision of the front commander for an operation is drawn up by the operations directorate of the front staff in graphic form on a map with a scale of 1:500,000 or 1:200,000 along with detailed development in an explanatory memorandum of the most important problems of conducting the operation. The decision is signed by the front commander and his chief of staff and it is submitted to the General Staff to be approved by the Supreme Commander-in-Chief.

When the decision is drawn up in graphic form on a map, the following data are shown: the grouping of the enemy and the possible axes of his actions; the immediate and subsequent tasks of the front; the operational disposition of the troops; the axes of the main and other thrusts; the tasks to be fulfilled by the Strategic Rocket Forces, Long Range Aviation, and airborne troops in the front zone according to the plan of the Supreme High Command; the tasks of adjacent fronts, the demarcation lines between them, and -- on a coastal axis -- the tasks of the fleet; the principal and alternate targets which are to be hit in the initial nuclear strike of the front and the number, yield, and types of nuclear bursts; the tasks of first-echelon armies and the time limits for fulfilling them; the presumable lines and time of commitment and tasks of the second-echelon army; the tasks of the rocket troops, artillery, air army, and air defense

troops; the composition, departure areas, and tasks of airborne (amphibious) landing forces; the concentration areas and tasks of airborne assault large units; the composition and disposition areas of front reserves; the composition and lines of the troops assigned to cover the state border; the locations of control posts, the axes of their relocation during the operation, and other data.

The decision should be depicted on a map in a simple, precise, and lucid manner. All the computational data, tables, and text explanations should be typed or handwritten in the explanatory memorandum attached to the decision map.

Set forth in the explanatory memorandum there can be a brief assessment of the enemy and his probable intentions; the objective and concept of the front offensive operation; the availability, arrival times, and allocation of nuclear warheads and missiles with special and conventional charges among formations according to front tasks; the allocation of reinforcement means among the armies; the aviation flight resources allocation according to the tasks of the operation; the quantitative and qualitative balance of forces and means and their densities (overall and by axes); the procedure for fulfilling the main tasks of the front; the time limits for the deployment and readiness of troops for the offensive; the procedure for ensuring their safety when nuclear strikes are delivered (the safe distance lines of our own troops, the warning signals, the procedure for troops to indicate their position); the availability and allocation of materiel resources; and the time for the control posts and communications system to be ready.

As soon as the decision for an operation is adopted, the commander can inform his command personnel of the front field headquarters about the parts that concern them and he can give instructions to the chief of staff and the chiefs of branch arms and services about the procedure for conveying the tasks to the troops and organizing cooperation, for planning the operation, and for organizing support of the operation and troop control.

In his instructions he can define the following:

With respect to planning an operation -- what to take into consideration when planning the initial nuclear strike, the procedure for fulfilling the immediate and subsequent front tasks and for deploying troops and going over to the offensive, what measures to specify for covering the movement forward and deployment of front troops from the

strikes of the ground and air enemy, the time for reporting the plan of the offensive operation and the plans concerning the branch arms and the types of support, the measures dealing with preserving the secrecy of the concept of the operation and ensuring the secrecy of the documents which have been worked out, and the time limits and methods for conveying the tasks. Defined at the same time can be the measures concerning the organization of cooperation, what time they are to be conducted, who is involved in these measures and who the responsible executors are; what documents concerning cooperation are to be worked out, and when to submit them for approval.

To organize support of an offensive operation the commander can give instructions regarding:

-- reconnaissance -- the purpose and main tasks of reconnaissance prior to and during the operation, the axes (installations, areas) where the main efforts of reconnaissance are to be concentrated, what forces and means to conduct reconnaissance with prior to the initiation of combat actions, what data must be obtained about the enemy and by what time;

-- protection against weapons of mass destruction -- what measures are to be stipulated and what forces and means are to be allocated for implementing them, the time the system for obtaining data about nuclear strike coordinates and parameters is to be ready, the main axes of radiation and chemical reconnaissance, the composition of special detachments to eliminate the aftereffects of an enemy nuclear attack and the times by which they are to be established, the time limits for immunizing personnel, and other matters;

-- operational camouflage -- the purpose and principal measures of operational camouflage, the executors and time limits for carrying out each measure;

-- engineer support -- the tasks and time limits for engineer preparation of the departure areas for the offensive, the procedure for engineer support of the movement forward and commitment to the engagement of the second echelon, of the assault crossing of wide water obstacles during the operation, and of the consolidation of important lines, the procedure for seizing and destroying the enemy's nuclear land mines, and other matters;

-- radioelectronic warfare -- on what axes, in what period, at what levels, and by what means and methods the enemy's troop control is to be disrupted, and the measures for ensuring the stability of our troop

control;

-- rear services support -- the tasks of the rear services during the preparation and course of the operation, the axes where the main efforts of the rear services are to be concentrated, the time limits for establishing reserves of materiel, their levels and rates of expenditure according to tasks of the operation and operational formations, the procedure for using military transport aviation, and the readiness of the rear services.

With respect to organizing control, the commander usually defines the procedure for troop control when bringing troops to combat readiness and when repelling the enemy's attack and delivering the initial nuclear strike or massed air strike, and he defines the measures for ensuring the interchangeability of control posts.

All the subsequent work of the front staff and of the other control organs is done in accordance with those instructions.

The commander can convey tasks to the troops by personally assigning them to the executors and by transmitting them over secure communications channels, as well as by delivering written combat documents with liaison officers or staff officers. The method selected for conveying the tasks to the troops depends mainly on the time available prior to the commencement of combat actions and on the state of communications.

When an offensive operation is being prepared in peacetime, front troop tasks are initially made known to a limited number of persons. As a rule, the front commander personally assigns tasks to the commanders of the armies. The tasks for the offensive and the delivery of nuclear strikes in the first operation are assigned to large unit and unit commanders by their immediate superiors at an established time, usually several days prior to the commencement of the operation. The large units and units designated to cover the movement forward and deployment of the front can be assigned combat tasks in advance, i.e., during peacetime.

When preparing an initial offensive operation in restricted time limits, and also when organizing a subsequent offensive operation, the procedure for conveying tasks to the troops may be different. As a rule, the front commander will at first assign tasks to those formations (large units) which initiate combat actions earlier than others, operate on the main axis, and require more time for preparation. In the majority of cases he will assign combat tasks personally in meetings with the subordinate commanders or via technical communications means. Under conditions where

time is extremely limited, the tasks can be assigned to some armies and to the combined-arms reserves by the deputy commanders or the chief of staff of the front via technical communications means or in a personal trip to the troops.

All tasks conveyed orally to the troops are confirmed by written combat documents -- operational directives, combat orders, combat instructions, and instructions regarding the types of support.

The operational directive and the combat order are the principal documents on the organization of combat actions and the control of troops. These documents are not sent out to the troops in their entirety. The tasks are conveyed to subordinates through extracts from them.

The operational directive generally sets forth the conclusions from the assessment of the enemy's grouping and the possible nature of his actions; the objective and tasks of the front in the operation; the tasks to be fulfilled by the means of the Supreme High Command in support of a front, as well as the tasks of adjacent forces and the lines of demarcation from them; the concept of the front operation; the combat tasks of the first- and second-echelon armies (corps) with instructions about their composition, reinforcement means, the number of nuclear and special warheads to be allocated, plus the demarcation lines; the tasks for front rocket troops and artillery, the air army, and the air defense troops; the tasks for the airborne assault large unit and for airborne (amphibious) landing forces; the composition of the reserves and their tasks; the time for the troops to be ready; the locations and time of deployment of the control posts and the axis of relocation of the command post; the times for submitting reports; the deputies.

The following are included in the extract from the operational directive for the armies: sections about the enemy and the combat tasks of an appropriate army (with an indication of its means of reinforcement and support, the number of nuclear and special warheads to be allocated, and the aviation resources for the operation); information from other sections of the directive setting forth the tasks to be accomplished in support of the given army by front rocket troops, aviation, and air defense troops; the tasks of adjacent forces and the lines of demarcation from them; the time for the troops to be ready; the location of the army command post and the axis of its relocation; and the times for submitting reports. The first set of copies of the extracts from the directive that are sent to the army is signed by the front commander and chief of staff, and the second set of copies is certified by the chief of staff and retained in the files

of the front staff.

When a first offensive operation is prepared, the following are attached to the extract from the operational directive: a map with the latest data about the enemy and the tasks of the army, a list of the combat composition of troops with the times of their arrival in the army, an inventory of the combat support units and the rear services units and facilities, a list of the availability and times for the delivery of nuclear and other munitions, plus other documents. Along with the extract from the directive, armies are sent an extract from the directive of the front concerning the rear services, instructions concerning the branch arms and types of support, and orders concerning the individual matters of the preparation and conduct of the operation which are not included in the other combat documents.

In order to inform the subordinate commanders and staffs about the forthcoming actions on a timely basis, and also to allow the troops more time to prepare for the fulfilment of the impending combat tasks, they are issued preliminary instructions which can be transmitted over secure communications channels or personally conveyed by the commander and his deputies. They usually contain the instructions needed by the subordinate troops to prepare for the fulfilment of impending tasks, as well as instructions about the time and methods of conveying the tasks to them.

During an offensive operation the combat order of a front is worked out, and it defines troop tasks for a day of combat actions, with an indication of their actions for the following day or two. Tasks are conveyed to the troops through extracts from it and through combat instructions, instructions regarding the types of support, and [other] orders.

The first point of a combat order gives brief conclusions from the assessment of the enemy's grouping and the possible nature of his actions; the second point indicates the tasks of the front, the tasks and procedure for the use of nuclear weapons and other forces and means by the senior commander in its offensive zone, and also the tasks of adjacent forces and the lines of demarcation from them; the third point indicates the concept of actions; the fourth point, after the words "I order," gives the combat tasks for the troops in separate paragraphs lettered in alphabetical order; the fifth point indicates the time for the troops to be ready; and the sixth point lists the locations and deployment time of the control posts, the axis of relocation of the command post, the times for submitting

reports, and the deputies.

When there is not enough time to work out an operational directive, a combat order, or extracts from them, the tasks for the troops can be assigned with the combat instructions. These usually set forth brief data about the enemy, the combat tasks of the formation (large unit) to which the instruction is directed, the tasks to be fulfilled in support of the formation by the forces and means of the front, and the time for the troops to be ready to fulfil the combat task. If necessary, the procedure and methods for fulfilling the assigned task, the tasks of adjacent units, and other data can be indicated.

The extracts from directives and combat orders, and also the instructions and orders, are conveyed to subordinates in writing, encrypted, via secure telegraphic communications equipment, and by facsimile. The written documents are delivered by the officers of the staff, branch arms, and services of the front, or by liaison officers from the subordinate staffs in sealed packets. These documents can be obtained in person by the commanders or persons delegated by them directly in the front staff.

The transmission of extracts from combat documents via technical communications means is done in accordance with the procedure prescribed for the precedence indicator "above precedence." Receipt of these documents is immediately reported to the commander or the chief of staff.

The time of conveyance of tasks and that of the dispatch and receipt of operational and combat documents is recorded by the commanders and staffs, and receipt of them by subordinates is acknowledged immediately.

Monitoring of the timely conveyance of the combat tasks to the troops is done by the operations directorate of the front staff, which must make sure that the combat tasks are transmitted (delivered) to the subordinates by the designated time. All instances of delay in the conveyance of combat tasks and the steps taken are promptly reported to the chief of staff.

3. Planning of a front offensive operation

The planning of an offensive operation is carried out on the basis of the decision for the operation. During the planning, the sequence and methods for fulfilling each of the tasks of an operation are detailed, the

troop efforts and materiel are allocated according to the tasks and axes of the offensive, the procedure for the cooperation of troops when accomplishing the tasks of the operation is prescribed, and matters of party political work and of all types of support of combat actions and troop control are worked out.

The operational directive of the Supreme High Command, the instructions of the General Staff, the decision of the front commander for the operation, and also informational data regarding all the elements of the situation are the basic data for planning.

Worked out in the planning process are: the plan of the front offensive operation, the plan of party political work, the plans of combat employment of the branch arms, the plan of the combat actions of the air army, and plans regarding the types of support of the operation. A list of the documents that are to be prepared when planning an offensive operation is given in Table 5 as a variant.

In planning an operation, there must be precise coordination of the work, and the plans for branch arms and the plans for the types of support must tie in with the operation plan and with one another. All this work is carried out according to the instructions of the front commander under the direct supervision of the front chief of staff.

Troop combat actions and support of them in an operation are planned according to front tasks, i.e., the procedure for delivering the initial nuclear strike and for fulfilling the immediate and subsequent tasks is defined. Planned in greatest detail are the initial nuclear strike and the troop actions in the first days of the operation and during fulfilment of the immediate front task. Fulfilment of the subsequent tasks is planned in less detail.

Table 5

List of documents to be prepared in planning a front offensive operation

(Variant)

No.	Title of document	Prepared by:	Form of document preparation
	I. Plan of the offensive operation and the attachments to it		
1	Plan of the front offensive operation	Operations directorate of the front staff with the participation of the chiefs of branch arms, chiefs of special troops (services), and the chiefs of staff of rocket troops & artillery, of the air army, and the chief of the rear staff	In graphic form on a map to a scale of 1:500,000 or 1:200,000 with an explanatory memorandum. It is possible to prepare a plan of the operation in textual form with a map of the commander's decision attached.
2	Plan of the initial nuclear strike of the front (attachment to the plan of the operation)	Operations directorate of the front staff with the participation of the staff of the rocket troops & artillery and the staff of the air army	In graphic form on a map to a scale of 1:500,000 or 1:200,000 with an explanatory memorandum and a schedule of the initial nuclear strike
3	Plan of the landing operation (with the use of airborne and amphibious landing forces), or plan for using airborne (amphibious) landing forces (attachment to the plan of the operation)	Operations directorate of the front staff with the participation of the staffs of the air army and the rocket troops & artillery of the front, of operations groups of the airborne troops, of military transport aviation, and of the fleet staff	In graphic form on a map with an explanatory memorandum in textual form with attachment of a map of the decision and the appropriate calculations

TOP SECRET
TOP SECRET
TS #798245
Copy # ___
FIRDB-312/01997-79
Page 111 of 416 Pages

No.	Title of document	Prepared by:	Form of document preparation
4	Plan for preparation and occupation by front troops of the departure area for the offensive (attachment to the plan of the operation)	Operations directorate of the front staff with the participation of the chiefs of branch arms, the chiefs of special troops (services), and the chief of staff of the rear	In graphic form on a map to a scale of 1:200,000 with an explanatory memorandum
	II. On the organization of party political work		
5	Plan for party political work	Front political directorate	In written form
	III. Plans for the combat use of branch arms and for the combat actions of the air army		
6	Plan for the combat use of rocket troops & artillery	Staff of the rocket troops & artillery	In graphic form on a map with an explanatory memorandum & a schedule of the preparation and delivery of the initial nuclear strike by the rocket troops & artillery
7	Plan of combat actions of the air army	Staff of the air army	In written form with attachment of maps, tables, and calculations. Integral parts of the plan of combat actions of the air army are: the plan of combat actions of the air army in the initial nuclear strike of the front; plan of combat actions in the initial massed strike of the air operation: plan of combat actions of fighter aviation in the air defense system of the front; plans for all types of combat actions support by the air army

TOP SECRET

TOP SECRET

TS #798245
Copy #___

FIRDB-312/01997-79

No.	Title of document	Prepared by:	Form of document preparation
8	Air defense plan	Staff of the air defense troops	In graphic form on a map with an explanatory memorandum and attachments; schedule of bringing the air defense troops to full combat readiness; plan for reconnoitering the air enemy with a diagram of warning of the front troops about the air enemy; schedule of the preparation and delivery of missiles and other items
	IV. Plans for the types of support of combat actions of the troops		
9	Reconnaissance plan	Chief of intelligence of the front	In written form with a map attachment or in graphic form on a map with an explanatory memorandum
10	Plan for protecting troops against weapons of mass destruction	Front staff with the participation of the chiefs of branch arms, chiefs of special troops (services), and the chiefs of staff of the air army and the rear	In written or graphic form on a map with an explanatory memorandum
11	Operational camouflage plan	Front staff together with the chiefs of branch arms, chiefs of special troops (services), and the chiefs of staff of the air army and the rear	In written form with a map attachment or in graphic form on a map with an explanatory memorandum; the deception plan is in textual form
12	Engineer support plan	Chief of front engineer troops	In graphic form on a map with an explanatory memorandum
13	Chemical support plan	Chief of front chemical troops	In graphic form on a map with an explanatory memorandum

TOP SECRET
TOP SECRET
TS #798245
Copy #
FIRDB-312/01997-79
Page 113 of 416 Pages

No.	Title of document	Prepared by:	Form of document preparation
14	Electronic neutralization plan	Front staff together with the chiefs of branch arms and the staff of the air army	In graphic form on a map with an explanatory memorandum or in written form with a map attachment
15	Topogeodetic support plan	Chief of the topographic service	In graphic form on a map with the necessary calculations
16	Hydrometeorological support plan	Chief of hydrometeorologic service	In graphic form on a map
17	Rear services support plan	Staff of the rear	In graphic form on a map with an explanatory memorandum or in textual form with a map attachment
		V. Organization of control	
18	Communications plan	Chief of the communications troops	Radio communications diagram; radio-relay and wire communications diagram on a map to a scale of 1:500,000 or 1:200,000 with a calculation of the communications forces and means; schedule of work of messenger communications means

TOP SECRET

TOP SECRET

TS #798245
Copy # ___

FIRDB-312/01997-79

The basic requirements in the planning of an operation are: soundness of the plans and their strict conformity to the adopted decision, working out of methods to fulfil tasks for different variants of the beginning of the operation, and timeliness and secrecy of the preparation of the planning documents. It is important here to ensure identity of planning for conduct of the operation with the use of nuclear weapons or with only conventional means of destruction. The principle of identity in planning an operation with the use of nuclear weapons or with only conventional means of destruction boils down to the following: The objective of the operation and the front tasks in it (the width of the offensive zone, the substance and depth of the immediate and subsequent tasks, the time for fulfilling them, the rates of advance) are planned as being the same, for it is difficult to determine beforehand which weapons will be used at the beginning of and during an operation. The allocation of nuclear weapons and reinforcement means, the composition of the elements of the operational troop disposition, the control posts, the communications system, etc., will likewise be the same. At the same time, the procedure (methods) of troop actions when fulfilling each of the tasks of the operation is defined in relation to the situational conditions under which the task may be accomplished.

Of great importance to achieve soundness in planning an operation will be prediction of the possible development of events and assessment, with the aid of electronic computer equipment, of the different variants of the allocation of efforts and the methods of troop actions when accomplishing each of the tasks of the operation.

The balance of forces and means of both sides, overall in the offensive zone and by axes of offensive, is determined during the planning. It is usually estimated in terms of the following indices: nuclear attack means (operational-tactical and tactical); combined-arms large units, including tank large units; artillery; tanks; antitank means; and aviation. Not only must the quantitative expressions of the indices cited above be taken into consideration here, but so must their qualitative aspect, i.e., the comparison of combat potentials with due regard for the coefficients of the commensurability of combined-arms large units, different types of weapons, and combat equipment. Taken as the unit in this case is one of the divisions, a specified caliber of gun, or a type of tank or aircraft, etc., and the remainder are compared, taking into account the appropriate coefficients. With the aid of electronic computers this comparison for numerous compound values can be done in short times.

It is advisable to plan the actions of combined-arms and tank armies, the air army, and other front troops with due regard for the use of nuclear weapons or the use of only conventional means of destruction and with respect to the possible variants of the commencement of an operation (a meeting engagement, a breakthrough of the enemy defense, repelling his invasion).

In planning the actions of first-echelon armies, one prescribes in detail the methods by which they fulfil their tasks to the depth of the immediate task of the front with and without the use of nuclear weapons in accordance with the above-mentioned variants, for which it is necessary to calculate in detail the anticipated effectiveness of the use of nuclear weapons and conventional means of destruction against enemy groupings, since the troop combat action methods will depend on this. For the period when the subsequent task of the front is to be fulfilled, the axes of offensive, the time limits for seizing definite lines (areas), and the necessary maneuvering to rout approaching enemy reserves during the offensive are outlined for first-echelon armies, and the troop grouping by the end of the front operation is tentatively defined.

The methods of routing the opposing enemy groupings are also planned with due regard for the possible situation -- in a meeting engagement, during breakthrough of the enemy's defense line, or while repelling his invasion. It is on the basis of these conditions that one should establish also the procedure for the deployment of artillery to conduct preparatory fire, for example, with deployment of it at the state border or at a specific distance from it and also when getting to the enemy's forward defense line.

To attain the necessary superiority over the enemy and the appropriate densities of forces and means to break through the defense at this line with the use of conventional means of destruction, the procedure for reinforcing first-echelon troops through commitment of divisions from the second echelon or army (front) reserve should be planned in advance.

Under conditions where an operation commences with the use of nuclear weapons, the nuclear means of the enemy will be top-priority targets for destruction in the initial nuclear strike. Subsequently, newly detected nuclear attack means must be destroyed by the forces of front and army aviation and of rocket troops and artillery as they are discovered. If an operation commences with the use of only conventional means of destruction, the enemy's nuclear means will be top-priority targets for destruction in the air operation and during the conduct of preparatory fire and fire

support of the attack. For the timely destruction of them during an offensive it is necessary to make plans for the allocation of on-alert subunits from fighter-bomber and bomber air regiments and ensure that they are constantly ready to fulfil the given task. In order to rapidly advance toward the nuclear means that have been detected and to destroy them, special detachments made up of a tank company to a battalion can be allocated from first-echelon divisions, and motorized rifle subunits in combat vehicles can also be used to carry out raiding actions. The destruction of the enemy's nuclear attack means in an offensive operation must also be the top-priority task for operational and tactical airborne landing forces, airborne assault units, and special-purpose reconnaissance groups.

When planning an operation, the possibility of a surprise enemy attack is taken into account, and matters on covering the movement forward and deployment of front troops against surprise enemy attacks on the ground and from the air are worked out in detail. For this purpose the following are determined: the most probable axes of a possible enemy offensive, the composition (overall and by axes) of the forces and means allocated for cover, the lines and areas which covering troops must occupy and hold, the procedure of their movement forward and conduct of combat actions, matters of artillery and air support of the actions of those troops, the procedure for covering front troops and installations against enemy air strikes, and cooperation between the units allocated for cover and the border guard troops and main forces of first-echelon armies.

All matters connected with the planning of troop combat actions and also the basic matters of comprehensive support and control are shown in the plan of the offensive operation.

The plan of the front offensive operation (Appendix 6) is worked out by the operations directorate of the front staff. This is the decision of the front commander worked out in detail, and it is drawn up in graphic form on a map to a scale of 1:500,000 or 1:200,000 with an explanatory memorandum, or in written form with an attachment of the map of the decision. All other documents on the planning of the operation are worked out in strict conformity with this plan.

When the plan is worked out in graphic form on a map, the same data that are on the map of the decision are shown, but in greater detail. The following, in particular, can be additionally marked on it: zones of responsibility for the destruction of the enemy's airborne landing forces and sabotage groups; routes for the movement forward of army and front

second-echelon large units; covering forces and means; axes and lines for commitment of army second-echelon large units to break through the enemy's forward defense line and exploit the success of the offensive; the procedure for the cooperation of front and army formations and large units in the joint accomplishment of any given tasks (in a meeting engagement, when encircling and destroying the enemy, repelling his counterthrusts, etc.), sectors for breaking through the enemy's defense and the densities of the forces and means in them; assault crossing sectors and the lines and objectives which must be consolidated during the offensive; the grouping of the main forces and means (formations, front missile and surface-to-air missile large units, the main facilities of the front rear services, and control posts) for the complete fulfilment of immediate and subsequent front tasks; and other data which are not normally shown on the map of the decision.

Set forth in the explanatory memorandum to the plan of the operation are brief conclusions from the assessment of the situation and the balance of forces and means of both sides, the objective and concept of the front offensive operation, the combat strength of the front troops and the allocation of reinforcement means and flight resources according to tasks and armies, the procedure of front actions according to the possible variants of the commencement and conduct of the operation, the objective and tasks of the initial nuclear strike and the forces and means to be allocated to deliver it, the procedure for ensuring the safety of our own troops during the delivery of nuclear strikes, the sectors and troop densities for breaking through the defense, the organization of preparatory fire and the procedure for fire support and close fire support, the tasks for the use of front and army aviation, the procedure for the cooperation of troops, forces, and means, the principal tasks and measures for support of the operation, the procedure by which troops occupy the departure area for the offensive, the availability and allocation of materiel, the organization of control and the signals for cooperation and troop control, and other matters.

A written operation plan can consist of the following sections: 1. Conclusions from ascertainment of the task and assessment of the situation. 2. Concept of the offensive operation. 3. Planning of the combat tasks of the troops according to tasks in the operation. In this section are set forth the tasks of first- and second-echelon armies, rocket troops and artillery, the air army, airborne assault large units, airborne landing forces, air defense troops, and the reserves of all branches [of the armed forces]; methods are prescribed for troop actions in accomplishing each of the tasks for attainment of the objective of the

operation with and without the use of nuclear weapons, taking into account the possible variants of the commencement and development of the operation. 4. Organization of cooperation. 5. Procedure for covering the movement forward and deployment of front troops. 6. Tasks and procedure for carrying out party political work in the operation. 7. Support of the troops in the operation. 8. Organization of troop control.

The plan of the operation is signed by the chief of staff and the chief of the operations directorate and it is approved by the front commander. In a number of cases it can be approved by the Supreme Commander-in-Chief. Attached to it are the plan of the initial nuclear strike, the plan of the use of operational airborne (amphibious) landing forces, the plan of the preparation and occupation of the departure area for the offensive by front troops, the operational camouflage plan, the communications plan, and also other documents.

#2

The planning of the initial nuclear strike includes defining its objective and tasks, the level of destruction of each of the targets, the required number and yield of nuclear warheads, the types of nuclear bursts, the most advantageous nuclear weapons delivery vehicles (rocket troops, aviation, artillery), and the procedure of their actions as well as establishing common numbering of enemy targets. The destruction of enemy targets is planned up to the boundary (line) delimiting the strike zone of the strategic nuclear forces. However, the destruction of them to the entire depth of the operation is not excluded if the strategic nuclear forces in the front zone are used in a limited manner. Provision is also made for carrying out measures to ensure the constant readiness of nuclear means, and the procedure is defined for the implementation of the initial nuclear strike after the operation has been conducted for a certain period of time with the use of only conventional weapons.

The objective of the initial nuclear strike is to destroy the enemy's nuclear attack means, inflict decisive damage on his opposing grouping, and thus create conditions for a rapid troop offensive and attainment of the objective of the operation in short time periods.

The tasks of the initial nuclear strike will be to destroy the enemy's nuclear attack means and hit the main grouping of his ground forces, his tactical aviation and air defense means, his control posts, and also his most important rear services installations.

TS #798245
Copy #____

The objective and tasks of the initial nuclear strike of a front are defined with due regard for the anticipated results of the use of strategic nuclear forces in the front zone.

The plan of the initial nuclear strike of a front (Appendix 7) is worked out by the operations directorate of the front staff together with the chief and staff of the rocket troops and artillery and the commander and staff of the air army under the direct supervision of the front chief of staff. It can be drawn up on a map to a scale of 1:500,000 or 1:200,000 with an explanatory memorandum and an attachment of the schedule of delivery of the initial nuclear strike. Depicted on the map are the main and alternate enemy targets to be destroyed, the number of nuclear warheads to be used against each target, their yields, and the types of bursts, the time of delivery of the strikes with an indication of the units delivering strikes against the targets, the siting areas of rocket troops and artillery, the airfields for delivery aircraft and other aviation participating in the nuclear strike, the line delimiting the zones (areas) to be hit by the strategic nuclear forces and by front means.

Shown in the explanatory memorandum to the plan of the initial nuclear strike are the objective and tasks of the strike; the composition of the rocket troops, artillery, and aviation participating in the delivery of it, and which tasks they are assigned to accomplish; the total number and yields of nuclear warheads; the anticipated effectiveness of destruction of each target; the organization of the initial nuclear strike; the composition and action methods of aviation should the nuclear strike be delivered at night; the procedure for cooperation of rocket troops and aviation; the procedure for reconnaissance and final reconnaissance of enemy targets and the calculation of the forces and means to conduct it; control signals; and other matters.

The following must be shown in the schedule of delivery of the initial nuclear strike (Appendix 8): the large units (units) participating in the strike, the main and alternate targets to be destroyed by the nuclear weapons of the subunits of rocket troops, delivery aircraft, and artillery, the yields of nuclear warheads, the types of bursts, the time of reconnaissance and final reconnaissance, and the time of delivery of the strikes. The schedule's format must enable one to update it in case the initial nuclear strike is delivered during the operation.

When planning the initial nuclear strike it is necessary to take into consideration the high level of combat readiness and the great mobility of enemy troops and their capability to change their position in short time

periods. Therefore, the plan must be flexible and provide for the possibility of its being implemented under any conditions of the situation. Enemy targets planned for destruction must be assigned to nuclear weapons delivery vehicles that are capable of hitting them no matter where they are relocated. The necessary reconnaissance means are allocated for surveillance of these targets.

The plan of the initial nuclear strike must be continuously updated in accordance with the changes in the situation.

The plan of employment of an operational airborne landing force is prepared by the operations directorate of the front staff with the involvement of representatives from the staffs of the air army, airborne troops, and military transport aviation, the formation (large unit) of the Air Defense Forces of the Country, and also the chiefs of branch arms and services of the front. It is usually executed in graphic form on a map with an explanatory memorandum. The preparation of an airborne landing operation plan is not excluded.

If airborne and amphibious landing forces with a common task (for example, the seizure of islands or straits) are to be used simultaneously in the front operation, then in this case a common landing operation plan can be prepared in which the composition, tasks, and procedure of use of each of the landing forces are defined.

In the plan of employment of the operational airborne landing force, the following are shown in graphic form on a map: the enemy's grouping in the landing area and in the area of combat actions of the landing force, his air defense system in the flight zone of the military transport aviation, the landing areas (main and alternate), the immediate and subsequent tasks of the landing force after the landing, the axes and expected time of arrival of the first-echelon troops in the area of combat actions of the landing force and the possible lines of meeting with them, the strikes to be delivered with nuclear weapons and conventional means of destruction against enemy targets in the flight zone of the military transport aviation and in the area of the landing and combat actions of the landing force, the departure area for the landing with an indication of the home airfields of military transport aviation and the concentration and waiting areas of the units of the airborne landing force, the areas where the aircraft of the military transport aviation are refueled (if they are designated), the operational disposition of the military transport aviation during the landing and its flight zone (routes) and flight profile, the air defense forces and means allocated to cover the departure area, the

procedure for covering the landing force on the flight routes of the military transport aviation and in the combat action area, the control posts, and the location of the rear services organs of the landing force.

The explanatory memorandum sets forth the assessment of the enemy's grouping in the area of the landing and combat actions of the airborne landing force and the possible changes in it by the beginning of the landing, the objective of employment of the airborne landing force and its combat tasks, the strength and possible balance of forces and means during fulfilment of the immediate and subsequent tasks by the landing force, the tasks of military transport aviation and the landing procedure, the tasks and flight resources of front aviation, the tasks of rocket troops and artillery, the organization of air defense, the procedure for cooperation of the airborne landing forces with aviation, front troops, amphibious landing forces, and fleet forces (on a coastal axis) and the cooperation signals, the procedure and time limits for concentrating the landing force troops and military transport aviation in the departure area for the landing, and the procedure of their preparation for the landing. In addition, the explanatory memorandum indicates the measures for support of the landing and combat actions of the landing force (reconnaissance, protection against weapons of mass destruction, engineer support, radioelectronic warfare, and hydrometeorological and materiel support), the organization of control and communications, and the times to be ready for the landing.

When planning the use of airborne landing forces, special attention should be given to organizing the neutralization of the enemy's air defense system in the flight zone of the landing force. In connection with this, it is necessary to determine and ascertain the locations of the air defense means which are the greatest threat to the landing (Hawk surface-to-air missiles, tactical fighters at airfields, and radar detection means) and to neutralize them first of all.

The plan of employment of an amphibious landing force is prepared by the front staff together with the staff of the fleet. (It is possible to prepare an amphibious landing operation plan.) It can be executed on a map with an explanatory memorandum or in textual form with an attachment of graphic documents. Shown on the map are the enemy's composition, position, and probable actions and his antilanding defense installations; the composition and position of our own forces and means; the tasks of the front troops, fleet, aviation, and airborne landing forces in support of the amphibious landing; the areas and time limits for concentrating the amphibious landing force and assault transports; the embarkation points and

formation areas of landing ship detachments; the echeloning of the landing force; the routes and time of departure for and arrival at the disembarkation areas of the landing force; the areas (sectors) and the time of disembarkation of the amphibious landing force and its tasks on shore; the grouping of the air defense forces and means to be allocated to cover the amphibious landing force; the boundaries of the strike delivery by our forces against the enemy; and the locations of control posts during the preparation and conduct of the combat actions of the amphibious landing force.

The following can be set forth in the explanatory memorandum to the plan: the objective of use of the amphibious landing force and the substance of its tasks, the conclusions from the assessment of the situation, the balance of forces and means, the concept of the actions for the use of the amphibious landing force, the allocation of nuclear warheads and other forces and means, the substance of the tasks of the formations, large units, and units in support of the amphibious landing force and the procedure for cooperating with it, the organization of air defense, support, and control, and the time for the troops, assault transport means, and naval forces to be ready. For each landing detachment a calculation of the embarkation, passage by sea, and disembarkation of the amphibious landing force is appended to the explanatory memorandum.

The plan of the use of the amphibious landing force is signed by the chiefs of staff of the front and the fleet and by the appropriate chiefs of the operations directorates. It is approved by the commander of the front and the commander of the fleet.

The plan for preparation and occupation by front troops of the departure area for the offensive is prepared by the operations directorate of the front staff with the involvement of representatives of the chiefs of branch arms, the chiefs of special troops (services), and the chief of staff of the rear in graphic form on a map, usually to a scale of 1:200,000, and with an explanatory memorandum.

Depicted on the map are the permanent garrison points (concentration areas on combat alert) of the large units and staffs, troop departure and waiting areas in accordance with the front operational disposition that has been adopted, and the routes and times for moving forward to them; the composition and disposition of the forces and means allocated for cover, the assigned lines and positions they are to occupy, and the routes and times for moving out to them; the nature of engineer preparation of the areas, lines, and positions and the engineer support for the movement

forward and deployment of troops in the departure areas; the lines of the preparation (installation) of the engineer obstacles and demolitions; and the organization of the provost and traffic control service.

The following can be set forth in the explanatory memorandum to the plan: an assessment of the possible nature of the enemy's actions during the movement forward and deployment of the front troops along the most probable axes of his attacks; the composition and tasks of the forces to be allocated for coverage; the tasks of the troops of the main forces when repelling a surprise enemy attack; the basic measures regarding engineer preparation of the departure area, the forces to be allocated, the time for the preparation, and the responsible executors; calculations for movement forward of troops, the times and procedure for moving the large units and units out to the departure position, and other matters.

The planning of the combat use of rocket troops and artillery is carried out by the chief and staff of the rocket troops and artillery in accordance with the tasks prescribed by the decision of the front commander and the plan of the operation.

The following are the principal items in planning the combat use of rocket troops: the use of the rocket troops in the initial nuclear strike and during the operation, the procedure for the preparation and delivery of missiles to the troops, the allocation of the missiles among armies and front missile large units according to the tasks of the operation, the movement forward and deployment of the rocket troops and the bringing of them to full combat readiness, the relocation of missile large units (units) during the operation, and also the planning of the support of combat actions of the rocket troops.

For delivery of the initial nuclear strike, the procedure for the actions of operational-tactical missile large units and units during the preparation for and delivery of this strike is planned in detail and its anticipated effectiveness is determined. The targets to be hit, the coordinates of the aiming points, the nuclear warhead yield, the type and altitude of the air burst, the procedure for strike delivery, and the means of reconnaissance and final reconnaissance of targets are defined for each launch battery (launcher). Backup strikes can be allocated against the most important targets, i.e., it is planned that these targets are to be the main targets for some launchers and alternate targets for other launchers in case the first launchers are not able to carry out the launch or if the required result is not achieved with the strike.

Targets of destruction can be defined for the tactical missile units and artillery allocated for the initial nuclear strike, and the expenditure of nuclear missiles and ammunition can be prescribed. The detailed planning of their actions is carried out in armies and divisions.

The planning of the actions of the rocket troops and artillery in the initial nuclear strike is drawn up in the form of a schedule of the preparation and delivery of this strike and it is also shown in the plan of the combat use of the rocket troops and artillery in the offensive operation and on the map of the control of the front rocket troops and artillery.

The schedule shows the forces and means to be allocated; the procedure for bringing them into readiness for the strike (at a prescribed time or upon receipt of permission to issue nuclear warheads to the troops), the targets of destruction at the beginning of the operation for each operational-tactical missile launcher with an indication of the nuclear warhead yield and the type of burst, the expenditure of ammunition by armies (tactical missile battalions and artillery) against targets slated for destruction, the strike delivery time after the order has been received to go over to combat actions with the use of nuclear weapons at the beginning of the operation, and the time and means of final reconnaissance of the enemy's mobile targets. Also shown in the schedule are the time of relocation of the operational-tactical missile units, the procedure for increasing their readiness for the strike, and also the strike sequence of the allocated means when conducting the initial nuclear strike during the operation.

During an operation without the use of nuclear weapons, all changes in targets of destruction are shown on the schedule.

In working out the plan for relocating the rocket troops during the operation, the staff of the front rocket troops and artillery usually defines the procedure for relocating front and army missile brigades, while the relocation of the missile and artillery battalions of divisions is planned in armies and divisions.

The planning of the combat use of artillery consists in defining the amount of artillery needed, allocating the artillery of the Reserve of the Supreme High Command, establishing the artillery grouping, defining the requirement for artillery ammunition, planning the movement forward and deployment of artillery in the departure area for the offensive and its maneuvering during the operation, and planning the combat actions of

artillery according to the troop tasks.

The requirement of the front for artillery is the sum of the requirements of the first-echelon armies and the amount of artillery needed to set up the front antitank reserve.

The greatest requirement for artillery will usually take place in breaking through defense lines where the enemy positions his main forces, carries out engineer preparation of the terrain, and establishes a high density of fire means. Here the artillery will have to accomplish the greatest volume of tasks for the simultaneous destruction of enemy targets within its range. Consequently, this will be the criterion of its requirement for the entire operation.

To determine the artillery requirement of each army, one establishes the number of anticipated targets to be subjected to simultaneous destruction in the breakthrough sector when carrying out preparatory fire. From this number exclude the targets to be destroyed by aviation. Based on the norms of the requirement for guns to neutralize (destroy) standard targets, determine the amount of artillery needed to destroy the remaining targets. Substract from this requirement the organic army artillery which can participate in the artillery preparation and determine the required artillery reinforcement of the given army. In addition, take into account the artillery requirement for establishing its antitank reserve. The total requirement of the front is the overall requirement of the first-echelon armies for reinforcement artillery, taking into account the establishment of the front antitank reserve.

When being committed to the engagement, the second-echelon army normally receives artillery reinforcement by drawing on the artillery of the Reserve of the Supreme High Command which was previously attached to first-echelon armies. Thus, its requirement for artillery has no effect on the total requirement of the front.

When there is a lack of sufficient reconnaissance data (for instance, when planning in peacetime), one can be guided by the average artillery density needed in the breakthrough sector of an enemy defense, i.e., by the average number of guns, mortars, and rocket artillery launchers per kilometer of front which ensures the reliable destruction of the enemy's tactical nuclear attack means and the neutralization of his artillery, personnel, and fire means. Depending on the national affiliation of the divisions, the width of the defense zone they occupy, and their possible reinforcement, this density can vary from 100 to 140 guns, mortars, and

rocket artillery launchers per kilometer of breakthrough sector.

The use of the above-mentioned norms when performing operational calculations should not be a substitute for the conduct of continuous and intense reconnaissance with all the forces and means available in a front to obtain accurate data about the enemy. Upon receipt of specific reconnaissance data, the necessary refinements should immediately be introduced into the calculations.

In addition to the organic artillery of the divisions which are carrying out the breakthrough, it is necessary to plan the allocation of army artillery for the breakthrough sectors, and -- under favorable conditions -- the allocation of the divisional artillery of the divisions located in army second echelons.

For the breakthrough, it is not advisable to allocate artillery of an army which is in the front second echelon, due to its great distance away.

To establish the necessary artillery density in the breakthrough sector of two army divisions (up to eight kilometers) will require no fewer than 700 to 800 guns, mortars, and rocket artillery launchers. When a front has three armies in its first echelon, it will have to to concentrate nearly 2,400 guns, mortars, and rocket artillery launchers towards the the breakthrough sectors. Through the use of the organic artillery of the first-echelon armies, a front can concentrate 1,600 to 1,700 guns, mortars, and rocket artillery launchers. Consequently, the front will require an additional 500 to 700 pieces of this equipment, i.e., one and a half to two artillery divisions.

To establish the antitank reserves of the front and first-echelon armies advancing on tank-threatened axes will require no less than two to three tank-destroyer artillery brigades of the Reserve of the Supreme High Command. From that number it is necessary to allocate one or two brigades to the front antitank reserve, whose use will make it possible to reliably cover the tank-threatened axes in a zone 15 to 30 kilometers wide and, in cooperation with the reserve large units of the first-echelon armies, repel the attack of one to two enemy tank (armored) divisions, or restore the expended antitank reserves of one or two armies. Army artillery and that of the Reserve of the Supreme High Command attached to the armies is allocated among the first-echelon divisions advancing on the main axis.

Army artillery groups made up of six to nine battalions are established from a part of the army artillery and the artillery

(predominantly long-range) of the Reserve of the Supreme High Command, and army rocket artillery groups are established by drawing on rocket artillery. In the divisions, divisional artillery groups made up of three to four or more battalions are established from organic and attached artillery; and regimental artillery groups made up of no less than two battalions are established in the first-echelon regiments, particularly on the main axis. If, for the period of artillery preparation and support of the attack during the breakthrough of the enemy's prepared defense lines, divisional artillery is allocated from the complement of the second-echelon divisions (reserves) of the armies it is included in the complement of the artillery groups of the first-echelon divisions participating in the breakthrough (but without authority to move forward).

When determining the front requirement for artillery ammunition for an offensive operation, first ascertain the number of enemy divisions whose destruction during the operation can be tasked to artillery (when fulfilling the immediate and subsequent tasks of the front), their national affiliation, the composition (type) of the divisions, and the average norms of their reinforcement. Then, according to the number of divisions and operational norms of the requirement for artillery ammunition to inflict losses of 30 to 40 percent on the divisions, calculate the total ammunition requirement for the immediate and subsequent tasks of the front and for the operation as a whole. In so doing, also take into account the need to establish a reserve. Translate the ammunition requirement, expressed in 122-mm shells, into front units of fire and then calculate the required amounts of ammunition of the corresponding calibers. In reference to the conditions of the Western Theater of Military Operations, approximately seven or eight units of fire may be required for a front operation.

Holding a most important place in the planning of the combat use of artillery is the planning of its actions when breaking through the defense lines during an operation without the use of nuclear weapons.

When organizing a breakthrough on the axis of the main thrust of the front with the adjacent flanks of two armies, artillery actions are planned and organized by the staff of the front rocket troops and artillery according to the front commander's instructions, in which he defines the breakthrough sector, the artillery density and the procedure for allocating it, the extent of neutralization of enemy targets, the expenditure of ammunition, and also the duration and organization of the artillery preparation of the attack, plus the method and depth of artillery support.

(predominantly long-range) of the Reserve of the Supreme High Command, and army rocket artillery groups are established by drawing on rocket artillery. In the divisions, divisional artillery groups made up of three to four or more battalions are established from organic and attached artillery; and regimental artillery groups made up of no less than two battalions are established in the first-echelon regiments, particularly on the main axis. If, for the period of artillery preparation and support of the attack during the breakthrough of the enemy's prepared defense lines, divisional artillery is allocated from the complement of the second-echelon divisions (reserves) of the armies it is included in the complement of the artillery groups of the first-echelon divisions participating in the breakthrough (but without authority to move forward).

When determining the front requirement for artillery ammunition for an offensive operation, first ascertain the number of enemy divisions whose destruction during the operation can be tasked to artillery (when fulfilling the immediate and subsequent tasks of the front), their national affiliation, the composition (type) of the divisions, and the average norms of their reinforcement. Then, according to the number of divisions and operational norms of the requirement for artillery ammunition to inflict losses of 30 to 40 percent on the divisions, calculate the total ammunition requirement for the immediate and subsequent tasks of the front and for the operation as a whole. In so doing, also take into account the need to establish a reserve. Translate the ammunition requirement, expressed in 122-mm shells, into front units of fire and then calculate the required amounts of ammunition of the corresponding calibers. In reference to the conditions of the Western Theater of Military Operations, approximately seven or eight units of fire may be required for a front operation.

Holding a most important place in the planning of the combat use of artillery is the planning of its actions when breaking through the defense lines during an operation without the use of nuclear weapons.

When organizing a breakthrough on the axis of the main thrust of the front with the adjacent flanks of two armies, artillery actions are planned and organized by the staff of the front rocket troops and artillery according to the front commander's instructions, in which he defines the breakthrough sector, the artillery density and the procedure for allocating it, the extent of neutralization of enemy targets, the expenditure of ammunition, and also the duration and organization of the artillery preparation of the attack, plus the method and depth of artillery support.

The duration of the artillery preparation of the attack depends on the nature of the enemy's defense, the amount of artillery allocated to neutralize it, the amount of ammunition issued, and also on the method by which the troops go over to the attack. The time required for artillery to reliably neutralize the defense, i.e., the time required to expend the amount of ammunition for the neutralization of targets to the prescribed extent, is the basic criterion for determining the duration of the artillery preparation during an offensive from close contact with the enemy. In order to determine the duration of the artillery preparation of the attack when attacking the enemy with movement forward of the main forces of the division from the depth, the time required for the movement forward and deployment of the troops from the line of deployment into battalion columns is also taken into account.

As a rule, the artillery preparation of the attack will consist of several fire strikes against the enemy's tactical nuclear attack means, his artillery and mortar batteries, control posts, strongpoints, and his fire means, especially his antitank fire means outside the strongpoints. It should begin with a powerful surprise fire strike of all the artillery and with a strike by missiles with conventional (cluster) charges against the planned targets and it should end at the prescribed time with a fire strike against the strongpoints of the enemy's first-echelon companies, his antitank means outside the strongpoints, and his artillery and mortar batteries. The moment it ends, the advancing subunits move out to the line for going over to the attack. At the beginning of the attack the density of the artillery fire should be maximum. The final fire strike against the enemy's artillery and mortar batteries is planned so as to overlap the time of the attack on the forward edge of the defense, thereby neutralizing the batteries during the most crucial period of the battle -- when the units are going over to the attack, attacking the forward edge of the defense, and seizing the platoon strongpoints of the enemy's first-echelon companies.

Under present-day conditions, in the enemy's defense there will be very many armored targets, without whose destruction it will be impossible to count on the success of the attack and of the subsequent troop offensive. In this connection, firing against these targets with direct fire from guns, antitank guided missile launchers, tanks, and grenade launchers will be of great importance. To conduct such fire it will be necessary to allocate no less than 15 to 20 guns and other fire means per kilometer of front of the breakthrough sector.

Artillery support of the attack is planned to be carried out with concentrated fire and successive concentration of fire (single and double), and in an offensive where nuclear weapons are not used, it can be carried out with a moving barrage. Successive concentration of fire is usually used when breaking through a field defense. The method and depth of the artillery support of the attack are defined by the front or army, and immediate planning of fire (defining the lines and sectors of fire) is done in the divisions. The lines and sectors of successive concentration of fire are planned with due regard for the organization of the defense; the first line is designated, as a rule, at the forward edge of defense of the enemy.

Artillery close support of the advancing troops is carried out to the entire depth of their combat task with artillery fire against the enemy's nuclear attack means, artillery, and targets located directly in front of the advancing troops and in the depth of his defense. The massing of the artillery fire of a combined-arms large unit, and sometimes of an army, is carried out against the most important targets.

The relocation of artillery during the operation is planned mainly in armies and divisions. The front plans the relocation of the front antitank reserve and also the maneuver of the artillery of the Reserve of the Supreme High Command during the operation.

The plan of the combat use of the rocket troops and artillery in a front offensive operation is prepared on a map to a scale of 1:500,000 or 1:200,000 with an explanatory memorandum and the necessary calculations.

Portrayed on the map are the position of the enemy's troops and his most important groupings and targets for destruction; the position and tasks of the front troops (to the extent necessary); the tasks of the rocket troops and artillery in the initial nuclear strike with indication of the targets, the yields of nuclear warheads, the altitude of the air bursts, the target numbers, and the missile (artillery) subunits allocated to deliver strikes against each target; the targets to be destroyed by aviation in the initial nuclear strike; the siting areas of missile large units (units), the battle formations of artillery in the departure position, and the relocation of rocket troops during the operation; the breakthrough sectors and the artillery grouping; the disposition area of the antitank reserve, its firing lines in the departure position, its relocation during the operation, and also the maneuver of the artillery of the Reserve of the Supreme High Command.

Shown in the explanatory memorandum to the plan are the combat strength of the front troops and artillery, the availability and arrival of missiles, their allocation among the armies and missile large units under front subordination according to front tasks, the allocation of artillery of the Reserve of the Supreme High Command and its maneuver during the operation, and the allocation of nuclear, special, and conventional artillery ammunition according to front tasks.

Prepared in addition as separate attachments are schedules (calculations) which define and depict the procedure and time limits for preparing missiles and delivering them to the troops, the procedure and time limits for bringing the rocket troops and artillery to full combat readiness, the calculation for relocation of the rocket troops during the operation, the measures for protection against weapons of mass destruction, etc.

The chief of the missile-artillery armament service organizes the supplying of front rocket troops with missiles and warheads on the basis of the commander's decision. Specifically, he prepares the plan for supplying the troops with missiles, which makes provisions for receiving the delivery missiles and warheads arriving from the arsenals and bases of the center, for organizing their storage, carrying out their technical preparation, and delivering them to missile large units and units.

To supply missile large units and units with delivery missiles and warheads, a front can have one or two front mobile missile technical bases intended for support of the missile large units and units under front subordination (including the reserve divisions of the front) and reinforcement of the army mobile missile technical bases, and it can have one or two separate missile transport battalions to transport the missiles and warheads to mobile missile technical bases. In addition, each army has its own army mobile missile technical base to supply the army missile brigades and missile battalions of divisions with missiles.

Reserves of missiles and warheads are kept in army and front mobile missile technical bases. As a rule, one missile per launcher and the appropriate amount of missile propellant for it may be kept in the missile large units and units to be allocated for the initial nuclear strike.

The preparation of missiles in a front prior to the commencement of an operation can be carried out (depending on the situation) at the permanent garrison posts of missile and missile technical units, in the areas of their deployment (siting areas), and sometimes in areas of concentration

upon combat alert.

Missile large units and units can be issued warheads from a mobile missile technical base only when special permission has been received. When increasing the combat readiness of the troops, and in anticipation of receiving such permission, it is advisable to have transports with [combat-] ready missiles (warheads) in the disposition areas of missile brigades (battalions) and to keep them under the protection of representatives of mobile missile technical units. Upon receipt of the signal to issue warheads to the troops, the preparation of front rocket troops for the initial nuclear strike can in this case be carried out in two to three hours for a separate tactical missile battalion, and in three to four hours for a missile brigade.

Air defense planning is carried out by the chief and staff of the air defense troops on the basis of the decision of the front commander for the offensive operation and on the basis of the instructions of the General Staff regarding air defense. The strength of the air enemy's forces and the anticipated methods of his actions both with and without the use of nuclear weapons are assessed here, and it is also taken into consideration that troop groupings, like installations that are to be covered, will be of varying importance in different phases of the operation. The main efforts of the front air defense are concentrated on covering those troop groupings and installations whose preservation of combat effectiveness the successful accomplishment of the tasks of the operation depends on at a given moment and against which massed strikes by air attack means are most probable.

Air defense is planned for the entire depth of an offensive operation and in the most detail for the period when the enemy's initial massed air strike is repelled and when the troops fulfil the immediate task of the front. The following are defined: the grouping of air defense troops and fighter aviation and the procedure for deploying it in the departure area for the offensive, the system of surface-to-air missile (artillery) coverage and its cooperation with fighter aviation and with the Air Defense Forces of the Country and those of adjacent fronts (and on a coastal axis, with fleet air defense means), the system of reconnaissance and of warning about the air enemy, the procedure for relocating air defense troops and for rebasing fighter aviation during the operation, and the organization of control and cooperation, and also the organization of support of the combat actions of the air defense forces and means.

The air defense troop grouping must correspond to the concept of the operation. It consists of the combat formations of surface-to-air missile, antiaircraft artillery, and radiotechnical large units and units; and it is defined with due regard for the importance of the troops and installations to be covered, the grouping of the Air Defense Forces of the Country in the front zone, and the need for establishing the required fire system of antiaircraft means and ensuring close cooperation with the troops to be covered. The densest air defense troop grouping is set up to cover the first-echelon troops on the axis of the main thrust of the front.

The procedure for relocating large units and units of air defense troops is established so as to have the main forces in constant readiness to repel air strikes. As a rule, surface-to-air missile large units under front and army subordination are relocated by battalion.

The air defense plan is usually prepared in graphic form on a map to a scale of 1:500,000 with an explanatory memorandum and the necessary attachments.

Depicted on the map are the air enemy's grouping and the main axes of his actions, the operational disposition of front troops at the commencement of and during the operation, the immediate and subsequent tasks of the front, the disposition of the most important rear services installations, the grouping of the air defense forces and means in the departure area and according to front tasks, the external perimeters of the effective zones of the surface-to-air missile large units (units), the combat alert zones of fighter aviation, the lines where fighter aviation forces intercept air targets, the perimeters of the zone where first-line radar posts detect aviation (only in the departure area), the deployment locations of the air defense command post[s], the maneuver of air defense forces and means planned during the operation, the grouping of the Air Defense Forces of the Country in the front offensive zone, and the combat formations of the cooperating air defense means of the adjacent front.

The following can be set forth in the explanatory memorandum to the air defense plan: the conclusions from the assessment of the air enemy, the air defense tasks, the combat strength and combat capabilities of the air defense forces and means, the organization of air defense (the organization of reconnaissance of the air enemy, of surface-to-air missile and antiaircraft artillery cover, fighter aviation cover, and of cooperation and control), measures to ensure the stability of the air defense system during the air enemy's attempts to break through it,

provision of surface-to-air missiles and ammunition for antiaircraft artillery, and the allocation of fighter aviation flight resources.

The following can be prepared as attachments to the air defense plan of a front: a plan of reconnaissance of the air enemy with a diagram for warning front troops and rear services installations about the air enemy, a schedule for bringing air defense troops to full combat readiness, a schedule of the preparation and delivery of the missiles, tables of the control, cooperation, and identification signals, and other documents.

The planning of the combat actions of an air army is carried out by the air army staff with the involvement of specialists of departments and services on the basis of the front commander's decision for the operation, the instructions of the Commander-in-Chief of the Air Forces, and the air army commander's decision.

The planning of the combat actions of the air army in the first front offensive operation is carried out in advance in peacetime. Therefore, as the situation changes, the plan must be updated and, in connection with this, the tasks for the air large units and units of the army will be refined.

The flight resources and aviation nuclear munitions that are to be allocated to a front for an operation are defined to allow for the fulfilment of tasks by the air army with due regard for the sortie rate, materiel support, and possible losses. The average daily sortie rate in an operation can be two to 2.5 sorties for fighters and fighter-bombers, and 1.5 sorties for bombers. In an offensive operation lasting 12 to 15 days, the flight resources of an air army may be as high as 20 army sorties and 50 percent of the nuclear munitions out of the total number allocated to a front for an operation.

The flight resources of an air army participating in an air operation to rout the enemy's aviation and missile/nuclear groupings are defined by the Supreme High Command (General Staff). The front commander defines the nuclear munitions and flight resources of the air army according to the tasks of front troops, for the air support of first-echelon armies, and also for the support of the landing and combat actions of airborne and amphibious landing forces.

To fulfil the immediate task, during which, as a rule, the main tasks of a front operation are accomplished, the maximum combat action sortie rate may be required of the air army, i.e., three or more army sorties

daily in the first two or three days of the operation. Based on this, and according to the experience of operational training and theoretical research, for conditions of the Western Theater of Military Operations the allocation of up to two-thirds of the flight resources and nuclear munitions of the air army are usually planned for the immediate task of the front, up to one-third for the subsequent task, and up to one army sortie and five to 10 percent of the nuclear munitions for the front commander's reserve.

The flight resources and nuclear munitions are planned according to tasks of the air army to the depth of the immediate task of the front, and for its subsequent task the forces and means of the air army are defined without allocating them according to specific air army tasks.

The use of the maximum number of nuclear munitions is planned for the initial nuclear strike, with the decision about the number and yields of munitions for this strike and also about the allocation of targets being made by the front commander as the enemy targets are detected. Changes in the plan of the initial nuclear strike are made only according to his personal instructions.

Under conditions of the Western Theater of Military Operations the following norms are generally adopted when allocating flight resources according to air army tasks: up to 70 percent of the air army's fighter aviation resources are allocated to cover front troops and installations; 25 to 30 percent of the total air army resources are allocated to seek out and destroy missile/nuclear means and aviation on airfields; and the allocation of 60 to 65 percent of the fighter-bomber resources and all the flight resources of army aviation is usually planned for the air support of troops.

The destruction (neutralization) of operational reserves is assigned mainly to bomber aviation, which will carry it out in cooperation with rocket troops and Long Range Aviation. Fifty percent or more of the bomber resources are usually diverted for this task. In addition to reconnaissance aviation resources, 10 to 15 percent of the flight resources of the air army's other types of aviation are planned for aerial reconnaissance.

The targets of actions, the forces and means to be used to destroy each target, the strike time, the alternate targets, the flight routes and profile, the zones for negotiating the air defense, the composition of forces and means for support of the main forces of the air army in the

strike, the main and alternate takeoff and recovery airfields, and other matters are defined for the combat actions of the air army in the initial nuclear strike of the front and in the first massed strike in the air operation to rout the enemy's aviation and missile/nuclear groupings. Planning schedules (planning tables) for the delivery of strikes are drawn up, showing in detail the tasks, the takeoff time, strike time, and landing time for each group of aircraft. Such plans make it possible to constantly update tasks and carry out the monitoring and control of the air large units and units when delivering strikes.

When aerial reconnaissance is planned, the massed sortie of reconnaissance aviation for the purpose of conducting final reconnaissance and determining the coordinates of targets in support of the nuclear strikes of rocket troops and of the conduct of the operation as a whole is very complex and requires particular care to work it out and prepare flight personnel. Due to the high mobility of the majority of enemy targets, reconnaissance data must be received by the troops in the shortest time periods. Therefore, for each target it is necessary to send out a reconnaissance aircraft (or a pair) and to support its actions.

Air army cooperation with front troops (fleet forces on a coastal axis), frontline formations of the Air Defense of the Country, and adjacent air armies consists in allocating tasks, targets, and the time of actions among them in a most expedient manner, defining the methods for carrying them out when delivering joint strikes, and also in prescribing the precise procedure for mutual identification and informing.

The main matters and procedure of air army cooperation are defined in the instructions of the front commander and in the decision of the air army commander, and they are reflected in the air army combat action plan. Depending on the evolving situation, the commander and staff of the air army must ready to refine cooperation matters in extremely short periods of time and, in case of a sharp change in the situation, to coordinate the actions once again. For this it is necessary to have stable cooperation communications and mutual informing.

Control of the air army forces in a front offensive operation is exercised in a centralized manner. This method of control is important because it ensures extensive exploitation of the maneuver capabilities of front aviation and the rapid concentration of its main efforts to execute the main tasks and those which have newly arisen, makes it possible to exploit the combat characteristics of front aviation more fully, and ensures that nuclear weapons are constantly ready for use at the beginning

of and during an operation.

In the preparation for combat actions and during them, a system of air army control posts interconnected with front control posts is set up to control the large units and units of the air army and to effect its cooperation with front troops, the Air Defense Forces of the Country, adjacent air armies, Long Range Aviation, military transport aviation, and with the navy. This system includes an air army main command post (KP VA) positioned in the basing area of an air army's main forces 10 to 20 kilometers from the front command post, an air army forward command post (PKP VA) in the area of the front forward command post, and an air army rear control post (TPU VA) in the area of the front rear control post, and an air army airborne command post (VKP VA) intended for control of the air army's forces when the main ground control posts are disabled or are being relocated. In addition to this, and depending on the situation, an air army auxiliary control post (VPU VA) can be set up in the event that the control of aviation from the main command post is impaired on these axes.

The system of air army control posts continues to be developed. At present, a system of air army forward control posts has been introduced which includes air army combat control centers (TsBU VA) deployed at combined-arms and tank army command posts, guidance and target designation posts (PNTs) based on a calculation of two or three of them at each air army combat control center, combat control groups (GBU) deployed at first-echelon motorized rifle (tank) division command posts, and radio navigation posts (RNP) at each air army combat control center.

The standardized control posts of the new system provide more reliable control of front and army aviation and make it possible to solve problems of cooperation, mutual identification, target designation, and regulation of air traffic in the front zone.

The combat action plan of an air army in a front offensive operation is the [air] army commander's decision worked out in a detailed manner. It is usually prepared in textual form with an attachment of maps, schedules, tables, and calculations and approved by the front commander.

The following are the main sections of an air army combat action plan: tasks of the air army, conclusions from the assessment of the enemy, concept of combat actions, allocation of nuclear munitions and flight resources according to front troop tasks, allocation of nuclear munitions and flight resources according to air army tasks, tasks for air large units

(units), tasks and concept of radioelectronic warfare, organization of cooperation and control, air army basing.

Taking into account the need for more detailed planning of the fulfilment of the most important tasks, supplementary individual plans are simultaneously prepared, e.g., a plan of the combat actions of the air army in the initial nuclear strike of the front and a plan of the combat actions of the air army in the first massed strike of an air operation to rout enemy aviation and missile/nuclear groupings. They are integral parts of the overall plan of air army combat actions. These plans are usually prepared on maps with attachment of an explanatory memorandum, planning tables or schedules of strikes, and also the necessary calculations and reference information.

In accordance with the air army combat action plan, the departments and services work out a reconnaissance plan, a plan of measures for protection against weapons of mass destruction, a plan of the organization of communications and radiotechnical support, an electronic neutralization plan, a rear services support plan, and also plans of navigational, aviation engineer [technician], and meteorological support.

The planning of front troop combat action support is carried out by the staff and chiefs of branch arms, special troops, and services and by the deputy commander for the rear on the basis of the front commander's decision and the plan of the offensive operation in accordance with the instructions of the General Staff and the directive and instructions on the rear services. The principal support measures are reflected in the plan of the front offensive operation and they are worked out in a more specific manner in special plans for each type of support.

The planning of reconnaissance includes defining the objective and tasks of reconnaissance, the necessary forces and means, and the time it takes to fulfil them; working out a reconnaissance plan with coordination of the efforts of all types of reconnaissance according to tasks, targets, and time; organizing communications with reconnaissance units and subunits (groups); and prescribing the procedure for collecting and processing reconnaissance information.

The front chief of staff is directly responsible for the organization of reconnaissance in an operation and for its continuity and purposefulness and he carries out direct supervision of its activities. He makes specific the reconnaissance tasks assigned by the front commander and the General Staff, defines the sequence for conducting reconnaissance measures,

ascertains the axes, areas, and targets on which the main reconnaissance efforts should be concentrated, and also the forces and means for fulfilment of the most important tasks; he defines the strength of the reserve of reconnaissance forces and means and indicates the principal measures for preparing reconnaissance units to fulfil assigned tasks.

The reconnaissance plan is worked out by a staff's intelligence directorate according to front tasks to the full depth of the offensive operation, but it is worked out in most detail for the period of preparation of the operation, implementation of the initial nuclear strike, and execution of the immediate front task. Reconnaissance efforts are concentrated in support of the accomplishment of the main tasks by the troops, such as their carrying out the initial nuclear strike, destroying nuclear attack means, breaking through enemy defense lines, encircling and destroying enemy groupings, making assault crossings over large water obstacles, routing the enemy's reserves and repelling his counterthrusts, committing the front second echelon to the engagement, landing airborne and amphibious landing forces, etc.

Shown in a front reconnaissance plan are the objective, tasks, and targets of reconnaissance; the areas and axes of particular attention; the calculation of reconnaissance forces and means according to tasks (targets, areas, and axes) with an indication of the time limits for fulfilling them; the composition of the reserve; the main and alternate areas; the deployment time of reconnaissance forces and means and the procedure for moving them during the operation; what data about the enemy must be received from the General Staff, adjacent units, and staffs of cooperating formations (large units); and the organization of the control of reconnaissance forces and means.

Indicated for the subunits (groups) slated for actions in the enemy rear are the methods, means, and time for getting them over to the rear, as well as the procedure for withdrawing them from areas against which nuclear strikes are to be delivered, with the reconnaissance measures to obtain information with these groups about the enemy's nuclear attack means, his main troop grouping, his troop and weapons control posts, and other important targets being worked out most fully.

On the basis of the reconnaissance plan, the intelligence directorate prepares plans of the combat use of radio and radiotechnical reconnaissance units and of the special reconnaissance forces and means of the front. The planning of agent reconnaissance is carried out in accordance with special instructions.

The reconnaissance tasks of branch arms and special troops, which are stipulated in a front reconnaissance plan, are worked out in detail and are reflected in the plans of their combat use and by types of support.

Reconnaissance tasks are conveyed to the executors via written or oral combat instructions. They usually contain brief reports about the grouping and actions of the enemy and indicate the zone and tasks of reconnaissance, the time limits for fulfilling those tasks (and, for the air army, the type and scales of aerial photography), what to pay particular attention to, and the procedure for submitting reconnaissance reports (photo documents). It may also indicate the methods of conducting reconnaissance and the reconnaissance measures to be carried out by the senior commander and adjacent units in the zone of the given formation.

The time required to prepare reconnaissance organs for forthcoming actions and to directly obtain reconnaissance data and transmit them to the staffs concerned must be taken into consideration when tasks are assigned. For the purpose of allowing the executors more time to prepare and conduct reconnaissance, a front staff may issue preliminary instructions containing the directions required to prepare for execution of the forthcoming tasks and also indications of the time and methods of conveying the reconnaissance tasks.

Protection against weapons of mass destruction is planned by the staff on the basis of the front commander's decision and his instructions regarding protection. The chiefs of branch arms, special troops, services, and the rear are involved in the planning.

The front staff is the principal organizer of protection. It coordinates the work of the chiefs of branch arms, special troops, and services and of the rear staff regarding protection and organizes the system for determining the coordinates and parameters of nuclear bursts, the collection and processing of data about nuclear bursts in the front zone, the conduct of radiation, chemical, and biological reconnaissance, the warning of troops about the immediate threat of the use of weapons of mass destruction, the notification of troops, rear services organs, and adjacent units about contamination of the air and terrain, the protection of front control posts, the assessment of radioactive irradiation of personnel, the restoration of troop combat effectiveness, the elimination of the aftereffects of enemy use of weapons of mass destruction, and also the monitoring of implementation of the necessary protective measures.

When an offensive operation is being prepared, the front staff may work out a plan for protection of front troops and installations against weapons of mass destruction in which the protective measures to be implemented by front means, armies, and large units subordinate to the front are shown. The measures that are to be carried out during the preparation of the operation, during the initial nuclear strike, and when front troops are fulfilling the immediate task are planned in most detail. The necessary forces and means, performance time limits and responsible executors are defined for carrying out each measure.

Protective measures must also be stipulated in plans for the combat use of branch arms and in plans for different types of support. If the time for preparing the operation is limited, the protection plan may perhaps not be worked out as a separate document. In this case, the main protective measures are indicated in the plan of the front offensive operation.

On the basis of the commander's instructions and the protection plan, the staff issues combat orders concerning protection to the armies and large units subordinate to the front, which indicate data about the enemy's preparation to use weapons of mass destruction, the measures to be carried out by the front in the interests of the army (large unit), the specific tasks for the executors stemming from the protection plan, the procedure for providing the means of protection, the signals for warning about the immediate threat of enemy use of weapons of mass destruction and for notification about radioactive, chemical, and biological contamination, plus other necessary matters.

Operational camouflage in an offensive operation is planned in accordance with the instructions of the General Staff and on the basis of the front commander's decision.

During the preparation of an operation, operational camouflage can be conducted with the tasks of concealing from enemy reconnaissance or disorienting it regarding the bringing of the forces and means of a military district (front) into combat readiness, the time and procedure of occupation of siting areas by rocket troops and of departure (waiting) areas by combined-arms large units and formations, the rebasing of aviation to new airfields, the air defense system, the axes of the main and of other thrusts of the front, the operational disposition of front troops, the time and procedure of delivery of the initial nuclear strike and of the troops' going over to the offensive, the deployment areas of control posts, the communications system, and the disposition of the most important rear

services installations of the front.

During an operation, the main task of operational camouflage can be to deceive the enemy regarding the axis of the main thrust of a front, the substance of the tasks assigned to the troops, the scale of use of nuclear weapons, the targets and time of delivery of nuclear strikes, the relocation and deployment of rocket troops, combined-arms large units and formations, aviation, and air defense forces and means in new areas, the deployment lines, the time and axes for committing the second echelon and reserves of a front to the engagement, the relocation and deployment of control posts and important rear services organs in new areas, and also regarding the losses of our forces and means, the combat effectiveness condition of the troops, the level of destruction of important installations by the enemy's nuclear strikes, and the results of the combat actions of front troops.

Defined in accordance with the concept and tasks of operational camouflage are the measures and the necessary composition of the forces and means to implement them, plus the procedure for using them.

To carry out operational camouflage, a front can have one or two engineer camouflage battalions and one such battalion in the air army. In addition, units and subunits of motorized rifle, tank, engineer, chemical, and communications troops and of forces and means of the air army and air defense troops can be allocated. The following are used from technical means: combat and transport equipment, railroad rolling stock, special and T/E radioelectronic means, means for the mechanization of engineer work, T/E camouflage equipment, diverse simulation equipment, different improvised camouflage materials, smoke and pyrotechnic means, different types and means of reconnaissance, press, radio, television, etc.

The operational camouflage plan is prepared by the operations directorate of the front staff with the participation of the chiefs of the staff directorates, branch arms, special troops, services, and the rear and, if necessary, with the participation of other generals and officers (according to the commander's instructions).

The plan, which is worked out in graphic form on a map (usually to a scale of 1:500,000) with the attachment of an explanatory memorandum or in textual form, shows the measures for fulfilment of operational camouflage tasks and the means and forces allocated and indicates the time for carrying out the measures, the responsible executors, and who monitors the execution of the outlined measures. Only the objects and measures of

operational camouflage itself are here shown on the map; showing the actual position of our troops should be done only to the extent necessary to reflect the concept of operational camouflage.

Operational camouflage tasks are conveyed to the executors via special instructions in which it is specifically indicated who is to fulfil what in which time limits, but to such an extent so as not to reveal the overall concept of the camouflage.

To verify the effectiveness of the operational camouflage measures, the front staff organizes and carries out systematic monitoring, using aerial and radar reconnaissance, plus other types of reconnaissance for this purpose.

Engineer support is planned according to tasks which are defined for during the preparation of the operation, implementation of the initial nuclear strike, and fulfilment of the immediate and subsequent front tasks.

The front commander's decision for an offensive operation and his instructions regarding engineer support are the basis of the planning of engineer support.

The plan of engineer support of a front offensive operation is usually prepared on a map to a scale of 1:200,000 or 1:500,000, and for individual matters (negotiation of obstacles, engineer preparation of departure areas, engineer support of the breakthrough of a forward defense line, the assault crossing of wide water obstacles, etc.) it is prepared on large-scale maps. An explanatory memorandum is attached to the map of the engineer support plan.

The volume of tasks or separate engineer measures, the forces and means to be allocated, and the place and time of fulfilment are defined in the plan (in graphic form on the map or in the explanatory memorandum) for each engineer support task.

The tasks are conveyed to the troops in instructions on engineer support, which are issued on behalf of the front commander and signed by the chief of staff and the chief of engineer troops of the front. The tasks are conveyed to front-subordinated engineer units and large units in combat instructions signed by the chief of engineer troops of the front.

Indicated in the instructions on engineer support are engineer support tasks and the time limits for fulfilling them, the procedure for using

attached units (subunits) of engineer troops, the tasks to be performed by front forces and means in support of the given army (large unit), the provision of engineer equipment for troops and jobs, the location of and procedure for procuring local materials, and the procedure for submitting reports.

Chemical support is planned according to the front tasks in an operation and it is mainly carried out by the forces and means of the chemical troops.

The chemical support plan, like the plans for other types of support, is prepared on a map with an explanatory memorandum. In this case, on the map are shown the tasks and the time limits for fulfilling them, the disposition areas and arrival times of units and subunits of the chemical troops, the boundaries of smoke screens and the time for setting them up, and the disposition areas of chemical depots. It also deals with meteorological conditions and the radiation situation, which is forecast on the basis of the anticipated detonation of enemy nuclear minefields and of the planned ground bursts of our own troops.

The following can be indicated in the explanatory memorandum to the chemical support plan: the purpose and tasks of chemical support during preparation of the operation and when the troops are moving forward, deploying, and going over to the offensive during the operation; the combat use of chemical troops in the operation; the provision of troops with chemical munitions and protective means; the safety measures when our troops are using special weapons; the signals for warning about radioactive, chemical, and biological contamination and the procedure for transmitting them.

Integral parts of the chemical support plan are a radio communications diagram which shows the radio nets for collecting data about enemy nuclear bursts, air and ground radiation data, and chemical reconnaissance data; the radio net of the chemical troops; the plan for supplying front troops with chemical munitions and protective means, on the basis of which calculations for issuing equipment, requisitions for motor vehicle transport, and the schedule for transporting equipment to the troops are drawn up.

Chemical support tasks are conveyed to armies and separate large units in instructions on chemical support signed by the chief of staff and the chief of chemical troops of the front. Tasks are conveyed to front-subordinated units of chemical troops in combat instructions signed

by the chief of chemical troops.

Radioelectronic warfare is organized by the front staff on the basis of the commander's instructions and the instructions of the General Staff. The principal organizers of radioelectronic warfare are the front staff and, primarily, the chief of staff.

On the basis of the commander's decision, the front chief of staff issues instructions concerning radioelectronic warfare in which the following are defined: its concept in the operation, the axes where the efforts are to be concentrated, the procedure for covering front troop groupings with electronic neutralization means and for allocating them, and the tasks regarding electronic reconnaissance, electronic neutralization, and electronic defense, as well as the measures for ensuring electromagnetic compatibility. These instructions can be drawn up as documents in the form of combat instructions on radioelectronic warfare.

During planning of radioelectronic warfare, the electronic situation in the front offensive zone is assessed; an electronic neutralization plan is prepared; the tasks for the neutralization of enemy electronic means are conveyed to the executors; the necessary grouping of SPETSNAZ radio and radiotechnical units is established; the preparation of these units for the fulfilment of the assigned tasks is carried out, as is the monitoring of their fulfilment; the cooperation and control of SPETSNAZ radio and radiotechnical units is organized.

Radioelectronic neutralization is organized for the purpose of disrupting the control of the opposing grouping of the enemy's ground forces and aviation, reducing the effectiveness of their nuclear and conventional weapons strikes, and disorganizing the cooperation of his forces and means.

To achieve this objective, the neutralization by jamming of the enemy's most important radio and radio-relay communications lines, the onboard radar means of his aircraft, his air defense ground electronic means, and his radio navigation systems is organized in precise coordination with the front troops' tasks in the operation and with the strikes by means of destruction against the enemy's control posts and communications centers.

Specific tasks are defined for electronic neutralization means in the initial nuclear strike and during fulfilment of the immediate and subsequent tasks of the front.

The main electronic neutralization tasks in the initial nuclear strike can be neutralization of the nets for warning about the air and radiation situation, disruption of radio communications for the control of units that use operational-tactical and tactical nuclear weapons, and reduction of the effectiveness of the enemy's nuclear and conventional weapons strikes against front troops and installations.

When the immediate and subsequent front tasks are being fulfilled, the electronic neutralization tasks will be disruption of the radio control of the large units and units of the enemy's first-echelon ground forces and his missile units on the axis of the main thrust, disorganization of the cooperation between the large units and units of ground forces and the tactical aviation supporting them, and reduction of the effectiveness of the enemy's nuclear strikes and air strikes with conventional means against front troops and installations.

Electronic neutralization is combined with the destruction of the most important electronic targets in the enemy's control systems by the nuclear weapons and other types of weapons of the front.

The principal measures for electronic defense are destruction of the enemy's jamming transmitters; the use of our own electronic means with different frequency bands, modes (principles) of operation, and power outputs; the shifting of frequencies and maneuvering of systems and means; changing the operating mode of electronic means; electronic camouflage, etc. When organizing the operation of our electronic means, it is also necessary to provide for measures and methods to eliminate mutual interference (for ensuring electromagnetic compatibility).

The tasks and measures listed above for disruption of the enemy's electronic systems of troop and weapons control are worked out in detail and shown in an electronic neutralization plan. It usually covers the following matters: the objective and tasks of electronic neutralization in the operation, the most important enemy electronic installations and control posts in the front offensive zone that are to be destroyed by front and army means of destruction and neutralized by radio jamming means of the General Staff, the tasks of SPETSNAZ radio units, the tasks of SPETSNAZ radiotechnical units, and the electronic neutralization tasks of the air army to ensure negotiation of enemy air defense by front aviation and cover the main home airfields of our aviation. Also shown in the electronic neutralization plan are the radar camouflage measures to be conducted by front and army engineer troops, areas of the main and alternate positions of SPETSNAZ radio and radiotechnical units and the procedure for

The main electronic neutralization tasks in the initial nuclear strike can be neutralization of the nets for warning about the air and radiation situation, disruption of radio communications for the control of units that use operational-tactical and tactical nuclear weapons, and reduction of the effectiveness of the enemy's nuclear and conventional weapons strikes against front troops and installations.

When the immediate and subsequent front tasks are being fulfilled, the electronic neutralization tasks will be disruption of the radio control of the large units and units of the enemy's first-echelon ground forces and his missile units on the axis of the main thrust, disorganization of the cooperation between the large units and units of ground forces and the tactical aviation supporting them, and reduction of the effectiveness of the enemy's nuclear strikes and air strikes with conventional means against front troops and installations.

Electronic neutralization is combined with the destruction of the most important electronic targets in the enemy's control systems by the nuclear weapons and other types of weapons of the front.

The principal measures for electronic defense are destruction of the enemy's jamming transmitters; the use of our own electronic means with different frequency bands, modes (principles) of operation, and power outputs; the shifting of frequencies and maneuvering of systems and means; changing the operating mode of electronic means; electronic camouflage, etc. When organizing the operation of our electronic means, it is also necessary to provide for measures and methods to eliminate mutual interference (for ensuring electromagnetic compatibility).

The tasks and measures listed above for disruption of the enemy's electronic systems of troop and weapons control are worked out in detail and shown in an electronic neutralization plan. It usually covers the following matters: the objective and tasks of electronic neutralization in the operation, the most important enemy electronic installations and control posts in the front offensive zone that are to be destroyed by front and army means of destruction and neutralized by radio jamming means of the General Staff, the tasks of SPETSNAZ radio units, the tasks of SPETSNAZ radiotechnical units, and the electronic neutralization tasks of the air army to ensure negotiation of enemy air defense by front aviation and cover the main home airfields of our aviation. Also shown in the electronic neutralization plan are the radar camouflage measures to be conducted by front and army engineer troops, areas of the main and alternate positions of SPETSNAZ radio and radiotechnical units and the procedure for

maneuvering them during the operation, the reserve of radio jamming forces and means, organization of the cooperation of the forces and means of electronic neutralization according to the front troop tasks in the operation, measures for ensuring the electromagnetic compatibility of the electronic means of main groupings when they are accomplishing the most important tasks, and measures directed at preventing the neutralization of the electronic means of our troops while jamming the enemy and at ensuring the secrecy of the operation when front electronic means are being used. Organization of the control of SPETSNAZ radio and radiotechnical units and the reconnaissance tasks for obtaining data about the enemy's electronic means are also defined in the plan.

The electronic neutralization plan is worked out by the radioelectronic warfare service, with involvement of representatives from the intelligence directorate, the communications directorate, the chief of front engineer troops, the chief of front air defense troops, and the staff of the air army. In addition, the portions of the planned measures which concern the staffs of military transport aviation and airborne landing forces and the radioelectronic warfare services of adjacent fronts are coordinated with them.

Control of the SPETSNAZ radio and radiotechnical units is exercised over the shortwave radio links and radio-relay communications channels of the front communications system.

As a integral part of radioelectronic warfare, electronic defense is organized and carried out by all the branch arms, special troops, and services of a front. Electronic defense measures are reflected in special plans or in the sections on radioelectronic warfare in the plans of combat employment of branch arms, special troops, and services.

Radioelectronic warfare tasks are conveyed by the front staff to army staffs in special instructions, and they are conveyed to the commanders of SPETSNAZ radio and radiotechnical units in combat instructions.

Topogeodetic support includes publishing topographic maps and city plans, astronomical-geodetic and gravimetric data, special maps and photo documents, topographic reconnaissance results, and target coordinates determined according to air and ground reconnaissance data and issuing them to troops and staffs and providing the rocket troops and artillery with a network of reference points, particularly after nuclear strikes by both sides.

The planning of topogeodetic support is carried out by the chief of the topographic service in cooperation with the operations directorate and the other directorates of the staff and branch arms of a front. The following are the basic data for planning: the actual state of the topogeodetic and cartographic coverage of the troop combat action zone, the instructions of the General Staff concerning topogeodetic support, the main indices of the operation, the composition and operational disposition of the troops, the requisitions of the chiefs of branch arms and services of the front field headquarters concerning topogeodetic support, the capabilities of the forces and means of the topogeodetic service of the front, and the measures that are to be fulfilled for front troops by the forces of the units of the military topographic service of the General Staff.

In an operational briefing the chief of the topographic service receives instructions from the front chief of staff and specific tasks concerning troop support, after which he ascertains the topogeodetic support requirements of the branch arms, services, and staffs of the armies and large units under front subordination during the preparation and course of the operation.

The topographic service of the front staff prepares a plan of topogeodetic support of the offensive operation (usually on a 1:500,000-scale map) with an attachment of a schedule for fulfilling measures for topogeodetic support of the troops.

The demarcation lines of the front, the position of army command posts, and the locations of units and subunits of the military topographic service are marked on the map of the topogeodetic support plan; and so are the time limits for providing troops with topographic maps, the areas where the work is performed, and the sectors for development of special maps and documents about the terrain and the enemy. So that topogeodetic support plan is not overloaded with various data, the calculation for supplying the troops with topographic maps is done, as a rule, in consolidated tables.

The types and volume of the work (documents) to be implemented, the sequence of their implementation, the forces and means to be allocated, the time the work begins and ends, and the responsible executors are indicated in the schedule for fulfilling the measures for topogeodetic support of the troops in an operation.

For the purpose of fulfilling the topogeodetic support tasks of an operation, the front chief of staff issues instructions to the chiefs of

subordinate staffs, in which he defines the time limits and procedure for supplying topographic and special maps (photo documents) to the troops and the procedure for using them, the procedure for performance of geodetic work by units of the military topographic service in support of the troops, the time limit for turning in materials on geodetic findings, and the time limits for subsmitting accounts and reports about the progress of the fulfilment of measures for the topogeodetic support of the troops.

Organization of hydrometeorological support for a front offensive operation includes defining the procedure and methods for obtaining data about the hydrometeorological situation; compiling weather forecasts, meteorological bulletins, and hydrological data about the state of rivers, lakes, and swamps and transmitting these to the troops, subordinate staffs, and directorates (departments) within the front field headquarters; organizing hydrometeorological information, particularly about dangerous weather phenomena (sharp changes in air temperature, storm winds, snowstorms, ice storms, heavy showers, flooding, torrential run-off, and other phenomena).

The operations directorate prepares the instructions regarding hydrometeorological support, collects and collates (together with the staff of the rocket troops and artillery and the chiefs of the engineer, chemical, and air defense troops) all the data on the hydrometeorological situation, reports the main items from this data to the commander and chief of staff of the front, and informs the front field headquarters, the subordinate and adjacent staffs, and the General Staff.

The following are indicated in the instructions on hydrometeorological support: the tasks and organization of this support, the volume of forecasting work, the principal times for conducting observations, the organization and procedure for conducting weather reconnaissance and reconnaissance of the hydrometeorological state, and the procedure for providing the troops with hydrometeorological information and storm warnings about hazardous weather phenomena.

Information about the hydrometeorological situation comes in the form of long-term (usually for a month) and short-term (for several days) forecasts of the weather and of the state of the rivers and in the form of daily weather reports. Information about hazardous weather phenomena is reported orally or through brief radio and telephone messages above precedence over operating communications nets. The interval at which this information is repeated is determined in each case by the level of danger of the given phenomenon and by the conditions of the situation, taking into

account the fact that the staffs and troops concerned must have sufficient time to adopt appropriate measures.

4. Preparation of front troops for the offensive

After adopting the decision for an operation and planning one, a great deal of work is organized and carried out for comprehensive preparation of the troops, commanders, staffs, and rear services organs for the forthcoming offensive.

The preparation of the troops includes an extensive array of measures, the principal ones being mobilization expansion, increasing of the combat effectiveness and combat readiness of the troops, their immediate preparation for the operation, practical organization of the cooperation of the forces and means, organization of cover of the troops' movement forward and deployment, establishment of attack groupings, preparation of the front departure area, and practical performance of measures for support of the forthcoming combat actions.

The content and scope of these measures will depend on the time available and the conditions of the situation. The following will also have a great effect: the disposition and status of the troops, the planned procedure for deployment and occupation of the departure position by the troops, the anticipated nature of the enemy's actions, the special features of the terrain, the time of year, the weather, and other factors. However, in all instances the measures must be carried out in the most complete manner, in secret, and in extremely short time periods.

During the Great Patriotic War, the work of the command and staffs for the preparation of an offensive operation was structured in such a way that subordinate large units and units would have a maximum amount of time to carry out all the preparatory work. This requirement is still valid under present-day conditions.

The most important measures for troop preparation are carried out under the supervision of the front commander. The appropriate chiefs, monitored by the front staff, directly organize the fulfilment of tasks for preparing the large units and units of branch arms and special troops for an offensive.

Bringing front troops to full combat readiness is the most important, first-priority task in the immediate preparation of a first operation. It usually begins with the implementation of mobilization measures according to the plans previously worked out by the General Staff and the staffs of formations, large units, and units for the purpose of converting peacetime troops, control organs, and rear services to a wartime organization and T/O&E.

Of these measures the principal ones in this period will be bringing units, control organs, and rear services up to prescribed wartime T/O&E in personnel, armament, combat equipment, motor vehicle transport, and different types of materiel; allocating cadres from existing large units, units, and control organs for other activated contingents; establishing new line and rear services large units, units, and staffs; bringing troops, control organs, and rear services to full combat readiness and dispatching them to areas (points) of operational assignment.

The time limits for full mobilization are prescribed by the General Staff according to the operational assignment of the troops being activated and the availability of the mobilization resources coming in to form them or bring them to prescribed strength; but, in principle, these time limits must be as short as possible. The timeliness of mobilization depends on thorough planning, the practicability of the prepared plans and their timely refinement, the training level of the personnel in fulfilling the mobilization measures, and also on reliable cover of troops and installations against enemy ground attacks and air strikes.

Bringing troops, control organs, and rear services to full combat readiness is carried out on the order (signal) of the General Staff, and -- in the event of a surprise attack -- on the order (signal) of the commander of the military district (group of forces). It is carried out by placing the troops on combat alert and moving them out to previously assigned concentration areas (siting areas, prepared control posts). The time for placing troops on combat alert and bringing them to combat readiness is prescribed by the senior commander; it must be extremely short.

The troops move out to concentration areas with their armament, combat equipment, motor transport, and available reserves of materiel. Ammunition, dry rations, and individual and group protective means are issued to them in these areas, and weapons and combat equipment are made fully ready for combat use; air defense, observation, reconnaissance, and measures for protection against weapons of mass destruction are organized and carried out; personnel and equipment are dug in and camouflaged.

Combat tasks can be transmitted to the large units and units in the concentration areas.

Commanders at all levels must rigorously see to it that the measures for bringing troops to combat readiness are carried out with the observance of camouflage and security measures. Particular attention must be devoted to maintaining the combat readiness of rocket troops, air defense forces and means, covering units, front aviation, and first-echelon combined-arms and tank armies in order to repel a possible enemy attack and to go over to a decisive offensive.

Preparing troops for an offensive is the logical sequel to and consummation of the preparation of an operation in peacetime. It will usually be carried out in the period of threat, the duration of which can vary from several hours to several days.

The main efforts of reconnaissance in this period are concentrated on timely ascertainment of the possible time of the enemy attack and also on detection of the location and condition of the targets planned for destruction in the initial nuclear strike.

The complexity of fulfilling reconnaissance tasks consists in the fact that prior to the commencement of military actions reconnaissance will be conducted with limited forces and means. Therefore, staffs must carry out timely and effective measures to build up the efforts of reconnaissance, particularly agent, aerial, radio, and radiotechnical reconnaissance, in every way in order to simultaneously cover a considerable depth of the enemy's disposition with it.

As a rule, the tasks for the first operation will be conveyed to armies during peacetime. When the troops are being directly prepared for an offensive, primary attention should be concentrated on conveying combat tasks to the commanders of large units, units, and subunits and refining them. Accordingly, the tasks for large units and units can be assigned through written combat orders and combat instructions, or orally when subordinate commanders are called in or visited; and the tasks for subunit commanders from battalion down to squad and crew are assigned orally.

To convey tasks under conditions where time is extremely limited, it will often be necessary to transmit brief instructions, commands, and signals over technical communications means while observing security requirements.

After assigning and conveying the tasks it is necessary to verify and make sure that subordinate commanders comprehend them correctly. There can be various methods for this verification. In some cases senior commanders can listen to reports from subordinates in their command posts, and in other cases they can verify their knowledge and comprehension of tasks when conducting command-staff exercises, tactical problems with troops, and reconnaissance on the terrain.

When preparing troops for an operation, a great deal of attention must be devoted to practical working out of cooperation matters at the tactical level, especially to timely conveyance of cooperation signals to the troops and verification of proper mastery of the procedure for transmitting and receiving them and of the knowledge of signals for designating the front line and identifying our own aircraft and helicopters.

The most important measure for the preparation of troops for a forthcoming operation will be the organization and conduct of practical exercises in combat and political training, with due regard for the substance of impending combat tasks and the prescribed procedure for troop cooperation. In these practical exercises, matters of the organization and conduct of combat actions similar to actions during the fulfilment of assigned combat tasks are worked out, cooperation and coordination in the actions of the different forces and means are achieved, and new combat equipment and equipment drawn from the national economy are studied.

When an exercise was prepared during the Great Patriotic War, as we know, the conduct of tactical and tactical-special troop exercises and problems was practiced extensively, including exercises with field firing. In them, the tasks and methods of the actions of units and subunits were worked out with due regard for the specific enemy and the nature of the terrain. And under present-day conditions such exercises should be an obligatory element of the preparation of troops for an operation, since they contribute to the coordination of subunits, units, and large units, which is a necessary condition of the successful fulfilment of combat tasks, particularly if it is taken into consideration that personnel called up from the reserves will be participating in them.

The preparation of front and army aviation calls for carrying out measures directed at increasing the combat readiness of personnel, aviation equipment, and all the support forces and means for prompt combat actions in accordance with prepared plans. It includes continuous surveillance of the enemy, reconnaissance of his air defense system, studying of the possible nature of enemy actions, working out of matters of cooperation

between aviation and the combined-arms large units, formations, and rocket troops of the front, working out and study of signals for control and cooperation, maintenance of communications means at constant readiness, conduct of exercises with actual flights, preparation and maintenance of alternate airfields in readiness and establishment of reserves of materiel at them, training of the combat crews of control posts, improvement of the skills of flight personnel, and combat coordination of crews.

It is extremely important to build up the combat readiness of air defense troops so that, in cooperation with fighter aviation of the air army and the frontline large unit of the Air Defense Forces of the Country, they can reliably cover the main grouping of front troops during the preparation of an operation. Primary attention is here given to forming a rational grouping of air defense troops, increasing reconnaissance of the air enemy, setting up a system for controlling air defense forces and means, refining the procedure for repelling the first massed strike of enemy aviation with regard to the possible variants of its delivery, refining the cooperation procedure of air defense forces and means, preparing and delivering the required number of missiles to launch sites in a timely manner, and ensuring that the above-mentioned measures are carried out in secrecy.

During comprehensive training sessions it is expedient to exercise control of large units and units of air defense troops from both stationary and mobile command posts, with the transfer of control to the alternate and forward command posts.

The preparation of rocket troops and artillery involves, first of all, the organization and practical working out at all levels of cooperation matters on a map and on the terrain, improvement of the teamwork of combat crews, training in the control of missile and artillery units and large units, supplying of them with missiles and artillery ammunition, and performance of topogeodetic and meteorological support measures.

Staff training sessions and command-staff exercises should be conducted at all levels, even for a minimal time period, for the purpose of increasing coordination in the work of formation, large unit, and unit staffs to control troops and of improving the individual training and practical skills of staff officers and generals, particularly those called up from the reserve. During command-staff exercises, units and subunits of communications, reconnaissance, and of the provost and traffic control service and others that are allocated for these exercises should also improve their special training.

Conducting command-staff exercises will make it possible to study the opposing enemy and the physical geographic conditions of an operational axis more thoroughly and work out matters of cooperation more precisely. In a number of cases operational command-staff exercises can be combined with tactical and tactical-special exercises.

For the purpose of ensuring stable troop control in a forthcoming operation, final preparation of control posts is carried out and, at the same time, the allocation of staff personnel among them is updated. If the use of lower command levels as backup control posts during the operation is contemplated, the level of their readiness and provision with communications means and other equipment should be checked.

A great deal of attention is devoted to the deployment of the communications system and to the coordination of communications units and subunits. This is all the more necessary in that new technical means, communications equipment from the national economy, and reserve personnel will be coming into the communications troops in significant numbers in the period being examined. By conducting regular training sessions with communications personnel with their placement on combat alert and movement out to locations prepared for them, we should achieve deployment of communications means within short time limits, interchangeability of crews, and their rapid entry into the work under conditions of active enemy jamming.

It is also important to prepare communications personnel for extensive utilization, particularly in the initial operations, of the means of the nationwide communications system, which will make it possible to increase the survivability of the front communications system and, at the same time, save a considerable portion of the table-of-equipment means for use during the offensive operation.

The following are to be checked with particular care: the readiness of communications means for reliable and rapid (literally calculated in minutes) transmission of warning signals and instructions about placing the troops on combat alert and their movement forward and occupation of the departure position for the offensive. A great deal of attention is to be devoted to preparing officers and the 24-hour duty detail service at all levels in order to guarantee that signals and commands are transmitted in a timely manner and that subordinates comprehend them correctly.

Organization of cooperation. The participation of formations, large units, and individual units of the different branch arms and branches of

the armed forces in an operation requires precise coordination of their actions for the entire extent of the operation. Without well-organized and continuously implemented cooperation the success of an offensive is not possible under modern conditions. The cooperation of front forces and means is organized by task, axis, target, method of action, and time to the entire depth of an operation, especially for the attack grouping of troops which is operating on the main axis of the offensive. It is organized in most detail among the forces and means participating in the delivery of the initial nuclear strike, for the first day of the offensive, and for the period during which the troops fulfil the immediate task. For the subsequent task, cooperation is organized with less detail, but during the operation it is refined and worked out in detail.

The front commander personally organizes cooperation. He defines the procedure for cooperation when adopting the decision and conveys it to subordinates when assigning tasks. As a rule, cooperation matters are worked out in detail after tasks have been conveyed to the troops, either separately with each army and the forces and means cooperating with it, or simultaneously with several armies operating in any one attack grouping and the forces cooperating with them; in individual cases they are worked out with all the armies and large units subordinate to the front. Under conditions where time is extremely limited and there is a complex situation, the front commander, as a rule, issues instructions on cooperation to subordinates at the same time as he assigns tasks (personally or via technical communications means). For the purpose of assisting subordinate commanders and staffs to organize cooperation he can dispatch his deputies or other command personnel of the front field headquarters to them.

The staffs of cooperating troops should maintain a mutual exchange of information about the situation. For this purpose they exchange officers with communications means as well as tables of cooperation signals.

The organization of cooperation can be carried out on a map, on relief maps, on a prepared mockup of the terrain, and on the terrain. The use of any one method will depend on the conditions of an operational situation and especially on the time available at the disposal of the front commander.

When organizing cooperation, one should pay special attention that subordinates firmly master the content of combat tasks and the methods by which their own and the cooperating troops, forces, and means are to fulfil them. It is incumbent upon the front commander and his staff to coordinate

the delivery of nuclear strikes by front rocket troops and aviation with the strikes delivered by the means of the Supreme High Command and adjacent units; the fire and strikes of conventional means of destruction and also the actions of advancing troops with nuclear strikes; the action methods of the armies and large units subordinate to the front and of the large units and units of branch arms and aviation according to target, place, and time when they are jointly fulfilling assigned tasks; the joint actions of front air defense troops with the Air Defense Forces of the Country and those of adjacent fronts; and measures regarding the comprehensive support of troop combat actions. In addition, the front staff defines the procedure for mutual warning of troops, forces, and means about the air enemy and radioactive, chemical, and biological contamination and it sets up a common system of signals for cooperation, target designation, mutual identification, and warning and a common numbering system for targets.

The organization of cooperation between strategic nuclear forces and front forces and means during the delivery of a nuclear strike is carried out by the Supreme High Command, which can, in particular, specify the strike delivery time, the targets of destruction, and the enemy target kill zones for the strategic nuclear forces. Some targets can be destroyed by strategic means also in the kill zone of front means, with due regard for ensuring their safety.

When organizing cooperation between the rocket troops and air army of a front during the delivery of a nuclear strike, based on their combat capabilities, one allocates the targets of nuclear strikes, defines the types of bursts and the time and sequence for delivering strikes, prescribes the procedure for the actions of aviation, taking into account the safety measures, flight routes, and strike axis of aviation in the event of the hitting of major enemy targets at the same time by the rocket troops, defines the mutual use of forces and means for the reconnaissance and final reconnaissance of the targets of nuclear strikes, and also establishes cooperation signals.

Coordinated with particular care when organizing cooperation between first-echelon armies and the rocket troops and aviation during the delivery of a nuclear strike and the actions after it are the time of delivery of the nuclear strike by the different forces and means and the time and procedure for conducting preparatory fire and for moving up and deploying the forward detachments and main forces of first-echelon divisions when going over to the offensive. The delivery of nuclear strikes by rocket troops and also the delivery of nuclear and fire strikes by aircraft and artillery must be closely coordinated with the actions of combined-arms

large units in order for troops to most fully exploit the results of these strikes. Measures for the safety of our troops during the delivery of strikes against the enemy are prescribed, including safe distance lines.

For the period of conduct of an operation one defines against what targets, by whom, when, and also with warheads of what yield nuclear strikes are to be delivered by front means. Also defined are the types of bursts, the procedure for delivering them, the cooperation and target designation signals, the procedure for transmitting reconnaissance data from aircraft to the staffs of large units and formations concerned, and also the cooperation procedure of rocket troops and aviation when relocating missile brigades and rebasing the large units of the air army.

For the event of going over to an offensive without the use of nuclear weapons, the actions of aviation, air defense troops, and the other forces and means of the front participating in the air operation to rout the enemy aviation and missile/nuclear groupings are to be coordinated in detail among themselves and also with the other forces operating in the front zone according to the plan of this operation.

Since the cooperation of front aviation with Long Range Aviation and the aviation of adjacent fronts in this operation is organized by the Main Staff of the Air Forces, the front commander coordinates the actions of the air army and air defense troops of the front with these formations on the basis of the instructions of the General Staff. The following, in particular, are refined for Long Range Aviation: its flight zone to the target area and back, the time and procedure for using front forces and means for flight support, and the front tasks for neutralizing radioelectronic means and fighter aviation, destroying enemy air defense means, and covering Long Range Aviation when it is flying within range of the air defense forces and means of the front. With the air armies of adjacent fronts one coordinates mutual maneuver airfields, the procedure for transferring the control of aviation when it is operating in the zones of adjacent forces, and the cooperation procedure when fulfilling tasks for cover and support of the troops of fronts which are jointly fulfilling a combat task.

When organizing cooperation for the event of an offensive without the use of nuclear weapons, the front commander and staff carefully coordinate the procedure for fulfilling tasks to neutralize and destroy enemy artillery and aviation in the period of preparatory fire and when troops are attacking and developing the offensive into the depth. Coordinated in particular detail are the actions of artillery, aviation, combined-arms

large units, air defense troops, and special troops to break through defense lines with the use of only conventional weapons.

Based on possible actions with or without the use of nuclear weapons, cooperation among first-echelon armies is first of all organized for the armies advancing on the axis of the main thrust. Coordinated in greatest detail are the actions of the armies after the delivery of initial nuclear strikes by both sides and during accomplishment of such general tasks as routing the enemy in a cover zone, breaking through (negotiating) defense lines, jointly seizing important areas and major targets of operational significance, routing the enemy in a meeting engagement, during encirclement and destruction of an encircled enemy grouping, routing his reserves and counterthrust groupings, and also fulfilling other tasks requiring the concentration of their total efforts.

When organizing cooperation among the first- and second-echelon armies of a front, one coordinates the line or area of commitment to the engagement and the tasks of the second-echelon army, the procedure for the delivery of strikes by rocket troops and aviation on the axis of its commitment, the tasks of first-echelon armies for increasing cover against strikes from the air and attacks from the front and flanks, for allocating routes, and for ensuring the deployment and commitment to the engagement of the second echelon, the tasks of aviation for support of the army that is being committed, the tasks of air defense troops and fighter aviation of the air army to cover it, and the measures for comprehensive support of the movement forward of the second echelon.

When organizing the cooperation of front troops with an airborne (amphibious) landing force, it is necessary to refine and coordinate the area and time of its landing, the methods of its subsequent actions, the targets which it must seize or destroy in support of advancing troops, the time, targets of destruction, and procedure for delivering strikes by front rocket troops and the air army prior to the landing (drop) of the landing force, the measures for ensuring the safety of the landing force during nuclear strikes, the approximate time the troops of the first-echelon army will get to the landing area of the airborne (amphibious) landing force, the nature of their actions after they link up, the procedure for aviation cover of the landing force and for support of its combat actions when fulfilling assigned tasks, the procedure of the actions of the air defense forces and means of the front to cover the landing force against air strikes.

In addition, for closer cooperation of front troops with an amphibious landing force, it is necessary to take into account the tasks to be accomplished by the fleet forces for the debarkation and support of its combat actions and to precisely work out matters of cooperation of the ground forces, fleet forces, aviation, rocket troops, and the Air Defense Forces of the Country which are taking part in the joint accomplishment of tasks on shore and at sea and in the support of the debarkation of the landing force.

The cooperation of front troops with an airborne landing force is organized with the participation of the staffs of the airborne troops and military transport aviation, as well as representatives of the staffs of formations (large units) of the different branches of the armed forces that are being allocated to support the landing.

When organizing cooperation among the air defense forces and means of a front, one coordinates their battle formations (the basing of the fighter aviation of the air army), the procedure for conducting combat actions, the times and routes for relocating (rebasing), and the procedure for receiving data about the air situation from radar and aerial reconnaissance means, for building up air defense efforts during the operation, for restoring the combat effectiveness of large units (units) and the air defense system which has been disrupted by enemy nuclear strikes.

In the interests of air defense, the front organizes cooperation of air defense troops with the fighter aviation of the air army, cooperation between the air defense troops of adjacent armies as well as those of [its own] armies and the large units (units) of air defense troops under front subordination, and cooperation of air defense forces and means with the troops that are being covered.

The cooperation of surface-to-air missile troops with fighter aviation, which can be carried out by zones or in one (overall) zone, is of the greatest significance. It is organized so as to ensure that the combat capabilities of each of the cooperating means are used most fully, that maximum losses are inflicted on the air enemy on the approaches to the troops, that fighter aircraft are identified and safeguarded against the fire of surface-to-air missile means, that the cooperating forces are made responsible for the fulfilment of combat tasks, and that they are precisely controlled. Cooperation is organized in most detail to repel the first massed strike of enemy aviation.

The cooperation of air defense forces and means with troops that are being covered consists in coordinating their tasks and grouping with the tasks and grouping of the troops being covered, defining the procedure for relocating (rebasing) air defense forces and means during the operation according to the tasks, lines, and time of troop actions, and also in organizing continuous communications and designating cooperation signals.

When organizing the cooperation of a front with large units (formations) of the Air Defense Forces of the Country, one defines the air defense tasks which cooperation is organized to accomplish, the composition of the cooperating forces and means, and their tasks during the preparation and course of the operation, coordinates the actions of fighter aviation and surface-to-air missile large units (units) in the areas of joint actions and at their boundaries, defines the procedure for cooperation when reconnoitering the air enemy and the procedure for jointly repelling the initial massed strike of the enemy's aviation, and coordinates the actions of forces and means for the air defense of airborne and amphibious landings and the procedure for building up the air defense system of the front during the operation.

When preparing and conducting an offensive operation on a coastal axis, the following are coordinated and refined between a front and fleet: the procedure for carrying out the initial nuclear strike and repelling the massed attacks of enemy aviation from land and sea; their tasks for routing the enemy's coastal groupings, seizing naval bases, ports, and sectors of coastline, using amphibious landing forces, and organizing seacoast defense, and also actions for isolating the enemy's land groupings from the flow of his reserves by sea. A front can be informed about other tasks that are to be fulfilled at sea which it must take into consideration when accomplishing its own combat tasks.

The cooperation of a front with adjacent fronts is organized on the basis of the instructions of the Supreme High Command. When preparing an operation, the front commander takes into consideration the tasks to be accomplished by adjacent fronts and, if necessary, he refines cooperation matters through the General Staff or directly with the commanders and staffs of those formations. Coordinated in particular with adjacent fronts are the procedure for delivering the initial nuclear strike and also that for repelling the enemy's massed air attacks, the time for going over to the offensive, the methods for accomplishing tasks connected with the destruction of the enemy's nuclear attack means in the zones of adjacent fronts and the rout of his groupings on contiguous flanks, the procedure for the mutual use of the zone of an adjacent front to carry out the

possible maneuvering of aviation, rocket troops, and combined-arms large units and formations for strikes on the flank and rear of the enemy and for bypassing zones of radioactive contamination, destruction, and flooding.

During preparation of an offensive operation and at the beginning of its conduct, cooperation of the front with civil defense organs and units is very important. These cooperation matters are dealt with in the civil defense plans prepared by the military district (group of forces) together with territorial staffs. These plans provide for mutual warning about the danger and actual nuclear or air strike of the enemy against the troops and installations of the district (front) and the territory of the country, and for assistance to be rendered to civil defense organs with the allocation, if necessary, of troops, forces, and means to carry out work in centers of mass destruction, contamination, and damage and in the event of natural disasters.

The front staff can prepare individual cooperation plans to ensure the coordinated actions of front troops with adjacent fronts, the fleet, Long Range Aviation, and the Air Defense Forces of the Country.

Cover of the movement forward and deployment of front troops is organized for the purpose of repelling the possible attacks of the air and ground enemy and also for destroying his airborne landing forces and sabotage and reconnaissance groups and creating favorable conditions for the organized entry of [front troops] into the war.

Cover against an enemy air attack is carried out in the overall air defense system of a front with the allocation of air defense troops, air army fighter aviation, and also the Air Defense Forces of the Country located in the front zone. Missile large units and the main grouping of front troops are to be covered in a particularly reliable manner.

From the start of bringing the front to full combat readiness until commitment of the first-echelon large units to the engagement, cover against the attacks of the ground enemy is carried out by troops specially allocated for this.

The destruction of enemy airborne landing forces and sabotage groups is provided for and carried out throughout the period that the troops are being brought to full combat readiness and the front is fulfilling its combat tasks.

All measures for covering the movement forward and deployment of a front are organized and planned at the same time as the planning and preparation of an offensive operation. For this it is necessary to assess the enemy's most probable axes of attack on the ground and from the air, the strength of his groupings, and the strength and possible landing areas of his airborne forces and sabotage and reconnaissance groups and on this basis to determine the forces and means for carrying out cover and the procedure for using them, adopt a decision on cover, assign tasks for the executors, and organize the cooperation of the covering forces among themselves and with the main forces of the armies and front. Measures concerning cover are dealt with in the plan of preparation and occupation by front troops of the departure areas for the offensive.

When determining the forces and means to repel the ground enemy's attack, it is necessary to carefully assess the possible strength of his troop groupings, especially his tank groupings, and the probable axes of their attacks and, depending on this, to determine the required composition of [forces and means] for each axis. The covering forces allocated must be capable of stopping or delaying the attack of the enemy's first-echelon divisions, inflicting losses on them, and gaining time for our main forces to move forward and successfully join the engagement.

As the experience of the Great Patriotic War and of operational and combat training has shown, troops defending themselves at lines prepared from an engineer standpoint can successfully repel the attack of an enemy who has a twofold or threefold superiority. Thus, to repel the offensive of an enemy first-echelon division requires one reinforced motorized rifle or tank regiment to be allocated to the line of cover. Consequently, if an offensive of, for example, 10 to 12 divisions in the enemy's first echelon is expected in the front zone, then it will be necessary to allocate no fewer than 10 to 12 regiments to make up the covering forces. From an organizational standpoint, it is advisable to allocate covering forces from each first-echelon division whose departure area is away from the state border. The allocation of individual divisions in their entirety for cover is not ruled out.

Covering the movement forward and deployment of troops can also be carried out through the defense of existing fortified areas by the forces of their garrisons independently or jointly with a portion of the forces of first-echelon divisions, and by setting up obstacle and contamination zones.

In addition, provisions are made for strikes by rocket troops and fighter-bomber aviation in order to destroy the enemy's nuclear means and his advancing troop groupings during the combat actions of covering units.

At the level of a front, taking into account the great width of its offensive zone, cover can be implemented by several methods in various combinations, for example, with regiments on some axes, and with divisions or fortified areas on others.

In the first variant, for cover it is more expedient to allocate from each first-echelon division one motorized rifle regiment reinforced with artillery and engineer/combat engineer subunits.

The use of a full-strength division (usually motorized rifle) for cover will be the case on a particularly dangerous axis or in the zone of a first-echelon tank army of the front, and also if cover of a threatened flank is required. In such a case, the actions of the division allocated for cover will be based on inflicting maximum damage on the advancing enemy with the fire of all means and firmly holding lines, in combination with the conduct of counterattacks by our own second echelon if the situation is favorable.

Cover by holding fortified areas is contemplated on those axes where there are such areas. The allocation of up to one regiment from a first-echelon division may be required for field reinforcement of one fortified area. The troops that are to be allocated for field reinforcement of a fortified area increase the firepower of the fortified area, prevent the enemy from outflanking it, and are used to deliver counterattacks.

Obstacle zones are areas of terrain in which groups of obstacles (minefields, obstructions, demolitions) are set up that cover all the enemy's movement routes on a given axis. These zones should be covered by artillery fire and by specially assigned subunits of troops.

Zones of destruction and contamination can be established with the detonation of nuclear land mines to cover the flanks of the armies and front or those axes on which our troop offensive is not contemplated, but which can be used by the enemy.

To accomplish tasks for repelling the attack of major enemy forces, one makes provisions for using the first-echelon large units of the armies and prepares to deliver air strikes and to maneuver antitank reserves and

mobile obstacle detachments of the armies and front to the threatened axes.

When preparing cover it is necessary to organize the cooperation of the allocated forces and means among themselves and with the main forces of first-echelon divisions, with artillery, supporting aviation, air defense forces and means, army reserves, and border guard troops. This cooperation is organized by the senior commanders directly on the terrain and with the involvement of the commanders of cooperating large units, units, and subunits.

The control of covering forces can be exercised from first-echelon army control posts by the army commanders personally or through operations groups at forward command posts that are headed by deputy commanders. The front commander usually directs the covering forces through army commanders.

For the purpose of ensuring a high level of combat readiness of the covering forces, it is necessary in peacetime to keep them at full strength in personnel, armament, and combat equipment, to conduct purposeful combat training, to maintain the morale and political consciousness of personnel at a high level, and to maintain reserves of materiel at the norms prescribed for these forces at a high level of readiness for use. In addition, it is necessary to have and constantly refine the plans for bringing units and large units allocated for cover to combat readiness and plans for moving them forward to their assigned lines and positions, to systematically train them in the fulfilment of these tasks, and also to prepare the lines and positions from an engineer standpoint in advance under the guise of combat training exercises.

Specially allocated units and subunits, army and front reserves, and also civil defense contingents should be used to detect and destroy enemy airborne landing forces and sabotage and reconnaissance groups; and the protection of bridges, river crossings, movement routes, and important installations in a front zone should be increased. In addition, all personnel of special troop units and rear services facilities must be ready to destroy enemy sabotage and reconnaissance groups in their own disposition areas and on the march.

Establishment of front attack groupings. Attack groupings are established to rout the enemy on the axes of the main and other thrusts. The commander defines their composition in accordance with the concept of the offensive operation and with due regard for the successful accomplishment of all the tasks which any one grouping may encounter during

the operation.

In a first offensive operation, the attack groupings are drawn both from the troops available in the military district (group of forces) in peacetime and also from mobilization contingents and troops arriving from the interior of the country. Consequently, the establishment of attack groupings will be connected with the implementation of the movement forward, regrouping, and deployment of troops in assigned departure (waiting) areas according to the plan of a front and also with the movement forward of formations and large units over a great distance, as organized by the General Staff.

When setting up attack groupings to conduct subsequent offensive operations, it is necessary to take into consideration the position and condition of the troops fulfilling the tasks of the first operation in order to avoid complex regroupings and the development of an operational pause between the first and subsequent operation. In this connection, it will often be necessary to reinforce operating troop groupings with large units and formations from the reserves and second echelon of the front and to replace weakened large units.

The following are the most important requirements imposed on the establishment of attack groupings: fullest conformity of their quantitative and qualitative composition to the concept and plan of the operation, the capability to carry out the rapid maneuver of large units within and among attack groupings in order to tighten up the battle formations of the troops when breaking through a prepared enemy defense and to intensify efforts or exploit the success on a former or new axis, and dispersed disposition of troops to preserve their combat effectiveness in case the enemy uses weapons of mass destruction.

With due regard for these requirements, the following will be of great significance for the successful establishment of attack groupings: thorough reconnaissance of the enemy to discover his preparations for unleashing a war and carrying out measures directed at disrupting the movement forward and deployment of our troops, timeliness and secrecy of movement forward, reliable cover against the attacks of the enemy's aviation and ground forces for the troops that are being moved forward and deployed, advance preparation of roads, routes, and river crossings, and efficient provost and traffic control service in the front zone.

The movement forward and deployment of front troops for an offensive can be carried out in the period of threat and at the beginning of combat

actions. To a great extent, the latter variant applies to the troops coming into a front from the interior of the country.

The Supreme High Command issues instructions to the front to move forward and occupy the departure area for the offensive. The movement forward itself is carried out in a manner calculated to preempt the enemy in deploying and preparing troops for the organized initiation of an operation.

When deploying in a period of threat, the procedure for moving forward can be as follows: first of all, the reconnaissance subunits and units allocated to cover the state border are moved forward. In their wake, and with the permission of the Supreme High Command, missile battalions of army and front missile brigades on alert are deployed at launch positions with nuclear missiles, which are made ready for strikes against the enemy's on-alert nuclear means and stationary installations. A portion of the missile battalions move forward along with missile battalions on alert to cover them against enemy air strikes.

First-echelon large units, depending on their distance from the state border, immediately move forward to their departure areas from garrison areas or from areas of concentration on alert. Army and front missile brigades and the remaining forces of the surface-to-air missile units covering the first-echelon divisions move forward and deploy at the same time as these divisions. When they do this, the missile batteries can be in waiting areas and they can occupy launch sites prior to the delivery of the nuclear strike.

Army KRUG-A surface-to-air missile brigades are deployed in their siting areas long enough before the deployment of the main forces of the armies to cover them against air strikes during their movement forward and deployment. By the instant front troops occupy the departure area, the entire air defense system must be fully prepared to repel the first massed strike of enemy aviation.

Second-echelon large units and reserves of the armies and front usually move forward to their assigned areas from areas of concentration on alert, but they do this directly from the march when regrouping or moving forward from the interior of the country.

At the time prescribed by the plan, the air army is prepared for a first massed sortie and for dispersal to alternate airfields, at which control means are deployed and materiel reserves are set up in advance.

After being brought to full combat readiness, the troops allocated to operate as airborne (amphibious) landing forces move forward to the departure areas for the landing, where they prepare for takeoff (embarkation onto transport ships) and for fulfilment of combat tasks in the enemy rear.

The deployment of the front rear services will be a very important and complex task during this period. The rear services large units, units, and facilities existing in peacetime must be deployed in their assigned areas by the beginning of an operation, and those missing will join the front immediately prior to or in the first days of the operation. In this connection, maximum use of railroad transport, materiel available at stationary depots, and of stationary military hospitals and repair facilities will be required for the rear services support of troops during this period.

The control of front troops during their movement forward and deployment is carried out from prepared control posts (command posts, forward command posts, rear control posts) which are occupied before the troops begin to move forward.

The timely preparation of troop departure areas for an offensive is of great importance. As is known, Soviet troops gained rich experience in this regard in the past war. Under the conditions of close contact with the enemy, prepared departure areas ensured that fronts and armies had a concealed location for troops and combat equipment, reliable shelter for personnel, combat means, and materiel against air strikes and artillery fire during the enemy's counterpreparation, and troop stability when repelling his attacks. Departure lines and positions for infantry and tanks, command and observation posts, and fire positions for field and antiaircraft artillery were set up in the departure areas of first-echelon large units. Also prepared were routes which ensured the concealed approach, positioning, and rapid movement forward of the battle formations of advancing troops, as were different types of shelters for personnel and combat equipment. The experience of the Great Patriotic War is very instructive for modern conditions, because in a first operation front troops will usually go over to the offensive from departure areas. This is due to the high level of readiness of the probable enemy's missile/nuclear means, aviation, and troop groupings, particularly in the Western Theater of Military Operations, and, hence, to the possibility of his delivering a surprise nuclear strike and preempting us in going over to the offensive.

The function of the departure area consists in ensuring the organized initiation of an offensive operation, the preservation of the combat effectiveness of the troops in case the enemy uses weapons of mass destruction, and favorable conditions for the actions of troops when they are repelling an enemy invasion.

A characteristic feature under modern conditions is the fact that, as a rule, troops occupy the departure areas for a short time, as they are in constant readiness to go over to the offensive. Whereas during the past war artillery was moved out to prepared fire positions in a departure area approximately five to six days prior to the initiation of an offensive and the infantry occupied a departure position in the course of the last two nights, nowadays the arrival of troops in departure areas can be reckoned in hours; and only in exceptional cases, several days.

The following are usually prepared in the departure area of a front for an offensive: departure areas of first-echelon armies, disposition areas of front second-echelon large units and reserves, covering unit positions, main and alternate siting areas for the rocket troops of the front and armies, positions for air defense fire means and radiotechnical means, areas for the accommodation of special troops, control posts, and communications centers, and shelters for medical posts and materiel reserves.

Concealed unpaved airfields and sectors of highways which ensure rapid adaptation for the takeoff and landing of aircraft are prepared for aviation.

When a departure area is prepared, communications lines are laid out; routes, crossings over water obstacles, routes for the movement forward and maneuver of troops, for the transport of materiel, and for evacuation, and clusters and sectors of obstacles and demolitions are prepared. Measures of a topogeodetic and hydrometeorological nature and others are implemented.

The preparation of a departure area is carried out in accordance with the plan of its preparation and occupation by front troops for an offensive and with the observance of concealment and camouflage measures. Areas on the probable axes of enemy attack are prepared most fully from the engineer standpoint.

It is advisable to prepare departure areas for first-echelon large units at such a distance from the state border as to exclude these large

units' being hit by fire from the main body of the enemy's artillery and which would significantly reduce the effectiveness of his use of tactical missiles. Under the conditions of the Western Theater of Military Operations, this distance can be as much as 20 to 40 kilometers, and sometimes more.

Front reserves prepare their own disposition areas at a distance of 150 to 200 kilometers from the state border; and the second echelon, as much as 200 to 250 kilometers from it, with due regard for ensuring the necessary dispersal of troops.

The nature and degree of the engineer support of a front departure area will depend on the specific conditions of the situation and the time available. For example, in the Western Theater of Military Operations, the preparation of positions for fire means and of shelters for personnel with due regard for the probability of the delivery of nuclear strikes and the active effect of the enemy's aviation and other means of destruction is of primary importance. Under the conditions of the taiga and desert areas of the Eastern Theater, preparation of a departure area requires special attention to be given to the camouflaging of troops, the fortification preparation of the areas occupied by them, the preparation of routes, and to water supply matters.

In accordance with conditions for achieving concealment and surprise, the main amount of work for the preparation of a departure area will be carried out when the troops get to it. However, it should be taken into consideration that, in the short time prior to the initiation of combat actions, the troops will most often be able to prepare only emplacements for fire means, covered slit trenches for personnel, and pit shelters for equipment and materiel with overhead cover against napalm. For all the personnel of a division to carry out this first-priority work will require about five to six hours from the moment the troops occupy the positions (areas). For full engineer preparation of a departure area, a division will require four to five days, provided that all organic mechanized means and about 70 percent of its personnel are allocated. Under hard soil conditions more time will be required to carry out the work.

In peacetime, calculations are drawn up and terrain is reconnoitered, during which the following are defined: the number of routes and crossings over water obstacles to support the movement forward of troops, the nature of engineer preparation of areas and positions, the places where engineer obstacles are to be prepared, the requirement for mines and explosives, and the measures for operational camouflage. If conditions permit,

prefabricated structural elements and other materials are prepared and concentrated at appropriate sites. In some instances large units in planned departure areas can fulfil a portion of the work to prepare them during exercises and training periods prior to the commencement of a war.

When determining the time periods for troops to get to departure areas for an offensive, one must take into consideration the time required for them to prepare those areas from an engineer standpoint.

When an operation is being prepared, a number of practical measures in support of troop combat actions should also be implemented.

First of all, the necessary measures for increasing reconnaissance should be carried out in order to detect the possible time of an enemy nuclear attack in time and to conduct the reconnaissance (final reconnaissance) of the targets of the initial nuclear strike of the front. At the same time, the front staff adopts measures to augment the forces and means of agent reconnaissance in order to surveil the must important enemy targets in the depth. Front radio and radiotechnical reconnaissance monitors the position of the enemy's nuclear attack means, the large units and formations of his ground forces, his tactical aviation, air defense, and his control posts. Aerial reconnaissance is conducted mainly with flights along the state border, using visual observation and radiotechnical means and photographing the border zone. In a number of cases, with the permission of the General Staff, aerial reconnaissance can be conducted by individual aircraft with crossing of the state border. The front staff also organizes the receipt of data from adjacent fronts, border guard troops, the Air Defense Forces of the Country, and -- on a coastal axis -- from the fleet.

To protect troops and rear services installations against weapons of mass destruction, measures are refined for organizing the warning and notification of the troops and for supplying them with protective means. At the same time, the replenishment of reserves of protective means is implemented in front and army depots, and the preparation of control posts from an antinuclear and antichemical standpoint is also carried out.

In accordance with the front commander's instructions, areas and axes for conducting operational camouflage measures can be reconnoitered. Verification of the effectiveness of camouflage measures is organized and carried out with the use of aerial and radar reconnaissance, plus other types of reconnaissance.

A number of engineer support measures are also conducted, such as road and bridge work in the zone of a forthcoming offensive, the preparation and storage of structural elements and materials, the reconnoitering of locations to set up obstacles, and the concentration of mines and explosives in appropriate areas, etc.

A great deal of work is carried out concerning rear services support. First of all, the provision of units and large units with the necessary materiel is checked and increased, reserves are dispersed from stationary depots, rear services units and facilities are deployed, transport and equipment coming from the domestic economy are checked and re-equipped, and work is carried out to shelter and camouflage rear services installations, cover them from the air, and organize reliable security and defense against enemy sabotage groups.

Thus, the preparation of front troops for an offensive operation is extremely important and arduous. The extent and content of this preparation will be determined by the specific conditions under which the offensive operation is being prepared. However, the troops must always be ready to fulfil combat tasks under any conditions.

CHAPTER 3

CONDUCT OF A FRONT OFFENSIVE OPERATION WITH THE USE OF NUCLEAR WEAPONS

The Soviet Union together with the other friendly socialist countries is untiring in the struggle to secure peace, eliminate military conflicts, and prevent a new world war. Success in the realization of the Peace Program adopted by the XXIV Congress of the CPSU is obvious. However, both in the West and in the East there are still considerable forces that oppose the relaxation of tension, advance provocational territorial claims on the Soviet Union and other countries of the socialist commonwealth, and endeavor to destroy the world socialist system. This imposes the demand to manifest high vigilance and constant readiness to curb aggression wherever it comes from.

Since the major imperialist powers are continuing to strenuously develop nuclear means and provide the armed forces with them, the Soviet Union is likewise forced to improve its nuclear forces and means. In this, our Party is guided by V. I. LENIN's statement: "Everyone will agree that the conduct of the army that does not prepare to have all the types of weapons and all the means and methods of combat which the enemy has or may have is unwise and even criminal."*

1. Delivery of the initial nuclear strike of the front and elimination of the aftereffects of an enemy nuclear attack

In a war with the use of nuclear weapons, should it be impossible to avert, the greatest energies of the nuclear might of the sides will be put into their initial nuclear strikes and intensified through subsequent strikes.

---

* V. I. LENIN, Complete Collected Works, vol. 31, page 76.

The initial nuclear strike of the front is carried out with all the combat-ready missiles, atomic artillery, and aviation against the troops and installations of the enemy.

The concrete results of the initial nuclear strike will depend on the availability and level of readiness of the means of delivering nuclear weapons to targets, on the number and yields of the nuclear warheads employed, on the time selected for delivering the strike, and on the position and condition of the targets to be hit.

Under conditions of unlimited use of nuclear weapons and timely delivery of the initial strike by the front against the enemy, a considerable part of his troops and installations will be safely destroyed, thanks to which favorable conditions will be brought about for successful conduct of the front operation and achievement of its objective in short periods of time.

It is not out of the question that, when the sides deliver reciprocal nuclear strikes, part of the enemy targets will not be destroyed in a number of cases because of losses of some of the front's nuclear means. This will necessitate the organization and delivery of repeat strikes against him.

The initial nuclear strike may be delivered under conditions when the enemy troops are in a defense at prepared lines, in concentration areas, in departure areas for an offensive, or in the process of deploying. These conditions will differ substantially in the extent of the readiness of enemy troops for the conduct of combat actions and their protection against weapons of mass destruction. The initial nuclear strike may be delivered during daylight or at night, under fair or adverse weather conditions. All of this will have a definite effect on its results. Consequently, the commander and staff of the front must carefully analyze the possible conditions and results of the initial nuclear strike and determine accordingly the tasks, forces and means, and procedure for delivering it, as well as the tasks and methods of actions of front troops after it is carried out.

A decisive condition for successful delivery of the initial nuclear strike and subsequent conduct of the offensive operation is timely discovery of the enemy's preparation to employ nuclear weapons and high combat readiness of the nuclear means of the front, their ability to descend full force on the enemy in the shortest period of time.

The most characteristic signs of enemy preparation for the employment of nuclear weapons may be:

-- deployment of field storage and supply points for nuclear warheads and issue of them directly to missile, artillery, and air units;

-- departure of Pershing battalions (squadrons) and Sergeant, Lance, and Honest John battalions and batteries from points of permanent garrison and their deployment in siting areas;

-- transfer of nuclear warheads to the armed forces of the member countries of the aggressive bloc that do not have their own nuclear weapons;

-- massive deployment of guidance posts for tactical aviation near the border (near the line of battle contact of the troops of both sides);

-- the takeoff of airborne command posts of the formations of ground forces and aviation in the theater of military operations;

-- massive removal of large units of the ground forces from points of permanent garrison to operational deployment areas and sheltering of them;

-- increase in the intensity of operation of the communications means of higher staffs with the staffs of missile and delivery aircraft units, and a change of ciphers and of the system of callsigns;

-- reinforcement of the tactical air forces with strategic aviation, dispersal of delivery aircraft to alternate airfields as well as to stretches of superhighways that permit the takeoff and landing of aviation, and suspension of nuclear munitions on delivery aircraft;

-- bringing of naval forces into full combat readiness, their departure from naval bases, and deployment of carrier strike groups at the takeoff lines of carrier-based aviation -- and of atomic missile submarines in areas of the possible launch of missiles;

-- massive removal of merchant vessels from ports;

-- sheltering of the civilian population and provision of them with means of protection against weapons of mass destruction.

Timely detection of the signs of the immediate preparation of the enemy for a nuclear attack is ensured by purposeful reconnaissance of all types and by continuous surveillance of the position and nature of actions of the enemy units capable of employing nuclear weapons, of the activity of nuclear warheads storage and supply depots (points), of the means of reconnaissance, and of the work of staffs and communications centers that ensure control of the forces and means of nuclear attack, as well as of conduct by the enemy of measures to protect troops and population against weapons of mass destruction.

The initial nuclear strike of the front may be delivered either simultaneously with the nuclear strike of the strategic forces or after it.

Certainly it is more advantageous to carry it out simultaneously with the strategic missile strike so as to inflict the greatest damage on the enemy. This variant is possible under conditions when the nuclear means of the front are brought into full combat readiness beforehand and, by order (signal) of the Supreme High Command, put into action together with the strategic nuclear forces. But, since the strategic missile/nuclear means have higher combat readiness than do the front means, it is advisable for them to deliver the initial nuclear strike immediately without waiting for the front means to be brought into readiness. In this connection, the initial nuclear strike of the front will in this case be carried out after the strike of the strategic nuclear forces.

Reducing to a minimum the interval between the time of strike delivery by the strategic rocket forces and the front means (which is of enormous importance) is possible through timely notification of the front about readiness for the initial strike, reduction of the time to bring the rocket troops, atomic artillery, and aviation of the front into combat readiness, and through timely implementation of measures for missile technical support and deployment of the rocket troops in the departure area.

When the initial nuclear strike of the front is carried out, it is necessary, considering the great capabilities of the enemy for detecting the launch of our missiles and the takeoff of aviation, to achieve a simultaneous launch of operational-tactical missiles, salvo of atomic artillery, and mass takeoff of front aviation, since this ensures, on the one hand, the greatest surprise in delivering it and, on the other, preservation of our aviation from the enemy nuclear strike. Timewise, it may continue for roughly up to one hour or more in individual cases in accordance with the following approximate calculation. The initial launch of operational-tactical and tactical missiles and salvo of atomic artillery

against the fixed targets as well as troops, control posts, and other targets whose positions are reliably known generally continues no more than one or two minutes; and the flight of the main body of missiles to the targets, three to five minutes. The effect of the shock wave and of radioactive and thermal radiation and the formation of the vertical mushroom cloud will go on for five to 10 minutes. Thus, the missile strike, in terms of time, will take up 10 to 15 minutes. After this, it will be necessary to carry out a massed sortie of the reconnaissance aviation of the air army to search for targets on which data were not known at the beginning of the initial nuclear strike and ascertain their location (coordinates). Its flight to reconnaissance targets at distances of up to 300 or 400 kilometers will take 15 to 20 minutes. Data on the targets detected are transmitted immediately from on board the aircraft to the ground command posts of the armies and the front and to the crews of delivery aircraft in the air. After the sortie of reconnaissance aircraft, the delivery aircraft will begin delivering strikes on the targets assigned to them. The duration of their strike, considering the flight to the most distant targets, will take up to 10 or 15 minutes. After the completion of the aviation strike and the departure of the delivery aircraft, a strike will be delivered with the remaining missiles on enemy targets on the basis of aerial final reconnaissance. Its duration may be around five to seven minutes.

Sometimes the delivery of the initial nuclear strike of the front may begin with only the forces and means on alert. The targets to be hit by the means on alert will most likely be operational-tactical missile launchers on alert, the home airfields of delivery aircraft, and the most important control posts of the enemy. As the main forces of the rocket troops and the air army of the front get ready, they can be directed towards hitting the main groupings of troops, missile/nuclear means, airfields, air defense means, and other important targets.

The delivery of nuclear strikes must be carried out with due regard for ensuring the safety of our own troops. Here it is necessary to take into consideration their distance, during movement towards the border or disposition in the departure area, from ground zero of the nuclear bursts, which will depend on the yield of the nuclear warheads employed, the types of burst, and the direction and speed of the wind, as well as on the time of day (the effect of thermal radiation is twice as strong during the hours of darkness) and the position of our troops. Hence, the safe distance of advancing troops (for exposed personnel and troops in open personnel carriers and motor vehicles in the daytime) from ground zero of nuclear air bursts, on the average, will equal 2.5 kilometers at a burst yield of 5

kilotons, 3.2 kilometers at 10 kilotons, 4.1 kilometers at 20 kilotons, 4.6 kilometers at 30 kilotons, 5.5 kilometers at 50 kilotons, 7 kilometers at 100 kilotons, 9.2 kilometers at 200 kilotons, 11 kilometers at 300 kilotons, 14 kilometers at 500 kilotons, and 19 kilometers at 1,000 kilotons. For personnel in tanks, the safe distance is reduced by a factor of approximately 1.5 to 2.5 with yields up to 50 kilotons and a factor of three to four with yields from 100 to 500 kilotons by comparison with the indices for exposed personnel.

The initial nuclear strike of the front will, as a rule, be delivered by order of the Supreme High Command; but in the case of a surprise enemy nuclear attack, by decision of the front commander. For delivery of a nuclear strike an established signal is transmitted to the troops. Upon this signal, a simultaneous launch of all combat-ready missiles and salvo of atomic guns and mortars is carried out and the mass takeoff of delivery aircraft begins, or the right to employ nuclear weapons is given to the aircraft crews if they are already in the air.

The front's preemption of the enemy in the launch of missiles and the takeoff of aviation, if only by 10 minutes, will be a decisive factor for the successful beginning of the offensive and achievement of the objective of the front operation since maximum damage will be inflicted on his missile/nuclear means, troops, aviation, air defense means, and control posts in this case. With the employment of, for instance, 300 to 400 nuclear warheads, the losses of an opposing enemy may be as high as 40 to 60 percent of his total strength. His surviving troops will be not combat effective or limited in combat effectiveness, and nuclear forces and means will be able to deliver a retaliatory nuclear strike with a considerably smaller number of nuclear warheads that consists of 40 to 60 percent (up to 200 or 300 items) of their original number. The troop losses of the front from the use of such a number of nuclear warheads by the enemy may be roughly 25 to 30 percent. Under these conditions, a favorable situation in the balance of forces will develop for the front to complete the defeat of the enemy in short periods of time.

However, the enemy too has great reconnaissance capabilities for discovering the preparation of the front to deliver an initial nuclear strike and may deliver his nuclear strike simultaneously with the strike of the front or even preempt.

Reciprocal strikes begin either with the simultaneous launch of missiles and takeoff of aviation or with a gap, not exceeding a few minutes, between the beginning of the missile launches of one side and the

other. But even under these conditions part of our missiles may be destroyed at the launch sites; and part of the delivery aircraft, at the airfields. Besides this, not all the aircraft put into the air will get to the targets. Calculations indicate that, in a reciprocal nuclear strike, up to 15 or 20 percent of the planned number of nuclear weapons delivery vehicles may be knocked out already before their launch (takeoff) is carried out and will not reach the target.

As a result of such a strike, the sides may sustain losses at levels of from 30 or 40 to as high as 50 percent or more, depending on the number of nuclear warheads used. After a reciprocal strike, as after a preemptive one, a favorable situation may develop for the decisive defeat of the surviving troops of the enemy.

If the enemy were to manage to preempt the front in delivering an initial nuclear strike with the use of, for example, 350 to 400 nuclear warheads, then the losses of the front possibly would amount to 35 to 45 percent of its original numbers. But, regardless of the extent of losses and damage to combat might, the front must under all conditions deliver its nuclear strike. All surviving nuclear forces and means can take part in the retaliatory strike first. Then the power of the strike will be intensified as nuclear means are brought into full combat readiness and reconnaissance data are obtained about enemy targets. In view of this, the duration of a retaliatory nuclear strike will be greater by comparison with, for example, a reciprocal strike.

Preempt

Considering the serious consequences of a preemptive enemy nuclear strike, the front commander and staff and the commanders and staffs of the armies must take all steps to prevent such a strike.

By the start of military actions, considerable changes may have taken place in the grouping and operational position of the troops, forces, and means of the enemy. By this time there may have been actually detected in all only as many as 50 to 70 percent of the number of planned targets, including nuclear means. Consequently, not all the delivery vehicles of the front will be able to carry out strikes on the slated targets. It will be necessary to redirect part of them to other targets or deliver the strike with them only after the location of the original target is established. This will require the introduction of changes in the schedule of the initial nuclear strike. In particular, it will be necessary to cancel nuclear strikes on some enemy targets that have been planned but not confirmed by reconnaissance and deliver them against newly detected targets (particularly nuclear means), to change the number and yield of nuclear

warheads and the types of burst, and to reallocate targets of destruction among the rocket troops, atomic artillery, and aviation. When making these corrections, the front commander must carefully consider time and the capabilities of forces and means to perform the new tasks.

Simultaneously with delivering the initial nuclear strike, the front troops will have to ward off the attack of an air enemy. Massed raids of his aviation with the use of nuclear and conventional weapons may be undertaken from different axes and at different altitudes. In the Western Theater of Military Operations, as many as 500 to 800 enemy aircraft may participate in an initial massed raid in the zone of a front.

Warding off the massed raids of hostile aviation on the distant approaches will begin with the commitment to the engagement (battle) of fighter aviation and then of the surface-to-air missile and antiaircraft artillery units of the air defense troops of the front and air defense forces of the country. When doing this, strikes against the air enemy must be carried out first by those air defense means which the air targets come into range of earliest of all.

In case of the surprise attack of the air enemy, combat actions to destroy his air targets will be initiated by the air defense means on alert, and their efforts will be built up through commitment to battle of all the remaining air defense troops and front fighter aviation. But if all the air defense forces and means are brought into full combat readiness in time -- which one should strive for in all cases when a threat of the outbreak of war arises -- then the repulse of the enemy attack will be initiated by forces and means in accordance with the air defense plan of the front.

When a raid of aviation is being repelled, combat actions must be conducted with full intensity of forces of all the air defense troops until it is completely routed.

Of decisive importance when massed raids of aviation are repelled will be close and precise cooperation between the air defense troops and fighter aviation. It can be achieved through a demarcation of zones between the antiaircraft means and fighter aviation and through actions in one zone according to axes, altitudes, and lines. In view of the changes in the composition and capabilities of the air defense forces and means of the front after the start of combat actions as a result of part of them being put out of action, the zones of actions of the antiaircraft means and fighter aviation must be refined continuously, and disrupted cooperation

between them restored in a timely manner.

During the raid of an air enemy on a wide front, his destruction is achieved through the conduct of effective combat actions by air defense forces and means according to the flight axes of the main aviation groupings. And if he carries out the raid on a narrow front, in addition to the antiaircraft forces and means situated on the axis of the raid, fighter aviation allocated from other axes and operating to its full tactical radius will play a large role in his destruction.

When a massed raid is being repelled, abrupt changes are possible in the air situation. In accordance with these changes it will be necessary to carry out timely maneuvering of air defense forces and means to those axes where there arises a threat of the breakthrough of the air enemy to the troops (installations) being covered and, where necessary, to reinforce or restore the disrupted air defense system.

The SPETSNAZ units at this time jam and neutralize the airborne electronic means of the enemy's aviation and his ultra-shortwave radio communications for control of aircraft in the air. Electronic defense is done through destruction of active and passive jammer aircraft in the air by the forces of surface-to-air missile units, antiaircraft artillery, and fighter aviation, as well as through the conduct of electronic camouflage measures, integrated use of radiotechnical means with different frequency ranges, putting of reserve nets and radio links into operation, and conduct of technical measures that increase the operating stability of electronic means under jamming conditions.

While the first raid of an air enemy is being repelled, it is necessary to carry out measures to prepare the air defense forces and means for repelling his subsequent raids. To this end, the reserve of surface-to-air missiles and antiaircraft shells is replenished at positions, the combat effectiveness of air defense units and subunits subjected to nuclear strikes is restored, and cooperation with the troops being covered and the forces and means of air defense of the country is adjusted, and so is the control of the air defense forces and means of the front.

Restoration of the combat effectiveness of troops after enemy nuclear strikes. Analysis of the possible results of nuclear strikes as well as of their effect on the condition and subsequent actions of troops indicates that after these strikes the situation will undergo great changes involving reduction of the level of combat effectiveness and combat capabilities of

the formations and large units of the enemy's and our own troops and the formation of extensive zones of radioactive contamination, destruction, obstructions, fires, flooding, and other changes on the terrain. In order for the front troops subjected to enemy nuclear strikes to be able to set about the performance of combat tasks, it will be necessary to restore their combat effectiveness.

Restoration of the combat effectiveness of troops is the activity of formation commanders and other commanders and staffs to bring forces and means into such a condition as to ensure fulfilment of the previous or new combat task. It includes restoration of disrupted control and of the combat effectiveness of nuclear forces and means (rocket troops, atomic artillery, and aviation), of the grouping of troops on the main axis, of the first- and second-echelon formations, of the reserves, of aviation, and of air defense troops; replacement of losses in personnel and combat equipment; conduct of organizational measures; execution of extensive maneuvering of troops and of materiel and technical reserves; and the removal of surviving large units and units from centers of destruction.

The times for carrying out these measures must ensure that the troops of the front go over to the offensive before the enemy finishes bringing his troops into a combat-effective condition.

The volume, content, and sequence of performance of the measures to restore control and combat effectiveness of troops will depend on the results of the enemy nuclear strikes, the conditions of the situation, and the availability of forces and means to perform them.

The combat effectiveness of troops after nuclear strikes is assessed on the basis of their actual capabilities to conduct combat actions and perform combat tasks. When doing so, one considers the number of combat units in the large units (subunits in the units) that have retained their combat effectiveness, their strength in armament and combat equipment and the levels of ammunition, fuel, and other means necessary for the conduct of battle, the state of morale of the personnel, and, what is very important, the condition of control.

Troops are combat effective if the large units (units) have retained as many as half or more of the main combat elements with their armament and combat equipment, there is ammunition, and if firm control, high morale of the personnel, and readiness for immediate actions are maintained.

Troops are not combat effective if control of them is weakened or destroyed, armament (launchers, aircraft, guns, tanks) in the overwhelming majority of combat units and subunits has been knocked out, or if it has been retained but the personnel have been hit and exhibit elements of confusion and panic, as a result of which these troops cannot at the moment conduct combat actions. Such a condition can be observed not only in large units (units) that have sustained great losses (as high as 70 percent or more) but sometimes also with relatively moderate overall losses (up to 30 or 40 percent) if the main combat units (subunits) and staffs have been knocked out, control is disrupted, and firm command of troops is lacking.

The combat effectiveness of troops must be restored after the delivery of a nuclear strike against them, and in the shortest possible periods of time. For this, various methods can be employed depending on the situation, for instance, bringing up to combat-effective status those forces that have survived but lost their combat effectiveness; replacing non-combat-effective large units and units of the first echelon with combat-effective forces from the reserves, second echelons, and other axes; replenishing with personnel and armament those troops that have sustained losses; establishing composite contingents; and incorporating combat-effective formations and large units of various branches of the armed forces and branch arms into the front from the reserve of the Supreme High Command.

To organize the measures for restoring the combat effectiveness of troops and carry them out in time will require enormous efforts of the commander and staff of the front, the political organs, and the chiefs of branch arms and services, as well as of the troops themselves. It is above all necessary as quickly as possible to restore control and obtain data on the condition of the front troops and the radiation situation, to determine the extent of losses and the degree of readiness of the large units and units for performing combat tasks.

The process of collecting situation data may be complicated at this time by the fact that a number of the control posts of units, large units, and formations have been knocked out and communications with some of them are disrupted. The staffs of the front and the armies will have to apply maximum diligence and efficiency in gathering situation data to make a decision in time on the restoration of the troops' combat effectiveness and organize the transition to the offensive. The subordinate commanders and staffs in turn must, in this situation, manifest personal initiative in restoring the combat effectiveness of troops, eliminating the aftereffects of enemy nuclear strikes, and organizing combat actions.

At the front level, the restoration of control and combat effectiveness of the troops is organized and carried out on the basis of the decision of the front commander, in which he defines what armies, large units, and front units to restore in first priority and the deadlines for restoring them; in what formations and large units to carry out organizational measures to establish composite large units, units, and detachments; on what axes to concentrate the main efforts in order to repel aggressive actions of the enemy; where to use the reserves of engineer and chemical troops and medical units and facilities; what large units of the front reserve to use for replacing first-echelon large units; and what formations and large units to replenish in first priority with materiel and technical means.

The front staff is obliged to plan all these measures and strictly monitor their implementation. It must also organize and actually direct the restoration of combat effectiveness of formations and some large units whose headquarters have been put out of operation.

Collection and analysis of the results of enemy nuclear strikes are done by various methods. Tentative data on the number, time, and ground zero of nuclear strikes and on the nuclear warhead yields may already be received in the front staff in one or two hours from special monitoring units, air defense troops, and observation points and posts and through flights around the zone of the front by reconnaissance aircraft and helicopters. On the basis of these data, a prediction of the losses of front troops and the zones of destruction and radioactive contamination can be made in 30 to 40 minutes.

No later than two or three hours after nuclear strikes, the front staff must seek to obtain from the staffs of the armies, separate large units, and units and the rear staff of the front more detailed information on the number, ground zero points, and yields of the nuclear strikes. These will serve as the basis for a comprehensive prediction of the aftereffects of the nuclear strikes on the troops of the front. But the most complete and reliable information on troop losses and changes in the terrain will be in the personal reports of subordinate commanders of the armies and large units of the basis of detailed checks and investigations. Such reports can realistically be obtained in the armies after three or four hours, and in the front after six or eight hours.

On the basis of the data on the results of the enemy nuclear strikes, the front commander makes the decision on the restoration of combat effectiveness.

Restoration of combat effectiveness begins, as a rule, with the restoration of disrupted control. In armies where the control organs have been put out of operation, control of the large units belonging to them is assumed by the front command or the headquarters of one of the surviving divisions of these armies. Troops of this or that army can also be resubordinated to an adjacent army whose troop control is not disrupted.

Should one or two front control posts go out of operation, control of the troops is completely assumed by the control post that survives even in part. If all the front posts go out at one time, then temporary control of troops may be exercised by the Supreme High Command or by one of the army commanders who has been previously designated and prepared to discharge this function.

Restoration of the combat effectiveness of the troops begins first with restoration of the combat effectiveness of the nuclear forces and means (rocket troops, atomic artillery, and aviation) and of the formations (large units) intended for actions on the main axis which have retained a considerable part of their combat strength (for example, 50 percent or more) but have become temporarily not combat-effective, and also of the air defense troops on the axes of the most aggressive actions of the enemy.

Formations and large units that have sustained great losses (as much as 70 percent or more) and lost combat effectiveness are withdrawn to the reserves to restore it. Combat-effective troops are put into the first echelon in their place. Restoration of the combat effectiveness of troops that have sustained relatively moderate losses (within limits of up to 50 percent) may be done in the course of combat actions without withdrawing them to the reserve.

The measures for restoring the combat effectiveness of troops and eliminating the aftereffects of enemy nuclear strikes are reflected in a plan to be worked out specially by the front staff in conjunction with the chiefs of branch arms and services.

With great losses and impairment of the organizational integrity of large units and units, the surviving personnel with their armament and equipment can be formed into composite battalions, regiments, divisions, or composite detachments.

The organizational structure of the composite contingents can be most varied. It will be determined each time by the actual conditions of the situation that has developed after the initial nuclear strike of the enemy

and, above all, by the condition of the troops and control organs and the extent of losses sustained. However, these contingents must possess definite combat qualities and have control organs, several composite units (subunits), and the minimum necessary fire means.

To form composite units and large units will require from six or eight hours to one or two days.

Elimination of the aftereffects of enemy use of weapons of mass destruction is carried on simultaneously with restoration of the combat effectiveness of the troops and it includes rescue operations in centers of destruction, giving of medical first aid to personnel and evacuation of them, decontamination treatment of personnel, conduct of curative and prophylactic measures, special purification of water and decontamination of foodstuffs, chemical and radiation decontamination (insect and rat extermination) of materiel, terrain, roads, and structures, clearing and restoration of movement and maneuver routes, and isolation and confinement measures and fighting of pathogens in centers of biological contamination. All these measures are carried out simultaneously with the performance of combat tasks. The necessary forces and means of special troops and services can be allocated by instruction of the senior commander to give the troops assistance in eliminating the aftereffects of enemy nuclear strikes.

As a result of the initial enemy nuclear strike, many measures for support of the offensive operation may be nullified or else further implementation of them according to the previously made plan will become inadvisable. In view of this, it will be necessary to restore the disrupted system of support and, for some types, to organize it anew. In particular, the reconnaissance units of the front may sustain considerable losses at the same time as the volume of reconnaissance tasks in this period will not only not diminish but grow. Under these conditions, depending on the damage sustained, reconnaissance efforts may be redistributed and intensified by axes and targets, tasks of reconnaissance forces and means may be changed, and the necessity of carrying out extensive maneuvering of them will arise.

Previously prepared agents and special-purpose groups are infiltrated into the depth of the enemy disposition. Their chief task will be reconnaissance of the enemy's means of nuclear attack (and, for special-purpose reconnaissance groups, in addition, also their destruction), of the disposition areas of the surviving groupings of his troops, especially his reserves, and of the axes of their movement and

actions and discovery of the nature of destruction and flooding of the terrain and of the enemy's intentions to eliminate the aftereffects of our nuclear strike.

Aerial reconnaissance, along with discovering the surviving means of nuclear attack of the enemy, determines the nature of damage to the enemy and the disposition areas and axes of actions of his surviving groupings through aerial photography and visual observation. If the reconnaissance aviation units sustain considerable losses, crews of the non-T/O reconnaissance aviation subunits of the fighter, fighter-bomber, and bomber large units of the front air army can be used to perform aerial reconnaissance tasks.

Operational camouflage measures under these conditions must be directed towards misleading the enemy concerning the condition of our troops and the intentions of the command for further conduct of the operation and the use of forces and means in it, and also concerning the measures to restore the combat effectiveness of troops and prepare them for an offensive. To achieve this it may be necessary to refine or define anew the concept of operational camouflage and the tasks for the troops previously allocated or newly designated for this and to curtail the volume of measures, leaving only the most important of them, for instance, the show of dummy siting areas of the rocket troops, airfields, and control posts, the execution of decoy relocations of troops, and also the camouflaging of genuine targets. At the same time, disinformation of the enemy must be carried on intensively for the purpose of misleading him concerning the true scale of the aftereffects of his nuclear strikes, the state of combat effectiveness of the front troops, the location of control posts, and the availability and status of nuclear means, as well as the intentions of the command for further actions and the times of carrying them out.

Measures to protect troops against weapons of mass destruction under the new conditions are taken on the basis of the assessment of the results of the initial nuclear strike of the enemy, his capabilities and intentions for further use of these weapons, and the nature of subsequent actions of the front troops, as well as the capabilities of its surviving forces and means to carry out protective measures.

For this, it may prove necessary to restore the radiation and chemical reconnaissance forces and means or prepare new ones and to restore the disrupted system for obtaining data on the coordinates and parameters of enemy nuclear strikes and notifying the troops. It will likewise be

necessary to resupply the troops with protective means and to define the measures for their dispersal and camouflage and use of protective features of the terrain as well as for the protection of personnel while they are located on contaminated terrain or conducting combat actions there.

It is necessary in accordance with the refined decision on the conduct of the operation and the new grouping of troops to refine the content of radioelectronic warfare measures and the axes of its main efforts in conformity with the new conditions of the situation, to refine the tasks of the radioelectronic forces and means and their grouping, and to coordinate anew the actions of the SPETSNAZ units with the OSNAZ radio units. *

A considerable volume of measures will have to be carried out also for rear services support. The deputy commander for the rear and the rear staff ascertain and assess the rear services situation after the initial nuclear strike, ascertain the materiel supply levels of the troops, the personnel losses, the volume of medical-evacuation measures, and the condition of transportation routes and transport means and, in keeping with the refined decision of the front commander, organize and carry out measures for support of the troops and elimination of the aftereffects of the enemy strikes.

As a first priority, it is necessary to organize the evacuation of wounded from centers of mass destruction and the delivery of materiel and technical means for the rocket troops, aviation, and air defense troops and motorized rifle and tank large units retaining combat effectiveness, especially for those of them who will be accomplishing the first-priority tasks in the subsequent offensive or tasks to repel an offensive of the groupings of enemy ground forces. Restoration of reserves of materiel and technical means in the troops is done simultaneously with the establishment or refinement of the troop groupings themselves so that their performance of combat tasks is not held up, much less disrupted.

Rear services support of composite detachments and of those large units that lose their rear services units and facilities can, in a number of cases, be entrusted directly to the army rear services. Damaged combat equipment is concentrated in line-unit and army damaged vehicle collection points, where repair units and facilities of the large units and front are deployed.

2. Transition of front troops to the offensive, defeat of a defending enemy, and development of the offensive

Transition of troops to the offensive (Attachment 9) will generally be done from prepared departure areas. Some large units may move forward and go over to the offensive from areas of concentration upon combat alert.

The procedure of going over to the offensive will depend on the conditions of the situation and, above all, on the results of the initial nuclear strikes of the sides and the effectiveness of the actions of air defense troops to repel the massed raid of enemy aviation, as well as on the intentions and nature of actions of the enemy. The most important requirement when going over to the offensive is maximum exploitation of the results of the initial nuclear strike of the front to complete the defeat of the enemy.

Should the conditions of the operational situation that develops after the nuclear strikes be unfavorable for the enemy, he may go over to defensive actions in order to disrupt our offensive and bring about conditions for going over to a counteroffensive. In view of this, the front troops will be confronted with the task of defeating the defending enemy in short periods of time and rapidly carrying efforts into the operational depth so as not to afford him the opportunity of organizing a stable defense.

With the start of the offensive, provisions are made for the delivery of subsequent nuclear strikes on the enemy to increase the extent of damage to him, prevent him from restoring the combat effectiveness of troops, and, in the end, complete his defeat. The subsequent nuclear strikes are delivered in accordance with the decision of the front and army commanders on the basis of reconnaissance data and after final reconnaissance of the targets to be hit. In this case, they are delivered against enemy nuclear means immediately after these are detected, and against groupings of ground forces and aviation, air defense means, and other targets with regard for operational expedience and the possibilities of prompt exploitation of strike results by the advancing troops.

Under favorable conditions of the situation, when decisive damage has been inflicted on the enemy in the initial nuclear strike and the combat effectiveness of front troops is preserved at the same time (which is possible chiefly when this strike is delivered in good time), they will go over to the offensive right away. It can be expected that under these

conditions the enemy will have only scattered large units that have lost combat effectiveness left in the border zone. In view of this, our troops will be able to move forward in approach march formations and even in marc dispositions to the depth of his disposition at high rates of advance alon the shortest axes. To complete the defeat of the surviving hostile groupings it will suffice to allocate only part of the forces, predominantly from among the first-echelon armies.

But if the enemy manages to deliver a reciprocal, and more so a preemptive, nuclear stike, then the transition of troops of the front to the offensive will depend on the time necessary for organizing the deliver of a strike against the enemy with the surviving groupings of nuclear mean and ground forces and restoring their combat effectiveness. In particular should the losses of front troops be considerable, only individual large units from the attack groupings not subjected to nuclear strikes and retaining combat effectiveness can go over to the offensive immediately after the nuclear strike. Troops coming under this strike will be able to go over to the offensive as they are brought into a condition of combat effectiveness. The command, staffs, and political organs of the front and armies must at this time devote their special attention to discovering the combat-effective large units, refining and immediately assigning them tas for the offensive, and organizing and carrying out measures to restore the combat effectiveness and eliminate the aftereffects of enemy nuclear strikes.

In the case where on individual axes or throughout the entire zone o the front both sides sustain great losses, it will be necessary through subsequent nuclear strikes as well as strikes of artillery and aviation with the use of conventional weapons to disrupt the delivery of subsequen nuclear strikes by the enemy; through rapid actions of the combined-arms large units retaining combat effectiveness to preempt him in going over t the offensive and not allow him to eliminate the aftereffects of our nuclear strikes; and to carry out quick restoration of the combat effectiveness of our own troops and use them to develop the offensive.

Since it is not out of the question that individual troop groupings the front will, as a result of enemy strikes, suffer a sharp reduction i their combat effectiveness or even temporarily lose it, the enemy may ta advantage of this and go over to the offensive with his surviving forces Under these conditions, it is necessary to deliver subsequent nuclear strikes against his most dangerous groupings on the offensive; repel the enemy offensive through defensive actions of the covering units and, if need be, with the first-echelon forces; restore the combat effectiveness

the attack groupings of the front; and then ourselves go over to the offensive.

When restoring (establishing) attack groupings after the delivery of initial nuclear strikes by the sides, it is necessary, just as before the start of an operation, to ensure superiority in forces and means over the enemy on the selected offensive axes with regard for the fact that the newly established groupings must be capable of independently accomplishing the tasks assigned them.

During the restoration (establishment) of attack groupings, it is necessary to consider that the enemy, through subsequent strikes with nuclear, chemical, and conventional means, as well as through the dropping of airborne landing forces and sabotage and reconnaissance groups, will try to disrupt the relocation of troops. Therefore, the commander and staff of the front must pay primary attention to organizing the destruction of the enemy's means of nuclear attack, safely covering the troops against strikes from the air, especially at road junctions, in defiles, and at crossings, and also to destroying his airborne forces and carefully providing for concealment of the measures being carried out.

Defeat of a defending enemy in an offensive operation may include the defeat of covering troops and main forces of the enemy at forward and intermediate (rear area) defense lines.

Defeat of the covering troops is generally done by forward detachments allocated from the first-echelon divisions. The most important tasks of these detachments, besides this, will be to negotiate the cover zone itself and the nuclear minefields and other obstacles within it and to seize and hold sectors of the forward defense line, important road junctions, crossings, mountain passes, and gaps.

The forward detachments operate on the main axes of the offensive of the main forces. They must be supported by artillery and aviation and safely covered against the strikes of an air enemy.

The main first-echelon division forces that have retained or restored their combat effectiveness go over to the offensive after the forward detachments in readiness with part of the forces to intensify their attacks in order to more quickly defeat the covering units, negotiate the cover zone, and exploit the success of the forward detachments when they seize the enemy defense sectors. The rapid advance of the main forces behind the forward detachments and their deployment and entry into battle from the

march without any pauses is a most important condition for the subsequent defeat of the main forces of the enemy.

To successfully defeat an enemy who has gone over to the defense with the main forces at a forward defense line, the front commander, while the negotiation of the cover zone is still going on, refines the axes of the attacks of the first-echelon armies of the front, directing them towards gaps and intervals in the operational disposition of the enemy or to axes where the groupings of his troops have lost combat effectiveness as a result of our nuclear strikes. He will simultaneously, with operational-tactical and tactical missiles, artillery, and part of the forces of fighter-bomber aviation carrying out air support, deliver nuclear strikes against nuclear attack means in the tactical depth and troops in centers of resistance and defense areas on the forward defense line as well as against the tactical reserves situated on the offensive axes of the armies. The missile brigades of the front and the main forces of front aviation are used for destroying operational-tactical means of nuclear attack and delivering strikes on the home airfields of tactical aviation and the operational reserves of the enemy -- first and foremost, on the tank groupings -- and on his control posts and other important targets situated in the operational depth.

On individual axes (sectors) where the enemy grouping has not been sufficiently neutralized with nuclear weapons, fire strikes by artillery forces and bombing-strafing attacks by supporting aviation with the use of conventional and special munitions can be delivered on the decision of the commanders of first-echelon armies against targets on the forward defense line.

In the interests of ensuring the successful and nonstop negotiation of the forward defense line, before the front troops get to it, reconnaissance already establishes the disposition and nature of engineer preparation of the enemy defense, the presence and locations of means of nuclear attack and nuclear land mines, the grouping of ground forces that has gone over to the defense and the extent of damage to them by our nuclear strikes, the presence of gaps, intervals, and poorly defended sectors in the defense, the approach of reserves from the depth and the strength of these, the presence of zones (strips, areas) with high levels of radiation, and the system of weapons and troop control.

Exploiting the results of nuclear strikes and preparatory fire with conventional means, the first-echelon large units, safely covered from the air, negotiate the forward defense line of the enemy from the march and

then quickly get through the breaches, gaps, and intervals formed in the operational disposition to the flanks and rear of the groupings of his troops, split them up and destroy them, and, without getting into prolonged battles, develop a rapid offensive into the depth.

Individual small groupings and centers of resistance of the enemy left on the flanks and in the rear can be destroyed by artillery and tank fire as well as by the reserve large units of the armies and sometimes also of the front. To destroy these groupings, if necessary, nuclear strikes with warheads of low yield can be delivered, with due regard for the safety of our own troops.

If the enemy undertakes delaying actions, then it is very important not to allow an organized withdrawal of his forces to previously prepared intermediate (rear area) defense lines in the depth. For this, it is necessary to deliver nuclear strikes on those of his groupings which are intended for delivering attacks against the advancing troops and to quickly get the attack groupings of front troops to the flanks and rear of the main hostile forces, complete their defeat, and seize the final line of delaying actions. Tank troops and airborne landing forces are used above all to perform this task.

When the troops go over to the offensive, one of the most important tasks of the commander and staff of the front will consist in ensuring its conduct at high rates of advance. In order to achieve such rates, preemptive strikes with nuclear weapons are delivered against the means of nuclear attack and the most important and dangerous groupings of ground forces and aviation of the enemy; the replacement of large units and units that have lost combat effectiveness is done; the efforts of the first echelon to defeat the opposing enemy forces and develop the offensive are intensified by commitment of the second echelon (reserves) of the armies and the front to the engagement; the decision is made and the actions of the ground forces and aviation to break through the enemy defense lines are organized in good time; and determined steps are taken to disrupt counterthrusts and quickly defeat counterthrust groupings as well as to safely cover the troops against the strikes of an air enemy. High rates of advance are also ensured by the assault crossing of water obstacles from the march, successful negotiation of engineer obstacles -- including nuclear minefields -- in the border zone and the depth of the defense, continuous conduct of reconnaissance, and implementation of measures for comprehensive support of combat actions.

After the first-echelon armies break through the forward defense line, their efforts are directed towards destroying the enemy's means of nuclear attack, defeating the reserves, disrupting troop control and operation of the rear services, thwarting his attempts to organize a defense at the next lines, and seizing the most important areas and objectives -- first and foremost, the siting areas of rocket troops and the forward home airfields of aviation.

During development of an offensive operation in the operational depth, it will be more typical to negotiate a hastily occupied defense established not on a continuous front, but by axes with large gaps and intervals, not uncommonly with an inadequately organized system of fire and poor engineer preparation of the terrain. Such a defense can be occupied by enemy troops that are withdrawing or advancing from the depth. Therefore, the troops on the offensive must so act as to give them no time for occupying or organizing the defense. It is necessary already before approaching the defense line to disrupt his measures for going over to a defense; but if he still manages to do so, then one is to bring about conditions for negotiating it from the march.

The most important measures for disrupting an enemy's transition to the defense are delivery of nuclear strikes as well as strikes with special and conventional weapons against his surviving forces and means, dropping (landing) of airborne forces on the presumed defense lines, capture of sectors of the possible defense by forward detachments and holding of them until the approach of the troops on the offensive, hitting of the enemy's reserves and prevention of their approach to the designated lines, and rapid actions of individual groupings of the front troops, especially of the tank army and the tank divisions of combined-arms armies.

If the enemy still manages to organize a defense, then its negotiation is carried out after strikes with nuclear weapons and other means of destruction, by axes, on a wide front, and from the march, i.e., without stopping in front of the defense. When this is done, neutralization of the defense through nuclear strikes of the rocket troops, artillery, and aviation of the front must be completed while the combined-arms and tank armies are still approaching the line occupied by the enemy. The troops, exploiting the gaps and intervals in the operational disposition of the enemy and the sectors where nuclear strikes have been delivered as well as the exposed flanks, quickly complete the defeat of his opposing forces and rapidly move forward to the depth.

On those axes (sectors) where it is necessary to defeat an enemy who has gone over to a defense beforehand, provisions are made for the delivery of powerful nuclear strikes and negotiation of the defense by advancing troops in advantageous sectors with the support of front and army aviation and artillery fire. In some cases, when nuclear means are inadequate and it is necessary to conduct preparatory fire with conventional means of destruction, a breakthrough of the hostile defense is made.

Called on to play a large role in the accomplishment of tasks to take defense lines and defeat the main enemy forces as well as to accomplish other tasks are tactical airborne landing forces and airborne assault large units and units. They must be used extensively for seizing and holding key areas of the terrain, attacking the enemy defense from the rear, destroying command posts and disorganizing control, destroying means of nuclear attack, assisting the advancing troops in negotiation of the hostile defense, and eliminating nuclear minefields.

Large units of the combined-arms reserve of the front must be moved forward in a concealed manner during the negotiation of an enemy defense behind the first-echelon armies, in dispersed dispositions and in constant readiness to develop the offensive of these armies in case individual large units of the latter lose combat effectiveness because of enemy nuclear strikes and their reserves are used up.

In anticipation of the need to negotiate an enemy defense, it is important that the missile large units and units as well as the atomic artillery be relocated and deployed in good time in new siting areas that allow their combat capabilities to be fully exploited.

To provide aviation support of the troops engaged in defeating an enemy who has gone over to defensive actions, it is necessary during the offensive to quickly carry out the preparation of new airfields and rebase the large units and units of the air army in good time without allowing considerable separation of them from the main forces of the front. It is also important at this time to organize safe cover of the troops against strikes of enemy aviation through timely relocation to new siting areas of the air defense forces and means subordinate to the front and the armies.

Playing an important role in the development of an offensive and the buildup of efforts is maneuver. It is necessary during an operation in order to establish a more advantageous grouping of our own troops, forces, and means and to occupy the best position with them in relation to the enemy for inflicting decisive damage and a quicker defeat on him.

The essence of maneuver consists in the shift of nuclear, aviation, and fire strikes in extremely short periods of time against enemy groupings hindering the fulfilment of assigned combat tasks or the accomplishment of new tasks, in the quick regrouping and commitment of forces on the more promising or threatening axes, and in the deployment and reorganization of troops from one type of formation to another in keeping with the developing situation, as well as in the removal of troops (forces) from under a nuclear strike to preserve or restore their combat effectiveness.

High-maneuver actions are based on the increased might and range of nuclear weapons and special and conventional means of destruction and on the high locomotion and mobility of the rocket troops and artillery, aviation, combined-arms large units, and air defense troops, as well as the large units and units of special troops. Therefore, full exploitation of the positive qualities and capabilities of troops and modern means of armed combat to conduct high-maneuver actions during an offensive operation must be constantly at the center of attention of the front commander and the army and large unit commanders as well as of the staffs at all levels.

In an offensive operation, one may provide for and carry out maneuver of rocket troops and front aviation, air defense forces and means, first- and second-echelon combined-arms and tank armies, and, in the necessary instances, the individual large units of these armies, and the large units and units of the combined-arms and other reserves of the front, as well as airborne assault large units and units. Besides this, one may carry out maneuver of nuclear, special, and conventional munitions, of reserves of engineer, chemical, and other means, and also of the materiel, technical, and transport means of the front by allocating them among the armies and through use of the front reserves. These means must be concentrated on the axes where this is required by the situation at decisive moments of the operation.

To quickly carry out maneuver there must always, especially at the most crucial moments of the operation, be at the disposal of the front commander subunits and units of rocket troops and aviation in readiness to deliver strikes. To this end, it is necessary in advance to stipulate their relocation (rebasing) procedure, assign them the necessary readiness level, brief them in time about the possible tasks, and carry out rear services and other types of support measures in advance.

Maneuver of air defense forces and means is employed to increase the coverage of the main groupings of front troops and other most important assets (first and foremost, first-echelon armies and rocket troops during

their accomplishment of the main tasks of the operation) and, when necessary, to restore disrupted links of the air defense system of the front. Of primary importance is maneuver of air defense forces and means when repelling massed strikes from the air. Fighter aviation is here used as the main means of maneuver.

Manuever of the first- and second-echelon armies or part of their forces is done in conjunction with the delivery of strikes by the rocket troops and aviation of the front in order to quickly exploit the results of nuclear strikes of the front and especially of strategic means, to shift the efforts of the troops of the front or armies to another more promising axis, to act against the flanks and rear of the main groupings of the enemy, to defeat his advancing operational and strategic reserves, to repel counterthrusts, to rapidly get to the depth of hostile territory and take important areas and objectives, and to circumvent defense lines, zones of radioactive contamination, and areas of great destruction and flooding, as well as to restore the attack groupings of the front on those axes on which the troops have sustained great losses from enemy nuclear strikes.

Maneuver for the purpose of shifting the efforts of the front to another axis more promising from the standpoint of effective defeat of the enemy and successful fulfilment of the tasks of the operation may be done, depending on the situation, through the regrouping of a part or the main forces of the front to a new axis with a change of the offensive axis of the whole attack grouping of its troops. Such a maneuver may likewise be made with part of the front forces to the offensive zone of adjacent forces for the purpose of completing the defeat of a particularly important enemy grouping in cooperation with them or to assist their troops in cases of an extremely difficult operational situation.

The Great Patriotic War produced many instructive examples of the switching of efforts of the troops of a front to a new axis during offensive operations. Thus, in the Uman-Botosani Operation in March 1944, the troops of the 2nd Ukrainian Front, after getting to the area south of Mogilev-Podolskiy, were abruptly turned toward Iasi, which brought about a threat of encirclement of the enemy grouping operating ahead of the 3rd Ukrainian Front and enabled the latter to begin a rapid offensive towards Odessa.*

---

* [redacted] Comment: Botosani and Iasi are in Romania; the other places mentioned are in the Ukraine.

A shift of the efforts of front troops can be done both under conditions of their immediate contact with the enemy and in the absence of such contact, especially during pursuit, as well as during commitment of the second echelon and reserves of the front. Under all these conditions, the change of the axes of troop offensive must not cause any delays in the conduct of combat actions nor reduction of the overall rates of advance.

A successful change of the offensive axis requires timely maneuver of the rocket troops and aviation of the front to destroy the means of nuclear attack of the enemy and defeat the enemy groupings on the new axis, as well as the concentration of air defense forces and means to cover the main groupings of troops moving up to this axis. The need may arise to redistribute reinforcement means, flight resources of front aviation, and the number of nuclear and special munitions allocated to the armies as well as to introduce changes in the measures for support of the troops, in the system of troop control, and in the methods of cooperation of the advancing groupings both among themselves and with the other forces and means of the front and adjacent forces.

The employment of large groupings consisting of several motorized rifle and tank large units or army formations may lead to a rapid shift of the efforts of the front into the depth of the enemy disposition. Such groupings may be allocated in order to rapidly exploit the results of the nuclear strikes of strategic means and of the rocket troops and aviation of the front, to destroy or capture airfield complexes and missile bases of the enemy, to complete the defeat of his operational reserves, and to deliver decisive attacks on the flanks and rear of large groupings of enemy troops moving up from the depth, as well as to take important areas and objectives in the theater of military operations. However, the rapid advance of these groupings to a great depth is possible principally under conditions when the enemy's means of nuclear attack are destroyed and intervals and gaps in the operational disposition are exploited so that they are not tied up in protracted battles with the defending troops and immediate reserves of the enemy.

Maneuver of the second-echelon armies and reserve units of the front from the depth is employed principally to develop a rapid offensive on the main axis, as well as to defeat the reserves and counterthrust groupings of the enemy or for an offensive on a new axis. Maneuver of reserves will, in addition, be necessary in order to replace part of the forces of the first-echelon armies of the front in instances of their loss of combat effectiveness from enemy nuclear strikes or of prolonged actions in zones of radioactive contamination as well as to restore expended reserves and to

perform new tasks that arise suddenly during the operation.

A maneuver of troops that involves a change of the operational disposition of the front during an offensive operation will require corresponding changes in the organization of their rear services support. In particular, the supply lines and the procedure of supplying troops will be changed, and the maneuver of materiel and technical means from one axis to another will be required. Maneuver of materiel and technical means will be necessary also in case of great losses of these means from enemy nuclear strikes on this or that axis or if delivery from the interior of the country is disrupted.

When carrying out a maneuver of forces and means of the front, one must take into account that the enemy will endeavor to disrupt it with missile and air strikes. Therefore, special attention should be paid to combating the means of nuclear attack, continuously and reliably covering the troops making the maneuver against strikes from the air, and to carrying out measures to protect them against weapons of mass destruction. Of great importance for successful maneuvering are measures for engineer support, road traffic control service, and operational camouflage that are carried out in order to achieve speed and surprise in the maneuver to be made, and so are the organization and maintenance of cooperation of the front forces and means making the maneuver and the continuous control of troops.

Rapid, maneuvering actions of troops and the delivery of attacks that increase in strength during the development of the offensive require continuity of the conduct of combat actions. Under modern conditions, the extensive use of night vision instruments and the skilful organization of lighting support enable the troops to conduct an offensive at high rates of advance not only during the day but also at night. Night conditions are very favorable for carrying out the maneuver and exchange of troops and moving second echelons and reserves up to lines of deployment and missile units and artillery up to launch sites (firing positions), as well as for delivering materiel reserves. At the same time, poor visibility at night limits the scope of combat actions, hinders the cooperation of forces and means, and requires the conduct of special measures to protect personnel against thermal radiation.

It is advisable for one to conduct a night offensive with forward detachments and individual large units, while ensuring dependable support of them by artillery and aviation. Entire formations and large units may at night exploit the success achieved by day in an offensive, make assault

crossings of water obstacles, and complete the defeat of scattered groupings of enemy troops. For the successful outcome of a night offensive, it is necessary to prepare it carefully in the daytime, to organize cooperation of the forces and means participating in the night engagement, and to organize lighting support and identification of our own troops and the search for and giving of assistance to the wounded.

The front commander defines the tasks of the armies for the night as well as the component of forces and means which must perform them. He also establishes the procedure for cooperation of the armies, aviation, and rocket troops of the front during the defeat of enemy groupings in the night engagement. The front staff conveys the tasks to the troops and ensures their cooperation, especially with aviation (including with aviation performing the tasks of lighting support).

In most cases the front commander and staff use the night chiefly to prepare for decisive offensive actions with all forces at dawn the next day. In keeping with their combat tasks for the next day, cooperation of troops is organized, regroupings are carried out, new attack groupings are established or previous ones reinforced, reconnaissance of the enemy and the terrain is intensified, measures are carried out for restoring the control and combat effectiveness of troops and resupplying them with materiel, especially ammunition and fuel, and rest is organized for the personnel of the large units and units allocated for actions during the day. The front staff constantly monitors the performance of all these measures in the times established by the front commander.

Negotiation of nuclear minefields. Nuclear minefields present a great danger since the radioactive contamination produced by the detonation of nuclear land mines remains for a longer time and the radiation levels from such bursts is about one and a half times to twice as high as with ground bursts of nuclear warheads. Besides this, the detonation of nuclear land mines produces a shock wave that injures personnel in strong shelters and also forms large craters which may be insuperable for advancing troops. Thus, with the burst of a 28-kiloton nuclear land mine, the diameter of the crater will reach more than 300 meters, and its depth as much as 80 meters. Troops in this case may be injured inside a radius of up to 1,350 meters; and with a wind of 10 to 25 kilometers per hour, hazardous radiation levels will involve an area of up to 250 to 300 square kilometers.

Enemy nuclear minefields can be destroyed by strikes of conventional aviation and artillery means, reconnaissance and sabotage groups, and airborne landing forces; and they can be captured by forward detachments,

with the posts controlling the detonation of nuclear land mines being destroyed as the first priority.

Assuming the greatest importance for successfully defeating the enemy and fulfilling the assigned tasks under any conditions of a situation, along with reliable hitting of the enemy with nuclear weapons, are skilful actions of the troops in the zones of radioactive contamination and areas of destruction, fires, obstructions, and flooding. By producing such zones, the enemy will endeavor to delay the offensive of front troops in order to gain time to move up his reserves or withdraw troops to the depth as well as to carry out other types of manuever. The presence of zones of radioactive contamination will affect the combat effectiveness of troops, restrict maneuver, and in many cases reduce the rates of advance unless the appropriate measures are taken by the front commander and the commanders of the armies, large units, and units.

The methods of negotiating zones of radioactive contamination will depend on the tasks to be accomplished by the front troops, the dimensions and configuration of these zones, and the extent of radioactive contamination of the terrain and its passability, as well as on the nature of actions of the enemy. The main methods may be negotiation from the march without waiting for a drop of radiation levels, operating in this case between centers of great destruction, fires, and obstructions and sectors of heavy contamination; after a drop of the high radiation levels; bypassing zones of contamination; and negotiation of them by air. The use of any method must be based on rapid actions of the troops and wide maneuver of units and subunits in these zones with exploitation of the protective features of their combat equipment. For a front operating in a wide zone, combined use of the indicated methods in various combinations will be typical.

Certain methods or the others will most often be determined by the commanders of the large units and units in keeping with the concrete situation. The commanders of operational formations make the decisions and give the necessary instructions to subordinate commanders in instances when the latter cannot employ an advantageous method without alteration of the task assigned them or when employment of the selected method will interfere with the conduct of combat actions or the execution of maneuver by adjacent large units, as well as in an instance when the negotiation of great zones of contamination by large groupings of troops is required. For instance, the front commander may indicate the methods of negotiating the zone; change the axes and zones of offensive of armies and in many cases those of individual large units, if necessary, and carry out a regrouping of troops;

change the axes of forward movement of the front reserves in good time; and bring the reserves of engineer and chemical troops and of medical units and facilities closer to the areas and axes of negotiation of the zones by the troops.

The orders and instructions of the commander must be quickly conveyed to the troops so as not to allow delays in the development of the offensive and to avoid radioactive exposure of troops above the permissible norms and not cause them to bunch up before zones of contamination -- and especially not in them. For this, the front staff must constantly know the place, time, yield, and type of every enemy nuclear burst and the boundaries of contamination zones and notify the troops in time about the radiation situation.

Combat actions in zones of radioactive contamination must be conducted with the wearing of individual protective means and maximum exploitation of the protective features of combat equipment and the terrain.

Troops in such a situation are directed towards rapidly completing the defeat of surviving groupings, destroying individual centers of resistance of the enemy, and swiftly getting out of the zones of contamination.

Encirclement and destruction of enemy groupings during an offensive with the use of nuclear weapons is advisable in case it is difficult or impossible to effect their defeat through massed use of nuclear weapons and destroy the remainder through a rapid offensive of front troops over the shortest axes. Encirclement may most often be undertaken to defeat a large enemy grouping located off the axis of the main thrust of the front, on the flank of its offensive zone, or in an areas where the use of nuclear weapons is limited.

On the axis of the main thrust where nuclear weapons are employed en masse, there may occur at the beginning of the operation an encirclement of predominantly small enemy groupings that have survived during the initial nuclear strike.

During development of the front offensive operation, favorable conditions for the encirclement of enemy groupings may come about, for instance, during the defeat of his operational reserves delivering a counterthrust, in a meeting engagement, or if he attempts to hold an area having great operational importance to him with large forces, that is, in all those instances when the enemy concentrates large groupings in limited areas, which will make it possible to deliver nuclear strikes on them and

complete the defeat through their rapid encirclement and destruction.

Encirclement and destruction of enemy groupngs must be done simultaneously and represent a single process. When accomplishing this task, the front may, depending on the situation, operate either with part of its forces and means so as not to weaken the troops developing the offensive to the depth or with its main forces if one of the main tasks of the offensive operation will be accomplished as the result of such actions. The troops of a front may also encircle and destroy an enemy in cooperation with an adjacent front and, during actions on a coastal axis, with the participation of naval forces and means.

In offensive operations with the use of nuclear weapons, by no means will a need always arise to establish continuous inner and outer fronts of encirclement, since the encirclement and destruction of enemy groupings during the offensive will be done simultaneously. Already during the Great Patriotic War in a number of offensive operations, for instance, the 1944 Belorussian Operation, during the encirclement and destruction of large enemy groupings, one part of the troops would accomplish their own tasks rapidly advancing into the depth, and the other would at the same time defeat the encircled enemy by quickly splitting him up and destroying him in detail without any pause. Under modern conditions, in operations with the use of nuclear weapons, the encirclement and destruction of an enemy grouping in short periods of time is still more realistic. It can be achieved through destruction of the enemy's means of nuclear attack, by massed nuclear strikes and the use of special weapons against the main forces of the troops being encircled, and by a deep envelopment maneuver of the attack groupings of the front on converging axes which ensure rapid emergence on the flanks and in the rear of the enemy, while simultaneously splitting him up and destroying him.

Strikes with nuclear and special weapons make it possible in short periods of time to inflict great losses on the enemy, disorganize the control of troops, prevent the maneuver of forces and means, demoralize him, and finish his destruction without reducing the overall rate of advance. With nuclear strikes one destroys first of all the newly detected means of nuclear attack of the enemy and hits his troops on the axes of the flanking and splitting attacks of the front, as well as his approaching reserves.

Blockading an encircled enemy from the air, which is to be done by fighter aviation in cooperation with air defense forces, will promote successful actions of the front troops to defeat him.

The enemy, in turn, will endeavor to oppose the encirclement of his troops, hit the flanking and enveloping groupings of the front with nuclear weapons, establish engineer obstacles and demolitions on the axes of these groupings' offensive, quickly move reserves forward to oppose the encirclement, and execute maneuver to get his troops out of the encirclement. For this reason, an enemy being encircled must be a constant target of the action of the rocket troops, artillery, and aviation of the front, and his defeat must be carried out with determination and full intensity of all forces and means both day and night to total annihilation or the capture of his remaining troops.

During an offensive, the front commander, in anticipation of the possibility of encirclement and destruction of an enemy grouping, assesses the strength of forces and means and its most important targets and organizes their destruction by strikes of the rocket troops, atomic artillery, and aviation; determines the methods and procedure for defeating the enemy, the axes of actions of the attack groupings of the front, the procedure for their exploitation of the results of nuclear strikes, the meeting lines of the flanking groupings of troops, and safe distance lines during the delivery of nuclear strikes; assigns tasks to the combined-arms, tank, and air armies and air defense troops; determines the measures for comprehensive support and control of troops; and establishes cooperation signals. At the same time, he directs the efforts of the troops, above all, those of the most powerful groupings of the front, towards a rapid offensive to the depth of the enemy's disposition and the defeat of his advancing reserves.

During the encirclement and destruction of an enemy, the front commander takes steps to cut off his attempts to break out of the encirclement, carries out maneuvering of rocket troops, aviation, and air defense troops, moves antitank reserves and mobile obstacle detachments out to secure the flanks of the offensive groupings of the front, and organizes the delivery of repeat strikes on the enemy with nuclear and special weapons and the placement of obstacles in the path of his withdrawal.

When an enemy grouping pinned to the seacoast is being destroyed, the commander must know the situation at sea and the planned actions of the fleet to blockade the seacoast. If the naval forces blockading the coast are operationally subordinate to the front, then the commander assigns them tasks and organizes their cooperation with the forces and means of the front. The efforts of the navy are concentrated on destroying carrier forces and ship groupings of the enemy and knocking out naval bases and ports in the zone of actions of the grouping being encircled as well as

towards disrupting the shipment of materiel and evacuation of the grouping by sea. For this, the placement of mine obstacles can be done in ports and bases situated on the blockaded coast, on the approaches to them, and on the paths of the movement of transport means and combat ships of the enemy. In a number of cases, the fleet forces and means can deliver strikes directly on the grouping being encircled.

When encircling and destroying a grouping of troops holding an area of importance to the enemy, one must take into account that the enemy may establish a defense on the approaches to this area at advantageous natural boundaries. In this situation, the attack groupings of the front will have to negotiate the enemy defense from the march in the wake of our nuclear strikes, with the exploitation of the intervals and weakest sectors in it. These strikes must be directed towards destroying both the main enemy forces and means directly defending the important area and the groupings of enemy rocket troops, aviation, and reserves situated outside the area being defended.

During the destruction of an encircled enemy, the air army and air defense troops of the front do not allow the supply and evacuation of his troops by air. Simultaneously with this, the rocket troops and aviation of the front must deliver strikes against enemy transport aviation on the airfields in order to prevent its use for giving assistance to the grouping being encircled or to carry out maneuver.

The efforts of air defense troops during the encirclement and destruction of an enemy are directed towards coverage of the main groupings of troops moving out to his rear and flanks. Of exceptional importance here will be timely maneuver of the air defense forces and means of the front to the area of encirclement for repelling the massed raids of enemy aviation as well as maintenance of continuous cooperation with the air defense forces and means of adjacent fronts and, during actions on a coastal axis, with the air defense means of the navy.

The front staff directs the efforts of all types of reconnaissance towards detection of the nuclear attack means of the enemy in and outside the area of encirclement, determination of the composition of the grouping being encircled and its combat effectiveness and nature of actions, discovery of the maneuver of the enemy large units and units and the possible axes of their withdrawal or breakout of the encirclement, and detection of the strength and axes of movement of his reserves in order to prevent an encirclement and destruction. It organizes radiation and chemical reconnaissance to determine the areas of radioactive and chemical

contamination and the radiation levels as well as reconnaissance of demolitions and obstacles on the offensive axes of the attack groupings of the front.

Taking fortified areas. At the present time, there are fortified areas in all continental theaters of military operations. Our probable enemies have them situated both directly on the border with socialist states and in the interior, and they cover important axes and objectives.

Fortified areas generally consist of a series of defense zones and of switch and intermediate positions equipped with permanent firing installations [pillboxes] and also with engineer obstacles. The backbone of the defense zones for the most part is made up of strongpoints and defense centers consisting of permanent installations. The system of these installations and obstacles is supplemented by field-type installations and obstacles.

The density of pillboxes in some fortified areas to the entire depth of their disposition reaches 15 to 20 per kilometer of frontage. There is one pillbox per one to four square kilometers. Modern pillboxes fully protect personnel from the thermal and radioactive radiation of nuclear bursts as well as from a shock wave with a pressure of eight to 10 kg/cm^2.

Taking fortified areas with the use of nuclear weapons may, depending on the situation, be done through one of the following methods: capture from the march after nuclear strikes at the beginning or during the development of the operation and outflanking of the fortified area on one or both sides with subsequent delivery of attacks on it from the flanks and rear. Outflanking of a fortified area will most often occur when a system of nuclear minefields has been established in front of it and when it does not appear possible to use the necessary number of nuclear warheads with the necessary yield against it. Breakthrough of fortified areas during the conduct of an operation with the use of nuclear weapons will be the exception.

The decision on taking fortified areas is made by the front commander during the preparation of the operation and it is refined as the troops approach the fortified area. It defines the procedure for employing nuclear and special weapons to hit centers and individual pillboxes, the tasks of the armies, rocket troops and artillery, aviation, and air defense troops, the approximate makeup of assault detachments and groups and the

procedure for employing them to take individual pillboxes and that of detachments to capture nuclear mines, and the tasks of engineer troops to make passages in the obstacles as well as to destroy the captured pillboxes of the enemy.

Taking of fortified areas is done by motorized infantry and tanks after the strikes with nuclear and special weapons against the strongpoints and centers of defense and after the conduct of preparatory fire. Surviving pillboxes are blocked and destroyed by assault detachments and groups. Motorized infantry detachments in conjunction with tanks at this time break through the breaches formed into the depth of the enemy defense. The success achieved should be exploited immediately through commitment of the second echelons and reserves of the armies, and sometimes those of the front, to the engagement without letting the enemy consolidate within the fortified areas at switch and intermediate positions.

Nuclear weapons are the most effective means of destroying pillboxes. They must be employed en masse on the axis of the main attack and, as a rule, against all the zones of the fortified area of the enemy. The main targets to hit with nuclear weapons will be the most important strongpoints (centers) and pillboxes in the main zone whose destruction or neutralization disrupts the whole system of fire and the stability of the enemy defense. To destroy particularly strong structures it is advisable to employ ground bursts -- naturally, taking into account the safety of one's own troops.

One low-yield nuclear warhead can destroy only one pillbox, while a high-yield warhead can destroy five to eight such structures. A one-megaton nuclear warhead can destroy the pillboxes in an area of 20 to 30 square kilometers. In this area there will be roughly six or seven pillboxes and a number of other installations.

Special weapons are employed during the taking of fortified areas to inflict losses chiefly on the field reinforcement troops and reserves of the enemy. Hitting troops occupying pillboxes is possible through the use of special weapons in the event their airtightness is broken. To destroy the personnel in these structures, flamethrower-incendiary means must also be used.

Field artillery destroys, neutralizes, and blinds the pillboxes and field-type firing installations not destroyed by nuclear strikes, makes passages in dragons' teeth, destroys and neutralizes enemy artillery, and supports the offensive of the motorized infantry and tanks to the entire

depth of the fortified area.

Aviation, using large high-explosive bombs and bombs with special-effects substances as well as guided missiles and free rockets, neutralizes and destroys the centers of defense and individual pillboxes assigned to it. Support of advancing troops is generally done by fighter-bomber aviation. Bomber aviation at this time continues delivering concentrated strikes on the strongpoints and field reinforcement troops in the depth of the enemy's defense and on his reserves.

Air defense troops concentrate the main efforts on hitting the air enemy during his actions against the attack groupings of the front. The system of surface-to-air missile fire, in case of its disruption by enemy strikes, is promptly restored.

Reconnaissance, in support of the negotiation of fortified areas by the front troops, determines the locations and the nature of pillboxes, the system of engineer obstacles and barriers of various kinds, the contour of defense zones and the switch and intermediate positions between them and the nature of their preparation, the makeup of the fortified area garrisons, and the locations and axes of movement of the enemy reserves. Considering that ground nuclear bursts will be used to destroy particularly strong pillboxes, one of the most important tasks of reconnaissance will be to determine the borders of zones (areas) with radiation levels dangerous to troop actions.

Taking large cities and industrial areas. During an offensive with the use of nuclear weapons, large cities and industrial areas are, as a rule, bypassed and blockaded. It may be very complicated to take them under conditions of the conduct of a front offensive operation with the use of nuclear weapons, especially if the task of saving them from destruction and annihilation is assigned. Such tasks occurred during the Great Patriotic War. Thus, for instance, in order to save the Silesian industrial area, the troops of the 1st Ukrainian Front in 1945 were forced to forego the full encirclement of a large enemy grouping in this area and leave a corridor for the enemy troops to withdraw west.

At the same time our troops were successfully accomplishing tasks to take strongly fortified large cities such as Warsaw, Königsberg, Budapest, Berlin, and others, each time employing methods of actions most suited to the specific situation.

The decision to take a large city or industrial area is made at the same time as the decision for the operation and is an integral part of it. It defines the component of forces and means and the methods of troop actions to fulfil this task. The adopted decision and the troop tasks are refined if necessary.

The acquisition of reconnaissance data in support of the taking of a large city is done in advance. The city itself and the special features of its defense are studied from reference materials, aerial photos, descriptions, and plans (maps). While the troops are approaching the city, reconnaissance determines the axes of the withdrawal of the main enemy forces, the nature of the defense on the approaches to the city and inside of it, the makeup of defending troops, the preparation of barricades, obstacles, and demolitions by the enemy, and the disposition of the most important centers of defense and means of fire.

Taking a large city or industrial area includes accomplishment of the following tasks: defeat of the enemy defending on the distant and immediate approaches to it, destruction of the garrison of enemy troops in the city or industrial area itself, and organization of an administration capable of managing the activity and sustenance of the population and organizing the flow of production.

The methods of taking large cities and industrial areas may vary. It is most advisable to take them from the march with airborne and ground forces large units and units specially allocated for this after the delivery of nuclear strikes on the enemy troops on the approaches to the city. Advancing at high rates through the areas in which the enemy has been destroyed with nuclear weapons, the troops break into the city and first of all take key points in it -- administrative buildings, communications center, telegraph, radio station, railroad stations, power station, road junctions, bridges, squares, important plants, storage depots, and airfields. Very effective during the taking of a city under such conditions will be actions in the first echelon of specially trained and equipped units capable of negotiating obstacles and destruction and safely covered from the air.

In certain instances, low-yield nuclear warheads can be used on the enemy in isolated areas of the city. Nuclear weapons strikes must be promptly exploited to finish the destruction of the enemy and the complete taking of the city.

But if the enemy is occupying a strong defense directly on the outskirts or in the city itself and the use of nuclear weapons is undesirable because of the possible destruction of the city and death of civilians, it is advisable to direct the efforts of the troops designated for taking it around the city in order to encircle it and isolate the garrison from help from the outside, including by air.

The encircled enemy garrison must be liquidated in the shortest possible period of time. To this end, the front troops deliver simultaneous attacks on it from several axes, split up the enemy defense into isolated sectors, and destroy the troops in detail. Should forces be inadequate to destroy the enemy garrison, a blockade of the city can be employed. During the blockade the front troops completely isolate the city from land (sea) and air and through systematic pressure with all types of weapons force the enemy to capitulate.

Under conditions of the threat of the front employing nuclear weapons, it is not out of the question that the encircled enemy garrison will quickly give up resistance. But it should be kept in mind that in certain cases the blockade of a city may be relatively long.

An industrial area includes a system of large, medium, and small cities with a large number of industrial, commercial, and municipal enterprises, coverage of extensive territory with various-purpose reinforced concrete and brick buildings, an accumulation of large masses of population, and a developed system of transportation lines of all types. In some cases, the industrial area will amount to a series of cities fused into essentially one large city.

During the conduct of combat actions for an industrial area, enemy troops on the approaches to it and outside of it are hit with nuclear weapons and their destruction is completed through attacks of ground forces groupings. The main efforts of these groupings are directed towards encircling the enemy and subsequently destroying him through splitting attacks from different axes. The attacks on the enemy are delivered as the front troops get to the defense lines on the edges or in the industrial area itself even before the encirclement is completed.

Playing an extremely important role in completing the encirclement and taking of industrial areas will be operational and tactical airborne forces. They can be landed both to the rear of the industrial area and within it between the individual cities and large population centers, destroy means of nuclear attack and take the most important enemy

objectives, and disorganize the control, cooperation, and supply of enemy troops.

The use of nuclear weapons on an industrial area essentially means destroying it and, in this case, inevitably hitting the local population along with the troops. Therefore, during the conduct of combat actions, it is necessary to take steps to force the enemy, under threat of the use of nuclear weapons, to give up defending the industrial area and surrender it without a battle.

Low-yield nuclear weapons can be used on the enemy defending between population centers within the industrial area in order to bring about conditions for splitting up the enemy troops and quickly destroying them in detail. The main enemy targets to hit with nuclear weapons will be means of nuclear attack, industrial enterprises of military importance, reserves, artillery and surface-to-air missile systems, garrisons putting up a stubborn defense in large buildings, protected control posts, and other things.

With massed nuclear strikes on large cities and industrial areas, extensive zones of destruction, obstructions, and radioactive contamination may develop in them. Under these conditions, the need will hardly arise to allocate considerable forces to take them. It is most likely that this task can be fulfilled by separate specially designated and trained units and large units of ground forces.

Actions of separate groupings of troops apart from the main forces of the front. In an offensive operation with the use of nuclear weapons, especially during its development, favorable conditions will often come about for a rapid advance of individual groupings of troops into the depth of the enemy disposition and for their separation from the main forces of the front.

Separation of individual groupings of troops is necessary, for instance, to quickly exploit the results of nuclear strikes of the strategic nuclear forces and complete the defeat of operational and strategic reserves of the enemy, to disrupt his mobilization measures, to take missile/nuclear and air bases and objectives of strategic importance, to join up and carry on joint actions with large airborne forces, to disrupt enemy measures to prepare counterthrusts and a counteroffensive or establish a defense in the depth of the theater of military operations, and to accomplish other important tasks.

Separate groupings of troops when operating apart, particularly in conjunction with airborne forces, strengthen the capabilities of the front to hit the enemy simultaneously to the entire depth of his disposition, thereby promoting the offensive of the main first-echelon forces of the front at high rates of advance. For this reason, they must not be drawn into prolonged battles with an enemy putting up a defense or delivering a counterthrust, but must exploit the results of the initial nuclear strike, the presence of gaps and breaches in the enemy's operational disposition, and other favorable conditions to rapidly advance to the depth.

It must, however, be kept in mind that for separation of individual groupings of troops from the rest of the forces of the front their capabilities alone will not suffice in many cases, since the enemy may concentrate all the power of his nuclear weapons and aviation, pull up his reserves from the depth and forces from other axes to the axes of their actions, hit them and not allow a rapid advance. Consequently, in order for individual groupings to be able to make a separation and carry on high-maneuver actions in the depth, favorable conditions must be brought about for them, and this is a most important obligation of the commander and staff of the front. It is through the use of front forces above all that such conditions are brought about.

The main measures that ensure successful actions of individual groupings of troops in separation may be delivery of decisive damage in the initial nuclear strike to the nuclear means, troops, and reserves of the enemy in the zone and on the axes of the contemplated actions of these groupings; allocation to them of the necessary number of nuclear warheads and means of reinforcement -- artillery, engineer troops, air defense forces and means, and others; concentration of the efforts of the air army on hitting the enemy to the front and on the flanks of these groupings and on continuous support of the offensive of their troops; dependable coverage of them by air defense forces and means in the departure position and especially during their accomplishment of tasks in separation from the rest of the forces of the front; conduct of continuous reconnaissance of all types to the front and on the flanks of the troop groupings moving forward and timely direction of reconnaissance towards support of their accomplishment of tasks that arise in the depth; extensive use of operational and tactical landing forces on the axes of the offensive of the most important groupings in order to assist them in the assault crossing of water obstacles and the negotiation of natural barriers; continuous materiel support of the troops (particularly with fuel, missiles, nuclear and conventional munitions, including the use of air transport) and giving them assistance in evacuation of the wounded.

Actions of individual groupings in separation enable them as in no other case to fully exploit the whole zone of the front for carrying out extensive maneuvering in the depth and to deliver surprise attacks on the flank and rear of enemy groupings that turn up. Defense lines and water obstacles must be negotiated by them, as a rule, from the march, with exploitation for this of the exposed flanks and breaches developing in the enemy and of the possibility of circumventing them.

Enemy troops left in the rear and on the flanks of these groupings are destroyed by the first-echelon forces of the armies and the front.

During the offensive, the commanders of the front and armies and their staffs must continually conduct reconnaissance of the enemy, react to the situation in time, assign subordinates new tasks that correspond to the developing situation, take steps to quickly destroy the detected nuclear means of the enemy and cover the flanks and rear of the troop groupings operating separately, constantly carry out measures to protect them from weapons of mass destruction, preempt the enemy in delivering nuclear strikes, seizing advantageous lines, and going over to aggressive actions, exercise firm control of the troops, and continuously maintain communications with airborne forces and adjacent units.

Troop control from the start of the offensive operation and during its development must ensure timely collection and analysis of situation data and reporting of them to the commander for adoption of the decision; prompt conveyance of tasks to subordinates; maintenance of cooperation of the troops, forces, and means of the front among themselves and with airborne (amphibious) landing forces and adjacent forces; guarantee of the timely delivery of subsequent nuclear and air strikes on the enemy to complete his defeat; repulse of his air attacks on our troops and installations; restoration in the shortest possible time of the combat effectiveness of the front and elimination of the aftereffects of the use of nuclear weapons; retention or seizure of the initiative in actions; timely buildup of efforts on attack axes, including commitment of the second echelon (reserves) of the front to the engagement, for rapid development of the offensive; and execution of maneuver of the forces and means of the front in short periods of time. Troop control must also be directed towards the conduct of continuous reconnaissance and destruction of the means of nuclear attack; discovery of the intentions of the enemy for the use of his reserves and other forces, particularly for the delivery of counterthrusts, when combat actions are carried over to the depth of his disposition, and organization of the necessary steps and preemptive actions to thwart these intentions; support of the assault crossing of water obstacles and of the

negotiation of defense lines from the march; and timely implementation of previously contemplated and newly arising measures for support of the combat actions of the front.

It will be of primary importance for the fulfilment of these tasks to maintain firm and continuous control during combat actions and to quickly restore disrupted control, especially after enemy nuclear strikes. This is achieved through the close cooperation of control posts at all levels, through their interchangeability, and through integrated use of all means of communications.

3. Defeat of the enemy in a meeting engagement

A meeting engagement is an encounter of operational groupings of both sides endeavoring to accomplish assigned tasks through offensive actions. It may occur both at the beginning of an offensive operation when both sides go over to the offensive almost simultaneously and during the operation when advancing operational or strategic reserves of the enemy are being routed, as well as when he is delivering counterthrusts or going over to a counteroffensive.

A meeting engagement with the use of nuclear weapons will be characterized by the delivery of strikes with rocket troops and aviation by the sides even before the encounter of groupings of the ground forces and by the endeavor of each side to preempt the enemy in carrying out a nuclear strike. The one who delivers the strike first will get a real chance for victory. Characteristic, moreover, of a meeting engagement under modern conditions will be rapid closing of the sides, rapidity of actions, possibility of an offensive not only in battle formations but also in approach march formations of the troops without dismounting of the motorized infantry, rapid buildup of efforts from the depth, and an intense struggle to gain time and seize and hold the initiative.

During a front offensive operation, meeting engagements may develop on one or several axes simultaneously or successively, at different depths, and under different conditions of the situation. On each of the axes they may be conducted by the forces of one or two armies, with the involvement of front missile brigades and the air army if necessary. If meeting engagements arise simultaneously on two axes, then, depending on the forces and means making up the front (particularly on the availability and readiness level of nuclear weapons), defeat of the enemy may be done

simultaneously on both axes or successively, with the main or more dangerous enemy grouping having to be defeated first in the latter instance. As it is defeated, the efforts of the front are switched to defeating the enemy operating on the other axis. Should the meeting engagement develop unfavorably on one or the other axis, the front may temporarily go over to a defense with part of its forces in order to stop the offensive of the enemy, weaken his forces, and then defeat him through decisive attacks in cooperation with the troops rapidly advancing on other axes.

Success in a meeting engagement is achieved through the conduct of continuous reconnaissance and timely acquisition of data on the enemy, through preemption of the enemy in the delivery of nuclear strikes as well as of strikes with the use of special and conventional weapons, in the deployment of troops, and in the delivery of a strong initial attack, through decisive execution of maneuver with forces and means and delivery of rapid attacks on the flanks and rear of the main enemy grouping, as well as through dependable air defense of the troops. All these measures will prove more effective if they are carried out with surprise and concealment. In a meeting engagement at the beginning of an operation, success will be determined largely by the effectiveness of our initial nuclear strike and the results of repelling the massed raid of the air enemy, by timely adoption of a decision on the part of the front and army commanders, by prompt assignment of tasks to the troops, and by the exercise of firm control of them during the engagement.

The circumstance that meeting engagements during a front offensive operation may develop under the most varied conditions of the situation necessitates employment of different methods of defeating the enemy.

With the use of nuclear weapons, one of the methods of defeating the enemy may be delivery of a massed strike with nuclear and special weapons in conjunction with frontal and flank attacks of the troops. The large units attacking the enemy from the front rush in from the march into the gaps between the enemy columns in the wake of the nuclear strikes and split them up and destroy them, and the large units advancing on other axes endeavor as quickly as possible to outflank or envelop the main enemy grouping and, through attacks on one or both of its flanks, complete the defeat of this grouping.

Under conditions of the massed use of nuclear weapons, gaining time to preempt the enemy in delivering a nuclear strike and to deploy troops at the beginning of the meeting engagement may be the decisive condition for

effectively defeating him. In this case, the most advisable method of defeating the meeting grouping of the enemy may be decisive hitting of it with nuclear weapons in conjunction with the delivery of splitting frontal attacks on several axes which allow the results of the nuclear strike to be exploited promptly to complete its defeat.

It should be noted particularly that with any method of actions in a meeting engagement, especially with the delivery of splitting attacks, it is necessary to avoid prolonged battles and also not to allow a loss of the rates of troop advance. Therefore, simultaneously with conducting the meeting engagement, the front must develop the offensive to the depth and perform the assigned tasks in the established periods of time.

During the preparation of an offensive operation, the commander and staff of the front must anticipate the possibility of the conduct of meeting engagements by the front troops and the area and time of their occurrence. Correct assessment of the possible actions of the enemy and anticipation of the development of the operation will make it possible to make the decision for the meeting engagement in advance, to prepare preemptive strikes by the rocket troops and by front and army aviation with the use of nuclear, special, and conventional weapons against his advancing troops in time, to establish the necessary groupings in time to complete the defeat of the enemy and develop a rapid offensive, and to seize and hold the initiative at the beginning of the meeting engagement.

When a meeting engagement occurs during an operation, the commander makes the decision for defeating the enemy in keeping with the specific situation. The concept for the meeting engagement defines the sequence and methods of defeating the advancing groupings of the enemy, including against what groupings of troops of the enemy to deliver nuclear strikes when and in what number, the forces and means to be allocated to defeat him, and the axes of the main and other thrusts. In keeping with this, one establishes the tasks, targets, and procedure of employment of nuclear weapons, the tasks of the armies, rocket troops, aviation and air defense troops, airborne landing forces, airborne assault large units (units), and reserves, the procedures for cooperation of the troops, the measures for comprehensive support of combat actions, and the organization of control.

The procedure of employing nuclear weapons will be different in each specific case. Before the meeting engagement, nuclear strikes are delivered against the missile/nuclear means and main grouping of troops of the enemy in concentration areas or on the move forward in order do it such damage as to disrupt its organized commitment to the engagement. During

the initial stages of a meeting engagement, nuclear strikes will be delivered first of all on the deploying enemy groupings in order to disrupt their deployment and transition to the offensive.

It is advisable to hit the reserves simultaneously with destroying the first echelon to prevent their commitment to the engagement. But if the front does not have enough nuclear means at its disposal, it is necessary to delay their advance through strikes with special weapons and conventional means of destruction until completion of the defeat of the main forces of the enemy in order to carry out the defeat of the reserves too with subsequent nuclear strikes and rapid actions of the troops.

The main form of employment of nuclear weapons in a meeting engagement will be the massed nuclear strike. Such a strike is most often organized by the front commander. When he does this, he may personally determine the specific targets of destruction not only for the front means but also army means of destruction. Under conditions when the meeting engagement is being carried on in the zone of one army without the involvement of front means, organization of the massed strike may be entrusted to the commander of the army. Grouped and single nuclear strikes are also delivered during the engagement.

When selecting the axes of the main and other thrusts of the troops, one should proceed on the basis of possibilities for their most effective exploitation of the results of the use of nuclear weapons, for carrying out the maneuver of forces and means, and for exploiting exposed flanks and gaps in the operational disposition of the enemy. It is also necessary that these axes ensure fulfilment of the assigned tasks and achievement of the objective of defeating the enemy in the shortest periods of time.

The grouping of forces and means for conducting a meeting engagement is established in keeping with the concept. It must ensure the delivery of a powerful initial attack on the enemy, rapid exploitation of the results of nuclear strikes and conduct of extensive maneuver of troops from the depth and across the front to decisive axes, as well as readiness of the front to repel strong attacks of the enemy, especially those of his tank troops.

The tank army and the tank divisions of combined-arms armies must be used on those axes which allow them to penetrate as deeply as possible into the disposition of the enemy and, without being drawn into protracted battles with him, to smash the advancing reserves and means of nuclear attack, disrupt the maneuver of enemy troops, disrupt their control and

supply, and more quickly take important areas and objectives in the depth.

In the case where it is contemplated to employ tactical or operational airborne forces in the meeting engagement, their actions in the rear are directed towards exploitation of the results of nuclear strikes in order to disrupt the maneuver of the enemy and preempt him in seizing advantageous areas and lines and towards holding them until the approach of front troops. In individual cases, operational airborne forces may be used to deliver an attack on an exposed flank or the rear of advancing or deploying enemy groupings.

The air defense troops of the front, in cooperation with fighter aviation of the air army, are moved forward for covering the missile large units and units and the ground forces grouping intended for actions on the main axis of the meeting engagement against enemy strikes from the air. Before the start and during the course of the meeting engagement, one of the main tasks of the air defense forces and means will be combating the aerial reconnaissance of the enemy.

Antitank reserves, mobile obstacle detachments, and other special reserves of the front are used to support the deployment of the attack groupings of troops on axes where there is a danger of tanks.

When organizing cooperation between the formations and large units of the front in a meeting engagement, one should proceed on the conditions of the situation and on the concrete tasks confronting them. It is necessary above all to coordinate the actions of the rocket troops and aviation employing nuclear weapons with the actions of the troop groupings exploiting the results of the nuclear strikes and delivering the attack on the main enemy forces from different axes.

In anticipation of a meeting engagement, the main attention of reconnaissance, especially aerial reconnaissance, is concentrated on discovering the means of nuclear attack and their deployment in siting areas as well as on discovering the strength and intentions of the advancing and deploying groupings of enemy ground forces. It is extremely important here to establish the most likely areas (lines) and time of meeting the enemy as well as the availability of exposed flanks and other weak spots in order to refine the axes of actions of the front troops in time. Continuous surveillance of his detected columns is established.

To ensure the rapid deployment and entry of troops into the engagement, it is necessary to provide for engineer support measures, in

particular, preparation of routes for maneuvering and support of the rapid negotiation of water obstacles, zones of radioactive contamination and destruction, and other obstacles.

Of great importance is the conduct of radiation and chemical reconnaissance on the routes of movement of the troops and in their deployment areas as well as warning of the troops of the danger of radioactive and chemical contamination and their protection during actions on contaminated terrain.

The radioelectronic warfare forces and means of the front are directed towards neutralization of the most important electronic systems of the means of employing nuclear weapons and of the advancing (deploying) groupings of the enemy in order to disrupt control of them as well as towards protection of our own electronic means from enemy jamming.

In anticipation of a meeting engagement, provision should be made for the timely preparation and delivery of missiles and other nuclear munitions as well as for the replenishment of mobile materiel reserves among the troops. If necessary, front mobile missile technical bases, rear services units and facilities, and materiel reserves should be moved closer to the areas of the meeting engagement.

The meeting engagement begins with strikes of nuclear, special, and conventional weapons against the missile/nuclear means, aviation, control posts, and advancing troop groupings of the enemy. Exploiting the results of these strikes, the forward detachments followed by the main forces of the first-echelon divisions rapidly move forward, close in with the remaining forces of the enemy, and attack and destroy them. Subsequent nuclear strikes are delivered against the important surviving forces of his first echelon and against the reserves, and the second echelons and reserves of the armies and sometimes the front reserves are committed to complete their defeat. During a meeting engagement, the advancing troops maneuver about, endeavoring to occupy the most advantageous position for the attacks on the enemy. In view of the rapidity of combat actions and the abrupt changes in the situation, the axes and objectives of the attacks of the large units and units may change, and their tasks and procedure for cooperation may be refined, and so may the measures for comprehensive support of the combat actions of the troops.

On those axes where the enemy manages to preempt our troops in deploying and delivering attacks, part of our forces temporarily consolidate at the line reached, repel the offensive of the enemy troops,

hit them with nuclear and conventional means, and assist the main forces of the front in carrying out a powerful flank or frontal attack on the advancing grouping of the enemy.

4. Defeat of reserves and disruption of counterthrusts of the enemy

In modern operations, the probable enemy will have large operational reserves. Depending on the tasks to be accomplished and the method of actions selected, they may be made up of from one-third to half of the available forces of the army corps, field armies, and army groups. The operational reserves may be situated in the depth at a distance of from 60 to 120 kilometers up to 200 or 300 kilometers from the front line (the forward edge of the defense) and used to accomplish such tasks as delivering counterthrusts on the most important axes in order to hit the advancing troops of the front and restore a lost position, reinforcing first-echelon army corps, preventing the encirclement of his troops in certain areas and unblocking encircled groupings, and occupying intermediate (rear area) lines in the depth on the axes of the offensive of the attack groupings of the front to delay their advance. With massed use of nuclear weapons, the counterthrusts of operational reserves of the enemy may pursue also a more decisive objective -- defeat of the attack grouping of the front, disruption of its offensive, and establishment of conditions for going over to a counteroffensive.

The defeat of enemy reserves may be done in concentration areas or while they are moving forward from the depth to the front line to occupy a defense at advantageous lines, deliver a counterthrust, or accomplish other tasks. The methods of defeating them are determined in accordance with these conditions.

When the reserves are in concentration areas, their defeat can be done through a massed nuclear strike, a massed strike with nuclear and special weapons, or a combination of nuclear and special weapons strikes, troop groupings operating in separation from the main forces of the front, and airborne landing and airborne assault large units (units).

When enemy reserves are moving up towards the front line, they can be defeated through the massed use of nuclear, special, and conventional means of destruction and decisive actions of the front troops in a meeting engagement.

When enemy reserves go over to the defense, the main method of defeating them will be delivery of nuclear strikes on them in conjunction with rapid actions of offensive groupings which may, depending on the situation, deliver frontal attacks or frontal attacks in conjunction with attacks on the flanks and rear of the enemy to quickly encircle and destroy him.

The methods of disrupting counterthrusts and defeating counterthrust groupings will also vary (Appendix 10). During an operation, enemy counterthrusts can be expected simultaneously from different axes or successively on one and the same axis during the fulfilment of both the immediate and the subsequent task of the front. During fulfilment of the immediate task they will usually be delivered by the forces of army reserves and army group reserves; and during fulfilment of the subsequent task, also by the strategic reserves. In all cases the enemy will endeavor to enlist for the counterthrust the greatest possible number of forces and means, first and foremost nuclear weapons, tactical aviation, and tank troops concentrated earlier or transferred from other less active axes and from the deep rear in order to achieve decisive damage to the advancing grouping of the front in short periods of time.

In some cases an enemy counterthrust may be undertaken in order to counter the encirclement and destruction of a large grouping of his troops, that is, when the troops of the front are simultaneously accomplishing the task of developing the offensive to the depth and defeating an encircled enemy. It is not out of the question for the enemy to deliver a counterthrust at night as was done, for instance, in the Budapest Operation in 1945. Therefore, during an offensive operation, our troops must be ready to thwart and repel counterthrusts under both day and night conditions.

It is necessary to endeavor to inflict decisive damage on a counterthrust grouping before it has yet begun aggressive actions and thereby disrupt the planned counterthrust. This is realistically possible under modern conditions thanks to the massed use of nuclear weapons. Suffice it to say that by delivering a nuclear strike with 25 to 35 medium-yield nuclear warheads one can drastically weaken the combat effectiveness of an enemy counterthrust grouping made up of two or three divisions. Of great importance along with this for disruption of enemy counterthrusts will be high rates of advance of the front troops, preemption of the enemy in seizing advantageous lines of deployment, and the employment of airborne landing forces and airborne assault troops, as well as successful repelling of massed enemy air raids by the air defense

forces and means.

Depending on the conditions of the situation, tasks to disrupt a counterthrust and destroy this or that counterthrust grouping can also be effectively accomplished through the successive delivery of nuclear strikes on it, through the use of special and conventional weapons, and through its final defeat in a meeting engagement.

In those instances when the enemy still manages after a massed nuclear strike to deliver his counterthrust with large forces, the front troops operating on the given axis may be forced to temporarily go over to the defense in order to stop their advance with fire from fixed positions. Defeat of the counterthrust grouping in this situation will be achieved through the use of nuclear and conventional weapons and through the attacks of troops retaining combat effectiveness and of fresh reserves against the flanks and rear of the attacking enemy.

If the enemy delivers counterthrusts simultaneously on several axes, one should determine which of the groupings is the most dangerous at the moment and concentrate the main efforts of the front on defeating it. On the other axis of enemy actions the front troops will be assigned limited tasks and in certain cases individual large units may even temporarily go over to defensive actions. The enemy's troops on this axis must be defeated after his most dangerous counterthrust grouping is destroyed.

When the front commander is making the decision for defeating the counterthrust grouping, the following are determined: the method of defeating it; the troops, forces, and means of the front to be allocated for this; the amount of nuclear and special munitions to be allocated; and the tasks for the armies, rocket troops and artillery, front aviation, air defense troops, the airborne landing force if one is employed, airborne assault troops, and reserves; as well as the measures for support of combat actions and stable control of the troops.

Simultaneously with organization of the defeat of counterthrust groupings, it is necessary to ensure nonstop fulfilment by troops of the tasks of the offensive operation without permitting a reduction of the rates of advance, much less cessation of the offensive, especially on the main axis. Hence, when determining the composition of troops for defeating counterthrust groupings, one must always endeavor to retain the main grouping of the front and its ability to develop a rapid offensive on the axis of the main thrust.

Cooperation between the forces and means performing the tasks to disrupt a counterthrust of the enemy and defeat his counterthrust grouping is organized in keeping with the chosen method of actions of the front. Special attention must be paid to cooperation between the rocket troops and the air army, between them and the advancing armies on the axis of a possible counterthrust, and also between the armies into whose zones enemy reserves are moving forward. Also taken into account here should be the tasks to be accomplished by the Strategic Rocket Forces, long range aviation, and -- on a coastal axis -- fleet forces to destroy the enemy's means of nuclear attack and hit his reserves in the depth of the theater of military operations.

Of special importance when defeating reserves and disrupting and repelling their counterthrusts is air defense, since the enemy may considerably step up the actions of his aviation at this time. It will be necessary to shift a considerable part of the surface-to-air missile large units and units under front and army subordination to the axis of the counterthrust and to call on fighter aviation in order to inflict maximum losses on the enemy aviation and thereby disrupt or considerably weaken the strength of its strike and safely cover one's own troops.

In order to successfully disrupt and repel counterthrusts it is necessary to continuously carry on reconnaissance of the reserves, organize radioelectronic warfare and protection of the troops from weapons of mass destruction, and take the appropriate steps to ensure concealment in maneuvering the forces and means to be allocated for disrupting the counterthrust.

Reconnaissance must in a timely manner discover the enemy's intentions for preparation to deliver a counterthrust and determine the areas where his means of nuclear attack are situated and the strength and disposition of his reserves, the axes of their movement forward, and their lines of deployment, as well as discover the basing of tactical aviation. Besides this, it must establish constant surveillance of the most important transportation routes of the enemy in order to opportunely discover the scale and nature of his shipments with all types of transport and determine the possible strength of reserves being transferred and the time and areas of their concentration.

The conduct of measures to protect the troops from weapons of mass destruction must provide for strengthening of radiation and chemical reconnaissance, timely information on the radiation and chemical situation, dispersal of the forces and means of the formations, and exploitation of

the protective features of the terrain, as well as preparation of the necessary forces and means to eliminate the aftereffects of an enemy nuclear and chemical attack in short periods of time.

Measures for electronic neutralization of the enemy's control means include, first and foremost, disruption of the control of the missile units and large units delivering the counterthrust as well as that of his aviation operating in support of the counterthrust.

5. The assault crossing of wide water obstacles

An offensive with negotiation of a water obstacle whose opposite bank [shore] is defended by the enemy is called an assault crossing. It differs from an ordinary offensive in that those on the offensive must negotiate the water obstacle (river, canal, reservoir, bay, harbor, fiord) under enemy fire and take areas that ensure the nonstop development of the offensive on the opposite bank [shore].

The troops of a front during an offensive operation may be required to make assault crossings of several water obstacles that are different in nature, width, depth, current, and physical geographic conditions of the banks [shores] and offshore areas. Depending on the width, water obstacles are subdivided into narrow ones up to 60 meters; medium, up to 150 meters; and wide, over 150 meters. Sometimes the width of rivers, especially of the estuary portions where they flow into the sea, as well as that of bays, straits, etc., may reach several kilometers.

Water obstacles, especially wide ones, can be exploited by the enemy as strong defense lines in the path of the offensive of front troops. They can be occupied by reserves or withdrawing troops. The enemy, using for the defense water obstacles and a system of obstacles and zones of destruction and radioactive contamination on the approaches to them, will try to stop or delay the offensive of front troops and force them to concentrate on certain axes so as to inflict damage on them with nuclear weapons strikes. The enemy defense at a water obstacle may vary: on some axes it may be a position defense; on others the enemy may employ a mobile defense.

Immediate responsibility for organizing the assault crossing of narrow water obstacles is entrusted to the division commanders; for that of medium ones, to army commanders. The assault crossing of wide water obstacles is organized by the front. This, of course, does not mean that the commander and staff of the front do not concern themselves with the matters of organizing the assault crossing of medium and narrow water obstacles. They must monitor and ensure the successful crossing of them by the troops, but they devote the main attention to organizing the assault crossing of wide water obstacles since the appropriate crossing means necessary to accomplish this difficult task, front aviation, airborne landing forces, and the main reserves of nuclear warheads and materiel are in direct subordination to them.

The modern level of equipping troops with crossing means enables them to make assault crossings of water obstacles without significant reduction of the overall rates of advance. All combat units of the motorized rifle and tank divisions with the exception of artillery and air defense units are now capable of the assault crossing of water obstacles from the march on organic means -- amphibious BTR's, BMP's, PTS's, and GSP's [armored personnel carriers, infantry combat vehicles, medium amphibious carriers, and tracked self-propelled ferries] -- and for tanks, in addition, also on the bottom. The movement speed of these crossing means in the water and of the tanks underwater is eight to 12 kilometers per hour.

The tasks of troops for the assault crossing of wide water obstacles in an operation, the organization of control, and the main crossing support measures are provided for while the offensive operation is still being prepared and they are defined in the decision of the front commander for the operation and in his instructions to the staff, the chiefs of branch arms (services), and the commanders of the armies. The main assault crossing matters are also provided for in the plan of the front offensive operation. The procedure for the assault crossing of wide water obstacles is worked out in detail in the engineer support plan. In particular, this plan and the schedule attached to it reflect the procedure and time periods for the assault crossings by the first-echelon armies; the number, places, and readiness times of the front crossings; the procedure and time of crossing of the second-echelon troops, front control posts, and reserves of the front; the organization of provost and traffic control service on them; the distribution of engineer units and crossing means among the armies; the composition of the engineer reserve, including pontoon units, their disposition sites, and routes for moving forward; and the possible maneuver of crossing means during the assault crossing.

During the development of the operation, the front commander refines the decision for the assault crossing of the wide water obstacle before the troops get to it. The refined tasks are assigned to the troops soon enough to provide them time to organize strikes with nuclear weapons and other means of destruction and to make the necessary regroupings of troops and maneuver of crossing means on the approaches to the water obstacle in keeping with the conditions of making the assault crossing from the march.

The front staff must provide the troops in advance with reconnaissance data on the actions of the enemy; the strength and grouping of his forces on the approaches to the water obstacle and on the opposite bank; on the nature of the water obstacle and the changes in its flood stages that have come about as a result of the use of nuclear weapons; on the conditions of the approach to the river; the existence of zones with high levels of radiation and areas of chemical contamination and engineer obstacles, including nuclear land mines, in the water and on the banks; on the sectors most suitable or convenient for the assault crossing and the underwater crossing of tanks; on the availability and condition of bridges, crossings, and hydraulic engineering structures; and on the possible zones of flooding should these be destroyed.

The data on the nature of the wide water obstacle and its defense by the enemy must come in to the front staff, which organizes aerial photography of the most important sectors of the water obstacles in advance and, before the troops get to it, provides them with special large-scale maps and photo documents of the assault crossing sectors showing the refined data on the enemy, the water obstacle, and the terrain.

In modern offensive operations the main method of assault crossing of wide water obstacles with the use of nuclear weapons is an assault crossing on a wide front as the troops get to them, with nonstop development of the offensive on the opposite bank. Hence, defeat of the enemy on the approaches to the water obstacle so as not to allow him to withdraw his forces across the water and organize a defense there or to retain strong bridgeheads on the jumping-off bank for subsequently conducting aggressive actions is a most important task of the front during an assault crossing, and so is hitting of the reserves positioned across the water obstacle or moving up to it from the depth. The rocket troops and air army of the front deliver nuclear strikes on the opposing enemy and thereby bring about favorable conditions for the rapid advance of the troops, their arrival at the water obstacle, and its assault crossing from the march with the use of captured crossings and their own crossing means. At the same time, the front commander organizes destruction of the enemy's means of nuclear

attack and aviation on the airfields and the hitting of his reserves.

The approach of troops to the water obstacle is made after the nuclear strikes, on a wide front with exploitation of the breaches made in the enemy's defense with nuclear weapons and of the gaps and breaks in the grouping of his troops operating on the approaches to the water obstacle. Playing a large role in the defeat of this grouping will be the tank army and the tank divisions of the combined-arms armies. They can more effectively exploit the results of nuclear strikes on the enemy to get to his rear and cut him off from the water obstacle for subsequent defeat.

Front aviation, carrying out support of the troops, steps up cover of them at this time against enemy strikes from the air. Air defense large units and units, in cooperation with fighter aviation, cover the approach of troops to the water obstacle, its assault crossing by the forward detachments and main forces of the armies and front, the bridges and crossing points, and also the troops on the opposite bank.

When approaching the water obstacle, crossing means are moved along routes that ensure their arrival at the designated crossing points. The boarding of personnel and loading of the equipment of the forward detachments and sometimes that of the first-echelon units into crossing means are done during the movement to the water obstacle without stopping in front of it. The assault crossing from the march must be made in the same formation in which the troops approach the river. Therefore, it is necessary to establish the grouping of troops for the assault crossing in advance, while still approaching the water obstacle, in keeping with the developing situation and the designated procedure for the use of nuclear weapons and troop combat actions during the assault crossing and on the opposite bank.

It is of great importance for the successful assault crossing of a water obstacle from the march at high rates of advance to capture existing bridges and crossings as well as hydraulic engineering structures and sectors of the opposite bank suitable for a crossing and hold them until the main forces of advancing troops approach. This task can be done by airborne landing forces, airborne assault units, and forward detachments from the first-echelon divisions. Besides this, these forces and means can impede the movement of enemy reserves up to the water obstacle and the organization of a defense at it, prevent the demolition of hydraulic engineering structures or embankments to flood the terrain, and also do reconnaissance and preparation of new bridge crossings, fords, and markers for the organization of tank crossings on the river bottom.

In the interests of achieving high rates in an assault crossing, it is also necessary to establish the grouping of engineer troops and crossing means of the front beforehand and make skilful use of these means and also to prepare well their maneuver by axes and from one water obstacle to another and carry it out in time. In this connection, the overwhelming majority of these means should be allocated to the first-echelon armies operating on the axis of the main thrust of the front. Besides this, it is necessary to provide a reserve of engineer forces and means for maneuvering to an axis of marked success or for replacing losses.

When calculating the requirement and distribution of crossing means, one should take into account the necessity of providing troops with crossings in a number of cases simultaneously over several water obstacles. To this end, in order to maneuver pontoon bridge sets from one crossing to another, provision is made for replacing floating bridges with low-level, underwater, and composite bridges; and a reserve of pontoon-bridge units is established which is so made up as to ensure the laying of one bridge at a wide water obstacle, and likewise a reserve of bridgebuilding units to construct bridges in the zones of the armies in order to release their pontoon-bridge units.

In order to maneuver crossing means between first-echelon armies and from the depth (especially under conditions where the main motor roads are busy and there are zones of radioactive contamination and various demolitions) it is necessary to use helicopters extensively.

The nature of actions of the troops of a front during the assault crossing of a wide water obstacle from the march may vary. On one axis the troops will manage to quickly approach the water obstacle and cross it from the march while on others they will have to fight intensely to defeat the enemy on the approaches to it. Therefore, timely and rapid concentration of efforts of the rocket troops, artillery, and front and army aviation as well as maneuver of the engineer troops and reserve large units of the front to exploit the success achieved on this or that axis will often be of decisive importance. Along with maneuvering crossing means, troops may use the operating crossings of the adjacent armies of the front and in some cases also the crossings of adjacent fronts.

If the water obstacle has failed to be negotiated from the march on this or that axis and maneuvering to other axes is impossible, then an assault crossing of it is made with planned preparation. In such a case, on this axis it is necessary to conduct final reconnaissance of the enemy on the opposite bank, make recalculations on the use of crossing means,

organize additional strikes of the rocket troops, aviation, and artillery, precisely plan the crossing of troops, and deploy them in a departure position. It is not out of the question that in order to establish a strong grouping of troops it will be necessary also to quickly carry out a partial regrouping of forces and means and refine the tasks of the troops and their cooperation and control. The duration of such assault crossing preparation is determined by the minimum time necessary to carry out all these measures. It may be from three or four up to six or more hours, depending on the conditions of the situation.

The assault crossing of a wide water obstacle with planned preparation usually begins with strikes of nuclear and special weapons and powerful preparatory fire against the enemy in the assault crossing sectors and in the depth. After this, the first waves of the forward detachments or first-echelon regiments of the main forces cross over, and then the main forces of the first-echelon divisions of the armies.

The rocket troops and artillery, with nuclear warheads, hit the enemy in the strongest centers of defense on the opposite bank and the control posts, surface-to-air missile batteries, missile/nuclear means, and delivery aircraft on the airfields.

Fighter-bomber and bomber aviation delivers strikes with nuclear, special, and conventional weapons against the aviation on airfields, the newly detected missile/nuclear means of the enemy, his tactical and operational reserves, and other targets.

Artillery, during preparatory fire from direct and indirect positions, hits the enemy with special and conventional ammunition in the sectors where nuclear weapons have not been used, chiefly his subunits which are located directly on the opposite bank in contact with the troops making the assault crossing of the water obstacle.

In order to cover the troops against enemy strikes from the air, surface-to-air missile and antiaircraft artillery means are moved up to the water obstacle in good time; and, with the start of the assault crossing, part of these means cross over together with the first-echelon subunits to the opposite bank already before the laying of bridges. At the same time, the coverage of troops and crossings is reinforced with fighter aviation, part of whose forces have been rebased to forward airfields in advance.

Electronic neutralization subunits and units are also used to cover the most important crossings.

Success in developing the offensive on the opposite bank of a wide water obstacle will depend on the timely delivery of strikes with the use of nuclear and special weapons and other means of destruction against the means of nuclear attack and aviation of the enemy and the opposing grouping of his troops and reserves, as well as on the high crossing rates of the main forces of the armies and the rapidity of their actions. It is necessary to have the rocket troops, aviation, and artillery of the front at a high level of combat readiness with the appropriate munitions so that their powerful timely strikes on the enemy can disrupt his counterthrusts and continuously support the offensive of the troops after they cross.

For protection against enemy weapons of mass destruction during an assault crossing, it is very important to prevent accumulations of troops at or near the crossings, to move the special reserves of the front up to the water obstacle in time, and to strengthen radiation and chemical reconnaissance; but the main thing is to maximally weaken enemy capabilities to employ nuclear weapons by discovering and destroying his means of nuclear attack.

Radioelectronic warfare during an assault crossing is directed towards disorganizing the control of enemy troops on the approaches to the water obstacle and during the assault crossing and development of the offensive on the opposite bank. Special attention is paid to electronic neutralization of the enemy's means which support the employment of nuclear weapons and troops defending on the axes of the assault crossing of the water obstacle.

The most important hydrometeorological support tasks during the assault crossing of a wide water obstacle are to determine its flood stage and the condition of its banks and the availability of shallows, fords, and paths for the underwater crossing of tanks; to provide crossing points and sectors with the appropriate signs and warnings about dangerous underwater features and unsuitable sectors of the banks; and to watch for changes in the water level during the assault crossing due to the possible knocking out of hydraulic engineering structures (due to the tides on a coastal axis).

Additional rear services support tasks will be delivery of materiel reserves of all types to the captured opposite bank, the crossing of the most necessary rear services units (including medical-sanitary and repair-and-recovery units) simultaneously with the first-echelon divisions or after them, evacuation of the wounded across the water obstacle to the rear, and others.

TS #798245
Copy #____

6. Commitment of the second echelon of the front to the engagement

During an offensive operation with the use of nuclear weapons, the enemy may, through massed nuclear strikes, inflict enormous losses in short periods of time on the first-echelon troops of the front and sharply weaken their offensive capabilities. For this reason, the timely buildup of efforts is a constant concern of the commander and staff of a front.

During the development of an operation, the buildup of efforts can be done through the delivery of massed and grouped nuclear strikes on the most dangerous enemy groupings, execution of the maneuver of troops to the axes of attacks, concentration of the main forces of aviation and artillery on support of the offensive of the attack groupings, and through the strengthening of measures for support of the combat actions of troops. One of the decisive methods of building up efforts will be commitment of the second echelon of the front to the engagement (Appendix 11).

A second-echelon army is usually committed for fulfilment of a subsequent task by the front, but in individual cases it may be committed also during the fulfilment of an immediate task. The axis of commitment must ensure that the troops advance rapidly, get to the flank and rear of the main enemy grouping, and complete its defeat and take important areas and objectives in the depth of the theater of military operations.

Commitment of the second echelon to the engagement is provided for already during adoption of the decision for the offensive operation. During the operation, as the time of commitment approaches, the commander, on the basis of the concept of the front operation and the concrete conditions of the situation, makes the decision for commitment. In this decision he defines the objective, axis, time and line of commitment, the immediate and subsequent task of the army, the zone of its offensive, the targets and time of delivery of nuclear strikes on them with front means, the number and yields of nuclear warheads to be allocated to the armies and the times of their arrival, the reinforcement means and the time and place of their arrival, and the tasks of the rocket troops, air army, air defense troops of the front, and first-echelon armies, as well as the matters of cooperation and support. The time and line of commitment are refined with regard for the actual rates of advance of the first-echelon troops and the nature of the terrain in the area of commitment.

When committed to the engagement, a second-echelon army is assigned a zone 60 to 80 kilometers wide or more. The depth of its offensive operation generally coincides with the depth of the front operation.

One may assign first-echelon armies the task of taking a definite area (line) which ensures successful commitment of the second echelon to the engagement and establish the time and procedure for resubordination of certain of their large units and means of reinforcement.

In order to properly determine the methods of actions of the second-echelon army and ensure its organized commitment to the engagement, one must know well the situation in the zone of the impending offensive, in particular, the position and status of the troops operating up forward. For this, the staff of the army being committed organizes communications with the staffs of the first-echelon armies operating on the axis of commitment to the engagement, continuously monitors the situation, and informs the large unit staffs. In addition, the front staff must in turn inform the commander and staff of the army about the situation in the operational depth.

The decision of the commander of the second-echelon army defines the concept of the operation, the tasks and procedure for employing nuclear weapons, the tasks for the large units, and the procedure for cooperation, support, and control of the troops during commitment to the engagement and fulfilment of the combat tasks.

Movement of the second-echelon army to the line of commitment to the engagement is made in march formations of the troops with the allocation of march security forces. The first-echelon divisions send out forward detachments, which must occupy advantageous terrain lines and cover the deployment and commitment of the main forces to the engagement. Each division generally travels first over two or three routes in regimental columns and, as it approaches the line of commitment, splits up into battalion and company columns successively and moves up to the line of attack over several routes and cross-country tracks. Missile and artillery large units and units most often move forward on separate routes. For movement of the army to the line of commitment, it is preferable to use nighttime and limited visibility conditions. But if the operational situation necessitates moving the army forward in the daytime, then safer cover for it against strikes of an air enemy will have to be organized in this case.

During commitment of a second echelon to the engagement when the enemy has preserved his forces enough that he can offer organized resistance, a massed nuclear strike is delivered against his troops and installations by decision of the front commander, and destruction with other means of the front is also organized so that the second-echelon troops are immediately capable of conducting the offensive at high rates of advance. Special attention must be paid to destruction of the nuclear means of the enemy, hitting of the groupings of his troops operating on the second echelon's axis of commitment, and [hitting] of the reserves, as well as to protection against weapons of mass destruction.

The second echelon of the front may be committed to the engagement in the zone of one army or at the juncture between two armies, sometimes into a gap that has developed between first-echelon armies during the offensive. The conditions of commitment and the nature of actions of the troops in these cases may be most varied. In one case, the army being committed -- especially if it is incorporating one or two forward operating divisions -- will develop the ongoing offensive from the march, but at higher rates; and, in the other case, its troops, exploiting the results of nuclear strikes delivered on the enemy, will go over to the offensive by leap-frogging the first-echelon large units that have been weakened or lost their combat effectiveness. Here, depending on the extent of enemy resistance, the transition to the offensive will be made with deployment of the first echelon units into approach march or battle formations, though in individual cases some units will operate in march formations. The large units of the first-echelon army, exploiting breaches in the enemy's defense and destroying his centers of resistance, must quickly rush forward and get to the deep rear of the main enemy grouping to deliver a powerful attack on it and complete its defeat in short periods of time.

The movement forward, deployment, and commitment to the engagement of the second echelon of the front must be safely covered against enemy air strikes by the air defense troops of the army being committed and by the fighter aviation of the front as well as by part of the air defense forces of the first-echelon armies.

For the time of the army's movement forward and commitment to the engagement, its air defense may be reinforced by maneuvering fighters and surface-to-air missile units of the front from the other axes and assets of the front. Fighter aviation carries out coverage from a state of airborne or airfield alert.

In order to conduct reconnaissance of the air enemy, the necessary number of army and front air defense radar posts are moved forward to the zone of commitment and set up in position. Warning the army about the air enemy while it is moving forward is done with the radiotechnical means of the front.

Reconnaissance determines the strength and grouping of the enemy in the zone of commitment and on the flanks, the disposition and preparation of the means of nuclear attack for the use of nuclear weapons, the presence of defense lines, the extent of their engineer preparation and occupation by troops, the nature of obstacles, barriers, and demolitions in the zone of commitment, the radiation and chemical situation, and the nature of the terrain and its condition after the nuclear strikes. Reconnaissance forces and means of the first-echelon armies are predominantly used to perform these tasks.

Engineer preparation of routes and maintenance of crossings are performed, as a rule, by engineer troops subordinate to the front. Part of the engineer measures may be charged to the first-echelon armies of the front.

When organizing the measures for support of the movement forward, one should take into account the possibility of destruction of movement routes by nuclear weapons and of the contamination of large areas of terrain with radioactive substances. In this connection, it may be necessary to prepare bypass routes, carry out measures for elimination of the aftereffects of enemy nuclear strikes, negotiate zones of radioactive contamination, and in some cases even change the axes of movement of its troops and assign them new lines of deployment.

The large units of the second-echelon army in departure areas before commitment to the engagement will have to carry out technical support measures, fuel up combat and transport vehicles, and also get ammunition and other materiel replenished so as to have everything necessary for successful performance of their tasks at the time of commitment and during the development of the offensive.

Control of the troops is exercised, as a rule, from the forward command post of the front deployed on or near the axis of commitment of the second echelon.

A front offensive operation conducted to a great depth under conditions of rapid changes in the situation may require the commitment of

new large forces on one or the other axis to accomplish newly arising operational tasks. In view of this, the front commander must constantly concern himself with reestablishing a second echelon (a strong combined-arms reserve) to replace the one committed to the engagement. This can be done through a regrouping within the front or through the arrival of fresh troops from the Reserve of the Supreme High Command to join the front.

7. Pursuit of a withdrawing enemy

Pursuit is an offensive against a withdrawing enemy. Under conditions of the use of nuclear weapons, it may come about both at the beginning and during the development of an operation, on several axes, and even in the entire zone of the front.

The enemy will most often undertake a withdrawal because of great losses from nuclear strikes, but he may sometimes carry out a withdrawal of his troops intentionally, for instance, to conduct delaying actions. In the latter case, all or part of his withdrawing troops will be successively deployed at intermediate lines to delay the offensive of the front's troops, inflict maximum losses on them, and provide for the approach and deployment of his operational reserves.

The enemy's disengagement from battle and withdrawal may be preceded by nuclear strikes on the front groupings most dangerous to him, with the use of ground bursts under favorable meteorological conditions, and also by the conduct of counterattacks and counterthrusts on individual axes.

The troops of a front must always be in constant readiness to begin the pursuit of a withdrawing enemy and to carry out the pursuit itself at high rates so as to finish him off before he withdraws to the lines intended.

Pursuit may be frontal, parallel, or combined -- that is, a combination of the frontal and parallel. At the operational level, the most likely and effective of these is a parallel pursuit in combination with a frontal one. With such a method, the efforts of the troops are distributed in such a way that the greater part of them -- especially the tank army and the tank divisions of combined-arms armies -- are directed towards conducting a parallel pursuit for the purpose of most quickly getting to the flank and rear of the enemy, while the smaller part carries

out pursuit from the front. The troops pursuing the enemy from the front must, through decisive actions, bring down his rear guards, make contact with the main forces, and not let them pull away or go over to the defense at intermediate lines.

Pursuit of a withdrawing enemy must be carried on continuously day and night, on a wide front, with exploitation of the breaks and gaps in his operational disposition, and not only over parallel roads but also over cross-country tracks and even off roads.

During the development of an offensive operation, the commander and staff of the front, in anticipation of a possible withdrawal of the enemy, must plan the measures to organize pursuit of him, such as the conduct of reconnaissance for the purpose of timely discovery of the enemy's intentions and the beginning of his withdrawal; establishment of a grouping of troops, forces, and means for pursuit, taking into account the likely axes of the enemy withdrawal; assignment of tasks to the first-echelon armies of the front, the rocket troops, the air army, and the air defense troops for the event of going over to a pursuit; organization of stable control of the troops, with due regard for their possible actions on separated axes. Timeliness in detecting the beginning and the axes of the enemy withdrawal, speed in going over to the pursuit, aggressiveness of actions, and maintenance of continuous contact with the enemy are the most important conditions for successful conduct of a pursuit.

To ensure the successful defeat of a withdrawing enemy, front reconnaissance must detect in time the preparation, beginning, and axes of the withdrawal of the main enemy forces, the axes of the relocation of missile units and their new deployment areas, the makeup of rear guards and the nature of their actions, the availability of intermediate defense lines, the nature of their engineer preparation, the strength and grouping of troops at these lines, the final line of withdrawal, the availability and strength of reserves and their concentration areas and axes of movement, and the areas and nature of contamination, demolitions, obstacles, and flooding on the axes of pursuit.

Enemy preparation for a withdrawal may be determined by such signs as the relocation of depots and materiel reserves to the rear, the preparation of defense lines in the depth and the deployment of troops at them, the preparation of various important installations, roads, and airfield runways for demolition or the beginning of such demolition, the relocation of control posts, and the stepping up of enemy combat actions on individual axes.

At the first signs of preparation or commencement of a withdrawal or when the enemy goes over to delaying actions, commanders at all levels, on their own initiative, without awaiting the orders of a superior, promptly organize rapid actions of the troops in order to prevent the organized withdrawal of the enemy. If this or that army has begun pursuit, the front commander in turn takes all steps to ensure a successful pursuit on the axis of that army and to simultaneously bring about conditions for the troops to go over to pursuit on the other axes. With the commencement of a pursuit, he refines the tasks of the first-echelon armies and, if necessary, carries out regroupings of forces and means for conduct of the pursuit, taking into account the fulfilment of tasks to further develop the offensive operation of the front; he organizes the delivery of strikes by forces of the rocket troops and aviation with the use of nuclear weapons and special and conventional means of destruction against the main enemy targets; and he also refines the procedure for organizing air defense.

The rocket troops of the front destroy the newly detected means of nuclear attack of the enemy, deliver strikes on the home airfields of his aviation and the main grouping of withdrawing troops -- especially when they bunch up in areas of crossings and defiles -- and hit the reserves and confine their maneuvering, preventing their approach from the depth.

The air army combats the means of nuclear attack of the enemy and, in conjunction with the pursuing troops, destroys the withdrawing groupings of the enemy, prevents their organization of a defense at intermediate lines, prevents the approach of his reserves, continuously covers the troops against enemy strikes from the air in cooperation with the air defense troops of the front, and also provides the landing of tactical airborne forces and supports their actions in the rear of the withdrawing enemy. Air support of the troops under pursuit conditions is, as a rule, centralized. Important tasks of the air army are also timely detection of the beginning of the enemy's withdrawal or, during the pursuit, continuous surveillance of his withdrawing troops and his reserves approaching from the depth and constant conduct of reconnaissance of the means of nuclear attack and of the basing of his aviation.

In order to preempt the enemy in seizing important road junctions, crossings, and other objectives in the path of his withdrawal as well as for surprise attacks on his withdrawing columns, disruption of the control of his troops, and disorganization of the operation of the rear services, airborne assault units and tactical airborne forces are used extensively. During pursuit of the enemy on a coastal axis, amphibious landing forces can be put ashore to seize and hold ports and naval bases and prevent the

evacuation of enemy troops by sea.

To ensure high rates of pursuit, the main forces of the first-echelon armies and, above all, their tank divisions quickly get onto routes parallel to the axes of the enemy withdrawal and through decisive actions destroy or outflank the covering units, rapidly penetrate to the depth of the enemy's disposition and to the flanks and path of withdrawal of his main groupings, and complete their defeat in cooperation with the troops operating from the front.

Individual large groupings of troops, especially tank troops, safely covered against air strikes must brave separation from the main forces of the front and rush into the operational depth, split up the groupings of enemy troops, isolate the operational reserves from the withdrawing first echelons, destroy them in detail, destroy missile and aviation bases, and disrupt control. Moving into the depth, they must not be drawn into prolonged battles, but bypass centers of resistance and carry the attack groupings of the first-echelon armies along behind them.

In those instances when the enemy has managed, by delivering nuclear strikes and creating zones of radioactive contamination, destruction, or flooding, to delay the pursuing troops of the front on individual axes, it is necessary to quickly regroup forces and means and simultaneously commit the reserves of the armies and front to the engagement so that they can quickly get to the flanks and rear of the main withdrawing grouping of the enemy.

The main efforts of the air defense troops and the fighter aviation of the air army during a pursuit must be concentrated on coverage against air strikes of those troops of the front which are having the greatest success in the pursuit and are reaching or have already reached the paths of withdrawal of the enemy.

The engineer troops are used for engineer support of the actions of the troops moving out to the flanks and rear of the enemy, for obstacle coverage of their flanks on the axes of likely enemy counterthrusts, for the performance of obstacle clearing on the paths of pursuit and mine clearing of captured airfields, as well as for the conduct of measures to eliminate the afteraffects of a nuclear and chemical attack.

Chemical troops do radiation and chemical reconnaissance during the pursuit on the axes of actions of the groupings of troops conducting the pursuit, decontaminate passages in chemical obstacles, and participate in

the conduct of measures to protect the troops from weapons of mass destruction and to eliminate the aftereffects of enemy nuclear and chemical strikes.

The success of a pursuit will largely depend on timely rear services support of the pursuing troops, especially with fuel and ammunition. Replenishment of their materiel must be done on the march and during brief stops. In some instances the delivery of materiel to the pursuing troops of the front, particularly to the tank army, may be done by air transport. In connection with the considerable increase of delivery distances, it is necessary to make extensive use of transport aviation also to deliver missiles directly to the missile units.

8. Regrouping of front troops during an offensive operation

During an offensive operation, regroupings of troops of the front will most often take place as the result of abrupt changes in the situation that necessitate the relocation of troops to new axes or new areas in order to establish attack groupings to accomplish newly arising tasks for defeating the enemy. They may be organized and carried out under various conditions, including even under conditions of massed enemy action with nuclear weapons and the formation of extensive zones of destruction and radioactive contamination of the terrain in the relocation zones of the troops. In addition, the enemy may drop sabotage detachments and groups on movement routes and road junctions in order to disrupt or impede the regroupings.

Regroupings can be intra-front and inter-front. In the latter case, individual formations and large units are regrouped to new axes and transferred from one front to another on orders of the Supreme High Command.

Intra-front regroupings are organized by the commander and staff of the front and done through the movement of troops from the depth to the front, across the front to a new axis, and sometimes from the front to the rear. They are carried out through a march on organic means, through rail and water movements, and, on a limited scale, by air transport (aircraft, helicopters). The main method of carrying out regroupings in a front offensive operation will be to make the march on organic combat and transport vehicles. This method makes it possible to achieve the rapid transfer and deployment of troops for the conduct of combat actions from the march, and also affords the possibility of maneuvering to circumvent

zones of contamination, destruction, flooding, fires, obstructions, and other obstacles. When the march is made over great distances, it is advisable to transport the heavy materiel, especially tanks, missile launchers, and heavy artillery, on trailers or, if possible, by rail in order to preserve it and conserve mileage.

The length of a day's march of large units under favorable conditions of the terrain and road network may be as high as 300 to 400 kilometers. The average speed of the movement of mixed columns when making a march may be 20 to 30 kilometers per hour in the daytime, and 15 to 20 at night. Motor vehicle columns can travel by road at a speed of 30 to 40 kilometers per hour in the daytime, and 25 to 30 at night.

When organizing a regrouping, the front commander adopts a decision which indicates the objective of the regrouping, the tasks of the armies or individual large units for the march and the time periods for carrying it out, the grouping of troops in the new areas, the departure areas, the zones or routes of movement, the disposition of troops on the march, the movement control phase lines and daily rest areas, the nature of actions and tasks of the troops being regrouped in case of an encounter with the enemy, the methods of negotiating areas of destruction and zones of contamination, the procedure for air defense of the troops and rear services installations, and measures for reconnaissance, protection against weapons of mass destruction, and rear services and other types of support, as well as the organization of control and of provost and traffic control service. In a case when commitment of the regrouped armies or individual large units to the engagement is going to be done from the march, the front commander must assign them the tasks for the impending actions on the new axis in advance.

The front staff works out, in keeping with the commander's decision, the troop regrouping plan on a map with an explanatory memorandum and a regrouping schedule. If time is limited, all calculations for the march are made on the working maps, and the troops are issued brief combat instructions.

For making the march, armies are assigned zones of movement, and individual large units are assigned movement routes. During march regroupings, to avoid disruption of the normal supplying of troops, the front staff must be sure to strictly regulate by time and axis the movement of the troops being regrouped, the shipment of supplies, and evacuation throughout the entire zone of the front.

To achieve concealment of the regrouping of troops and reduce losses from enemy air strikes, the march should be made chiefly at night and under conditions of limited visibility. If the situation forces making a regrouping in the daytime, the troops must be safely covered by air defense forces and means and regrouped in individual large units with extensive use of operational camouflage measures, such as making decoy and diversionary movements of troops as well as disinforming the enemy and camouflaging one's troops in bivouac and concentration areas.

When a regrouping is made during an offensive operation, it is necessary to anticipate the possibility of an encounter with the enemy. In this connection, in the march disposition of formations and large units, the tank large units and units must travel, as a rule, at the head or on the flanks of the troops; and it is necessary, in addition, to provide for the rapid movement of antitank reserves and mobile obstacle detachments to axes of tank threats, to organize march security and -- on the likely axes of enemy actions and the most threatened sections of march routes -- reinforced cover, and to establish sectors of engineer obstacles.

The missile large units of the front are regrouped to new areas under the cover of motorized rifle and tank large units. Their movement is planned on the basis of the time necessary to make the march, occupy positions, and prepare for launching. During the regrouping of the rocket troops, provision should be make for siting areas on their routes for rapid deployment and performance of fire tasks that may suddenly arise during the regrouping.

The air defense troops are regrouped together with the troops of the front, at the same time accomplishing the task of covering them against air strikes.

In all cases, during the organization of a regrouping and during its execution, reconnaissance of the zone (routes) of troop relocation is done. It must establish the condition of the terrain and its protective and camouflage features, the radiation and chemical situation, the nature of destruction in the zone of movement of the troops, and the condition of the movement routes of the large units, especially of crossings over water obstacles and passages through bottlenecks, and the possibilities of negotiating or bypassing them. Reconnaissance must provide data for determining the amount of work and necessary forces and means to restore destroyed sections of roads and road structures and maintain the routes in suitable condition for the regrouping; and it must also determine the availability of local construction materials, the condition of local

communications lines and the possibility of using them for troop control, the political-economic and sanitary-epidemiological condition of the zone of movement and of the designated concentration or deployment areas of the troops being regrouped. Determined at the same time are the possibilities of enemy use of weapons of mass destruction against the troops being regrouped and of the delivery of massed strikes by aviation, the conditions and possibilities for deploying troops upon encountering the enemy at this or that line, the measures for provost and traffic control service, and other things.

The success of regroupings will to a considerable extent depend on destruction of the enemy means of nuclear attack in advance. Therefore, before the start and during the course of a regrouping, continuous reconnaissance of the enemy's missile launchers, the home airfields of delivery aircraft, and the most threatening groupings of his troops is carried on; and steps are taken to destroy them.

Air defense is carried out by the air defense forces and means of the front and by the means belonging to the troops being regrouped. In some cases, the forces and means of the formations (large units) of the Air Defense Forces of the Country operating on the axes of troop relocation can be used to reinforce their coverage. It is advisable to move surface-to-air missile and antiaircraft artillery large units and units out in advance to positions in the areas of road junctions, crossings, important inhabited areas, and mountain passes and bottlenecks on the routes, as well as to the concentration areas of the troops or to the lines of their deployment for commitment to the engagement. Fighter aviation is employed for cover of the march columns of troops on the march and during deployment at the lines of commitment to the engagement through airfield and airborne alert.

The efforts of engineer troops subordinate to the front and armies are concentrated on the preparation of movement routes and on their maintenance in passable condition. To this end, road, bridge construction, and pontoon-bridge units are moved up beforehand to difficult sections of the routes and to areas of crossings. The organic engineer units and subunits of the troops being regrouped are distributed among the columns in such a way as to ensure their independent negotiation or bypassing of obstacles encountered and the quick laying of cross-country tracks to get over to undestroyed movement routes. Local construction materials are used to restore roads and bridges.

Before the start of a regrouping, provost and traffic control service is organized in the zones of troop movement or the existing network of road traffic control service is used, according to the instructions of the front staff. If necessary, reserves of the road traffic control units of the front can be moved up to the axes of regrouping. The main tasks of the provost and traffic control service will be control of the movement of troops, maintenance of order and observance of camouflage measures, combat against sabotage groups and agents of the enemy on the routes and in concentration areas, and guarding of the routes, as well as the gathering up and return to their units of men, combat equipment, and motor transport that have fallen behind.

When organizing a regrouping, the front staff must take steps to reinforce the security of bridges, mountain passes, and other important installations in the troop relocation zones and, while the regrouping is being carried out, to monitor the movement of the troops and the fulfilment of measures for their support and to keep track of the radiation and chemical situation. It must inform the commanders of the armies and large units carrying out the regrouping about the situation on the axes of impending actions. Of particularly great importance will be data on the enemy and the radiation situation in the zones of troop movement obtained as a result of the actions of front reconnaissance means as well as data about troops forward operating and about front measures to be carried out in the interests of supporting the regrouping.

In case of abrupt changes of the situation in the zones and on the routes of movement of the troops, especially with the formation of zones of radioactive contamination and areas of destruction, the front commander may refine the tasks for the armies or large units being regrouped, change the axes of movement, and indicate the methods for negotiation of the contaminated or destroyed sectors.

Under conditions when the vigor of enemy pressure on the transportation lines of the front is weakened, the regrouping of troops, especially over great distances, can be done with the use of rail, water, and air transport. The scale and volume of rail movements will depend on the condition of the railroads and the availability of rolling stock, particularly of heavy-duty flatcars that ensure the transportation of heavy equipment; and the volume of movements by water transport, on the availability of vessels of adequate tonnage and the possibility of quickly concentrating them in the loading areas. Air transport is used mainly for transporting certain types of materiel and technical means, especially missiles, nuclear warheads, and missile propellant, as well as control

organs.

During troop regroupings, the main efforts of the front rear services are directed towards timely replenishment of line unit and army reserves up to prescribed norms and towards establishment, to the extent possible, of additional reserves, especially of fuel, antiaircraft ammunition, and rations. To support large regroupings of troops, branches of forward front bases as well as mobile field hospitals are moved up to their routes of movement.

Assuming particular importance in the control of troops during a regrouping are timely conveyance of tasks to the large units and formations and monitoring of their relocation. Precise execution of the march (transportation) schedule of the troops will make it possible to avoid their bunching up at bottlenecks and the development of jams and delays that may lead to disruption of the plan of regrouping and place the troops in jeopardy of being hit with nuclear weapons.

9. Conclusion of an offensive operation

A front offensive operation may conclude under various conditions. In the situation of a complete defeat of the main groupings of the enemy and the taking of the most important areas of the theater of military operations, the front troops may accomplish tasks involving the consolidation of territory, first and foremost, on those axes of land sectors and areas of the seacoast where an approach of the enemy from other theaters of military operations or a landing of his amphibious forces is possible.

The main forces of the front must be concentrated on the most important operational axes, in such a grouping as to ensure the successful conduct of combat with the enemy in case of a landing of amphibious and airborne forces as well as the disruption of his attempts to begin aggressive actions on land. Part of the forces and means of the front may be used to eliminate the remainder of defeated enemy groupings and to maintain order in large, important political-administrative centers and industrial areas.

The offensive operation of a front may also conclude under such conditions that the front has, in keeping with the objectives of the operation, defeated the main enemy groupings and taken some of the

territory of the theater of operations but the enemy still has, on the remaining territory of the theater, forces replenished through new call-ups and use of the strategic reserves or transferred from other theaters and continents. In this connection, the front must be ready to conduct a subsequent operation in order to complete the defeat of the enemy to the entire depth of the theater of military operations.

The tasks which the front will accomplish while completing the first offensive operation and going over to a subsequent operation may also vary. In one instance, it may conduct a rapid pursuit of the enemy; in another, it will, in cooperation with adjacent forces, complete the annihilation of a large grouping and continue pursuit with part of its forces. Finally, it is not out of the question that the front will have to repel a strong counterthrust (counterthrusts) on one or several axes delivered by enemy reserves that have arrived to delay the offensive of the front troops and gain time for going over to a general counteroffensive. Under these conditions, the front troops will have to defeat the grouping delivering the counterthrust (counterthrusts) before the approach of enemy forces intended for the counteroffensive and then to defeat these forces, too.

Thus, during the conclusion of an operation, the main efforts of the front are directed towards preparing for the accomplishment of the tasks of a subsequent offensive operation, which one must endeavor to begin without a pause after the preceding one. For this, it is necessary, while still completing the defeat of enemy groupings in the first operation, to establish new groupings of troops through use of the second echelons and reserves, through decisive regrouping of forces and means from secondary axes, and also through the use of troops transferred from the reserve of the Supreme High Command. It is necessary at the same time to assign new tasks to the air army, rocket troops and artillery, reserves, air defense troops, and other branch arms.

CHAPTER 4

CONDUCT OF AN OFFENSIVE WITH THE USE OF CONVENTIONAL MEANS OF DESTRUCTION

The offensive operation of a front with the use of conventional means of destruction may begin under various conditions of the situation. In one case, front troops may preempt the enemy in deploying, delivering the massed air strike, and going over to the offensive in order to defeat the groupings of his aviation and ground forces that have prepared or begun aggressive actions. In another case, the operation may begin with the relatively simultaneous delivery of massed air strikes by the sides and the transition of troops to the offensive with the development of meeting engagements in the border zone or the conduct of an offensive against a defending enemy. Nor can one rule out the variant in which the offensive operation begins with repelling a massed air strike of the enemy and an invasion of his ground forces groupings on individual axes while attack groupings are simultaneously going over to the offensive on other axes. And, while in the first case our troops have the opportunity to immediately seize the initiative in actions and conduct the offensive at a high rate of advance, in the other cases they will have to wage a stubborn, persistent fight at the beginning of the operation to seize the initiative and hold it until the final defeat of the enemy. Naturally, the different conditions will require employing the appropriate methods of troop actions.

Of great importance for successful accomplishment of the tasks of an offensive operation with the use of conventional means of destruction will be the acquisition of air supremacy and the delivery of a powerful initial strike on the enemy to a great depth. To carry out such a strike will require having strong first echelons of the front and armies, establishing the necessary superiority in forces and means -- particularly in artillery and tanks -- over the enemy on the decisive axes, having dependable air defense, and ensuring surprise in the delivery of strikes by aviation and attacks by the troops of the front. Of great importance for the success of the operation will be aggressive, determined troop actions directed towards rapid, complete exploitation of the suddenness of the strike and development of the offensive to the depth.

When beginning an operation with the use of conventional means of destruction, one must remember the constant threat of enemy use of nuclear, chemical, and biological weapons. Therefore, it is necessary to always be

ready for delivery of the initial nuclear strike of the front as well as for protection against weapons of mass destruction.

1. Participation of the front in the air operation in a theater of military operations and repulse of the strike of enemy aviation

A most important condition for seizing the initiative in actions and successfully beginning and conducting an offensive operation is defeat of the aviation and missile/nuclear groupings of the enemy. Accomplishment of this task can be achieved through the conduct of an air operation in the theater of military operations according to the plan of the Supreme High Command, with participation of long range aviation, the forces and means of the fronts, and aviation of the fleet and the Air Defense Forces of the Country.

In some theaters (not main ones) where the aviation and missile/nuclear groupings of the enemy are relatively small, it may be that the air operation is not carried out separately; but, regardless of this, the main efforts of the front's air army in the beginning of the offensive operation must be also directed towards destroying the means of nuclear attack and the aviation of the enemy. *

The air operation is carried out in short periods of time (one or two days) through the delivery of two or three massed strikes by the air forces against the home airfields of tactical aviation -- particularly delivery aircraft -- and the detected missile/nuclear means and air defense means of the enemy and through destruction of his aviation in the air.

Allocated from the front for participation in the air operation are the air army, the air defense troops, the rocket troops and artillery, and the forces and means of reconnaissance and radioelectronic warfare. *

The most important tasks of the front air army in this operation may be destruction of aviation on airfields and of the detected missile/nuclear means and control posts of the enemy, support of the flight of long range aviation and fleet aviation through the zone of the front, and destruction of enemy aircraft in air battles and engagements in cooperation with the air defense troops.

The air defense troops of the front, in cooperation with fighter aviation, the Air Defense Forces of the Country, and the air defense troops of adjacent fronts, destroy enemy aviation as they repel its massed raids and aggressive actions in the periods between these raids.

The rocket troops and artillery can, within range, destroy (neutralize) the radar detection and guidance posts of the enemy, his surface-to-air guided missile batteries in the zones of the flight of long range and front aviation, and the means of nuclear attack and can wear down the flight and servicing personnel on airfields as well as the crews at launch and firing positions.

The forces and means of reconnaissance and radioelectronic warfare can carry on reconnaissance of the ground and airborne means of control of the aviation, missile units, and air defense of the enemy and subject them to intensive jamming.

The first massed strike in the air operation must be the most powerful and sudden. During its preparation, all types of reconnaissance must carry on continuous surveillance of the aviation grouping and missile/nuclear means of the enemy and of the operation of his radiotechnical means in order to prevent a surprise strike of enemy aviation and at the same time to have the data for refining the plan of delivery of our own massed air strike.

The moment of delivery of the first massed strike must be selected so as to catch enemy aviation on the main home airfields. Calculations of the takeoff, flight, and strike delivery time are made from H-hour; for this time one generally takes the beginning of combat actions of the front troops or, for aviation, the moment the lead aircraft of the first echelon cross the border (front line).

The air army of the front will carry on combat actions during the delivery of the first massed air strike, as a rule, in a two- or three-echelon disposition.

Before the start of the massed air strike, the reconnaissance aviation of the front makes a mass takeoff for reconnaissance of the missile/nuclear means, aviation, and troop groupings of the enemy in the interests of the air operation and the conduct of the front offensive operation.

The first echelon of the air army, made up of the fastest aircraft, operating at extremely low altitudes on a wide front, gets to the

designated enemy targets in the shortest period of time and destroys and neutralizes the radar posts, surface-to-air guided missile batteries, missile launchers, and control posts of the air defense while fighter forces ~~blockade the~~ forward airfields and destroy the enemy aircraft that have taken off or are doing so.

At this time the rocket troops and artillery destroy and neutralize the radar posts and surface-to-air missile batteries of the enemy in the flight zones of our aviation and deliver strikes on his airfields and missile/nuclear means.

Airborne and ground SPETSNAZ means of the front neutralize the electronic means of the air defense troops and aviation of the enemy.

The subsequent echelons of the air army, exploiting the results of the actions of the first echelon, rocket troops, artillery, and other means, break through the air defense in the zones assigned to them and deliver a strike on the airfields and other installations of the enemy.

In order not to give the enemy an opportunity to restore the aviation grouping after the first massed air strike, repeat massed strikes can be delivered against his newly detected operating airfields and the maneuver airfields of aviation, surface-to-air guided missile batteries, and guidance and control posts while simultaneously repelling raids and destroying his aviation in the air.

Considering the time necessary for the preparation of a repeat sortie of long range aviation, the second massed strike in an air operation under conditions of the Western Theater of Military Operations can be delivered about 10 or 12 hours after the first strike. The air army, needing shorter periods of time than long range aviation to prepare for repeat strikes, will, in the intervals between the massed sorties, independently deliver strikes on the airfields of the enemy, destroy his aircraft in the air, and fulfil tasks jointly with the combined-arms formations of the front according to the plan of the offensive operation.

In individual cases during an air operation, part of the fighter-bomber forces can be used, according to the decision of the front commander, for air support of the advancing troops. Army aviation, however, will incur the main burden for support of the troops at this time.

As the result of a successfully conducted air operation, as exercise experience and research results show, the enemy may lose as much as 40 to

50 percent of the combat aviation component. However, his great capabilities for restoring and replenishing his aircraft inventory and maneuvering aviation from other axes and theaters will require that the front commander take steps to diligently keep track of the aviation grouping of the enemy and destroy his aircraft on airfields and in the air all throughout the offensive operation in order to continuously maintain the air superiority gained.

During preparation of an air operation it is necessary to consider the possibility of our being preempted by the enemy in the takeoff of aviation and delivery of a strike. In such an untoward situation, it is extremely important that the takeoff of the aircraft of the air army and their removal from under the strike be done before enemy aviation approaches. At the same time it is necessary to concentrate fighter forces to repel the raid of enemy aviation in cooperation with the air defense troops and then deliver a massed strike on it as it returns to the airfields.

Of great importance here will be the high level of readiness of the air defense forces and means of the front to repel an enemy air strike. Upon receipt of reconnaissance data about the mass takeoff of enemy aircraft, the whole air defense system and the troops of the front are readied to repel their strikes. The fighter aviation forces of the front and of the Air Defense Forces of the Country on alert are immediately put into the air and directed towards intercepting air targets on the distant approaches or moved out to the designated zones of alert. The main fighter aviation forces are put into the air as they are ready in order to build up the efforts of the subunits on alert.

Enemy aircraft not destroyed by fighter aviation on the distant approaches are destroyed by the surface-to-air missile (antiaircraft artillery) large units and units of the front and of the Air Defense Forces of the Country as they enter their effective zones (zones of fire).

Fighter aviation at this time destroys targets that have broken through the effective zones of the antiaircraft means of the first-echelon troops or are attempting to circumvent the surface-to-air guided missile zones. Part of its forces can operate in one zone with the surface-to-air guided missiles on the condition that air targets are allocated by altitude, axis, and time. This allocation is done with account taken of the combat capabilities of the air defense troops and fighter aviation and the conditions of their employment.

Means of electronic neutralization must disrupt the operation of the electronic means of the aviation control system of the enemy in the air, of the short-range radio navigation system, and [of the means/system] of flight support of aircraft at low altitudes, as well as of the onboard means of reconnaissance and bombing.

After the first massed raid of enemy aviation is repelled, it is necessary to prepare the air defense forces and means in a short time to repel its subsequent raids. At the same time steps must be taken to restore the combat effectiveness of the large units and units of air defense troops as well as the disrupted system of radar reconnaissance and control of the air defense forces and means. Restoration of the air defense system is done first of all through maneuvering its forces and means from the areas and axes where enemy aviation is showing less aggressiveness.

During an air operation aviation operates at the maximum sortie rate. As they perform their tasks in this operation, the large units and units of the air army must be switched in a timely manner to support of the offensive of the first-echelon troops of the front.

2. Transition of front troops to the offensive and breakthrough of the enemy defense

In the first offensive operation, the troops of a front will go over to the offensive usually from prepared departure areas. This will ensure them the possibility of beginning the operation in an organized manner and of repelling an enemy attack in case of necessity. By the start of the offensive, the large units and formations must, in keeping with the decision of the front commander, occupy and prepare the departure areas, conduct continuous reconnaissance of the enemy, and be in readiness for actions on signal. The rocket troops are in siting areas at the appropriate level of readiness for delivery of a nuclear strike; and front aviation, for the first massed sortie in the air operation. The air defense system is fully deployed and prepared for repelling the first massed strike of enemy aviation. Commanders and staffs at all levels are at this time located in prepared control posts and monitoring the readiness of the troops for commencement of the operation.

The first-echelon large units, depending on the distance of their departure areas from the border and on other conditions of the situation, go over to the offensive from the march or from a position of close contact with the enemy.

When our troops preempt the enemy in delivering the air strike and beginning the operation, the crossing of the border by the front troops is advisably done simultaneously with its crossing by aviation carrying out the first massed sortie according to the plan of the air operation. The first to go over to the offensive after powerful artillery strikes and strikes of army and front aviation are reinforced forward detachments to defeat the enemy in the cover zone. The main forces of the first-echelon divisions begin moving up behind the forward detachments at such a distance as to develop their success in time and at the same time to avoid unjustified losses from enemy artillery fire.

Aggressive reconnaissance of the enemy is carried on over the entire zone of offensive of the front, and special-purpose reconnaissance groups operate in his rear. SPETSNAZ radio and radiotechnical units disrupt the troop control of the opposing enemy, neutralizing his most important radio and radio-relay communications with jamming.

The front commander devotes special attention at this time to the control of aviation and other forces and means participating in the air operation in the theater of military operations and to the control of the first-echelon large units for defeating the covering forces of the enemy. The front staff continuously collects and consolidates situation data and controls the units carrying out combat support measures, particularly reconnaissance and radioelectronic warfare measures.

Under conditions when the enemy preempts our troops in deployment and delivery of the air strike and the attack by groupings of the ground forces, repelling the offensive of his forward units will be done through stubborn defense of the covering forces and border guard detachments with the support of artillery fire and strikes of front and army aviation. Fire against the enemy while he is moving up and crossing the border will be conducted by the organic and supporting artillery of the covering units and, in most cases, also by the division artillery groups of the first-echelon divisions and army artillery groups from firing positions in the cover zone.

The covering units must inflict losses on the enemy, disrupt the orderly deployment and entry into the engagement of the attack groupings of

his troops, and force them to deploy prematurely and enter the engagement under unfavorable conditions of the situation.

To reinforce the covering units, if necessary, additional forces from the first-echelon divisions can be moved up to prepared lines near the border; using fire from fixed positions, these inflict damage on the attacking units of the enemy and prevent their further advance, ensuring the organized entry of the main forces of the first-echelon armies of the front into the engagement.

As the attack axes and composition of the advancing enemy groupings are discovered, endangered axes are reinforced through maneuvering of artillery, air defense forces, antitank reserves, and mobile obstacle detachments of the first-echelon troops.

The offensive of the main forces of the enemy is repelled by first-echelon troops of the front at advantageous lines in the departure area for the offensive. Defeat of the advancing groupings of the enemy is done through an attack of the first-echelon armies, which grows into a determined offensive.

The offensive of the ground forces of the enemy may be made with extensive use of his airmobile units and the landing (drop) in our rear of airborne forces, sabotage and reconnaissance groups, and -- on a coastal axis -- amphibious landing forces to deliver attacks first of all against missile and surface-to-air missile units and artillery in position and against control posts and rear services installations as well as to confine the maneuvering of reserves. Therefore, all large units and units belonging to the operational disposition of the armies and front (and primarily the air defense troops and large units of reserves and second echelons) must be prepared to destroy them promptly.

The transition of front troops to the offensive must be done right after repelling the enemy invasion and, on certain axes, during the course of repelling it. To restore the attack groupings of our troops, it may here be necessary to carry out a partial regrouping and change the composition of the first echelon of the armies by committing their second echelons and reserves to the engagement.

While repelling an enemy invasion it is important to correctly determine the time our troops go over to the offensive. The most advantageous time for this will be the moment the enemy is drained and at a standstill but has not yet managed to establish a defensive grouping.

In the case where the enemy offensive is made not over the whole zone but only on one or a few axes, part of the forces of the front repel the offensive on these axes at the same time as the main forces go over to an offensive themselves and, through decisive attacks on the flanks of the offensive grouping (groupings), inflict damage on the enemy and at the same time rapidly advance to the depth (especially with tank large units in cooperation with airborne assault units and airborne forces).

At the beginning of the first offensive operation, the front troops may be required to negotiate a cover zone. According to the views of the probable enemy, in the Western Theater of Military Operations this zone is established along the border. Its depth may vary from 15 or 20 up to 50 to 70 kilometers. On the most important axes, positions are prepared for the covering troops and general and combat security troops, with an extensively developed system of different-type obstacles and mixed minefields; and provisions are made, in addition, for the placement of nuclear land mines in special shafts and niches prepared in peacetime.

To conduct combat actions in the cover zone, the enemy may use armored cavalry (reconnaissance) regiments, reinforced reconnaissance battalions, or armored (tank) and mechanized (motorized infantry) brigades, and, sometimes, divisions, reinforced with artillery, antitank, and engineer means.

Therefore, in order to negotiate the cover zone, one must allocate that number of forces and means that will ensure defeat of the units defending it in a short period of time, the performance of obstacle clearance in minefields, and the capture and destruction of nuclear land mines. For this it will most often be necessary to allocate forward detachments (each in the strength of a motorized rifle or tank regiment reinforced with artillery and with engineer/combat engineer and chemical subunits) from the first-echelon divisions; and, on those axes where the enemy is defending with considerable forces, it is possible that the main forces of the advancing divisions will have to be deployed. In the latter case, each first-echelon regiment sends forward a reinforced advance guard battalion. In order to capture and destroy nuclear land mines in the cover zone, airborne assault subunits or special detachments can also be employed in addition to the forward detachments.

The forward detachments, making extensive use of maneuver, outflanking, and envelopment of strongpoints, deliver attacks on the flanks and rear of the covering units, drive them from the positions occupied, and rush the forward defense line of the enemy to capture the individual

strongpoints on it and the important sectors of terrain and thereby bring about advantageous conditions for the deployment and commitment to battle of the main forces of their divisions.

Artillery support of the forward detachments is generally done by organic and attached artillery, and it may be reinforced with fire of the division artillery groups.

Breakthrough of the enemy defense. In an offensive operation with use of conventional means of destruction, front troops may, more frequently than in an operation with the use of nuclear weapons, encounter the need to break through an enemy defense both at the forward defense line and at others in the depth of enemy territory (Appendices 12, 13).

According to the views of the NATO command, for the conduct of defensive actions in the beginning of a war, provisions are made for the establishment of a deeply echeloned defense that is developed from an engineer standpoint and includes a cover zone (negotiation of which has been discussed above) and a defense zone.

The defense zone is situated behind the cover zone and is prepared up to 200 kilometers or more in depth. It consists of a forward and several intermediate defense lines and is occupied by the main forces of an army group.

The most important thing in the whole defense system of an enemy army group is the forward defense line, which is established immediately behind the cover zone at a distance of from 15 or 20 up to 50 to 70 kilometers from the border. It is intended for positioning the main forces, that is, the first-echelon divisions, of the defending army corps. Its depth may be from 20 to 50 kilometers.

Behind the forward defense line there are prepared intermediate defense lines at distances of 40 to 60 kilometers from one another, with a depth of 20 to 30 kilometers each. These lines are occupied, as a rule, by the reserves of the army corps, field armies, and army groups.

The extent of preparation of the defense lines from an engineer standpoint and the extent to which they are occupied by troops at the beginning of a war may vary; however, in all cases it is necessary to consider the circumstance that the troops of the probable enemy are capable of preparing a well-developed defense from the engineer standpoint in a short time with the use of engineer equipment. For instance, in the

forward defense area of a division, which is the main element of the division's defense zone, strongpoints, main and alternate positions for artillery and tactical missiles, control posts, switch and blocking positions, and a system of engineer obstacles, including nuclear ones, can be established.

The modern defense of the probable enemies, by comparison with the defense of the Second World War period, differs in the increased number of armored firing points -- tanks, infantry combat vehicles, armored personnel carriers, and self-propelled artillery. Antitank defense has increased drastically, and the number of automatic weapons has grown. Thus, for instance, with the width of the defense zone of an FRG motorized infantry division equal to 20 to 30 kilometers, the average density of antitank means (antitank guided missiles, guns of antitank artillery, and antitank rifles) is as high as 10 to 15 per kilometer of front, and 20 to 30 per kilometer if tanks are taken into account. On main axes these densities are increased still more. All of this bespeaks the fact that front troops during an offensive operation must be prepared to break through an enemy defense that is well organized and strong from the antitank standpoint and to successfully wage combat with the enemy's reserves.

Depending on the nature and extent of preparedness of defense lines, their breakthrough may be done from the march or with preparation in short periods of time. It is necessary to always endeavor to break through a defense from the march, especially when the enemy occupies it hastily without having a continuous front.

In order to ensure success in breaking through a defense from the march, the commanders and staffs of the front and armies and especially the commanders of first-echelon divisions must, even before the troops approach the defense line, have sufficiently complete data on the grouping of ground forces of the defending enemy, the locations and composition of his tactical and operational reserves, the disposition of the defense, the system of fire and engineer obstacles, the nature of engineer preparation, and on the availability and position of means of nuclear attack. For this, the most energetic reconnaissance, especially aerial reconnaissance, of the enemy defense must be conducted and the data transmitted in good time to the first-echelon divisions and forward detachments. It is extremely important here, before approaching the defense line, to determine the presence of breaks in the battle formations of the enemy and of poorly defended sectors.

Breakthrough of a defense line from the march is begun by the forward detachments of the divisions in cooperation with tactical airborne landing forces and airborne assault units. These detachments, as they negotiate the cover zone, rapidly get to the defense line and, exploiting the available breaks, gaps, and poorly defended sectors, break into the defense of the enemy, attack his units, and seize the designated objectives.

Army commanders support the battle of the forward detachments in good time with strikes of aviation and fire of army artillery against the strongpoints, artillery batteries, and tactical reserves of the enemy. The success of forward detachments is exploited without delay into the depth and across the front by the main forces of the first-echelon divisions, who move up behind the forward detachments.

If the enemy manages to repel the attack of the forward detachments, then the breakthrough of his defense is done with preparation in short time periods. In this case, the forward detachments remain in close contact with the enemy, and the main forces of the divisions stop in waiting areas at a distance of 10 to 20 kilometers from the forward edge of the defense line (out of the range of fire of the main body of artillery) in dispositions that ensure rapid movement towards the breakthrough sectors, and they remain in these areas until organization of the breakthrough is completed. On the axes of breakthrough, an attack on the enemy by troops of the attack groupings is prepared and carried out with the conduct of preparatory fire. Consequently, the forward detachments, which have moved up to the forward edge of the defense, will break through it from a position of close contact, while the main forces will do so after moving forward and deploying into battle formation.

In an operation with the use of conventional weapons, a breakthrough must be based on safe neutralization of the enemy defense by massed artillery fire and air strikes on the axes of offensive of the attack groupings, especially in the breakthrough sectors, in conjunction with a determined attack of the advancing motorized infantry and tanks and simultaneous expansion of the breakthrough into the depth and towards the flanks.

The success of a breakthrough will largely depend on the choice of breakthrough sectors and establishment of the necessary densities of forces and means and superiority over the enemy, especially in artillery and tanks, in these sectors as well as on the organization of precise control of the troops and reliable cover of them against air strikes.

The number of breakthrough sectors will depend chiefly on the complement of forces and means of the front and its capabilities to establish the necessary densities of artillery and tanks for effective hitting of the opposing enemy in the chosen sectors and on the flanks of the breakthrough. A front will, more often than not, break through the defense in two or, more seldom, three sectors, one of which will be the main sector. In individual instances, for instance, if the front has two armies in the first echelon, the breakthrough can be made in one sector.

The overall width of the front breakthrough sector must be a minimum of 20 to 25 kilometers in order to ensure the simultaneous commitment of fresh divisions to exploit the breakthrough; and that of an army sector must be eight to 12 kilometers.

The main matters of preparation of the breakthrough of the forward defense line are worked out beforehand, while the operation is still being prepared. But its immediate organization will be done during negotiation of the enemy cover zone by the troops. This organization may take place in a complex ground and air situation and generally in extremely confined periods of time. Reconnaissance in the front and armies should, in view of this, be conducted only on the main axis from one or two reconnoitering points. The extent and completeness of working out the matters of organization of the breakthrough will depend on how materially the developing situation affects the decision made during the preparation of the operation.

As exercise experience shows, to resolve the main matters of organization of a breakthrough in the front and armies requires up to six hours or more, including three or four hours in the divisions. The determining factor here will be the time necessary for the preparation of artillery fire. Specifically, to organize and conduct artillery reconnaissance will require up to three hours; and to plan the fire, assign the tasks, and organize the cooperation of artillery will take three to four hours. Therefore, in case there are not enough daylight hours for the troops to prepare the breakthrough, the attack on the enemy's forward edge of defense can be set by the front commander for morning of the following day of the operation.

Planning of artillery fire in a sector where the breakthrough is carried out on the adjacent flanks of two armies is seen to in the front and armies, while it is done only in the army when the breakthrough is carried out in one (army) sector.

The troops' artillery requirement for the breakthrough is determined on the basis of the number and nature of enemy targets to be hit simultaneously during the artillery preparation, the width of the breakthrough sector, and the gun allocation norms to hit one target. Calculations show that, as applied to conditions of the Western Theater of Military Operations, to break through an enemy defense may require from 100 to 140 guns and mortars per kilometer of front. And, considering the saturation of the enemy defense with a great number of armored targets (dug-in tanks, combat vehicles, armored personnel carriers, self-propelled guns), the extent of damage under modern conditions must be between 30 and 40 percent. Such damage can be ensured through extensive allocation for artillery preparation, besides the artillery firing from indirect firing positions, also of guns, tanks, and antitank guided missiles for direct firing at the armored targets of the enemy. A higher level of destruction can be attained, in addition, through the use of conventional missiles [rockets] with cluster warheads and combat helicopters as well as by employing incendiary mixtures.

It is advisable to concentrate the strikes of front and army aviation on the strongpoints, tactical reserves, and artillery of the enemy out of the range of fire of our artillery and mortars.

When the forward detachments get to the forward edge of the defense, comprehensive reconnaissance, particularly aviation, artillery, and engineer reconnaissance, is carried out so as to discover the enemy's system of fire in the breakthrough sectors down to the platoon strongpoint, missile or artillery battery, and mortar platoon. Aviation reconnaissance must do photographing of the breakthrough sectors as well as visual surveillance from the air, transmitting the data from on board the aircraft. The necessary reconnaissance data on the enemy defense must come into the staffs of armies and divisions no later than four to five hours before the start of the breakthrough. Only on this condition are specific planning of the breakthrough and timely assignment of tasks to the troops possible.

On the basis of the reconnaissance data on the enemy, the results of battle of the forward detachments, and assessment of the position and condition of the main forces, the front commander and army commanders refine their decisions for the breakthrough. These refinements pertain chiefly to the breakthrough sectors, the grouping and tasks of the troops for the breakthrough, the demarcation lines between the divisions, the procedure for movement forward and deployment of the main forces of the

first-echelon divisions, the organization of air defense, the organization of preparatory fire and fire support of the attack by artillery and aviation, and to the time and areas for the landing of tactical airborne forces. At the same time are refined and coordinated the matters of cooperation of troops, forces, and means.

The successful breakthrough of a prepared defense at the forward defense line will require reinforcement of the first echelon in the breakthrough sectors through the timely movement forward and incorporation into it of additional divisions from the second echelons and reserves of the armies, which must be provided for and carefully worked out during the planning of the operation. During the breakthrough of a defense line in the operational depth, the buildup of forces can be done also through commitment of the second-echelon army of the front to the engagement. The front commander must keep particularly careful track of the timely movement forward of the divisions and armies to be additionally committed to the first echelon and of their relocation during the offensive operation and refine their tasks.

One of the most important tasks in the work of the front staff will be to ensure organized getting of the troops, especially the artillery and divisions of the first echelon, to the breakthrough sectors. To this end, it is necessary to precisely define the routes and organize provost and traffic control service and strict monitoring of the movement forward and deployment of the troops.

Timeliness and speed in deploying the artillery are achieved through its sensible echeloning during the movement forward and while the forward units are negotiating the cover zone. Usually the forward detachments are followed by subunits and units of ground artillery reconnaissance subordinate to the divisions and armies. The artillery groups of the first-echelon regiments travel at the head of their regiment columns. It is necessary to bring the division artillery groups and antitank reserves of the divisions up abreast of the first-echelon regiments but along independent routes, and the army artillery groups abreast of the main forces of the first-echelon divisions.

During the deployment of the troops and their preparation for the breakthrough, the front commander and army commanders simultaneously take steps to disrupt a possible enemy counterpreparation. Preparatory fire against the enemy may in this case be initiated earlier than the established time. All preparation of the artillery of the front must be done in such a way as to ensure its readiness for artillery preparation no

later than one to 1.5 hours before it begins. The air defense forces and means, control posts of the first-echelon divisions, and, if necessary, the forward command posts of the armies must be relocated and deployed by this same time.

Preparatory fire begins on the signal of the front commander or the army commander at the established time. Its duration and organization will depend on the nature of the enemy defense, the allocation of artillery and aviation, the allocated warheads, and the time necessary to safely neutralize enemy targets. In principle, it must be as brief, powerful, and sudden as possible, without long pauses and intervals in the conduct of fire by artillery and the delivery of air strikes. The amount of aviation allocated for preparatory fire will depend on the extent of its participation in the air operation.

Artillery preparation may consist of several fire strikes. The first and last should be carried out against the artillery and mortar batteries, control posts, and platoon strongpoints of the first-echelon companies. The intermediate strikes are to be against other targets within the first defense zone as well as against important targets in the tactical depth.

Movement of the main forces of the first-echelon divisions up to the line of attack is done in battalion, and then company, columns under the cover of the forward detachments in contact with the enemy, of artillery fire, and of air defense forces and means. Depending on the distance from the forward edge of defense of the enemy, moving forward begins at the start or during the course of the artillery preparation.

During actions of motorized rifle and tank regiments in narrow sectors, the tanks and infantry combat vehicles are deployed in two or three lines.

The attack on the forward edge of a prepared defense is made, as a rule, in dismounted formation, with dismounting of the motorized infantry being done in places sheltered from the fire of enemy machineguns and antitank means, during the conduct of fire against the forward edge of the enemy defense, and under the cover of tanks deployed into battle formation. The dismounted motorized infantry negotiates the enemy minefields in lanes behind the tanks and then, following the bursts of our shells, at the precisely established H-hour breaks into the forward edge of the enemy's defense and destroys his surviving fire means and personnel.

Artillery support of the attack is done principally through single or double successive concentration of fire against the most important enemy targets to the entire depth of defense of the first-echelon battalions, and then through concentrated fire against individual targets until full completion of the breakthrough.

The main tasks of air support will be neutralization and destruction of artillery and tactical reserves, personnel and firing means in enemy strongpoints out of the range of artillery fire as well as prevention of the maneuver of his forces and means to the breakthrough sectors and of the flow of reserves from the depth.

The motorized rifle and tank divisions, exploiting the artillery fire and air strikes, rush into the breaches formed and the sectors poorly covered by enemy troops, bypass centers of defense and quickly move into the depth, and, in cooperation with airborne assault units and airborne landing forces, smash the scattered groupings of enemy troops.

Motorized rifle regiments in infantry combat vehicles deliver attacks on the flank and rear of the enemy, maneuver their forces and means, and decisively develop the offensive at high rates of advance. In view of this, it is advisable, when breaking through a prepared defense, to have regiments in infantry combat vehicles in the second echelons of the divisions.

The front commander attentively monitors the changes in the position and grouping of forces of the sides and takes steps in time to disrupt the enemy's attempts to delay the offensive of the front troops at switch and blocking lines and to prevent the maneuver of his reserves both across the front and from the depth. Simultaneously with this, he takes steps to expand the breakthrough sectors towards the flanks and into the depth, monitors the timely commitment of the second echelons of the divisions and armies, and also directs the efforts of the troops towards search and destruction of the means of nuclear attack and towards disorganization of the troop control of the enemy. Strikes are delivered on detected nuclear means and control posts by aviation and other means. To destroy them, airborne landing forces and airborne assault units are employed and special-purpose reconnaissance groups are used.

Electronic neutralization should be directed towards disrupting radio and radio-relay communications chiefly at the tactical level of the enemy -- in army corps and divisions of the first echelon -- and radio communications for control of tactical and, on a coastal axis,

carrier-based aviation in the air and towards disrupting its cooperation with the ground forces, the short-range radio navigation system and onboard electronic means of aircraft, and also his reconnaissance radio nets.

To increase the rates of a breakthrough, it is necessary to make extensive use of tactical airborne landing forces and airborne assault units. The subunits of an airborne landing force, operating in approach march or battle formations, with the support of aviation and combat helicopters or independently, attack from the march and destroy the enemy or seize his important objectives.

Airborne assault units, making an airborne assault attack, rapidly penetrate to the attack targets on helicopters, destroy and neutralize the personnel and firing means of the enemy with fire of the onboard weapons of the helicopters, and complete his destruction through an attack of the airborne assault subunits landed in the areas of the targets of the attack.

In case it is necessary to repel a counterattack of enemy tactical reserves and hold a captured area or line until our troops approach, the airborne landing forces and airborne assault units go over to a temporary defense, which must be drawn up as an all-round defense.

After completion of the breakthrough of the forward defense line of the enemy, one cannot allow his organized withdrawal and occupation of intermediate lines. To this end, pursuit of the enemy is organized and energetically conducted so as not to give him an opportunity to get away from the advancing troops of the front.

The pursuit is made by the troops simultaneously with the delivery of strikes by front and army aviation on the columns of the withdrawing enemy, especially in narrows and defiles and at crossings, with dependable air defense of the main grouping of troops. The pursuit must be conducted with particular energy by the tank army and the tank divisions of the combined-arms armies. They rapidly overtake the enemy on parallel roads, get to his flanks and rear areas, and destroy the scattered groupings of withdrawing troops in detail.

Breakthrough of a defense from a position of close contact with the enemy is possible at the beginning of a first offensive operation in the border zone when he prepares and occupies a defense right at the border or after his offensive is repelled. Such conditions for the breakthrough of a defense may also develop during an operation after the repulse of counterthrusts and the conduct of defensive actions on one axis or another.

During preparation of a breakthrough from in close contact with the enemy, conditions are facilitated for reconnaissance of the defense and the work of commanders on the terrain to organize the offensive; but, at the same time, there is an increased danger of enemy conduct of counterpreparation against our troops.

The front, army, and large unit commanders will have to conduct careful reconnaissance on the terrain for the purpose of determining the breakthrough sectors and the appropriate disposition of troops, of refining their tasks and the procedure for occupying the departure position, attacking the forward edge of defense of the enemy, and developing the battle into the depth, of organizing preparatory fire and fire support of the attack and cooperation of the troops during the breakthrough, and of refining the measures to disrupt the possible enemy counterpreparation, as well as for resolving other matters.

To achieve concealment of the moving forward of troops and the beginning of the offensive, the first-echelon large units occupy the departure position in the course of one or two nights prior to the offensive, simultaneously with relief of the defending troops. Usually moved into the prepared areas towards the breakthrough sectors in first priority in this case are the first-echelon regiments, the artillery, the air defense troops, and the control organs, and then the units and large units of the second echelons and reserves. The air defense troops subordinate to the front and armies are moved forward and deployed in positions before deployment of the main forces of the armies and front. Lanes are made through our own minefields beforehand, and through the enemy minefields during preparatory fire and, where it is possible, the night before the attack.

To disrupt the enemy counterpreparation, one determines the possible sectors (areas) and time of its conduct by the enemy, the allocation of rocket troops, artillery, and aviation of the front, and their tasks to disrupt the counterpreparation, establishes the expenditure of conventional missiles and ammunition, the procedure for opening and conducting artillery fire, and also the delivery of strikes by aviation and rocket troops, and defines the tasks of the air defense troops and the measures for combat support.

In case the enemy conducts a counterpreparation, then when it starts the front commander refines the tasks of front aviation, artillery, and air defense troops to neutralize and destroy his fire means and aviation. But if the enemy has begun counterpreparation not long before our preparatory

fire, then it is advisable to begin preparatory fire immediately and go over to the offensive after it.

Preparatory fire is begun and carried on in the usual order. Here one must fully exploit the broader capabilities of fire of direct-laying guns, tanks, and antitank guided missiles from previously prepared positions and, in a number of cases, also those of the fire of infantry combat vehicles. Artillery support of the attack during the breakthrough of a prepared defense can be carried out in a fire barrage in conjunction with successive concentration of fire or double successive concentration of fire.

The breakthrough of the enemy defense will be done, as a rule, with deployment of the troops into battle formation. The procedure for moving the tanks and motorized infantry up to the line of attack depends on their distance from the forward edge of defense and the nature of the terrain. In one instance the motorized infantry may move up towards the line of attack dismounted, while in another instance it will move up in infantry combat vehicles (armored personnel carriers). Tanks move forward from the waiting positions during preparatory fire. After negotiating the enemy obstacles in lanes, they deploy into battle formation, break into the forward edge of defense at H-hour together with the motorized infantry, and, destroying the defending enemy with fire on the move, rush into the depth.

3. The breakthrough of fortified areas

The taking of fortified areas may, depending on the situation, be done by capturing from the march, outflanking one or both flanks with subsequent delivery of an attack from the flank and rear, and breaking through, that is, by means of an attack of troops from the front.

During the development of an offensive operation, fortified areas situated in the operational depth and not occupied in advance by troops must be captured or broken through from the march. Pursuing the withdrawing enemy, the troops of the front beat the enemy to the fortified area and then take it from the march, exploiting the gaps between defense centers and strongpoints as they do so.

The breakthrough (assault) of a fortified area is undertaken in those instances when taking it from the march or bypassing it is unsuccessful or impossible. The special features of the breakthrough consist chiefly in

the difficulty of destroying pillboxes with conventional means of destruction. This necessitates the conduct of preparatory fire of greater duration than usual in order to hit the pillboxes and field reinforcement troops within each defense zone of the fortified area and to their entire depth. Hence comes the requirement of allocating to the attack groupings of troops powerful means of destruction and neutralization, including large-caliber guns, flamethrower units, and special engineer equipment, and also of enlisting considerable forces of aviation, including long range aviation.

The front may break through the fortified area in one common sector 15 to 20 kilometers wide or in two army sectors, each eight to 10 kilometers wide. The first-echelon divisions are assigned narrower offensive zones -- up to 10 or 15 kilometers -- and breakthrough sectors -- up to three kilometers -- and given tasks of less depth. The immediate task of a division may be the breakthrough of the first zone of the fortified area; and the task of the day, the breakthrough of the second zone and taking of a line at a depth of 20 to 25 kilometers.

To break through a fortified area requires establishing higher densities of artillery -- up to 150 or more guns and mortars per kilometer of front -- and increasing the density of the bombing strike of aviation on strongpoints. The unique feature in the organization of artillery preparation may be the presence of a period of destruction. The artillery preparation may be preceded also by a period of preliminary fire detection and destruction of pillboxes. The duration of artillery preparation when it includes a period of destruction may, as calculations show, be from 70 to 100 minutes. Larger artillery groups are formed in the armies and divisions.

The operational disposition of the front and armies will be marked by deeper echeloning of troops. The tank army and the tank divisions of the combined-arms armies will, as a rule, be used in the second echelons.

The battle formations of the divisions are marked by deep echeloning and the availability in them of assault detachments and groups. Assault detachments are meant for assaulting and taking a strongpoint or group of pillboxes. They may include motorized rifle subunits up to a battalion, one or two artillery battalions, a tank company, a flamethrower company, a combat engineer company, and a radiation and chemical reconnaissance squad. An assault group is usually intended for assaulting one pillbox; it may include a motorized rifle company (platoon), a tank platoon, an artillery battery, a combat engineer platoon with BTU [tankdozers] and

KMT [tank-mounted track minesweepers], one or two flamethrower tanks (jet flamethrowers), an infantry flamethrower squad, sets of shaped changes, and reserves of explosives. In individual instances, airborne assault groups in helicopters can also be formed.

Operational airborne and amphibious landing forces can be employed during the taking of a fortified area for a surprise attack from the rear towards the troops attacking from the front.

The tactical airborne landing forces include combat engineer subunits with a reserve of shaped charges and explosives. On a coastal axis, amphibious landing forces can be employed, including tank ones.

Preparation of the breakthrough of a fortified area requires more time than preparation of the breakthrough of a field-type defense, and more careful organization. The front commander must first of all organize and conduct careful reconnaissance and make a detailed study of the fortified area: its layout, the number and nature of pillboxes, the system of fire, the engineer obstacles, the strength and combat effectiveness of the garrisons, the vulnerable spots in the system of the fortified area, the availability of field reinforcement troops, and other matters. Used for study of the fortified area are all types of reconnaissance data obtained in peacetime and during the offensive, and large-scale plans and aerial photographs are used extensively. When assessing one's own troops, it is necessary to carefully determine their capabilities for breaking through, particularly the capabilities and requirements of artillery, aviation, and of the flamethrower and engineer units and subunits.

When determining the axis of the main attack for breaking through a fortified area, it is necessary to consider and exploit to the utmost its weak and vulnerable spots. The selected axis must ensure the effective use of one's forces and means for destroying or safely neutralizing the pillboxes and breaking through the fortified positions and zones at a high rate, concealment of the deployment of the attack groupings of troops and the occupation of the departure position, rapid defeat of the main enemy grouping in the fortified area, and development of the offensive to the depth.

The commander's decision for the breakthrough defines in detail the tasks of artillery and aviation, the procedure for fire detection and preliminary destruction of pillboxes and obstacles, the organization of preparatory fire, the duration of the period of destruction and the

procedure for fire support of the attack, the allocation of high-power artillery and flamethrower means, and the approximate composition of the assault detachments and groups. The decision also defines the tasks of engineer troops for making lanes in obstacles and destroying pillboxes, the tasks of the flamethrower units for destroying their garrisons, and the tasks of the air defense forces and means, airborne (amphibious) landing forces, and airborne assault units.

The front commander and his staff pay special attention during the preparation of a breakthrough to the organization of cooperation. In the front and army, it can be initially worked out on the terrain to the visually observable depth of the defense and then on a terrain model to the entire depth of the fortified area.

Worked out most completely here are the procedure for troops to occupy the departure position, for destroying pillboxes, for making lanes in obstacles, for the first-echelon units to move forward and attack, and for actions of the assault detachments and groups to blockade and destroy the pillboxes; the procedure for joint actions of motorized infantry, tanks, artillery, aviation, and airborne and amphibious landing forces during the breakthrough; matters of control, mutual identification, and target indication; and other things.

The breakthrough of a fortified area begins with the conduct of powerful preparatory fire during which pillboxes are destroyed, the artillery, personnel, and firing means of the field reinforcement troops are neutralized, and lanes are made in obstacles and impediments.

During the preparatory fire, aviation, using large-caliber bombs, missiles, and incendiary means, destroys and neutralizes the main centers of defense, the most important firing structures in the depth of the fortified area and on the flanks of the breakthrough sectors, the reserves, and control posts.

During the preparatory fire, the first-echelon motorized rifle and tank units and subunits with the assault detachments and groups move forward to the line of attack. During the destruction and the last fire strike, obstacle-clearing groups, using mine-clearing set-ups and bangalore torpedoes, make lanes through the obstacles and impediments. At the designated time, artillery support of the attack begins; and it can be carried out as a fire barrage, double fire barrage, or double successive concentration of fire.

The attack on the fortified area is begun simultaneously by the motorized infantry and tanks. The assault detachments and groups, located in the battle formations of regiments and battalions, blockade and destroy the surviving pillboxes in centers of defense and strongpoints. Should there be no assault targets, the assault detachments and groups are used as second echelons or reserves of the regiments and battalions.

The first-echelon motorized infantry and tanks break through the gaps between the pillboxes, destroy the field reinforcement subunits of the enemy, and seize lines and positions in the depth of the fortified area. The airborne assault groups destroy the enemy with combat helicopter and small arms fire and then dismount and blow up the pillboxes.

Maneuver of the enemy's reserves within the fortified area and from the depth, as well as his counterattacks and counterthrusts, must be thwarted with air strikes, attacks of airborne assault units, artillery fire, and a determined attack of the troops on the offensive.

The success of the actions of the first-echelon units must be exploited quickly through timely commitment of the second echelons of the divisions and armies to the engagement.

Simultaneously with the breakthrough of a fortified area, the front commander takes steps for development of the offensive by troops operating outside the fortified areas and bypassing them, and he controls the battle of the operational airborne landing force that has been landed and -- on a coastal axis -- that of the amphibious landing force. With coordinated attacks of the advancing troops, air strikes, and attacks of the airborne and amphibious landing forces, the breakthrough is completed to the entire depth of the fortified area and favorable conditions are thereby brought about for the further rapid development of the offensive operation of the front.

4. Defeat of enemy reserves in a meeting engagement and when repelling a counterthrust

A meeting engagement of the troops of a front without the use of nuclear weapons may arise and take place during an encounter with enemy groupings at the beginning of the first offensive operation, but more often during its development in the depth with enemy reserves moving forward towards the front.

At the beginning of an operation, a meeting engagement may take place in the border zone between attack groupings of troops of the sides that have gone over to the offensive. Here it is possible, depending on the situation, that the front will have to conduct it [the meeting engagement] on one axis with part of its forces while on other axes its main forces may be negotiating the cover zone, breaking through the defense of the enemy, or repelling an offensive of his superior forces. It is not out of the question that a front will be conducting a meeting engagement in several areas at one time, in which case it will be characterized by several centers.

During the offensive operation of a front, meeting engagements may take place during the defeat of enemy reserves moving forward from the depth to deliver counterthrusts or occupy an important defense line.

The experience of NATO troop exercises shows that the probable enemy will endeavor to have strong reserves in the depth. And the growing maneuverability and mobility of troops enables him to concentrate these reserves on decisive axes of combat actions in shorter periods of time than formerly. Thus, a reserve of one or two army corps is established in an army group, and it can be positioned in a dispersed manner at a distance of as much as 200 to 300 kilometers from the border in order to deliver counterthrusts in the fight for a forward defense line or one of the intermediate lines. Under certain conditions this reserve can be used for defense at an advantageous operational line in the depth.

A meeting engagement with advancing enemy reserves (Appendix 14) can most often develop in the zone of one army or at the juncture between two armies.

During the development of a meeting engagement in the zone of one army when its forces are adequate to defeat the enemy, the meeting engagement is organized by the commander of the army. The front commander in this case may support the army by allocating additional flight resources of front aviation and reinforce it with artillery and individual large units from the front reserve, while continuing at the same time to direct the main efforts of the front towards development of a rapid offensive on the main axis of the offensive.

But if the forces of one army prove inadequate to defeat the grouping of enemy reserves, then it will be necessary to call on the forces of two armies, of front aviation, and air defense forces and means for this and possibly to use the front reserves, too. In such a case, control of the

troops during the preparation and conduct of the meeting engagement will be exercised by the front commander.

Success in a meeting engagement depends on many factors. Of primary importance here, first of all, will be the timely receipt of reliable data from reconnaissance on the enemy and the terrain in the area of deployment of troops for the meeting engagement. Reconnaissance must, in short periods of time, discover or verify the composition and axes of movement of the enemy columns at the greatest possible distance from our troops and the availability to the enemy of means of nuclear attack and of tank, airmobile, and airborne landing forces.

The necessary reconnaissance data can be obtained fastest by aerial reconnaissance. Therefore, in anticipation of a meeting engagement, aerial reconnaissance must be conducted purposefully with maximum intensity of forces. The agent and special reconnaissance of the front will constantly keep the concentration or operational deployment areas of the enemy's reserves, the main transportation routes over which the movement (transfer) of his troops is possible, and their probable lines of deployment under surveillance before the start and during the course of the meeting engagement. The reconnaissance forces and means of the combined-arms large units must operate aggressively on a wide front and endeavor to encounter the enemy as early as possible and penetrate as deep as possible into his disposition.

On the paths of forward movement of the enemy troops, special-purpose reconnaissance groups can be dropped to destroy means of nuclear attack, disorganize the movement of enemy columns, and conduct continuous surveillance of them. In turn, it is necessary to take steps to strengthen the security of our missile and surface-to-air missile units, air defense radar posts, staffs, and rear services installations against the reconnaissance and attack of enemy sabotage detachments and groups.

To achieve success in a meeting engagement, it is necessary to preempt the enemy in delivering strikes with aviation and conventional missiles, in opening fire with long-range artillery, and in deploying attack groupings on the selected axes. Massed and concentrated strikes by front and army aviation against the advancing enemy in columns make it possible to weaken him while still closing in, to disorganize orderly deployment, and possibly to disrupt organized entry of the enemy into the engagement. Powerful preemptive strikes will also have a strong effect on the morale of his troop personnel and predetermine the outcome of the meeting engagement. Such actions, taken as a whole, may lead to the defeat even of a stronger

enemy who has not managed to deploy.

The outcome of a meeting engagement will also largely depend on the reliability of our air defense. In anticipation of a meeting engagement, one must prevent the delivery of massed air strikes by the enemy. This task is accomplished chiefly through the actions of the air army and air defense troops of the front to maintain air supremacy. It is advisable at this time to deliver strikes with the forces of the air army against the home airfields of enemy aviation and to concentrate the main efforts of fighters by the start of the meeting engagement on covering the troops of the front in order to repel, in cooperation with the air defense troops, the massed raids of enemy aviation.

The decision for the meeting engagement is made by the front commander upon receipt of reconnaissance data about the beginning of a movement of enemy reserves forward from concentration areas. It is here necessary to take into account that a meeting engagement, more than any other form of combat actions, requires speed in adoption of the decision and rapidity of actions. Delay and hesitation will lead to losing the initiative.

When assessing the situation, the front commander first determines the composition and position of the advancing enemy groupings, the probable lines of deployment and axes of their attacks, the enemy's nuclear strike delivery capabilities, the strength and nature of actions of aviation, and the areas of the possible landing (drop) of airborne forces and assesses the position and status of the front troops and the presumable time of meeting with the enemy, the advantageous lines and time of deployment of his own troops, and also the possibilities for building up efforts and carrying out maneuver to deliver attacks on the enemy's flanks. Then the urgent measures to ensure the success of the impending actions of the troops are determined and carried out, in particular, the strengthening of reconnaissance, the seizure and consolidation of advantageous lines for deployment, the preparation of large units of the air army and the rocket troops and artillery to deliver strikes on the advancing reserves, and others.

The decision for a meeting engagement defines the concept for defeating the enemy grouping; the tasks for the armies, the rocket troops and artillery, front aviation, the air defense troops, the airborne assault brigade, and the airborne landing force if one is employed; and also the cooperation of troops, their comprehensive support, and control.

The concept must ensure preemption of the enemy in the delivery of strikes and deployment of troops and in the establishment of an advantageous position for our troops to maneuver and attack the enemy. It defines the methods and sequence for defeating the enemy groupings, the axes of the main and other thrusts, and the disposition of troops for the meeting engagement, as well as the precedure for repelling enemy strikes from the air and attacks on the ground.

If a meeting engagement occurs simultaneously on several axes, then the efforts of the front troops must be concentrated first on defeating the main, most dangerous grouping of the enemy and then his other grouping and at the same time on developing a rapid offensive on the axis of the main thrust of the front.

The methods of defeating the enemy in a meeting engagement are determined according to the composition and position of the troops of the sides. They will be based on massed strikes of aviation, rocket troops, and artillery fire coordinated by time and place, in conjunction with attacks of tank, motorized rifle, and airborne assault large units and airborne landing forces. The main methods may be the delivery of massed strikes by aviation, rocket troops, and artillery in conjunction with attacks of the troops on one or both flanks of the enemy and the simultaneous delivery of an attack by part of the forces from the front; the delivery of a frontal attack on the enemy; and repulse of the enemy attack through temporary transition to the defense by part of the forces with the subsequent delivery of powerful attacks on the flanks by arriving second echelons of the armies or reserve of the front.

The most effective method is the first, especially if the attacks on the enemy's flanks are delivered before he has yet deployed. But if the enemy has managed to deploy his grouping and begin actions first, then in this case it is more advantageous to contain him from the front with part of the forces and defeat him through an attack of one or two armies on the flanks and rear.

Attacks on the flanks and rear always put the enemy at a disadvantage and enable our troops to quickly seize the initiative in actions. Therefore, one must always endeavor to employ this method, especially when the position of the front troops as well as terrain conditions make it possible to carry out wide maneuvering. But if an attack on both flanks is impossible because of the conditions of the situation, then it is delivered on one flank in conjunction with actions by part of the forces from the front.

Defeat of an enemy grouping through a meeting attack from the front is most often to be employed in a situation when there is no time or conditions are not right for getting the troops to its flanks.

Under unfavorable conditions of conducting a meeting engagement, it is advisable initially for part of the forces of this or that first-echelon army, with fire from fixed positions, to meet the enemy at advantageous lines, contain his main grouping, bleed it dry, and then, through the commitment of fresh forces and the delivery of flank attacks on the most advantageous axes, to retake the initiative in actions and defeat it.

The axes of attacks of the troops conducting a meeting engagement must ensure destruction of the main grouping, first and foremost the tank grouping, of the enemy. They are selected chiefly where the terrain favors the concentration and deployment of all branch arms in short periods of time, as well as their execution of a wide maneuver.

The troop grouping of the front for conducting the meeting engagement must correspond to the selected method of defeating the enemy and ensure superiority over him on the axes of the attacks and a stable position of one's own troops at the same time on the axes of the enemy attacks.

The artillery grouping is established so as to achieve artillery superiority over the enemy on the axes of attacks and preempt him in deploying and opening fire. Therefore, when closing with the enemy, the artillery must travel behind the forward detachments or ahead of the main forces of the divisions and deploy into battle formations from the march.

When a meeting engagement is conducted on several separated axes, then a grouping of front troops operates relatively independently on each of them. Therefore, seizure of the initiative here will largely depend on the determination of the army commanders.

The second echelon of the front, in the event that it is used in a meeting engagement with a large enemy grouping, usually operates on the main axis to deliver a decisive attack on its flank and rear and defeat it in a short period of time.

Airborne landing forces should be used to delay the advance of enemy troops and disrupt their maneuver through seizure of road junctions, bridges, narrows, and advantageous terrain lines as well as to assist the troops in defeating an advancing or deploying enemy grouping through the delivery of attacks on its flanks or rear, on the control posts, and on the

means of nuclear attack.

Airborne assault units are employed to destroy missile/nuclear means, air defense forces and means, and control posts and to deliver surprise attacks on the forward detachments, tanks, and artillery of the enemy.

The air army in a meeting engagement concentrates its efforts on the destruction of the enemy's aviation that is supporting the actions of his troops, on the delivery of a powerful air strike on the advancing grouping of the enemy, and also on air support of our troops on the axes of their attacks.

When a meeting engagement is organized, special attention is paid to reliable cover of the front troops against strikes of the air enemy. To this end, the commander must, in a timely manner, carry out maneuver of the air defense forces and means, reinforce the grouping of air defense troops on the axis of the meeting engagement before it starts, and prepare the air defense grouping to repel the massed strikes of enemy aviation in cooperation with the fighter aviation of the air army of the front.

In anticipation of a meeting engagement, one must move his troops forward as quickly as possible to the lines of the possible encounter with the enemy, seize advantageous lines with forward detachments or separate large units, and provide favorable conditions for deployment of the first echelon. Antitank reserves and mobile obstacle detachments of the armies and front can also be used for this.

The strength of the strikes of the rocket troops, front and army aviation, and artillery on the enemy must grow as one closes in with him so as to inflict the greatest possible losses on him while still on the march or at the time of deployment.

Of the ground forces, the first to enter into battle with the enemy are the forward detachments. Attacking his forward units valiantly, they seize advantageous terrain lines from the march and hold them, thereby supporting the deployment of the main first-echelon forces. Simultaneously with this, the air defense forces and means repel the strikes of enemy aviation.

Preparatory fire for the attack will, as a rule, be strong but brief, since it is conducted against enemy troops in the open. During preparatory fire, on the axes of the attacks of our troops one must destroy or safely neutralize first and foremost the means of nuclear attack, tanks,

artillery, and antitank guided missiles, as well as control posts. Artillery hits the immediately opposing enemy. The rocket troops, large units of the air army, and airborne assault units, through concentrated strikes with the use of conventional weapons and incendiary means, hit the missile/nuclear means and columns of troops on the march and in the process of deployment, as well as the second echelons and reserves.

Exploiting the results of the strikes of the rocket troops, aviation, airborne assault units, and artillery fire, the first-echelon divisions rapidly get to the selected axes and attack the enemy from the march, clobber him in columns or during deployment, and thwart his attempts to deliver his attack or go over to a defense at advantageous lines. When doing this, one must avoid the delivery of frontal attacks on an enemy who has deployed and managed to consolidate at advantageous lines.

The success achieved in the meeting engagement must be developed in time. To build up the strength of the attacks, it is advisable to use the second echelons of the armies and the reserves of the front, and sometimes to commit the second echelon of the front, organizing dependable cover of them against strikes from the air.

Since combat actions in a meeting engagement will often take place under conditions of deep reciprocal envelopments, it is necessary to watch the actions of the enemy attentively and constantly bear in mind his endeavor to likewise deliver an attack on the flanks and rear of the grouping of front troops that is conducting the meeting engagement. The attempts to deliver such attacks must be thwarted by our aviation and through timely maneuver and deployment of reserves of the armies and the front on the threatened axes.

Electronic neutralization must be directed above all towards diminishing the effectiveness of the conduct of reconnaissance by the enemy, disrupting radio control of his advancing troops, and diminishing the effectiveness of air strikes.

During a meeting engagement, the front commander exercises control of the troops from the command or forward command post, depending on the situation; and the army commanders exercise control, as a rule, from a forward command post that is brought as close as possible to the troops carrying on the meeting engagement. In many cases, the front commander with the operations group will exercise control from the control post of the commander of the army which is carrying on the meeting engagement. While the engagement is being conducted, special attention must be paid to

ensuring continuous cooperation between the formations and large units delivering the attack on the enemy from different axes and the aviation supporting them.

The high maneuver capabilities of the enemy's troops enable him to establish groupings in a short time to deliver counterthrusts. When he does, he will endeavor to enlist a maximum of his forces, especially aviation, artillery, and tank troops for the counterthrust in order to achieve decisive objectives such as, for instance, defeat of the main grouping of troops of the offensive front and restoration of a lost position in the defense, breaking of the blockade of an encircled grouping of his troops, or infliction of damage on the farthest advanced attack groupings of front troops in order to prevent their further development of the offensive and to gain time for concentrating larger forces of his own.

To carry out counterthrusts, the enemy will use army reserves, army group reserves, and strategic reserves, with the involvement of part of the forces of the first echelon. The reserve of an army group, for instance, can deliver a counterthrust on a 60- to 80-kilometer front. When it does, its efforts are concentrated in a 20- to 30-kilometer sector, which makes it possible to establish densities of as many as 40 to 45 tanks and 30 to 35 guns and mortars per kilometer of front. The counterthrust grouping can be supported by tactical aviation consisting of 250 to 300 aircraft. In addition, to assist the troops delivering the counterthrust, provision is made for the landing (drop) of an airborne landing force made up of one or two airborne (airmobile) brigades at a depth of 80 to 100 kilometers. When the development of the army group counterthrust is successful, strategic reserves can be used to go over to a counteroffensive.

Repelling and defeating counterthrust groupings is provided for in the concept and plan of the operation. Upon receiving reconnaissance data about the threat of an enemy counterthrust during the offensive, the front commander determines the possible strength of the counterthrust grouping (groupings), the target of the counterthrust, the lines and times of deployment of troops, and the axes of their attacks. He simultaneously assesses the capabilities of his own troops operating on the axis of an expected counterthrust to repel it, taking into account the nature of the terrain, the time of day, and the condition of the weather; and he takes steps to strengthen reconnaissance, to consolidate an advantageous line on the axis of the counterthrust with part of the forces of the troops on the offensive, to move the antitank reserve and mobile obstacle detachment of the front forward and deploy them on the threatened axis, to prepare rocket troops, aviation, and artillery for timely delivery of strikes on the

counterthrust grouping, and to reinforce the air defense of the troops. If necessary, the combined-arms reserve of the front and troops from other axes are regrouped to the threatened axis.

Repelling and defeating the counterthrust grouping are done through the delivery of a massed strike by the rocket troops and front and army aviation and fire of long-range artillery while it [the grouping] is moving forward and deploying, with a simultaneous attack of the advancing troops of the front on one or both its flanks and its rear, and also through the action of airborne assault large units (units) against this grouping. Enemy actions are confined from the front by part of the forces. If the balance of forces on the axis of the enemy's counterthrust is unfavorable, it is advisable to first repel his attack by temporarily going over to the defense with part of the forces, to inflict losses on him with strikes of the rocket troops and aviation, the fire of artillery and antitank guided missiles, and counterattacks, and then to complete his defeat with attacks on the flanks. In a case when the enemy undertakes counterthrusts simultaneously on several axes, the efforts of the troops and aviation of the front are concentrated first of all on defeating the grouping representing the greatest danger. Sometimes it may prove advisable on one axis to repel the counterthrust through the temporary transition of part of the forces to a defense and to defeat the enemy grouping on the other axis in a meeting engagement with determined attacks on its flanks and rear. At the same time, the offensive must be developed on the remaining axes in the zone of the front. A rapid advance of troops into the depth will force the enemy to fragment the efforts of his aviation and reserves and put the counterthrust groupings in a difficult position, which will, in the end, lead to their defeat by the troops of the front.

Troop control is exercised by the front commander from the command or forward command post, depending on the strength of the enemy counterthrust, the troops allocated to repel it and defeat the counterthrust grouping, and the general conditions of development of the offensive operation of the front.

5. The assault crossing of wide water obstacles

Water obstacles may have an even greater effect on the conduct of an offensive operation with the use of conventional means of destruction than on combat actions of troops with the use of nuclear weapons. One of the

most important conditions for the successful conduct of such an operation will be comprehensive support of the assault crossing of water obstacles from the march without substantial reduction of the rates of advance.

Having a decisive effect on the methods and rates of the assault crossing of wide water obstacles will be the nature of the water obstacle itself, the nature of its defense by the enemy, and also the capabilities of the troops to negotiate a water obstacle.

Calculations show that the assault crossing of narrow water obstacles (up to 60 meters) is ensured by the organic crossing means of the divisions; and that of medium ones (up to 150 meters), by the means of divisions and armies. The successful assault crossing of wide water obstacles (over 150 meters) can be ensured only by allowing for reinforcement of the advancing first-echelon large units with crossing means of the armies, front, and Reserve of the Supreme High Command. This can be seen in the following example. The assault crossing of rivers 200 to 500 meters wide with the use of only the organic crossing means of a motorized rifle (tank) division requires from 20 to 30 hours. When the division is reinforced with a PTS [medium amphibious carrier] company, a GSP [tracked self-propelled ferry] company, and a pontoon bridge battalion (through use of means of the army, front, or Reserve of the Supreme High Command), the time for the assault crossing of such a river is reduced to five to 10 hours. As can be seen from this, with the above-mentioned reinforcement of divisions, the time for an assault crossing of wide water obstacles is reduced to a third or a quarter, which ensures the offensive of troops at high rates of advance.

When the methods and rates of an assault crossing are determined, a comprehensive assessment of the other features of the water obstacle is also necessary. For instance, if the depth of a river is greater than five meters, the underwater crossing of tanks on the river bottom is out of the question and the construction of low-level bridges is impeded. Hydraulic engineering works (dams, locks), should they be blown up by the enemy, can drastically complicate an assault crossing.

The nature of defense at a water obstacle will depend on the importance of the river and the availability to the enemy of forces and means, particularly reserves, and time to organize the defense. On one axis the troops of a front may encounter a defense hastily occupied by the withdrawing troops of the enemy, on another the defense may be one prepared and occupied in advance by his reserves transferred from the depth.

During the approach of the advancing troops of the front to the water obstacle, the enemy will endeavor through strikes of tactical aviation, combat helicopters, and artillery to delay their advance, prevent the assault crossing and laying of crossings, and thereby gain time for the organization of a defense by the withdrawing troops and the reserves approaching from the depth. On the approaches to wide water obstacles, he may deliver strong counterattacks and counterthrusts and also keep strong bridgeheads and hold them.

Success in the assault crossing of a water obstacle depends largely on the organization of continuous reconnaissance of the enemy defense and the nature of the water obstacle. During the approach of the front troops to the water obstacle, reconnaissance ascertains the grouping and nature of actions of the enemy on the approaches to it and on the opposite bank, the nature of the obstacle itself, the presence of engineer obstacles on the banks and in the water, the enemy measures to reinforce the defense, the availability and condition of bridges, crossings, and hydraulic engineering works, and the possible zones of flooding should these be destroyed. On the basis of these data, one determines the suitable or advantageous sectors for the assault crossing, the concealed routes of approach to them, and areas for deployment of the crossing means and troops.

In advance and immediately before the assault crossing, the front staff organizes aerial photography of the most important sectors of the water obstacle and timely delivery of the photo documents to the troops so that before they get to these sectors they are provided with large-scale maps (photo sketches) with the refined data about the enemy and the water obstacle.

The main method of assault crossing of water obstacles, as in an operation with the use of nuclear weapons, is assault crossing of them from the march. What this consists in is that the front troops during the development of the offensive inflict decisive damage on the enemy on the approaches to the water obstacle, rapidly get to the water obstacle on a wide front, cross it suddenly, and develop the offensive without delay on the opposite bank.

For such a method of assault crossing, it is necessary first of all to deny the enemy the opportunity to withdraw in an organized way to the river and remove his troops across the water or keep a beachhead, as well as to prevent the approach of his reserves to occupy a defense on the opposite bank. To these ends, the front commander should exploit to the utmost the capabilities of front and army aviation, as well as those of conventional

missiles and long-range artillery to deliver strikes on the enemy groupings with the use of conventional and incendiary means, especially on troop accumulations on roads and at crossings so as to inflict maximum damage on them and demoralize the personnel. To complete the defeat of the enemy more quickly on the approaches to the water obstacle, in many cases it is necessary to commit the second echelons of the armies or the reserves of the front. Simultaneously with this, forward detachments and airborne assault units should be sent out and tactical airborne forces landed to seize crossings and hydraulic engineering works.

The success of the assault crossing of a water obstacle from the march will largely depend on how completely and soundly the matters of organization of the assault crossing are resolved while the offensive operation is still being prepared. The front commander makes the decision for the offensive operation taking into account the assault crossing of water obstacles to the entire depth of the operation. When doing so, he additionally determines the procedure for defeating the enemy grouping on the approaches to the water obstacle and its opposite bank, the assault crossing tasks and sectors of the armies, the tasks of the forward detachments and airborne landing forces, the allocation of crossing means, the sites of front crossing points and the procedure for using them, the tasks of the air defense troops, and the conduct of measures -- especially reconnaissance -- in support of the assault crossing. The decision must also outline the most important measures to ensure the continuous, rapid buildup of forces on the opposite bank and the rapid development of the offensive of the troops after the assault crossing.

During the development of the offensive, the front commander, on the basis of new reconnaissance data and comprehensive assessment of the situation for a day or two, refines the decision for the assault crossing soon enough that the troops are assigned tasks in advance (a day before getting to the water obstacle). For the first-echelon armies, in particular, one indicates the tasks and sectors of the assault crossing, the crossing means, the sites of front and army crossings and the time they are to be ready, the procedure for covering the crossings and the forces -- including air defense troops of the front -- to be allocated for this, and the procedure for the assault crossing and ordinary crossing of the first and subsequent echelons of the armies and the front. The air army is assigned tasks for reconnaissance and destruction of the nuclear means of the enemy, for defeat of the groupings of his troops, for aviation support of the first-echelon troops during the assault crossing, and for their cover against strikes of the air enemy. For air defense troops, one refines the procedure for moving up to the water obstacle and deploying on

the departure bank and the procedure for covering the forward detachments, main forces, and main crossings.

During the assessment of the enemy, attention is paid first of all to the nature of the defense, to determination of the weak and vulnerable spots in its disposition and in the position of the troops defending at the water obstacle, to detection of breaks and unoccupied sectors in the defense, to discovery of the areas of the location of reserves and their strength, to determination of the urgent measures to prevent the approach of these reserves and the maneuvering of forces and means of the enemy along the water obstacle and from the depth, and also to ascertainment of the locations and condition of bridges, crossings, and hydraulic engineering works which must be captured by the troops of the front.

In assessing his own troops, the front commander, along with other matters, pays attention first of all to the position and condition of the rocket troops, front and army aviation, and artillery in the interests of organizing safe neutralization of the opposing enemy and effective support of the troops on the approaches to the water obstacle, during the assault crossing, and during actions on the opposite bank. Steps are taken to ensure the rapid movement of the main body of artillery forward to the water obstacle after the forward detachments and to organize preparatory fire for the assault crossing in time.

Determined at the same time are the position, condition, and capabilities of the crossing means, their advisable distribution, and their maneuver across the front and from the depth. For the crossing means to get through and quickly reach the crossing points, provisions are made for the allocation and timely release of routes [to them] and monitoring of their movement forward by the staffs of the front and army.

When organizing cooperation, one coordinates in detail the procedure for actions of the forward detachments, first-echelon troops, airborne landing forces, and pontoon bridge units and also the procedure for preparatory fire and support of the troops by aviation and artillery and the control, target indication, and communications procedures.

The most important tasks for engineer support of an assault crossing are engineer reconnaissance of the river, readying and preparation of routes for the main forces to get to the assault crossing sectors, preparation and maintenance of all types of crossings, organization of provost and traffic control service and rescue-recovery service, and guarding of the crossings against floating mines and sabotage actions of

the enemy. On the basis of these tasks, the chief of engineer troops of the front works out a plan of engineer support of the assault crossing of the water obstacle. Besides this, the front works out a troop crossing schedule with indication of the number and types of crossings in the zones of the armies, the front crossings and the times they are to be ready, of the forces and means to be allocated for support of the crossing, and of the priority and times of crossing of the troops in keeping with the operational disposition of the front. The schedule defines the maneuvering of crossing means and the order of their release and replacement with bridges on rigid supports.

In the expectation of an assault crossing, the main body of pontoon bridge and amphibious crossing units of the front are incorporated into the armies operating on the main axis of offensive and making the assault crossing of the water obstacle first; and, to replace losses in the front and armies, reserves of crossing means are established, which it is advisable to relocate with the first-echelon divisions in readiness to move up to the water obstacle at any time.

By the start of the assault crossing, it is necessary to have strengthened the air defense of the troops on the axes of assault crossing, in a timely manner to have moved the surface-to-air missile (antiaircraft artillery) large units and units of the armies and the front forward and have deployed them, and also, if necessary, to have rebased the fighter aviation of the front to new airfields and to have defined its tasks in the air defense system.

The arrival of the first-echelon troops at the water obstacle may often be preceded by the drop (landing) of operational and tactical airborne landing forces, skilful use of which will facilitate assault crossing from the march and at a high rate.

An operational landing force in the strength of an airborne division is usually landed on the axis of the main attack of the front and may be used to seize one or several bridgeheads at the water obstacle. Dropping an airborne landing force simultaneously in a number of areas is advisable under conditions when the landing areas are not occupied by enemy troops or when these troops have been safely neutralized by air strikes. In the latter event, after landing, the airborne forces complete the destruction of the enemy in the landing areas and seize suitable assault crossing sectors and hold them until the forward detachments and first-echelon large units approach. Simultaneously with the defense of the bridgehead, they send out their own forward detachments and reconnaissance groups to delay

the advance of enemy reserves.

If a landing immediately on the opposite bank is impossible, for instance, because of terrain conditions or due to the presence of a strong enemy grouping at the water obstacle, a landing area is selected some distance from the water obstacle, and the capture of the bridgehead is done by attacking the enemy from the rear and getting to the bank and seizing crossings and bridges. Airborne landing forces can accomplish tasks to assist the troops attacking from the front in the assault crossing of the water obstacle also by seizing advantageous natural boundaries in the paths of the approach of enemy reserves at some distance from the water obstacle.

After landing, the airborne landing forces establish contact with the advancing troops and inform each other about the situation in the landing areas and about the position of their forward detachments. In turn, the forward detachments and main forces of the first-echelon divisions must get to the area of the landing and combat actions of the airborne landing forces with utmost speed.

The assault crossing of a water obstacle by the first-echelon troops of the front is made on a wide front from the march as the obstacle is reached by the forward detachments, which, under cover by the air defense forces and means, seize crossings and bridges or make an assault crossing of the water obstacle on their organic means and other means at hand, and, through determined actions, destroy the subunits and firing means of the enemy defending on the opposite bank, join up with the airborne landing forces, and support the crossing of their main forces.

After the forward detachments, the pontoon units of the front and armies move up to the water obstacle to lay floating bridges, and they set about the assembly of ferries as soon as the opposite bank is captured to a depth that ensures their cover against rifle and machinegun fire.

The approaching main forces of the first-echelon divisions, without waiting for the bridge crossings to be ready, use the available amphibious crossings of the forward detachments and organic and local crossing means to negotiate the water obstacle.

The number and types of crossings are usually determined so as to count on two or three amphibious crossings, two or three ferry crossings, and one or two underwater tank crossings for each first-echelon regiment and one or two bridge crossings per division. In addition, two or three

army bridge crossings and one or two front ones are organized. Before the reserves and second echelons of the armies and front cross them, the army and front crossings are used for the first-echelon large units to cross in order to increase the rates of assault crossing.

The preparation of tanks for underwater crossing is done while they are approaching the water obstacle and completed in sealing-up areas three to six kilometers from the bank. In principle, the amphibious and ferry crossings and the fording and underwater tank crossings are made first, and then the bridge crossings.

After assault crossing of the water obstacle, the first-echelon divisions move on ahead without stopping. The released crossings are used for the rapid crossing of air defense means, antitank reserves, and mobile obstacle detachments and, after them, the second-echelon divisions of the armies.

Before crossings begin to operate, front staff communications must be established with the front and army crossing komendants [provost marshals]. Using these communications and other means of control, the front commander monitors the progress of the assault crossing and ordinary crossing of the troops, carries out timely maneuvering of crossing means, and takes steps to prevent the crowding of troops and the accumulation of combat equipment and transport at the crossings. He makes his influence on the course of combat actions felt at this time through the delivery of strikes with front aviation, commitment of combined-arms and special reserves to the engagement, and the maneuvering of artillery and air defense forces and means. In order to develop the offensive and defeat large enemy reserves, in case of necessity, the second echelon of the front can also be committed to the engagement on the opposite bank.

During assault crossing of a water obstacle with planned preparation, the most important task of the commander and staff of the front is the organization and conduct of powerful artillery and air preparation in order to safely neutralize the enemy defense on the opposite bank and bring about favorable conditions for a successful assault crossing.

As for other measures to prepare such an assault crossing, it will be necessary to carry out reconnaissance on the terrain, particularly at the tactical levels, in order to refine the tasks for troops, the assault crossing sectors, the crossing points, and the main matters of cooperation;

to do additional reconnaissance of the enemy; to move forward all the artillery planned for the conduct of artillery preparation, as well as antitank guided missiles and guns and tanks for direct fire, and deploy them on the axes of the assault crossing; to reinforce the air defense of the troops on the assault crossing axes; to carry out the maneuvering of crossing means; and to organize provost and traffic control service -- especially in the area of crossings -- and troop control. To carry out all these measures in parallel at different levels may require as much as six hours, and sometimes more. It is important at this time not to give the enemy an opportunity to get his units in order and strengthen the defense at the water obstacle.

With this assault crossing method, the main forces of the first-echelon divisions occupy a departure position closer to the water obstacle, but out of the range of fire of the main body of enemy artillery. The first-echelon subunits board the self-propelled crossing means two to four kilometers from the bank in places sheltered from enemy observation and move up to the water obstacle during the artillery preparation.

In a number of cases, an offensive operation may begin directly with the assault crossing of a water obstacle defended by the enemy. In such a situation, all preparation for the assault crossing is carried on simultaneously with the preparation of the offensive. All levels from front to regiment carry out reconnaissance in the course of which the water obstacle and adjacent terrain are studied; the enemy's system of defense is identified in detail; the assault crossing sectors and the procedure for covering them are determined, as are the tasks for the troops, artillery, and aviation and the sites of front and army crossings; and provost and traffic control service is organized. For the assault crossing one should use sectors suitable for the crossing of troops and, when possible, in places where the enemy's defense is weaker or where he does not expect an assault crossing. But, since the enemy will strengthen the crossable sectors and cover them with fire to the greatest extent, the assault crossing can be started initially where the enemy does not expect it, in difficult sectors, with a subsequent attack on the enemy's flank and the capture of sectors suitable for laying crossings.

During preparation of the assault crossing, all matters for its support, especially fire neutralization of the enemy, are worked out in detail and the actions of troops during the assault crossing and the offensive on the opposite bank are carefully coordinated. The regrouping and movement of troops up to the assault crossing sectors are carried out under concealment the night before the assault crossing or under conditions

of poor visibility. The routes to the crossings are laid out on terrain screened from visual and radar observation, and it is necessary to set up vertical screens in sectors accessible to view.

Assault crossing units and subunits in the departure area are positioned together with the troops; and pontoon bridge and engineer bridge construction units are positioned concealed along the paths leading to the sites of the preparation of crossings.

Groundwork for the preparation of crossings, including underwater tank crossings, and partial preparation of them are done simultaneously with the preparation of the departure area. Mineclearing of the approaches to the water obstacle and building of ramps into the water are done during preparatory fire.

The duration and organization of preparatory fire must ensure destruction of the means of nuclear attack and safe neutralization of the enemy's defense and of his reserves, means of control, and control posts and safeguard the movement of the first-echelon troops up to the water obstacle and the assault crossing of it. During preparatory fire it is advisable, in order to mislead the enemy concerning the true assault crossing sectors, to erect decoy crossings while making extensive use of smoke screens.

The assault crossing of the water obstacle by the troops begins in the armies at the precisely established time of H-hour, upon a common signal after powerful preparatory fire by artillery and aviation. As the forward subunits seize sectors of the opposite bank and expand them, ferry and bridge crossings are laid, and the troops of the first-echelon armies and then the reserves and second echelons of the front cross according to the schedule that has been worked out.

The troops that have crossed develop a nonstop offensive into the depth without allowing a delay or crowding on the bridgeheads since the enemy can easily destroy them with nuclear strikes.

In the fight to hold a wide water obstacle, the enemy may deliver counterattacks and counterthrusts. Therefore, it is necessary to consolidate the important lines and captured objectives on the opposite bank in time, to cross artillery, antitank reserves, and air defense troops and deploy them without delay, to strengthen the fighter aviation cover, and -- on especially dangerous axes -- to establish engineer obstacles.

Measures to disrupt enemy troop control are strengthened by the start of the assault crossing; for this, SPETSNAZ units are moved forward with the main forces of the first-echelon divisions and deployed at a distance of 10 to 15 kilometers from the water obstacle on the axes of assault crossing. The main electronic neutralization tasks are to reduce the effectiveness of the strikes of enemy aviation on troops and crossings in the assault crossing sectors and to disrupt radio control of the enemy troops occupying the defense and that of the reserves to be moved forward from the depth.

Control of the troops of the front is exercised from posts that ensure the commander's personal influence on the course of the assault crossing on the main axis. For this, the forward command post of the front is deployed closer to the water obstacle. Refinement and assignment of tasks to the troops are done both over technical means of communications personally by the commander or chief of staff of the front and in brief written combat instructions.

6. Encirclement and destruction of a large enemy grouping

Encirclement and destruction of large enemy groupings in offensive operations conducted with the use of conventional means of destruction alone is, as the experience of the Great Patriotic War showed, the most effective method of defeating his opposing forces. Therefore, the front commander, when making the decision for the operation and during the offensive, must always endeavor to exploit available opportunities to encircle and destroy the enemy troops.

The defeat of large enemy groupings through encirclement and destruction took place in many operations of the Soviet Army in the Great Patriotic War, especially in its second and third periods. This method of defeating the enemy was most often employed by the forces of two fronts. Along with this, in a number of instances rather large enemy groupings were successfully encircled and destroyed by the forces of one front (the destruction and encirclement of the Brody grouping, made up of as many as eight divisions, by troops of the 1st Ukrainian Front in the summer of 1944).

Encirclement would be achieved as the result of rapid development of the offensive by two attack groupings on converging axes, usually through establishment of a continuous inner front of encirclement with simultaneous

development of the offensive on the outer front and reliable blockading of the encircled grouping from the air. In individual instances, defeat of the enemy was done also without establishing a continuous inner front of encirclement. Instructive examples of this are the encirclement and defeat of groupings of German Fascist troops in the areas of Vobruysk and Minsk in the 1944 Belorussian Strategic Operation.

The unique feature of the defeat of the grouping in the area of Vobruysk was the massed use of front aviation, whose strikes demoralized the enemy and hastened his defeat. The encirclement and destruction of the enemy's grouping in the Minsk area was done with coordinated air strikes and rapid troop actions through interception of the main paths of his withdrawal without the establishment of a continuous inner front of encirclement.

In some operations of the last war, the offensive actions of troops on the outer front of encirclement were combined with defensive actions to repel the counterthrusts of large tank groupings which the enemy undertook to unblock his troops (Korsun-Shevchenkovskiy and Budapest Operations).

Defeat of the encircled enemy would be done by splitting up his forces through the delivery of several concentric attacks on converging axes, while combat actions were usually conducted continuously until the complete destruction (capture) of the encircled troops.

The experience of the Great Patriotic War largely retains its importance also under modern conditions. At the same time, new features will now be inherent in troop actions to encircle and destroy groupings of the enemy. The increased mobility of troops and the extensive use of airborne landing forces and airborne assault large units will make it possible, by exploiting breaks and gaps in the combat disposition of the enemy, to quickly get to his flanks and rear and cut off his paths of withdrawal through unexpected maneuvering of troops. And massed use of front and army aviation against the mechanized and tank columns of the enemy makes it possible to inflict great losses on them.

At the same time, the conduct of combat actions for encirclement will entail new difficulties, which are due above all to the sharp increase in maneuverability of the troops of the enemy, his capability to oppose encirclement more vigorously, and the great dispersal of defending troops, as well as the extensive use of transport aviation -- especially helicopters -- to reinforce groupings of troops or evacuate them. On coastal axes he can also use naval forces for these purposes. The

availability to the enemy of nuclear and chemical weapons harbors the possibility of their use at the critical point of a threat of the encirclement or destruction of his grouping. From these characteristics stems the necessity of carrying out the encirclement and destruction of the enemy at high rates and in short periods of time, with observance of measures for protection against weapons of mass destruction.

Large groupings of the enemy may be encircled under various conditions of the situation both at the beginning of an operation and during its development in the operational depth.

At the beginning of an operation, encirclement is possible, for instance, when the configuration of the front line is favorable, in a situation when our troops occupy, relative to the main grouping of the enemy, an enveloping position that permits two attacks to be delivered on converging axes. Encirclement is also possible when the outcome of a meeting engagement in the border zone is unsuccessful for the enemy, or when the enemy is attempting to hold some area or another of territory with large forces. During an operation, conditions for encirclement in many cases arise as the result of a breakthrough of intermediate defense lines of the enemy and the rapid emergence of attack groupings of the front on the flanks of his defending grouping, as the result of a successful pursuit, and during the defeat of groupings delivering a counterthrust.

The methods of encircling an enemy may vary. Most frequently a large grouping is encircled through confinement of its offensive by part of the forces from the front, with simultaneous outflanking and envelopment and subsequent delivery of attacks on both of its flanks and the rear by the main forces of the first-echelon armies. It is not uncommon to achieve an encirclement by attacking one flank and pinning the grouping against a difficult area of terrain.

The encirclement, splitting up, and destruction of the enemy must be a single process in all cases. This is achieved through the delivery of continuous strikes by rocket troops, aviation, and artillery fire on the encircled grouping and rapid actions of the front troops simultaneously from several axes in conjunction with actions of airborne assault units and attacks of airborne and, on a coastal axis, amphibious landing forces from the rear and with the mandatory air blockade of the encircled grouping.

The encirclement of an enemy in an operation without the use of nuclear weapons must conclude with rapid establishment of a clear-cut, though possibly not continuous, inner front of encirclement. For this it

is necessary to cut off the main paths on the flanks and in the rear of the enemy and seize advantageous terrain sectors and crossings on the axis of the probable withdrawal of his troops. Cutting off the paths of withdrawal should be done by deep-penetrating forward detachments and individual large units of the advancing troops, through determined actions of airborne assault units, and also through the drop (landing) of airborne (amphibious) landing forces in the enemy's rear. During an offensive on a coastal axis, the encircled enemy must be cut off from the seacoast and main ports and bases or blockaded by the forces of our fleet. Contributing to successful actions of the troops to establish an inner front of encirclement will be effective air defense organized with due regard for the nature of actions of the air enemy.

Simultaneously with formation of the inner front of encirclement, it is necessary to establish an actively operating outer front through a buildup of efforts and development of a nonstop offensive to the depth so as to deny the enemy an opportunity to stabilize the front of the defense by maneuvering his forces from the depth and from other axes and to deliver counterthrusts and give assistance to the encircled grouping.

The front commander, when making the decision for encirclement, must determine the composition of the enemy grouping to be encircled, the methods of encircling and defeating it, and the composition of the attack groupings of front troops carrying out the encirclement and the axes of their actions; allocate forces and means for actions on the inner and outer fronts of encirclement, taking into account the necessary superiority on the axes of attacks and the establishment of conditions for the simultaneous encirclement, splitting up, and destruction of the enemy grouping; refine the tasks for the armies, indicating to them the axes of attacks, the lines and areas which must be taken, the demarcation lines and lines of meeting between the armies carrying out the encirclement, the boundaries of strikes of the rocket troops and aviation and of the conduct of artillery fire for the troops advancing in opposite directions; and also assign tasks to the rocket troops, air army, air defense troops, airborne assault units, and airborne and amphibious landing forces. Signals of cooperation and identification of friendly troops and aircraft must be established; and matters of troop control, particularly during completion of the encirclement, must be carefully worked out.

One of the decisive conditions for successful encirclement of a large enemy grouping in an operation with the use of only conventional weapons is proper selection of the axes of attacks of the troops that are getting to the flanks and rear of the enemy grouping being encircled on the shortest

path, and so is establishment of decisive superiority over the enemy on the axes for the delivery of enveloping and splitting attacks.

An important peculiarity in the decision of the front commander is the establishment of groupings of troops for actions simultaneously on the inner and outer fronts of encirclement and the definition of their tasks. It is always necessary to approach the resolution of this matter creatively on the basis chiefly of the interests of the objective and tasks of the front operation and its place in the strategic operation, taking into account the composition of the grouping being encircled and the availability to the enemy of operational and strategic reserves which may be used to free his encircled troops.

The number of forces and means allocated for encirclement and destruction of an enemy grouping must ensure its defeat in a short period of time and the release of forces for accomplishing other tasks in the operation. To develop the offensive on the outer front, it is more advantageous to use the tank army and, in combined-arms armies, the tank divisions. The second echelon of the front may, depending on the situation, be used to develop the offensive on the axis of the main thrust of the front, to defeat approaching reserves, or to pursue the enemy on the outer front of encirclement. Also possible in individual instances is the variant of using the second echelon of the front for completing the encirclement and most quickly defeating the large grouping of the enemy.

Of special importance during an offensive operation with encirclement of a large enemy grouping is well-organized reconnaissance and precise cooperation between the formations and large units moving out towards each other and making the encirclement, as well as between the groupings of troops operating on the inner and outer fronts of encirclement. On the basis of an analysis of the course of the operation and of the position and condition of troops of the sides it is necessary to refine the tasks of the armies, aviation, and reserves and lines of meeting in time, to require of the troops precise and accurate compliance with the unified [common] signals for identification, calling of fire, and cease fire, to continuously provide mutual information about the situation, and to maintain stable communications. Reconnaissance during the encirclement of an enemy must discover his measures to establish groupings for opposing the encirclement.

The encirclement, splitting up, and destruction of the enemy's grouping must be done at a high rate so as not to give him the opportunity to organize a defense or establish a grouping to get out of the

encirclement. At this time, it is important to deny him the maneuver of forces and means through the energetic offensive of troops from several axes, through increasingly stronger strikes of front and army aviation, and through activity of airborne assault units. It is necessary as a first priority to destroy his nuclear means, artillery, tank units, aircraft, and helicopters.

During the encirclement and destruction of the enemy it is necessary to disorganize the control of his troops. The main efforts of radioelectronic warfare units must be directed towards reconnaissance and neutralization of the radio communications of the encircled grouping and also of its communications for cooperation with tactical and transport aviation. The locations of enemy command posts should be detected and they should be destroyed by strikes of aviation, rocket troops, and artillery, as well as through actions of airborne assault units and the use of airborne landing forces.

If the encircled enemy is split up into several groupings whose simultaneous destruction is impeded or impossible because of the lack of forces, it is advisable to concentrate the efforts of the front on defeating his largest grouping and then the remaining forces.

When the enemy manages to establish a firm defense, his destruction will be done with a breakthrough of the defense on several axes. In this case, the establishment of a continuous inner front of encirclement is possible. Reconnaissance must determine the strengths and weaknesses in the combat disposition of the encircled grouping of the enemy in support of the successful breakthrough of the defense and destruction of the encircled troops.

When encirclement of the enemy is being done, the front commander must take decisive steps to blockade him from the air. This is achieved by concentrating air defense forces and means on the likely axes of flight of transport aircraft and helicopters and destroying them in the air as well as in areas of their landing. All airfields and landing sites in the ring of encirclement must be seized as quickly as possible by advancing troops, airborne assault units, and airborne landing forces or, in case this is impossible, they must be mined or put out of operation.

The encircled enemy grouping will, naturally, attempt to break out of the encirclement. Used for this are the most combat-effective large units and units, whose actions may be supported by massed air strikes. Therefore, reconnaissance must in a timely way discover the intentions of

the enemy, determine the sectors and axes on which he is establishing groupings for a breakthrough, and ascertain their composition and the possible beginning of actions.

Defeat of the enemy's attempts to get out of an encirclement is achieved above all through the delivery of a massed air strike and strikes of rocket troops and long-range artillery on his most combat-effective grouping, as well as through organization of air defense of the troops carrying out the defeat of the encircled grouping. The troops operating on the axis of an expected enemy attack must be reinforced in time with reserves of the armies and the front. Depending on the situation, they may deliver a meeting attack on the enemy or temporarily go over to a defense and meet him with fire from fixed positions, and then attack and complete the defeat. But if, on one or the other axis, he threatens to break out of the encirclement, it is necessary, through a prompt maneuver of reserves to the breakthrough sector and an attack from the march on the flanks of the grouping that is breaking through, to split it up in parts and destroy or capture it.

In case of a threat of the delivery of a strong counterthrust by the enemy on the troops developing the offensive on the outer front, the commander moves the front reserves, preferably the antitank reserve, up to the threatened axis, concentrates air strikes on the counterthrust grouping, and simultaneously steps up the rates of advance on adjacent axes. The front staff directs the efforts of reconnaissance towards discovering the operational reserves moving forward to help the encircled troops. For this, it uses first of all the forces and means of aerial, agent, and special reconnaissance.

Of great importance when the defeat of an encircled grouping is organized are well-thought-out organization of the control of troops on the inner front of encirclement and support of the coordinated actions of the attack groupings of these troops, especially during completion of the destruction of the enemy. Under conditions when several armies are operating on the inner front, the front commander exercises control of them. But if the forces of one army and only individual large units from other armies are operating on this front, then control of them can be charged to the commander of this army, with subordination of all the troops to him.

As a result of the coordinated strikes and attacks of aviation, artillery, motorized rifle and tank troops, airborne assault units, air defense troops, and airborne (amphibious) landing forces, the encircled

grouping of the enemy must be split up and the organized resistance of its troops broken. Further decisive actions of the front must lead to the rapid final defeat or capture of the scattered enemy. The troops freed after elimination of the encircled enemy are sent for reinforcement of the attack groupings developing the offensive into the depth or they are removed to the second echelon or reserve of the front.

7. Commitment of a second-echelon army to the engagement

In a front offensive operation without the use of nuclear weapons, the most effective method of building up efforts is commitment of the second echelon to the engagement.

In the operations of the Great Patriotic War, the second-echelon armies of the front during an offensive operation were used to accomplish the most varied tasks. The most typical of these were exploitation of the success of a front offensive (2nd Guards Army and 51st Army of the 1st Baltic Front in the 1944 Belorussian Operation, 53rd Army of the 2nd Ukrainian Front in the 1944 Iasi-Kishinev Operation), repulse of a counterthrust and development of the offensive (2nd Guards Army of the Stalingrad Front in the 1942 Stalingrad Operation and the 47th Army of the Voronezh Front in the 1943 Belgorod-Kharkov Operation), encirclement and destruction of a large enemy grouping (3rd Army of the 1st Belorussian Front and 28th Army of the 1st Ukrainian Front in the 1945 Berlin Operation), breakthrough of an intermediate defense line (21st Army of the 1st Ukrainian Front in the 1945 Sandomierz-Silesian Operation), and others. Tank armies making up the second echelons of the fronts, as a rule, were used as mobile groups to complete the breakthrough of a defense and develop offensive operations into the depth.

Under modern conditions the complete motorization of combined-arms armies and their saturation with a large number of tanks and artillery enable them to independently carry out the defeat of the first-echelon troops of the enemy and exploit the success of an offensive at a high rate of advance. Therefore, the necessity of building up the efforts of the front through commitment of a second-echelon army may now arise most often during the development of an offensive in the operational depth of the enemy.

The second-echelon combined-arms or tank army of a front will be committed to the engagement during an operation above all to exploit the

success of an offensive achieved by the first-echelon troops, on the main axis. Exploitation of the success of an offensive may involve accomplishment by the second-echelon army of such tasks as defeat of large operational reserves of the enemy, breakthrough of intermediate defense lines in the operational depth, completion of the defeat of a large encircled or cut-off grouping of troops, defeat of the enemy on the approaches to a wide water obstacle and assault crossing of the obstacle at high rates of advance, transfer of the efforts of the front to a new, more promising axis of offensive, and other things.

The second echelon is committed to the engagement most often to fulfil a subsequent task of the front; in individual instances, its commitment is possible also during the fulfilment of an immediate task.

The methods of commitment depend above all on the position and nature of actions of the enemy, the substance of the tasks of the second echelon, and its position in relation to the first-echelon armies. It may be committed in a break formed between first-echelon armies, on the juncture of two advancing armies, and in the zone of one army.

The second echelon is committed in the zone of one army in a situation when the strength of the attack of this army has weakened and its rates of advance are diminishing or when it changes the axis of offensive towards one of the flanks of the front. Under such conditions, commitment is usually into the breaks formed between divisions or done by leapfrogging the battle formations of the troops. When this is done, individual motorized rifle and tank divisions and means of reinforcement from the first-echelon armies may be transferred to the army being committed.

In all cases, the army is committed to the engagement from the march. The width of the zone of its commitment will depend on the conditions of the situation and above all on the number of divisions operating in its first echelon. If there are three divisions in the first echelon, an army may be committed in a zone 60 to 80 kilometers wide (figuring on 20 to 25 kilometers per division). In this case, it will need to be assigned not fewer than seven to nine routes (two or three routes per division and one or two for the army missile brigade, air defense large units and units, and other units subordinate to the army to get to the siting areas).

Commitment of the second echelon of the front to the engagement must lead to an abrupt change in the balance of forces and in the whole operational situation to the advantage of the front and ensure the quicker defeat of the main grouping of the enemy. Therefore, careful organization

and execution of the commitment is one of the most important tasks in the work of the commander, staff, and entire field headquarters of the front.

Organization of the commitment of the second echelon essentially begins while the front offensive operation is still being prepared. The main matters to resolve at this time will be determination of the objective of commitment, of the composition and combat tasks of the second-echelon army, of the zone or routes of its movement forward, and of the lines of commitment; determination of tasks for the first-echelon armies, the air army, the rocket troops, and the air defense troops during the commitment of the second echelon; the procedure for cooperation of the army being committed with the other formations and large units of the front; and the organization of measures for combat and rear services support of the commitment and of troop control.

During the operation, the decision adopted for commitment of the second echelon and, together with this, the tasks of the troops are refined. Should the operational situation change abruptly, a new decision must be adopted in which the front commander indicates the objective of commitment of the army to the engagement, the combat tasks (immediate and subsequent), the zone of offensive, the lines and time of commitment, the zone or routes of movement forward, the number of warheads to be allocated to the army and the targets to be hit by front means in the event of going over to actions with the use of nuclear weapons, the means of reinforcement of the army, the time and place of their transfer, the large units to be transferred from first-echelon armies, and the flight resources to be allocated. Besides this, he determines the tasks of the first-echelon armies, the air army, the rocket troops and artillery, the air defense forces and means, and the engineer troops during the movement forward and commitment of the army to the engagement, the measures for comprehensive support, and the procedure for cooperation and troop control.

The combat task is conveyed to the commander of the second-echelon army in such a way as to provide the troops the maximum possible time for immediate preparation and carrying out of the commitment to the engagement. It is here necessary to take into account the time necessary for adopting and refining decisions and organizing the commitment at all levels from army down to subunits, organizing cooperation, preparing air strikes and artillery fire, and working out all the matters of support, as well as for the immediate movement forward and deployment of the army at the line of commitment.

Hence, it is necessary that the task of the second-echelon army be assigned while it is still making the last march into the departure area, that is, no later than a day before the time of commitment.

It is advisable here that the task be assigned to the army commander in person by the front commander in a meeting with him. Under adverse conditions of a situation, the task can be conveyed over technical means of communications with subsequent confirmation in writing.

The second-echelon army is generally assigned tasks for the entire depth of the front operation. Depending on where it is going to be committed to the engagement, the depth of its operation may be as high as 350 to 500 kilometers or more. The substance of the immediate task of the army may be the completion, in cooperation with the first-echelon troops, of the defeat of the main grouping of the enemy and his operational reserves and the taking of an area where conditions are brought about for a rapid offensive to the depth of the theater of military operations. Its subsequent task consists in defeating newly-detected deep reserves and means of nuclear attack of the enemy and taking an area of his territory where the objective of the front offensive operation is achieved. The depth of the immediate task of the army may be 150 to 200 kilometers, that of the subsequent task may be 200 to 300 kilometers or more.

At the same time, the first-echelon armies are assigned tasks for the seizure of lines of commitment, the release of routes of movement forward for the second-echelon army, fire support and cover for it against the strikes of the air enemy, and for the transfer of means of reinforcement and sometimes also of combined-arms large units to the army being committed.

The operational disposition of the army during commitment to the engagement will most often be in two echelons, but a one-echelon disposition is not out of the question. A two-echelon disposition is used under conditions when the enemy on the axis of commitment has combat-effective troops and strong reserves at his disposal or in the case of commitment of the army in a narrow zone. Here the first echelon will usually be allocated the greater part of the army's large units. A one-echelon disposition may happen, for instance, when it is necessary in a short period of time to bring about decisive superiority over the enemy on the axis of commitment and defeat his main grouping through delivery of a powerful initial attack.

The departure area of the army prior to movement up to the line of commitment is selected with regard for the rates of advance of the first-echelon troops and for the necessity of movement forward and commitment of the army in short periods of time. It is most advisable to designate this area at a distance of between 60 and 100 kilometers from the front line, which excludes the possibility of the delivery of a nuclear strike with tactical means by the enemy against the troops of the army but, on the other hand, at such a distance the army need not be assigned a refueling area in addition. To negotiate this distance at a travel speed of 20 to 25 kilometers per hour and deploy for commitment to the engagement will require four to six hours. In the departure area the commander and staff of the army finish refining all matters of organization of the commitment of the army to the engagement.

The front staff and the chiefs of branch arms and services will, in a short period of time, have to carry out a whole series of measures in support of organized commitment. It will be necessary, for instance, to monitor the conveyance of tasks to the troops, to organize air defense, to carry out measures for combat support, especially for reconnaissance, engineer support, and radioelectronic warfare, and to arrange stable communications, provost and traffic control service, and movement control service. Besides this, monitoring of the preparation of the troops of the army and of their timely movement forward and commitment to the engagement should be organized.

Air defense is carried out by the air defense troops of the army being committed, by the surface-to-air missile large units (units) of the front air defense troops, and by fighter aviation. If necessary, it is reinforced with the air defense troops of the first-echelon armies. Air defense must be especially reliable while the large units of the army are stopped for refueling and while they are deploying for commitment to the engagement. Fighter aviation provides cover mainly through airborne alert beyond dense antiaircraft fire and through the method of independent search and destruction of air targets.

Reconnaissance of the enemy is carried on with growing intensity. It determines the composition, combat effectiveness, and grouping of the enemy in the zone of commitment of the second echelon to the engagement and on the flanks, the availability and locations of his means of nuclear attack and of his artillery firing positions and control posts, the nature of the defense lines, engineer obstacles, natural obstacles, and demolitions, the areas in which the enemy reserves are situated, the axes of their movement forward and the nature of their actions, and the most important

targets for first-priority destruction with air strikes and artillery fire.

Reconnaissance by the forces and means of the army itself is organized in advance and is carried out upon receipt of the task for its commitment to the engagement. The chief of intelligence is obliged to establish contact with the staffs of the first-echelon divisions and armies operating in the zone of commitment, to obtain the available information from them about the enemy down to subunit inclusive and about the terrain, and to take steps for timely commitment to action of his own reconnaissance means.

The most important measures for engineer support of commitment to the engagement are preparation of the departure area for the troops, preparation and maintenance of the routes of movement forward and of crossings at rivers, support of the negotiation of difficult sectors of terrain by the troops of the army during deployment and commitment to the engagement, and placement of obstacles to cover its exposed flanks against a surprise enemy attack. Engineer preparation of routes and maintenance of crossings, as well as engineer obstacle coverage of the flanks, are advisably carried out by the engineer troops of the front. The remaining measures are usually performed by the forces of the second echelon and partly by those of the first-echelon armies.

The second echelon, being outside of shelters while moving, presents a particularly advantageous target for an enemy nuclear and chemical attack; therefore, while it is moving forward, all requirements for protection against weapons of mass destruction are observed. In this respect, the movement of the columns forward must be made at intervals and distances that exclude hitting of two battalion columns simultaneously with one nuclear burst. To be especially avoided is the accumulation of troops at crossings and on difficult stretches of the routes.

To ensure concealment of the movement forward and commitment of the army to the engagement, it is necessary to carry out, according to the plan of the front, measures for operational camouflage and disinformation of the enemy in order to deceive and lead him astray concerning the true axis of the army's actions. Carried out for this can be decoy and diversionary movements of troops, display to the enemy of intentions to commit the second echelon on another axis, operation of radiotechnical means in dummy concentration areas and ones that the troops have left, and restriction of the operation of radio means up to a certain line of movement forward of the troops. Also possible is movement of the army forward initially in a false direction with an abrupt turn during the last night onto the true

axis. Simultaneously with this, radar camouflage measures should be implemented to the maximum extent.

The main efforts of the forces and means of electronic neutralization should be directed towards covering the second-echelon troops against reconnaissance and strikes of enemy aviation as well as towards disrupting radio control of his tactical aviation, ground forces large units, and air defense means on the axis of commitment of the second-echelon army to the engagement.

The most important task of rear services support of the army during the movement forward is to provide it with fuel. Fueling of all equipment and replenishment of line-unit and army fuel reserves up to norms are done in the departure area prior to commitment of the army to the engagement. Used first of all for this is front and army transport, which delivers fuel directly to the areas where the large units (units) of the second-echelon army are situated, to the division depots, and to the mobile army base. It is not advisable to call on line-unit motor transport for delivering fuel at this time.

Also of great importance is the timely conduct of technical servicing measures. To this end, No. 2 technical servicing [tekhnicheskoye obsluzhivaniye No. 2] should be carried out in the departure area after a prolonged march. By the time the army moves forward for commitment to the engagement, all tanks, infantry combat vehicles, armored personnel carriers, and prime movers and all motor transport must be in good condition and fully prepared for the performance of combat tasks.

Control of troops during organization of the commitment of the second-echelon army to the engagement is exercised by the commander from the main or forward command post, depending on the situation. At the time it is committed, control is most often exercised from the forward command post of the front, deployed in advance on the axis of commitment. In a number of cases, the commander can be located immediately at the command post of the army.

One of the most important tasks of the front staff in support of the commitment of the army to the engagement is the organization of road traffic control service. On the routes of its movement forward, a front traffic control system should be established, with involvement not only of officers of the road traffic control service units but also officers of the front and army staffs with means of communications. This system must

ensure order and organization on the routes of movement, monitoring of the timely movement forward of the troops, and control of them under conditions of restricted use of the means of communications of the army being committed.

The movement of the army forward to the line of commitment should be made if possible at night or under conditions of limited visibility. Reconnaissance, forward detachments, movement support detachments, and subunits of the provost and traffic control service and movement control subunits are sent out forward directly from the departure area, as a rule, and then the main forces of the first-echelon divisions proceed. At the head of the columns of the main forces, it is advisable to have missile battalions and artillery in readiness to deploy under cover of the forward detachments and conduct artillery preparation.

The air defense forces and means of the divisions and regiments travel in their columns, repelling enemy air strikes on the move and with brief stops. The army surface-to-air missile brigade is moved up and deployed near the line of commitment to the engagement before the main forces of the army arrive. Besides this, the air defense troops of the first-echelon armies in whose zones the second echelon of the front is being committed to the engagement are, if necessary, partially regrouped towards the line of deployment so as to cover its troops against strikes from the air.

The movement of troops forward from the departure area must be done at high speeds directly to the line of commitment to the engagement with no stops whatsoever. Stops and delays while the army is moving forward are undesirable, and if there is a clear threat of an enemy nuclear attack they are intolerable since this involves the possibility of great losses from a massed nuclear strike. For this reason, areas for the refueling of vehicles before the line of commitment of the army to the engagement should be designated only if the departure area is more than 100 kilometers from it, in which case it is desirable to have these areas 30 to 40 kilometers from the line of commitment, that is, beyond the effect of enemy artillery fire, and the refueling of equipment itself must be carefully prepared and take a minimum of time.

During the movement forward, the staff of the army must maintain continuous communications with the forward operating staffs of armies and divisions. Besides this, the front staff systematically informs the commander and staff of the army being committed about all changes in the situation in front of it and on the flanks.

The troops of the army must get to the line of commitment to the engagement in precisely established periods of time, in constant readiness to enter into battle in an organized manner.

The extent of deployment and the nature of actions of the troops of the second-echelon army will depend on the strength of resistance, the position, and the nature of actions of the enemy in the zone of commitment.

The army may be committed to the engagement on an axis where the enemy is withdrawing, into breaks formed in his combat disposition, or, conversely, on an axis where he retains combat effectiveness and is offering stubborn resistance at an intermediate defense line or is delivering a counterthrust. In view of this, combat actions that differ in nature may be conducted simultaneously in the zone of commitment of the army.

When the enemy is withdrawing, the forward detachments of the first-echelon divisions, on getting to the line of commitment, rush forward after the air strikes and artillery fire under cover of the air defense troops and fighter aviation, deploying if necessary into battle formations or approach march formations. During commitment to the engagement on an axis where there is no enemy or his resistance is insignificant, the forward detachments may operate in approach march formations and march columns, moving rapidly into the depth. The main forces of the divisions being committed move forward in this case in columns behind the forward detachments.

On those axes where the enemy is offering organized resistance at the line of commitment, the forward detachments deploy into battle formation and seize advantageous lines in battle. Under their cover, the main body of artillery deploys, and then a brief but powerful artillery and air preparation is conducted, after which the main forces of the first-echelon divisions of the army attack the opposing enemy from the march. The artillery and air preparation are done with concentrated artillery fire and air strikes upon call of the commanders of the large units and units.

When the army is committed to the engagement under conditions of an unstable situation at the front and especially under the threat of a counterthrust, the first-echelon divisions operating on this axis are to seize advantageous lines and support the deployment and commitment to the engagement of the main forces.

The second-echelon army of the front must, after it is committed to the engagement, rapidly move forward and, without getting into prolonged battles, dare to separate from the rest of the forces of the front in order to accomplish important tasks in the depth.

8. Taking of large cities and industrial areas

Large cities, usually being administrative-political, industrial, and scientific centers, and also industrial areas constitute the basis of the military economic potential of the enemy and have great political, economic, and operational-strategic importance to him. Therefore, he will endeavor to defend them stubbornly in order to hold back and confine considerable forces of our troops and then also stop their advance on the given operational axis.

The presence of solid industrial and residential buildings and structures as well as of great human resources enables the enemy in short periods of time to convert large cities and industrial areas into powerful centers of resistance and defend them with considerable forces of troops.

In the Great Patriotic War, such large, important cities as Budapest, Königsberg, Vienna, and Berlin were defended by rather large garrisons; and industrial areas such as, for instance, the Silesian area were defended by large groupings of field troops. Therefore, the main forces of a front would participate in taking them; and taking the capital of Fascist Germany, Berlin, required involving the forces of even two fronts.

Taking a large city or industrial area may include accomplishment of such tasks as defeating the enemy defending on the distant and immediate approaches to it and destroying the garrison in the city (industrial area) itself.

The nature of actions of the troops of a front during the taking of a large city or industrial area in an operation with the use of conventional weapons will depend on its dimensions and its importance to the enemy, the nature and extent of readiness of the defense, the composition of the garrison of enemy troops, the position of the troops of the front, and other conditions of the situation. The main methods of taking a city or industrial area may be the following: taking from the march, and bypassing and blockading of the large city (industrial area) with the subsequent conduct of an offensive (assault) to take it.

In the years of the Great Patriotic War, due to the fact that the mobility of the Soviet Army's rifle troops carrying out the offensive was not high enough, the enemy more than once managed to organize a stable defense of large cities and industrial areas with the withdrawing troops and reserves, with enlistment of local contingents. Therefore, the advancing troops of a front had to frequently conduct a planned assault of large cities; and this would have a stubborn, prolonged nature.

Under modern conditions, in view of the sharp increase in the number of tank troops in a front, the increased mobility and maneuverability of the motorized rifle large units, the long range of artillery, and the effectiveness of the actions of front and army aviation, there are realistic conditions for taking large cities (industrial areas) from the march, especially in that instance when the enemy does not manage to organize their defense with considerable forces. Individual groupings of front troops have the capability of separating from the main forces during the development of the offensive, suddenly getting to the area of the city, thwarting enemy measures to prepare it for defense, and quickly taking it. In view of this, the taking of a large city or industrial area from the march should be looked upon as the main method of actions. The essence of this method consists in safe neutralization of the enemy on the approaches to the city (industrial area) and directly in it, in the surprise nonstop penetration into the city of strong forward detachments and then of the main forces allocated by the front for taking the most important objectives in it, in the rapid destruction of the enemy's centers of resistance through determined fast-moving battles, and in prompt development of success all the way to the complete taking of the city.

For taking a large city (industrial area), one allocates the necessary number of large units, predominantly motorized rifle large units, from the advancing first-echelon army (armies) of the front. Large masses of troops should not be engaged in battles for large cities since this is fraught with the danger of their being hit with enemy nuclear weapons.

The front commander, during the development of the offensive, directs the efforts of the armies, rocket troops, and front and army aviation towards not allowing the withdrawal of large enemy forces to the city, driving them away from the city and denying an opportunity to organize a defense, and simultaneously preventing the approach of enemy reserves from the depth or from other axes.

In an offensive without the use of nuclear weapons, neutralization of the enemy on the approaches to the city is achieved through massed,

concentrated strikes of rocket troops and front and army aviation, long-range artillery fire, and, in case of necessity, the conduct of artillery and air preparation of the attack.

Strong forward detachments, exploiting the results of the strikes of conventional means of destruction, beat the enemy to the city, break into it with rapid actions, and seize the most important installations (government facilities, radio stations, post office, telegraph, airfields and landing sites, waterworks) and key positions (squares, street intersections, bridges) in the city. The main forces of the large units designated for taking the city immediately exploit the success of the forward detachments, destroy the enemy's centers of resistance without giving him an opportunity to organize a defense, and expand the captured territory of the city until it is completely taken.

To assist the forward detachments and main forces in taking a large city (industrial area), it is necessary to employ airborne assault units and airborne landing forces, which may be landed in areas adjacent to it as well as on landing sites and large squares within the city (industrial areas). The airborne landing forces seize important positions and objectives [installations] in it and then, through attacks on the enemy from the rear in conjunction with the forward detachments, and sometimes also independently, deny him the opportunity to carry out maneuver and offer organized resistance.

The formations and large units of the front which are operating on the flanks of the troop grouping allocated to take the large city (industrial area) must, through their rapid offensive into the depth, isolate it from the flow of enemy reserves.

In a number of cases, to avoid prolonged battles, great damages, and unjustified human losses, especially if the use of weapons of mass destruction is beginning, a large city (industrial area) can be taken through a bypassing maneuver with the simultaneous blockade of it by part of the forces of the advancing troops. The experience of the Great Patriotic War provides classic examples of this method of actions. Suffice it to recall the taking of the capital of Poland, Warsaw, through a bypassing movement of the troops of the 1st Belorussian Front in the 1945 Vistula-Oder Operation and the taking of the Upper Silesian industrial area by troops of the 1st Ukrainian Front in the Sandomierz-Silesian Operation of the same year.

A particularly important role in the execution of a bypassing and enveloping maneuver in the taking of a large city (industrial area) will belong to troop groupings operating separated from the main forces of the front. These cut off the roads, prevent the approach of additional forces of the enemy from the depth to the city, and bring about the threat of his complete encirclement and destruction. The large units advancing directly on the city seize important objectives on its outskirts and neutralize enemy troops in squares and at street intersections with artillery fire. Simultaneously with this, steps are taken that induce the enemy to capitulate. Under conditions of a threat of the use of nuclear weapons by the attacker, it can be expected that the encircled enemy garrison in the city will abandon further resistance.

To avoid destruction of the city (industrial area), it is sometimes advisable to leave part of the ring of encirclement open to give the enemy a chance to get out, and then destroy him outside the city.

In instances when the advancing troops have not managed to take a large city (industrial area) from the march or through a bypassing maneuver, one goes about taking it through a planned offensive (assault). Such a method may be employed more often in taking capitals and large industrial centers of enemy states that have great military-political and operational-strategic importance and are, in view of this, stubbornly defended by considerable groupings of troops.

It should here be taken into account that a threat of the use of nuclear weapons directly on a city (industrial area) means essentially the possibility of destroying the city and annihilating not only the enemy troops defending it but also the local population. Therefore, in the conduct of combat actions for a large city, it is necessary to take steps, including issuing an ultimatum, to force the enemy under threat of the use of nuclear weapons to give up the defense and surrender it without a battle.

Organization of the assault of a large city or industrial area is done, depending on its size and importance, personally by the front commander or according to his instruction by the commander of the army in whose zone it is located. This organization includes advance careful reconnaissance in order to ascertain the strength and disposition of the enemy, his defense works and system of fire, the plan of the city and the nature of the buildings, the measures for marshalling troops for its self-defense, and the availability of underground passages [kommunikatsiyi];

provision of the troops down to company (battery) commanders inclusive with large-scale city plans with the blocks and most important objectives numbered; adoption of the decision by the commander; the assignment of tasks to the troops and the organization of combat actions to take the city (industrial area); as well as organization of a military administration in the city (industrial area) to restore normal living and order in it after completion of the assault.

The decision for taking a large city (industrial area) is made while the advancing troops are still closing in on it. In the process are determined the axes of the main and other attacks on the city, the forces and means to be allocated for actions on these axes and their tasks, the number and composition of the assault detachments and groups to be formed and their tasks, the tasks of artillery, aviation, and air defense troops, the important objectives in the city to be captured as a first priority, the procedure for cooperation of the troops among themselves and with aviation, air defense troops, airborne assault units, and airborne landing forces, the tasks and time of commitment to the engagement of the large units of the second echelon and reserve, the procedure for consolidating the captured objectives and areas of the city, and the organization of troop control.

It is advisable to deliver the main attack in the assault of a city on an axis that ensures splitting up of the grouping of enemy troops and quick taking of the most important objectives and of the city as a whole. In the taking of an industrial area, the main attack is delivered between individual cities and population centers in it in order as quickly as possible to split up the grouping of troops, disrupt communications and cooperation, and thereby bring about favorable conditions for successfully taking the whole industrial area.

In a city, troops advance, as a rule, in narrower zones and to a lesser depth by comparison with ordinary conditions. The zone of offensive of a division takes in part of the large city; a motorized rifle regiment is assigned three or four main streets or an area of the city up to three kilometers across the front.

The immediate task of a division may be to defeat the defending enemy and get to the center of the city; and the subsequent task, to take new areas deep in the city or to get to the outskirts on the opposite side.

What is unique in the disposition of the battle formation of motorized rifle units is the establishment of assault detachments based on motorized

rifle battalions and of assault groups based on motorized rifle companies. Besides the T/O subunits, the assault detachments and groups include tank, artillery (for direct fire), combat engineer (with demolitions and obstacle-clearing means), and flamethrower subunits. Assault groups are used for taking individual fortified objectives and permanent structures. Assault detachments are made up of several assault groups, and they take complexes of structures and large objectives.

When taking a city without the use of nuclear weapons, one takes special care in planning the artillery preparation, which will be of greater duration than in the breakthrough of an enemy defense and will include, along with fire strikes, a period of destruction of permanent structures and individual industrial and public buildings with the fire of large-caliber guns, including high-power guns. A considerable part of the artillery is attached to the assault detachments and groups to annihilate firing means through direct fire and destroy enemy objectives during the assault.

The artillery of the division and army artillery groups destroys chiefly the tactical means of nuclear attack, neutralizes enemy troops and reserves on the approaches to the city, in its squares and parks, and also in the territory between the cities and population centers in an industrial area, combats the enemy's artillery, and defeats his attempts to break out of the besieged city or unblockade the troops encircled in it.

The efforts of aviation are concentrated on destroying the means of nuclear attack of the enemy, neutralizing his defense on the approaches to the city and within it, clobbering approaching reserves, blockading the city and airfields from the air, and also on covering our troops against strikes of the air enemy.

The air defense troops and the fighter aviation of the air army of the front concentrate their efforts on covering the troops on the main axis and destroying the transport aviation of the enemy.

In the employment of the units and subunits of engineer and chemical troops, special attention is devoted to their vigorous conduct of combat actions in the complement of the assault detachments and groups, to assistance of the troops in the reconnaissance of engineer obstacles and negotiation of them on streets, in squares, and inside of buildings, to support of the capture, rehabilitation, and operation of electric power stations and the water supply system, and also to preparation of captured city shelters, tunnels, and subway stations from an antiatomic standpoint

for the accomodation of staffs, communications centers, and medical facilities.

The methods of actions of the troops during the taking of a city will largely depend on its layout. With a radial-ring layout, it is more advantageous to deliver concentric attacks from the outskirts to the center along the main streets. In a city with a grid arrangement, it is advisable to carry the offensive along the streets, through the parks and squares to its opposite side.

The offensive of troops begins after the artillery and air preparation of the attack simultaneously in several sectors in order to split up and fragment the defense of the enemy and destroy the garrison of the city in detail. It has the nature of a fight to take individual buildings, streets, and areas of the city or the individual cities and population centers of an industrial area. The efforts of the troops must here be directed towards taking the main objectives, strongpoints, and centers of defense on the main thoroughfares of the city. Particularly solid pillboxes and engineer structures may be blockaded and blown up together with the garrisons defending them. In the assault of a city, extensive use is made of underground passages.

In order to repel enemy counterattacks during the fight for a city, it is necessary to have combined-arms and special reserves and to prepare air strikes and artillery fire against promising streets, squares, parks, bridges, and other areas of the city where concentrations or movements of enemy troops are likely. Simultaneously with this, the troops advancing outside the city limits, through determined attacks, hit the approaching reserves of the enemy and defeat his attempts to unblockade the encircled garrison with a counterthrust; and the air defense troops provide reliable air defense of the advancing troops and of the city itself and also prevent aiding the garrison and evacuating by air.

After taking the city, the troops are removed outside its limits to the reserve or used to develop the offensive. In order to main strict order in the city and normalize life in it, there is organized, according to the instruction of the front commander, a military administration at whose disposal are placed the minimum necessary number of troops and materiel and technical means.

9. Transition of front troops to actions with the use of nuclear weapons

Transition to the use of nuclear weapons (Appendix 15) is a qualitatively new stage in the conduct of an offensive begun with the use of conventional means of destruction. In importance, it is the culminating point of the operation, when the sides will endeavor with nuclear weapons to inflict decisive damage on the enemy and radically alter the situation to their own advantage. The most important task at this time will be to successfully deliver the initial nuclear strike of the front and at the same time to retain the combat effectiveness of our own troops for their rapid offensive in the wake of this strike.

The duration of the period of offensive with the use of conventional means of destruction alone and the conditions of the situation under which the troops of the sides go over to actions with the use of nuclear weapons may be most varied. According to the experience of NATO exercises, for the Western Theater of Military Operations this period has varied, on the average, from two to six days; and in other theaters its duration has been even greater. However, recent years have noted a tendency to reduce the duration of the conduct of combat actions with conventional means. Therefore, from the very start of the offensive, a constant high level of readiness for delivery of the nuclear strike and for actions with the use of nuclear weapons will be required of the troops of a front.

The enemy's transition to the use of nuclear weapons is most likely under conditions when his troops are withdrawing under the attacks of an advancing front and a threat of the loss of very important lines and areas of territory is brought about or when the troops of the enemy are on the verge of defeat. In this period he may, depending on the conditions of the situation, continue stubborn defensive actions and attempt by inflicting maximum losses on the troops of the front to stop its advance or undertake, together with the use of nuclear weapons, a powerful counterthrust and possibly go over to a counteroffensive.

When going over to actions with the use of nuclear weapons, the enemy may at first use these weapons on a limited scale, for instance, through the detonation of nuclear land mines and the delivery of strikes by atomic artillery, tactical and operational-tactical missiles, and tactical aviation and then go over to unlimited use of them, or else employ nuclear weapons on an unlimited scale right away with the use of all available nuclear forces and means. But, since it is difficult to determine with sufficient confidence beforehand the possible variant of the use of nuclear weapons by the enemy, it is necessary that the troops of the front always be ready to deliver a strike on him with all their nuclear might under any conditions of a situation.

The military-political leadership of the aggressive NATO bloc has for a relatively long time already been working out the question of limited use of nuclear weapons, counting on thus avoiding nuclear strikes by strategic means on the territory of the USA and England in a future war. In this respect, in operational training practice, they limit the means of employing nuclear weapons, the number of nuclear warheads, and their yields and depth of employment.

Nor does Soviet military art in principle rule out the possibility of combat actions with the limited use of nuclear weapons, but at the same time it considers that, in view of the uncompromising nature of a future war, the period of their limited use will hardly be long. It is most likely that the first nuclear strikes in Europe will automatically produce a rapid chain reaction of nuclear escalation and inevitably lead to the unleashing of an all-out nuclear war. Therefore, the Soviet Armed Forces must be ready to respond to the use of nuclear weapons by the enemy with the use of all types of these weapons on any scale.

The most effective form of the use of nuclear weapons in an operation begun with the use of conventional means of destruction alone is delivery of an initial nuclear strike of the front. The objective of this strike will largely depend on the conditions of the situation. When going over to actions with the use of nuclear weapons under conditions of an earlier period of conduct of an operation when the groupings of nuclear means, ground forces, and aviation of the enemy have still retained their combat effectiveness, the objective of the initial nuclear strike will consist in inflicting decisive damage on the enemy and bringing about favorable conditions for the troops of the front to develop the offensive operation to the depth at high rates of advance. In case the initial nuclear strike is delivered at a later period when the groupings of troops, forces, and means of the enemy have been considerably weakened in preceding battles and engagements, the objective of the strike may consist in completing the defeat of the enemy to the entire depth of the front operation.

It is not out of the question that the enemy will time the use of nuclear weapons to a transition to a counteroffensive. Then the objective of the initial nuclear strike may consist in inflicting decisive damage on the troops of the enemy and his reserves and disrupting the prepared counteroffensive.

As for the targets of destruction in the initial nuclear strike, these will be the surviving and newly detected operational-tactical and tactical missile launchers, delivery aircraft on airfields, nuclear weapons depots,

first-echelon large units -- especially tank large units -- that have retained combat effectiveness, reserves in their areas of activation and concentration, surface-to-air guided missile battalions, and control posts for troops, aviation, and air defense means, as well as the most important rear services installations.

Unlike the initial nuclear strike of a front at the beginning of an offensive operation, an initial strike delivered during its conduct will be prepared and carried out under conditions when the overwhelming majority of enemy targets and of our nuclear means are on the move or in the state of deploying, in which connection speed in detecting and hitting these targets assumes exceptionally great importance. The required number of nuclear warheads to hit targets, especially such targets as divisions and brigades of the enemy troops, will evidently diminish as a result of the fact that they will by this time have sustained certain losses from conventional types of weapons. The relative proportion of tactical nuclear means in the hitting of enemy large units located in close contact with the advancing troops of the front will increase. The volume of tasks for final reconnaissance of enemy targets will be reduced to a minimum, since reconnaissance of them must be carried on continuously by all forces and means during the offensive.

The organization and duration of the initial nuclear strike will also have its unique features. In order to achieve the greatest effectiveness of this strike, it is necessary to endeavor to deliver it in the shortest possible periods of time, with involvement of the maximum number of nuclear warheads and means of delivery. Reducing the duration of delivery of the strike is achieved by shortening the time for obtaining reconnaissance data on the enemy targets as well as by shortening the flight time of the delivery aircraft in view of the fact that they can be located over the target areas by the time of the nuclear strike. This circumstance enables aviation to deliver its strikes on targets located in different areas essentially simultaneously with the rocket troops.

The success of the initial nuclear strike and of the transition of the front troops to actions with the use of nuclear weapons is ensured by constant maintenance of a high level of combat readiness of the large units and units of rocket troops and the air army for delivering a nuclear strike and by the availability of the necessary number of nuclear warheads, by continuous refinement during the offensive of the initial nuclear strike plan developed earlier, by the constant conduct of reconnaissance in order to detect enemy preparation for the use of nuclear weapons in time and refine the targets of destruction, by detection and prompt destruction of

the means of nuclear attack of the enemy, by achievement of surprise in our nuclear strike and by the allocation of the maximum number of nuclear warheads and delivery means to carry it out, by the constant high level of readiness of the air defense means to repel the initial nuclear strike of enemy aviation, and by speedy refinement and conveyance to the troops of tasks for conduct of the offensive under the new conditions. It will also be necessary to refine cooperation between the troops, forces, and means of the front, to strengthen air defense, and to take the necessary steps for the protection of troops and installations against the enemy's weapons of mass destruction and for elimination of the aftereffects of their use, as well as to implement measures for operational camouflage, radioelectronic warfare, and rear services support.

Maintenance of high-level combat readiness of the nuclear means of the front during an operation is possible on the condition that the degree of combat readiness of the rocket troops, atomic artillery, and aviation is built up and they are provided with nuclear warheads in time, that their combat tasks are constantly refined, and that control of the relocation of rocket troops and rebasing of aviation during the offensive is centralized at the front level. The front staff must continuously keep track of changes in the status and position of enemy targets and of the readiness of our own means and, in keeping with the refined decision of the commander, issue timely instructions for bringing the latter to a higher level of readiness. In conjunction with the staffs of the rocket troops and artillery and of the air army, it works out a schedule of maintaining the forces and means intended for delivery of the nuclear strike in readiness and the procedure for building up the degree of readiness of the rocket troops, artillery, and aviation. This buildup can be done in, for instance, the following sequence: A few hours before the nuclear strike front and army missile brigades are brought into Readiness No. 2, and artillery battalions into Readiness No. 3 or 2, at the time that tactical missile battalions continue to be in Readiness No. 3. Fifty to 60 minutes before the nuclear strike all missile brigades and separate missile battalions are brought into Readiness No. 2a (atomic artillery into Readiness No. 2); finally, 10 to 15 minutes before the launch of missiles all launch and firing batteries are brought into Readiness No. 1.

As the threat of the use of nuclear weapons by the enemy grows, two to two and a half hours before strike delivery, the delivery aircraft of the air army are brought into Readiness No. 2, and then into Readiness No. 1.

The most important task of front reconnaissance will be timely detection of immediate preparation of the enemy for the use of nuclear

weapons. Signs of this may be issue of nuclear warheads to the troops from storage and supply points and delivery of them to missile, artillery, and air units; transfer of nuclear warheads to the troops of member countries of the enemy coalition that do not have their own nuclear weapons and the appearance, in connection with this, of artillery technical subunits of the US Army to supply nuclear weapons in areas of combat actions of the troops of other NATO countries; increase of the degree of readiness of missile units and artillery that employs nuclear warheads; massive and unusual transmission of weather reports for aviation and missile units; suspension of nuclear bombs on delivery aircraft; reinforcement of the cover of particularly important areas and installations by air defense means; reinforcement of aerial reconnaissance of the troops and installations of the front; an increase in the volume of engineer works to prepare disposition areas of troops and staffs; an increase in the intensity of operation of the radio communications means that provide control of the means of nuclear attack; and temporary reduction of the activity of tactical aviation for employing conventional weapons. Also characteristic will be the conduct of measures for protection from weapons of mass destruction, the movement of large reserves forward into the area of combat actions and their preparation of counterthrusts, cessation of the withdrawal of troops of the enemy and strengthening of his resistance on the main axes, and evacuation of civilian population from the zones of combat actions. To be sure, not all these signs and measures may be detected since the enemy will be taking camouflage measures, but detection of even part of them must serve as the basis for speeding up the preparation of the initial nuclear strike of the front and the protection of our own troops from the enemy strike being prepared.

The main attention here is devoted to reconnaissance of mobile targets, since their number, as the experience of operational training shows, may be as high as 60 percent or more of the total number of targets slated for destruction in the initial nuclear strike. In order to accomplish reconnaissance and final reconnaissance tasks in the conditions under consideration, all reconnaissance means are used in an integrated manner: manned and unmanned reconnaissance aircraft, special-purpose reconnaissance groups, agent sources, and radio, radiotechnical, and radar reconnaissance posts, and others.

The availability to our likely enemies, particularly in the Western Theater of Military Operations, of a large number of operational-tactical and tactical means of nuclear attack and the serious consequences to which their massed use against the troops and installations of the front can lead necessitate destroying the nuclear means of the enemy with conventional

weapons during the offensive in order to thwart or, in any event, maximally weaken his nuclear attack. To this end, commanders at all levels organize and constantly implement reconnaissance and destruction of missile launchers, guns of atomic artillery, delivery aircraft on airfields and in the air, and nuclear weapons depots and supply points.

Destruction of nuclear means during an offensive with the use of conventional weapons alone can be done by front and army aviation, units and subunits of airborne landing forces, airborne assault units, long-range artillery, forward detachments, units of the advancing first-echelon divisions, and reconnaissance subunits; and radioelectronic warfare means are used to disrupt control of them. All these forces and means must be used purposefully, in coordination, and in keeping with their purpose and combat capabilities.

Reconnaissance and destruction of enemy nuclear means must be carried on constantly; however, they are carried on with greatest vigor and intensity before the delivery of the nuclear strike, that is, at the time when the enemy is doing immediate preparation for the use of nuclear weapons and, in view of this, the possibilities for discovering and destroying them are higher.

The rapidity of events and the quick changes in the situation during preparation of an initial nuclear strike in the course of an offensive operation necessitate systematic refinement of the plan of delivery of this strike and refinement and assignment of new tasks to the rocket troops, aviation, and artillery, as well as to the reconnaissance organs and troops of the front in accordance with the nature of the situation, the status and position of enemy targets, and those of our own means of employing nuclear weapons. Timely recording of these changes, reporting of them to the commander and chief of staff, and refinement according to their instructions of the plan and schedule of delivery of the initial nuclear strike are done in the front staff by the operations directorate with involvement of the best trained generals and officers of the intelligence directorate, the staff of rocket troops and artillery, the air army, and the missile and artillery armament directorate. All work on assessing the situation and refining the plan of the initial nuclear strike and the tasks for the troops is done under the immediate supervision of the front commander, with the participation of the chief of staff, the chief of rocket troops and artillery, and the commander of the air army.

In the commander's decision, it will most often be necessary to refine the objective and tasks of the initial strike, the number of nuclear

warheads, the targets of destruction, the distribution of targets between the rocket troops and aviation and between the missile large units under front and army subordination and tactical means, the degree of readiness of rocket troops and aviation for delivery of the initial strike, the warhead yields, the types of nuclear bursts, and the safe distance lines for the advancing troops. It is here necessary to bear in mind that the rapid changes in the situation will obviously not allow the front level to determine the targets of destruction for all the means allocated for delivery of the strike as is done before an initial nuclear strike at the beginning of an operation. It will become necessary to grant to army commanders the right to determine the targets of destruction for the army missile brigades and, in part, for the divisional tactical missiles (on the axis of the main thrust), and to division commanders for battalions of tactical missiles and artillery that employs nuclear warheads.

Immediately before delivery of the initial nuclear strike, reconnaissance and final reconnaissance of the targets slated for destruction must be conducted with involvement of all the reconnaissance forces and means available in the front and armies, first and foremost those of reconnaissance aviation. The most important requirement made of reconnaissance and final reconnaissance at this time will be rapid conveyance of the reconnaissance data obtained to the units allocated for delivery of the nuclear strike so that the strike does not hit an unoccupied area. Special radio nets and radio links are established for this. The information obtained by the aircraft crews is promptly transmitted from on-board the aircraft to the ground command posts of the formations, large units, and units concerned.

After the commander adopts the decision for the initial nuclear strike, the front staff and the staffs of the rocket troops and artillery and the air army promptly issue to the executors combat instructions refining the previous tasks for the delivery of the nuclear strike or assigning new ones. The most advisable way to convey these tasks will be transmission over technical means of communications of commands and signals in the order of direct subordination. This method is particularly applicable when there are considerable changes in the tasks of the rocket troops, atomic artillery, and aviation since it increases the responsibility of subordinates for reconnaissance of the targets indicated by the front and the timeliness and effectiveness of their destruction.

When there are insignificant changes, one may also employ such a method wherein executive commands are transmitted by the chief of rocket troops and artillery of the front directly to the battalions of the front

and army missile brigades, and by the commander of the air army directly to the home airfields of the nuclear weapons delivery aircraft, thanks to which the total time for conveying the tasks is reduced.

Simultaneously with adoption of the decision for delivery of the initial nuclear strike, the front commander also refines the tasks of the front troops for development of the offensive operation under conditions of the use of nuclear weapons. These refinements may find expression, for instance, in assignment to the first-echelon armies of tasks for rapid exploitation of the results of the initial nuclear strike, for delivery of repeat strikes with their means to complete the defeat of the opposing enemy, and for a rapid offensive to the depth at higher rates of advance, in refinement of the army zones of offensive, in allocation of stronger forward detachments to quickly penetrate to a great depth and seize the most important control posts, missile bases, and crossings over water obstacles in the enemy rear (independently or in cooperation with airborne landing forces) and disrupt the mobilization measures of the enemy, in redistribution of means of reinforcement, in the organization of maneuver to develop the offensive on the previous axes or switch efforts to a new axis, and in the refinement of tasks for the second-echelon army (if it still has not been committed by this time) and for the combined-arms and special reserves of the front.

In addition, the commander and staff of the front coordinate the actions of troops, forces, and means within the front, with adjacent forces, and with the formations of other branches of the armed forces, take steps to strengthen air defense and protection against weapons of mass destruction of the enemy, and prepare measures to ensure rapid restoration of the combat effectiveness of the troops and stable control of them under conditions of conduct of the operation with the use of nuclear weapons.

The necessity of carrying out a large number of measures to prepare the initial nuclear strike and actions of the troops when going over to the use of nuclear weapons requires of the commander and all the command personnel of the field headquarters of the front a thorough analysis of the situation and foresight into its development, a high degree of organization in work, and performance of all measures in extremely condensed periods of time, as well as strict monitoring of the precise, timely fulfilment by subordinates of the tasks assigned them.

Combat actions of the front troops do not cease while the initial nuclear strike is being prepared.

TS #798245
Copy #____

Used first of all for development of the offensive after the strike are the still combat-effective first-echelon large units, forward detachments, airborne assault units, and airborne landing forces, as well as the armies' second-echelon large units to be committed to the engagement, and sometimes also the second echelon of the front. The actions of these troops must be resolute and daring, continuously supported by aviation, and covered by air defense means.

Renewal of the offensive by front troops that have come under the nuclear strikes of the enemy will depend on the number of losses they sustain and the time necessary to restore their combat effectiveness. For this, the commander and staff of the front should, in the shortest possible time, ascertain the general and radiation situation which has developed as a result of the nuclear strikes of the sides, determine the losses and condition of their troops, the combat effectiveness of the front, and the extent of damage to the enemy's groupings, and also take urgent measures to eliminate the aftereffects of his nuclear strikes. It is necessary at this time through repeat nuclear strikes to destroy the newly detected nuclear means of the enemy and inflict decisive damage on the surviving groupings of his troops in order to ensure development of the offensive at high rates of advance not only by the forward units and large units but also by the main forces of the front.

The efforts of the troops exploiting the results of the initial nuclear strike are concentrated on the main axis of offensive of the front. Here the advancing troops must not become involved in prolonged battles with the enemy, but rapidly move forward by axes, defeat his groupings in detail, and disrupt their attempts to establish a stable defense in the depth. The task of destroying the enemy remaining in the rear and on the flanks of the advancing troops of the front is generally entrusted to the second echelons and reserves.

Simultaneously with this, individual groupings of front troops separate as quickly as possible from its main forces and rush into the depth of the enemy's territory. In cooperation with the rocket troops, aviation, airborne assault units, and airborne landing forces, they suddenly seize the large administrative-political and industrial centers of states and the control posts of the operational and strategic command of the enemy and thereby paralyze his resistance and bring about favorable conditions for completing the offensive operation in shorter periods of time.

CHAPTER 5

SPECIAL FEATURES OF THE PREPARATION AND CONDUCT OF FRONT OFFENSIVE OPERATIONS ON COASTAL AXES AND IN MOUNTAIN, DESERT, AND NORTHERN AREAS

1. Special features of offensive operations on coastal axes

Coastal axes have at the present time assumed exceptional importance in view of developing international economic and military ties. Within their boundaries in virtually all the main theaters of military operations there have been established very large ports, naval bases, cities, industrial complexes, and areas with much valuable material; passing through here are the most important land and sea transportation lines over which intensive shipments of troops, armament, and materiel will be made in wartime. In a coalition war in the European theaters of military operations, the stability and combat effectiveness of the troops of the probable enemies will largely depend on capabilities to support and supply them from other continents.

The objective of a front operation on a coastal axis is defeat of the coastal grouping of the enemy, taking of the seacoast, naval bases, ports, and straits zones, and prevention of the flow of reserves and materiel by sea.

This objective will be achieved by front troops in close cooperation with the fleet forces. During joint actions on coastal axes, the front troops may, in support of the fleet, destroy hostile forces and means, including missile/nuclear forces and means, on land, at sea, and in the air that are capable of opposing the fleet, take bases and ports and thereby expand capabilities for basing ships, cover ships, naval bases, ports, and shore installations against strikes of enemy aviation, support the flight of fleet aviation over land sectors towards the sea, do reconnaissance, and carry out other types of operational and rear services support measures.

The fleet, in support of the front, may in turn destroy carriers and other enemy ships, cover the troops operating on the coast against strikes

from the sea, assist them in destroying the enemy and taking shore objectives, and put amphibious landing forces ashore, support and safeguard their actions, destroy enemy amphibious landing forces at sea and on the approach to the coast occupied by front troops, assist troops in the defense of the seacoast, cut off enemy sea shipments, and carry out troop and cargo shipments by sea.

The tasks for front troops in an offensive operation on a coastal axis are defined the same way as under ordinary conditions, that is, the front is assigned a task for the initial nuclear strike, an immediate task, a subsequent task, and in addition tasks for defense of the seacoast during the operation. The substance of these will depend on the concrete situation and the conditions of cooperation with fleet forces.

The main thrust in an operation on a coastal axis may, if terrain conditions permit, be delivered along the seacoast, which will enable one in the shortest period of time to defeat the hostile troops in the coastal areas, take naval bases and ports, and break up the ground forces grouping and fleet forces of the enemy.

Rapid defeat of the coastal grouping of the enemy is achieved also through delivery of the main thrust on an axis away from the coast, with subsequent development of this thrust to the flank and rear of the hostile troops, pinning them to the seacoast and at the same time isolating them from the sea with fleet forces. When it is necessary to cut off an encircled enemy coastal grouping from the sea, a second thrust can be delivered at the same time along the seacoast.

Combat actions to defeat groupings of enemy troops pinned to the seacoast are conducted by delivering splitting attacks along the shortest axes to objectives on the coast, with simultaneous development of the offensive to the flank and rear of the hostile troops.

Amphibious and airborne landing forces will be called upon to play a large role in the delivery of attacks on the flank and rear of coastal groupings and in their encirclement and defeat. Their employment will make it possible to paralyze enemy control, disorganize the cooperation and supply of enemy troops, and thereby hasten the accomplishment of the tasks assigned to the front.

During the preparation and course of an offensive operation on a coastal axis, particular attention is paid to organizing and maintaining close cooperation of the front troops and fleet forces during the joint

performance of combat tasks. The procedure for delivery of the initial nuclear strikes by the front and fleet, for preparatory fire, and for support of the offensive of troops along the coast is coordinated with particular care, and so are the time and sequence of the actions of front troops and fleet forces when taking important objectives on the shore, organizing and conducting reconnaissance on land and sea, setting down landing forces, and warding off enemy attacks from the sea.

The air defense of front troops and fleet forces is set up so as to destroy enemy aviation operating from both land and sea axes. Front fighters must here be prepared for actions to their full radius in the direction of the sea to cover the combat actions of fleet forces and the coastal sea lanes. The front and fleet establish a common zone of radar surveillance over land and sea by including radar picket ships in the overall radar reconnaissance system. An auxiliary front air defense command post can be set up in the coastal zone to control the air defense forces and means of the front and fleet.

When the front offensive operation on the coastal axis begins, front troops, fleet forces, and coastal sea lanes are covered by part of the forces of the formation (large unit) of the Air Defense Forces of the Country.

In order to retain continuous control and cooperation between front troops and fleet forces, the front commander and staff maintain constant communications with the fleet commander and staff; and, when the front and fleet are performing joint tasks, a front auxiliary control post is established, at which are located representatives of the front, fleet forces, air forces, and air defense troops. The front and fleet commanders, together with the chiefs of branch arms and services and groups of staff officers can, at crucial periods of the operation, be located at one control post. At the control posts of the armies, large units, and units advancing along the coast there are located representatives of the cooperating fleet forces with means of communications.

During the conduct of an offensive operation on a coastal axis, the front troops may be confronted with the task of taking a straits zone including one or several straits and the adjacent sectors of the land and water area, for instance, the Black Sea or Baltic Straits.

The importance of straits and straits zones is very great. They are, as a rule, key areas in theaters of military operations, having great operational and strategic importance. The taking of straits brings about

preconditions for the emergence of the fleet from an enclosed to an open sea and for the conduct of subsequent decisive actions.

In a straits zone there may be important administrative-political and industrial centers, large ports, and naval and air bases of the enemy. Nuclear means and large forces of the enemy ground forces, aviation, and navy may be allocated to defend this zone and oppose our troops. In some straits zones the enemy may use the available fortified areas and separate shore forts with long-range artillery, missile launchers, and surface-to-air missile launchers for defense. He will employ various types of mine and engineer obstacles extensively at sea and on land in a straits zone.

Taking a straits zone includes the accomplishment of such tasks as destruction of the nuclear attack means of the enemy; defeat of his groupings of ground and air defense forces in the straits zone, first and foremost in the areas adjacent to the offensive axes of the front troops and in areas of the landing of airborne and amphibious landing forces; destruction of the aviation and ship groupings opposing the offensive and the landings; destruction of the forts and negotiation of the fortified areas covering the coast and straits approaches; assault crossing of the strait by front troops and repulse of the possible counterattacks and counterthrusts of the enemy on its opposite shore; and organization of the antilanding and air defense of the captured straits and islands.

Combat actions to take a straits zone are organized during preparation of the front offensive operation. However, changes in the situation during the conduct of the offensive may necessitate the introduction of substantial amendments in the execution of the measures planned and refinement of the previously adopted decision and prodecure for cooperation of the forces and means participating in the taking of the straits zone.

The variety of tasks to be accomplished by front troops and the fleet forces cooperating with them imposes special demands on reconnaissance. Besides performing general tasks, front reconnaissance in an offensive operation on a coastal axis discovers, in cooperation with fleet reconnaissance, the nature of the defense of the coast, islands, naval bases, ports, and most important installations in the straits zone, determines the most suitable places for setting down amphibious and airborne landing forces, ascertains the areas of combat maneuver of strike carrier large units (groups) and other surface ship groupings, as well as the preparation of the enemy to put an amphibious landing force ashore, and determines his measures for evacuating groupings of his troops pinned to

the sea.

On the basis of reconnaissance data, the front commander must, even before the troops approach the straits zone, refine the decision and assign tasks to the troops, indicating enemy targets to be hit with nuclear and special weapons, the procedure for the delivery of nuclear strikes by front and fleet forces, the tasks and offensive axes of the first-echelon armies of the front, the procedure for their negotiation of the enemy defense, the tasks of rocket troops and aviation, the composition and tasks of airborne and amphibious landing forces and the procedure for their support by aviation, their landing time and areas of actions, the sectors and procedure for the assault crossing of the strait by front troops, and the tasks of fleet forces during the assault crossing of the strait. Besides this, he determines the tasks of the air defense forces and means to cover groupings of troops and fleet forces during the taking of the straits zone and particularly during the assault crossing of the strait, the procedure for their cooperation, and the measures to support the actions of front troops during the taking of the straits zone and to organize the antilanding defense of captured straits and islands.

Negotiation of fortified areas or defense lines covering the approaches to a strait from the land is done by axes in the wake of nuclear strikes or air and artillery strikes delivered against the nuclear means, strongpoints, pillboxes, and reserves of the enemy. The first-echelon armies' large units designated for making the assault crossing of the strait move up to the strait in such order and sequence that troops are not required to stop before the straits and regroup for the assault crossing.

If the width of the strait is relatively small, the assault crossing by front troops is made from the march in the wake of nuclear strikes and fire with conventional means of destruction against enemy targets and groupings in the straits zone. When the troops approach the strait, nuclear strikes of tactical missiles as well as artillery and tank fire are directed towards annihilating the coastal batteries, fire means, and groupings of troops defending the coast of the strait. After the nuclear strikes and artillery and air preparation, airborne landing forces are dropped tasked with destroying the nuclear attack means of the enemy, seizing sectors of the coast in the assault crossing area, preventing the approach of reserves to them, and seizing the vessels and various crossing means concentrated in the straits. Simultaneously with or right after the landing of the airborne forces, the assault crossing of the strait is begun by the forward detachments from the first-echelon large units of the front using organic assault crossing means, and after them by the main forces of

the first and subsequent echelons.

Part of the fleet forces can at this time be brought into the strait and with their means of fire assist the front troops in destroying and neutralizing enemy targets, making the assault crossing, and in seizing the opposite shore of the strait, and can also cover them against strikes of the missile-artillery ships of the enemy fleet.

After the airborne landing forces and first-echelon troops capture the opposite shore of the strait, the crossing of the subsequent echelons can be made on ferries and landing means of the fleet if these can be brought into the strait in time, as well as on the organic amphibious crossing means of the troops. In narrow strait sectors without considerable depth, bridge crossings are laid if there is a sufficient quantity of pontoon bridge means.

If the width of the strait is great, which is characteristic of the zone of the Baltic Straits in particular, the capture of islands is done with the use of amphibious and airborne landing forces. Their makeup will depend on the content of tasks, on the number of enemy troops, forces, and means operating in the straits zone and on its islands, on the availability of landing means, on the distance of the landing sectors (areas) from the departure areas, and on other factors. One, and sometimes two, motorized rifle divisions and units of marines may be allocated to make up an amphibious landing force in a front operation; and from an airborne regiment up to an airborne division to make up an airborne landing force.

The organization and execution of their landing will be carried on as a joint landing operation, with the participation of front troops, fleet forces, airborne troops, and Air Defense Forces of the Country.

Amphibious landing forces can be put ashore in order to seize sectors of the coast and separate islands, to assist front troops in the assault crossing of the strait, and to seize ports, naval bases, administrative-political centers, and other important targets on the coast.

The conduct of the landing operation is preceded by careful reconnaissance involving various front and fleet reconnaissance means, which must ascertain the grouping of forces and means and the nature of the antilanding defense in the designated landing areas, the enemy capabilities to deliver nuclear and chemical strikes on the landing force, the strength and combat maneuver areas of strike carriers, submarines, and surface ships and their capabilities to deliver strikes on the landing force at

embarkation points, in transit at sea, and in the landing areas, the navigational hydrological conditions and the nature of the terrain from the standpoint of suitability for the landing and conduct of battle by airborne and amphibious landing forces on the shore, and the presence and nature of antilanding obstacles. To these ends, vertical and oblique photography of the landing areas is done before the commencement of the landings.

Direction of the preparation and landing of amphibious forces is done, as a rule, by the front commander. He determines, in coordination with the fleet commander, the composition, number, and tasks of the amphibious and airborne landing forces for seizing the islands and opposite shore of the strait, the number of landing means, and the procedure for getting the main forces of the front across behind the amphibious landing force, designates the embarkation and debarkation areas of the landing forces, indicates the procedure for troop actions during the taking of the coast and negotiation of the antilanding defense of the enemy, determines the procedure for covering landing ship forces and the troops, and also assigns tasks for support of the landing.

The cruising formation of the landing ship forces in sea transit includes the landing ship detachments with the troops of the landing force (in the landing of a division, one reinforced regiment usually travels in a detachment), detachments of fire support ships, groupings of reconnaissance, escort, and covering forces, as well as groups of special support ships. The cruising formation must correspond to the tasks and adopted landing sequence of troops in each of the landing areas (sectors). Each landing detachment, made up of groups of landing ships or transports and close-in escort forces (antisubmarine and antimine defense helicopters, aircraft, and ships) travels independently over the assigned route in a dispersed cruising order, observing all measures for the defense and protection of ships against weapons of mass destruction.

The detachments of fire support ships travel, as a rule, at the head of the forward landing ship detachments (the first echelon of the landing force) or on the flank on the threatened axis.

Tactical reconnaissance forces, consisting of surface ships and helicopters (aircraft), carry on reconnaissance of surface ships and conduct a search for enemy submarines and mine obstacles on the movement routes of the landing ship forces and in the areas adjacent to them.

In the cruising formation of the landing ship forces, special detachments for escorting the landing force can be formed of antimine and

antisubmarine defense ships and aircraft (helicopters). Their position in the overall cruising formation of the amphibious landing force will depend on the concrete situation in the area of the movement of landing ship forces and it is determined by the commander of the landing ship forces.

Special support groups (rescue ships, camouflage ships, navigational support ships, and others) travel between the landing ship detachments or at the end of the cruising formation.

In sea transit the landing force is covered against enemy strikes by covering detachment forces consisting of submarines, surface ships, and fleet aviation.

The command post of the commander of the landing ship forces is situated on a ship equipped with the necessary means of communications for control of the forces subordinated to him in sea transit and during the amphibious assault. The landing force commander is located on the same ship with the commander of the landing ship forces until the moment he goes ashore with the main forces of the first echelon of the landing force.

The passage of landing ship detachments by sea (through a wide strait) is made in one or several echelons in independent cruising formations. Air cover of landing ship forces in sea transit is provided by the fighter aviation of the front and of the Air Defense Forces of the Country and by the air defense means of the fleet and the troops being landed.

The landing of an amphibious force, insofar as possible, must be made on a wide front in one or several areas. When the landing force approaches the landing areas, the rocket troops and aviation of the front as well as the aviation and ships of the fleet deliver strikes against the enemy troops and ship groupings. These strikes must be delivered first and foremost against enemy nuclear means, strongpoints, and artillery and shore batteries on the coast of the straits and islands, as well as against the antilanding defense forces and means in the landing areas.

The landing of the forward detachments of an amphibious force may be preceded by the landing (drop) of an airborne (helicopter) landing force, whose units and subunits immediately attack the enemy, destroy his forces and means, and seize and expand the landing points. Airborne forces can also be landed in the depth in order to exploit the results of nuclear strikes, if they are delivered, and prevent the approach of enemy reserves to the landing area of the amphibious force, as well as to take important areas and objectives in the depth of enemy territory.

The first to be set down on the enemy shore are the forward detachments of the landing force, which, in conjunction with the airborne (helicopter) landing forces, seize sectors of the coast, take landing points, and safeguard the landing of the main body of the amphibious landing force. The forward detachments, in view of the particular nature of their tasks, are formed of naval infantry units and subunits reinforced with combined-arms subunits from among the landing force.

Put ashore after the forward detachments is the main body of the first echelon, which, through its attacks and resolute actions, expands the beachhead and safeguards the landing of the second echelon. As it lands, the main body of the amphibious landing force quickly deploys and without delay develops the offensive into the depth of the enemy defense and carries out the tasks assigned it. Through resolute actions, it takes the designated areas, destroys the enemy groupings on the coast of the strait, and safeguards the subsequent crossing of the rest of the forces and means of the front allocated for taking the straits zone.

When the main body of the amphibious landing force goes over to the offensive, the allocated fleet forces continue covering the troops against enemy strikes from the sea, support its combat actions, and provide the delivery by sea of materiel to the landing force and evacuation of the wounded.

The Air Defense Forces of the Country, the fighter aviation forces of the front, and the surface-to-air means of the fleet reinforce the cover of the main groupings of front and fleet forces and means in the embarkation areas and of the groupings of troops moving forward for the assault crossing of the straits, and they also provide cover of the captured ports and coastal sea lanes. Part of the forces making up the air defense troops of the front can be called upon for this purpose.

Support of the combat actions of front troops during the fighting for a straits zone includes, along with the various measures to be carried out in a land offensive, the concentration and preparation of crossing and landing means, camouflage of crossing sectors and bridges being laid, diversionary actions simulating dummy landings and crossing sectors, navigational support of the movement of crossing and landing means through wide straits, particularly under nighttime and poor visibility conditions, and also support of the survivability and stability of bridge crossings if they are going to be set up.

Control of the troops carrying on actions to take a straits zone is exercised by the front or the army advancing on the coastal axis. For the immediate control of these troops, an auxiliary control post can be established, with the presence there of an operations group headed by the deputy commander of the front. Individual large units (units) of the fleet operating in the straits zone can be operationally subordinated to the front commander for the period of taking the straits zone. For continuous communications between the staff of the front and staffs of the formations (large units) of the fleet, operations groups with the necessary means of communications can be exchanged.

During an offensive on a coastal axis and the taking of a straits zone, defense of the seacoast is organized for the purpose of consolidating the captured coastal sectors, straits, islands, naval bases, and ports and preventing the landing of enemy amphibious forces from the sea on the flank or in the rear of the advancing front troops. The composition of the forces and means for defense of the coast is determined on the basis of the combat strength of the front, the substance of its tasks, the strength of the anticipated landing force of the enemy, and the extent and importance of the captured coast. Depending on this, the front commander may use part or all of the army advancing along the coast and the front reserves for carrying out the antilanding defense. Besides this, in order to defeat enemy amphibious and airborne landing forces, definite aviation resources of the air army are allocated and provisions are made for the delivery of nuclear strikes by the front missile brigades.

In the defense of a seacoast, nuclear weapons are employed by army, front, and fleet means to hit enemy landing forces at their loading (embarkation) points, in sea transit, and when repelling the landing and delivering a counterthrust against a landing force that has been set down.

2. Special features of the preparation and conduct of front offensive operations in mountain, desert, and northern areas

Offensive operations in mountain, desert, and northern areas have a number of common characteristics, among the main ones of which one can include conduct of the offensive on axes separated by inaccessible or difficult natural obstacles, wider zones of actions and lesser densities of forces and means than under ordinary conditions, establishment of troop groupings capable of independently accomplishing all the tasks on one or another axis, predominant employment of the method of destruction of the

opposing enemy and his reserves in detail, and the difficulty of preparing departure areas for the offensive and basing areas for aviation.

The absence of the necessary conditions for engineer preparation of the terrain and for the dispersal and camouflage of troops in most areas and also the possibility of landslides, rockfalls, and avalanches being formed and road structures being destroyed as a result of the use of nuclear weapons complicate the organization and execution of measures to protect them against weapons of mass destruction and require more dependable support of troops against strikes of the air enemy.

Maneuvering of troops is greatly impeded in most cases; therefore, strikes of the rocket troops and artillery fire assume great importance, and so does the maneuver of aviation.

Characteristic of troop control is the necessity of simultaneously directing the combat actions of several groupings advancing on isolated axes often separated by considerable distances, which requires auxiliary control posts to be established.

To conduct combat actions in mountain, desert, and northern areas, troops must undergo special training and have the appropriate armament and gear for conditions in these areas.

Natural terrain conditions in these areas, as a rule, facilitate the organization of a defense and make offensive actions difficult. However, skilful use of nuclear weapons and conventional means of destruction make it possible to deprive the enemy of the advantages in a defense, defeat his strongest groupings of troops, and bring about the necessary conditions for successful conduct of an offensive.

Along with the common features characteristic of troop actions under special conditions, there are also substantial differences due to the physical geographic peculiarities of the different areas.

Mountain areas occupy extensive stretches on all continents. They include territories with geological formations rising more than 500 meters above the surrounding terrain and for the most part having steep slopes. They generally form a system of ranges and ridges running parallel, crossing one another, or leading out from a common center.

Mountain areas are extremely varied in their physical features -- origin, structure, habitation, and vegetation cover -- which have an effect

on the actions of troops. During the preparation and conduct of offensive actions, it is necessary to carefully take this into consideration, keeping in mind particularly that mountain ridges with steep slopes prevent tanks and vehicles from climbing under their own power. Troop actions are also affected by the separation of operations axes, the poor development of the network of airfields and roads, the screening effect of mountains on the operation of radiotechnical means and on the propagation of the shock wave and thermal radiation in nuclear bursts, the possibility here of the formation of landslides and obstructions, and the long persistence of toxic agents in ravines, hollows, and narrow valleys.

The strength of the shock wave of nuclear bursts in valleys and on slopes facing them is greater than normal by a factor of 1.5 to 1.7, and on reverse slopes it is less than normal by a factor of 1.4 to 1.5. Upwind radiation levels in the wake of the cloud will be two to five times those on level terrain, while the downwind levels will be lower.

The changes in air temperature and atmospheric pressure with altitude in the mountains are also rather great relative to sea level and they substantially affect troop actions. Thus, for instance, if the temperature of the air at sea level is +15 degrees, it will be +2 degrees at an altitude of 2,000 meters, -4.5 at an altitude of 3,000 meters, and -11 at an altitude of 4,000 meters. Atmospheric pressure is 20 to 22 percent below normal at an altitude of 2,000 meters, 30 percent below at 3,000 meters, and 40 percent below at 4,000 meters. The density of the air at an altitude of 4,000 meters is two-thirds normal, as a result of which, as they get up into the mountains to altitudes above 1,500 meters, the physical abilities of the men drop and part of the personnel develop "mountain sickness," the power of combat and transport vehicle engines drops 20 to 60 percent, and the expenditure of fuel rises to half again or double.

Combat actions of the troops of a front in mountain areas are characterized by intense fighting for transportation routes and road junctions, mountain gaps and passes, populated places, and other important areas and objectives. An offensive in the mountains develops along the valleys, roads, and mountain ridges and over mountain plateaus.

The combat actions of a front in the mountains (Appendix 16) are developed and conducted, as a rule, on several disconnected axes. The rates of advance will to a considerable extent depend on the nature of the mountain area and the time of year; but, as a rule, they are lower than in level theaters of military operations and may amount to 30 kilometers a

day. The depth of an offensive operation may reach 400 to 600 kilometers, that is, somewhat less than under ordinary conditions; and the width of the offensive zone of the front may be from 200 to 600 kilometers or more.

The axis of the main thrust is selected with regard for the operational capacity of the axes, the presence of very important installations and areas which it is the objective of the operation to take, the possible results of the use of nuclear weapons, and the accessibility of the area to actions of the branch arms, especially of tank troops.

The operational disposition of front troops during an offensive in mountain areas is characterized by the establishment of several groupings for actions on separate axes, the number of which will depend on the availability of through roads. Considering the complexity of maneuvering troops across the front, each axis is allocated such a number of forces and means as to ensure fulfilment of the assigned task to the entire depth of operation. The grouping of troops on the axis of the main thrust may consist of several echelons or one echelon and a strong combined-arms reserve.

Nuclear weapons are employed in the mountains, as they are under ordinary conditions, above all to destroy means of nuclear attack, hit the main groupings of ground forces and tactical aviation of the enemy, and to neutralize strongpoints and centers of the defense blocking the way against advancing troops and suppress air defense means and control posts. However, when nuclear weapons are employed, it is necessary to take account of the relief features of the terrain and the nature of the mountain rock and soil so as not to allow the formation of zones of heavy radioactive contamination, obstructions, landslides, and forest fires capable of hindering the offensive actions of our own troops. In individual cases, when the use of certain tunnels, passes, and narrow mountain gaps is not anticipated, nuclear strikes can be delivered against them in order to bring about obstructions and landslides and contain the maneuver of enemy troops.

Special weapons are employed against enemy troops defending passes, mountain gaps, and road junctions. However, when these weapons are employed, it is necessary to take account of the possibility of lengthy persistence of contaminated air in gorges, hollows, and forests and of its leakage through ravines and valleys to the disposition of our own troops.

The rocket troops of the front are, as a rule, employed on the axis of the main thrust. It is advisable to allocate part of the forces of the

front missile brigades to separated axes if it is impossible to carry out maneuver of the nuclear means. Artillery is generally employed in a decentralized manner in mountain areas. Advancing units and subunits are reinforced more with howitzer artillery and mortars.

Tank divisions are employed on axes accessible to their actions, predominantly for the purposes of developing the offensive and taking important areas and enemy objectives in the depth.

Front aviation, along with performing the usual tasks, is employed for searching out and destroying enemy targets located on the reverse slopes of mountains which are hard to hit with other means and also for delivering materiel and technical means to troops operating in difficult and remote areas, evacuating wounded, and providing liaison between separate groupings of troops. In some cases, air large units and units can be allocated and placed in operational subordination to the commanders of armies operating on separated axes.

Air defense is organized and carried out according to axes of troop actions. Special attention is paid to organizing reconnaissance of the air enemy at low altitudes and to organizing the system of antiaircraft fire on each axis. The main efforts of the air defense forces and means are concentrated on covering the main grouping of front troops as well as the most important road junctions, gorges, bridges, crossings, mountain passes, gaps, and other objectives where troop and transport congestion is inevitable.

Airborne assault large units (units) and airborne landing forces during an offensive in the mountains are employed in order to assist troops in quickly negotiating mountain ridges and contain enemy maneuver, to take mountain passes, gaps, road junctions, and bridges, and also to seize missile launch sites and airfields and disorganize the control of troops and the operation of the rear services.

Engineer troops, besides doing the tasks which are performed under ordinary conditions, clear roads of landslides and prepare bypasses around defiles, lay and maintain crossings over mountain rivers and deep obstacles, support the movement of troops on steep climbs and descents, consolidate the passes, mountain gaps, and road junctions captured by the troops, and place obstacles and carry out demolitions on paths and roads leading to the flanks and rear of the advancing troops of the front.

Reconnaissance during an offensive in the mountains, in addition to the usual tasks, discovers the disposition of the enemy defense in passes and mountain gaps, the presence of specially trained and equipped mountain infantry units in the zone of the front, the nature of the terrain, the condition of the road network and the possibility of troop movement off the roads, the presence of hindrances, obstacles, and nuclear landmines in passes and gaps, and also the condition and flood stage of mountain rivers, the presence of reservoirs and hydraulic engineering structures, and the areas of possible demolitions, fires, landslides, and floods. The main efforts of reconnaissance are concentrated along roads, valleys, and ridges. During an offensive in the mountains, the number and volume of engineer reconnaissance tasks also increases.

The deployment and transition of troops to the offensive is complicated by the inadequacy of the road network and the difficulty of the terrain. In view of this, the times of readiness of the attack groupings of the front to go over to the offensive on separate axes may not be identical.

During the offensive it is necessary to avoid the congestion of troops and equipment, not to let large forces get drawn into defiles, gaps, and ravines, and to safely secure the flanks of the advancing troops against possible enemy attacks.

The second echelons and reserves are committed to the engagement to build up the efforts on decisive axes. Reserves may, in addition, be used to eliminate separated enemy groupings, individual garrisons, and centers of resistance. It is advisable to commit tank units and large units to battle after the difficult sectors of the mountains have been negotiated and the forward units have emerged into wide valleys and onto mountain plateaus.

The encirclement and annihilation of separate enemy groupings is achieved through a rapid offensive of troops along road axes in conjunction with the actions of flanking detachments and the extensive use of tactical airborne landing forces. In order to quickly split up the enemy and deprive him of the opportunity to carry out maneuver, it is necessary to seize the road junctions, crossings, mountain gaps, and passes in his disposition as quickly as possible.

When rear services support is organized, the rear services large units, units, and facilities are positioned along the axes of troop actions; increased reserves of materiel are established beforehand in the

line units and at the mobile army bases and forward front bases; combat and auxiliary equipment is provided with cross-country means; troops are reinforced with recovery means on each axis; they are provided with special items of gear; and helicopters, all-terrain vehicles, and transport aircraft are used extensively to deliver materiel and evacuate the wounded. Missile technical units are positioned in areas which ensure the best conditions for delivering missiles to the missile units of the front.

Desert areas occupy wide stretches in the Near Eastern, Middle Eastern, and Eastern theaters of military operations. Their typical characteristic is extremely poor development by man in view of the difficult living conditions. In such areas the road network is usually inadequately developed, airfields are few, and inhabited localities are predominantly small and situated in oases at considerable distances from one another.

In the desert areas adjoining the territory of the Soviet Union it is hot and sandstorms are frequent in the summer, and in the winter there is little snow and it is cold in certain areas. Local material resources are limited in deserts. One feels particularly the shortage of fuel and of water sources: In the deserts of the Near and Middle East there is one well with an output of from three to 20 cubic meters of water on the average per 100 to 300 square kilometers.

When combat actions are conducted in desert areas, it is necessary to take into account the possiblity of the formation during nuclear ground and low air bursts of more extensive zones of radioactive contamination of the terrain than under ordinary conditions, the difficult mobility in sand dunes, salt marshes, and separate sectors of stony deserts, the complexity of providing troops with water, fuel, and building materials, the lack of natural shelters and the difficulty in orientation and camouflaging of troops, the scarcity of local resources, and the harmful effect of loose sand, polluted soil, and dusty air on the mechanical systems of armament and combat equipment and of the unfavorable climatic conditions on personnel.

Offensive operations on desert terrain are conducted primarily to take separate economic areas and centers situated, as a rule, in places well supplied with water.

The depth of offensive operations in desert areas depends on the distance to the main operationally or strategically important enemy objectives which it is the aim of the operation to take, and, as a rule, it

will be greater than under ordinary conditions. It may not uncommonly be as high as 800 to 1,000 kilometers. The width of the offensive zone may be as great as 500 to 700 kilometers and more at times. The rates of advance may also be higher than under ordinary conditions, averaging 80 kilometers per day.

The offensive of the troops is generally made on separate accessible axes. The selection of the axes of the thrusts of the front and the allocation of the necessary forces and means for each of them are determined by the concept of the operation and the tasks of the front, the makeup of the grouping and nature of actions of the enemy, the conditions for maneuvering, and also by the possibilities of providing water. The troop groupings as made up must have operational independence, and separate large units may even perform tasks having operational importance and operate to a great depth.

Nuclear weapons are employed in desert areas to destroy the nuclear attack means of the enemy and to hit the main groupings of his troops and reserves as well as the most important rear services installations. It is here necessary to consider the nature of the soil in the burst area, the condition of the weather, and especially the direction and force of the wind so that the formation of heavy radioactive contamination does not restrict the combat actions of our own advancing troops and radioactive substances do not contaminate water sources.

When special weapons are employed, it should be kept in mind that the effectiveness of some special substances is reduced in deserts in the daytime.

Tank large units are employed, as a rule, for sudden crushing attacks on the flanks as well as for getting to the deep rear of the main enemy grouping and quickly seizing objectives of operational importance.

Aviation in an offensive in deserts with the use of conventional means, besides performing tasks characteristic of the Western Theater, may be called on to deliver strikes on accumulations of troops in the areas of oases and water sources, to destroy enemy oil pipelines, and also to supply our own troops with fuel, water, and other means and to evacuate the sick and wounded. In a number of cases, air large units may in part be placed in operational subordination to the commanders of armies and corps operating on axes far away from one another.

The main air defense efforts are concentrated on covering the attack groupings of front troops, supply bases, main road junctions, and water sources and water supply points. Air defense is organized, as in mountain conditions, by axes of troop actions. Special attention is paid to combating low-altitude air targets.

Airborne landing forces are used in desert areas to seize and destroy nuclear attack means in difficult areas, to assist troops in defeating the most important grouping of the enemy, and to seize the road junctions, airfields, important depots, oil pipelines, and separate oases and water sources in his rear.

Reconnaissance concentrates the main efforts on axes of the actions of the attack groupings of front troops. Of great importance in desert areas are such reconnaissance targets as water sources, airfields, pipelines, and depots with reserves of fuel and materiel. The most effective form of reconnaissance for conditions of the conduct of an offensive in the desert is aerial reconnaissance. It is capable of surveying in a short time extensive sectors of terrain difficult for ground reconnaissance means to reach on the exposed flanks and gaps between the individual groupings of front troops.

Additional tasks of the engineer troops are reconnaissance of water sources, preparation and maintenance of water supply points, restoration and new construction of roads, laying of cross-country tracks on difficult sectors of the terrain and erection of markers on them, and camouflage of missile sites, control posts, and other important installations. During actions in deserts, formations and large units generally need reinforcement with field water supply units and with means for the delivery, purification, and storage of water.

The composition and equipment level of the water supply units and subunits must ensure satisfaction of the troops' water requirements, which are expressed in the following table.

Table 6

Large units units, and formations	Water requirements per day (in cubic meters)			
			For decontamination	
	For domestic needs and drinking	For technical needs -- washing vehicles (10% of equipment)	After initial nuclear strike (50% of troops)	During operation (30% of troops)
Motorized rifle division	130	20	320	190
Tank division	105	20	270	160
Army large units and units	200	50	650	400
Combined-arms army (made up of four to five divisions)	640-770	150	3200	1400

The daily capabilities of troops to obtain and purify water with organic means are as follows:

Table 7

Units, large units, and formations	Number of organic water supply means			Total output in cubic meters
	MTK	MAFS-3	PBU-50	
Motorized rifle, tank division	4	5	1	492
Army large units and units	12	7	2	660
Combined-arms army (made up of four to five divisions)	32	32	7	2500-2800

The data cited show that the field water supply means available among the troops make it possible to provide for all their needs, but on the condition that the water requirement is uniform throughout the day.

The main method of conducting an offensive operation and defeating enemy groupings in desert areas is the delivery of splitting attacks in conjunction with actions of groupings of troops, particularly tank troops, on the flanks and rear of the enemy.

At the same time, when carrying out a flanking or enveloping maneuver, it is necessary to provide for measures to cover the exposed flanks and rear of one's own troops against possible enemy attacks.

When an operation is conducted with the use of nuclear weapons, the defeat of separate enemy groupings can be done as under ordinary conditions, through a massed nuclear strike, or through a strike of nuclear and special weapons and a troop attack.

The buildup of efforts on decisive axes is done above all through the maneuver of nuclear means and aviation as well as through commitment of the second echelons and reserves of the armies and front to the engagement; in this case, commitment of the second echelon of the front can be done on one or several axes, depending on the situation.

Special characteristics of the organization of rear services support of troops during the conduct of an offensive operation in desert areas are the necessity of positioning and relocating rear services large units, units, and facilities along the offensive axes of the attack groupings of front troops; the performance of special operations to shelter and camouflage reserves of materiel and organize the delivery of materiel over great distances; strict rationing of the consumption of water and fuel; the allocation of additional forces and means for the air and ground defense of depots, transport vehicles, and water sources; and provision of combat and transport vehicles with additional containers for fuel and water. In doing all this, one must consider the limited opportunities for exploiting local resources.

Northern areas are characterized by poor development of transportation routes, which hinders the maneuver of troops and lowers their rates of advance, by a shortage of local resources and great dependence on the delivery of materiel from the central areas of the country, by complex soil and water conditions (rocky ground, permafrost, and -- in summer -- swamps) that hinder engineer preparation of the terrain and the erection of engineer structures, by severe climate conditions, by the limitation of the airfield network and the difficulty of expanding it, by the uninhabited nature of the territory, by the near total lack of fuel in a number of northern areas, and by the complex transportation conditions. All of this makes it necessary to adequately provide troops beforehand with combat equipment, transport, clothing, and other types of gear that enable them to successfully conduct combat actions in northern areas. Besides this, it is necessary to consider the particular characteristics of the polar day and polar night, the proximity of the magnetic pole, and the frequent ionospheric magnetic storms that interfere with the operation of radiotechnical means and disturb the accuracy of magnetic compasses.

The most suitable periods for conducting offensive operations are August-September (normal rotation of day and night, more stable weather), the beginning of winter (moderate depth of snow cover), and February-April (normal rotation of day and night, safe freeze-over of rivers, lakes, and swamps, and hard snow crust).

The depth of a front offensive operation in northern areas is approximately the same as under ordinary conditions. However, the offensive zone will, as a rule, be wider and reach 500 to 800 kilometers, while the rates of advance will most often be lower -- 30 to 40 kilometers per day on the average. Consequently, the duration of the operation will also be greater -- between 20 and 25 days.

In making the decision for an offensive operation, one must very carefully approach the determination of the number and axes of thrusts of the front. In northern areas there are no high mountains, but there is a large number of lakes, swamps, and forests there, which are a serious impediment for advancing troops, particularly in the summer. Therefore, the main thrust of the front is usually delivered on the most accessible terrain, and the other thrusts can be made over difficult areas if there is a possibility of exploiting them to get to the flank and rear of the main enemy grouping.

The operational disposition of the front will, as a rule, have one echelon with the availability of stronger various-purpose reserves than under ordinary conditions and the possibility of the reserves being deployed and used on several axes.

Nuclear weapons are employed in northern areas to destroy the means of mass destruction, groupings of troops, and aviation of the enemy, above all on the axis of the main thrust, and also control posts and important operational targets; this can lead to more serious consequences for the enemy than under ordinary conditions, since restoration of destroyed installations, delivery of materiel, and elimination of the aftereffects of nuclear strikes will be significantly impeded in these areas.

The grouping of rocket troops and artillery, just as in mountain conditions, is established in such a way as to ensure complete independence of the large units and formations operating on separated axes. Hence, the front missile brigade can, in certain cases, be employed by battalion.

The volume of tasks of front aviation during an offensive in northern areas will be greater by comparison with ordinary conditions in view of the front actions in a wide offensive zone and the limitations in maneuvering rocket troops and artillery.

Air defense in northern areas is carried out according to the axes of troop actions. The main air defense efforts are concentrated on covering the main grouping of front troops operating on the most accessible terrain

and covering road junctions, airfields, and control posts. Special attention is paid to maintaining continuous technical readiness of the armament, combat equipment, and transport of the air defense forces and means.

Military transport aviation and helicopters should be enlisted widely for landing tactical airborne forces and airlifting troops and materiel. In order to bring the basing of aviation closer to the troops, it is necessary to organize the capture of existing enemy airfields, the construction of new forward airfields with metal surfaces, and -- under winter conditions -- the accelerated preparation of airfields and landing sites on frozen lakes and rivers.

Airborne and -- on coastal axes -- amphibious landing forces can be set down in northern areas to destroy means of mass destruction and capture airfields, ports, road junctions, passages between lakes, hydraulic engineering structures, and other objectives.

Reconnaissance in an offensive operation in northern areas, along with discovering the combat strength, condition, and grouping of the enemy, determines peculiarities in the organization, technical equipping, and preparation of enemy troops and in the nature of the defense and its engineer preparation (in winter, the use of snow/ice obstacles and shelters and the placement of nuclear land mines and mines in the snow) and ascertains the peculiarities of the terrain, road network, rivers, and lakes, the thickness of the ice on bodies of water, the depth of the snow cover, and -- in summer -- the extent of passability of swamps.

The defeat of the main enemy forces is achieved through the delivery of attacks along the roads and passages between lakes, with flanking of the groupings of enemy troops across difficult areas of the terrain and the landing of airborne and -- on a coastal axis -- amphibious forces on the flank and in the rear of the enemy. Under summer conditions, maneuvering can be done by water with the use of transport and landing means. Assuming primary importance for defeating the enemy in northern areas is the taking of economically important areas and populated places, airfields, passages between lakes, road junctions, and transportation routes.

Negotiation of the enemy defense on the main axes of the offensive may entail the necessity of successively destroying and capturing a system of strongpoints and centers of resistance echeloned to a great depth in a narrow zone.

Neutralization of such a defense will require the delivery of a simultaneous powerful nuclear strike and a strike with conventional means of aviation and artillery against the most important targets and firing installations and means of nuclear attack of the enemy as well as the successive delivery of strikes against individual targets in the depth as the advancing troops approach them.

The buildup of troop efforts is done above all through the maneuver of nuclear means and aviation as well as through the commitment of large units of the front reserve to the engagement. If these large units are committed on axes having limited capacity, then they must draw up their battle formations in several echelons and be committed by leapfrogging the battle formations of the first-echelon troops.

In northern areas, especially in the wintertime, troops must be supplied insulated clothing, special gear and rations, winter-grade fuel and lubricants, insulated tents, heating fuel, and other special means. To deliver them during an operation, extensive use is made of military transport aviation, helicopters, animal sleds, and sea and river transport.

CHAPTER 6

POLITICAL WORK IN A FRONT OFFENSIVE OPERATION

1. Importance and tasks of political work in a front offensive operation

The Communist Party has always seen in political work in the army and fleet a powerful means ensuring undivided day-to-day party guidance of the Soviet Armed Forces.

Political work plays this role also in a front offensive operation. It is the most important component of the activity of military councils, commanders, political organs, and party organizations both during the preparation of troops for an operation and during its conduct.

V. I. LENIN attached much importance to party political work. The great leader of our party and state noted that "...where political work is carried on most carefully among the troops ... there is no laxity in the army, its order and spirit is better, and there are more victories."* V. I. LENIN said "... our victories on the Don became possible thanks only to the strengthening of party and cultural educational activity in the ranks of the Red Army. This brought about a psychological transformation, and, as a result, our Red Army won the Don for us."**

Political work was one of the decisive sources of our victories in the years of civil war. M. V. FRUNZE wrote that in it our army had acquired a new weapon which very greatly strengthened and increased its combat might.

It was also one of the decisive factors in our universally historical victory over fascism in the years of the Great Patriotic War. Every operation conducted in those years was prepared not only from an operational and materiel-technical standpoint but also along the lines of party organizational and ideological activity of the military councils, commanders, political organs, and party organizations.

---

* V. I. Lenin, Complete Collected Works, vol. 39, page 56.
** V. I. Lenin, Complete Collected Works, vol. 38, pages 35-36.

Under modern conditions party political work has assumed still more importance. Therefore the Communist Party of the Soviet Union and its Central Committee constantly pay enormous attention to this work in the Armed Forces of the USSR. The fundamental principles and requirements of the party on matters of party political work have found reflection in the Program of the CPSU, in the decisions of party congresses and plenums of the Central Committee, in the special resolutions of the Central Committee of the CPSU, and in the everyday activity of the Politburo. "Party political work with the personnel," said L. I. BREZHNEV, "and their ideological tempering have always been and continue to be a powerful weapon of our army. The strength of this weapon has been tried in the fire of engagements. It now too deters our enemies."*

The main tasks of political work in the operations of a modern war, including front offensive operations, stem from the decisions of the Communist Party and the Soviet Government and from the manuals and regulations of the Armed Forces of the USSR. They are made concrete and more specific in the orders and directives of the Supreme High Command and the directives of the Minister of Defense and the Chief of the Main Political Directorate of the Soviet Army and Navy and of the command and political directorate of the front, with due regard for the concrete military-political situation and the combat tasks to be accomplished.

The cornerstone of political work in the offensive operation of a front is the firm and consistent putting into practice of the policy of the Communist Party and the Soviet Government among the troops. Commanders, political organs, and party organizations explain to servicemen the policy of the Communist Party and the socialist state in the situation that has developed, the international and internal position of the USSR, and the causes, nature, and political objectives of the war, and they expose the reactionary and aggressive policy of the imperialist states and their military blocs and cultivate in the men a burning hatred towards the enemy.

Political work in a front offensive operation is directed towards achieving complete and timely performance of the combat tasks assigned to the troops, towards increasing the personal responsibility of generals and officers for the fulfilment of combat tasks, towards ensuring precise and continuous control of the troops, and towards strengthening sole command and developing high political and leadership qualities among officer personnel. Commanders, political organs, and party organizations cultivate in the men the psychological, combat, and political morale qualities necessary for victory, loyalty to the military oath, and readiness to

---

* The CPSU on the Armed Forces of the Soviet Union (Moscow: Voyenizdat, 1969), page 414.

promptly fulfil a combat order; they strengthen military discipline, maintain the constant high-level combat readiness of formations, large units, and units, and explain to personnel on time and in depth the orders of the Supreme High Command and the assigned combat tasks as well as the procedures and methods of performing them.

An important task of political work is the education of personnel in the spirit of communist consciousness and ideological conviction. Commanders, political organs, and party organizations educate the men in the spirit of socialist patriotism and proletarian internationalism and of combat cooperation with the armies of the fraternal socialist countries; make extensive use of the revolutionary, labor, and combat traditions of the Soviet people, the Communist Party, the Armed Forces of the USSR, and their own units and large units in the work of education; and popularize the feats of men in combat and the large units, units, and subunits distinguished in battle.

Indispensible tasks of political work in connection with the equipping of troops with new weapons and combat equipment are mobilizing the men to master the combat equipment and weapons and use them skilfully and effectively and to maintain them in constant combat readiness as well as fostering in personnel a confidence in the power and might of their weapons and equipment.

The efforts of commanders and political organs are concentrated also on giving assistance to the commanders, political organs, and organizations of the rear in support of uninterrupted supply of the troops with everything necessary for daily living and combat actions.

It is the task of commanders and political organs to maintain constant contact with commanders and political organs in cooperating formations and large units, including with the troops of allied armies, and to coordinate and carry out joint measures to ensure the fulfilment of combat tasks and the exchange of combat experience and experience in political work.

It is a constant task of political work in a front offensive operation to study, generalize, and disseminate advanced combat experience and experience in party political work, to organize continuous political information from lower levels upwards and from higher levels downwards, and to provide large units and units with newspapers, magazines, leaflets, and instructional booklets, as well as material and technical means for carrying on party political work.

With the start of an operation commanders, political organs, and staffs expand ideological and psychological pressure against the troops and population of the enemy.

The tasks of political work in a front offensive operation may change and be added to, depending on the situation; but in any situation it is necessary to constantly keep all personnel under direct political stimulation and ensure high morale of the men and their constant readiness and ability to perform the combat tasks assigned them.

2. Party political work during preparation of an offensive operation

Party political work during the preparation of a front offensive operation begins the moment the directive of the Supreme High Command and the instructions of the Main Political Directorate are received. The basis for its evolution is the front commander's decision for the operation. The military council and the political directorate of the front have the responsibility for organizing and carrying out party political work.

The military council is a collective organ. It has the right to review and decide all the most important matters of daily living and activity of the troops, including matters of party political work, and it is responsible for their fulfilment to the Central Committee of the CPSU, the government, the Supreme High Command, and the Minister of Defense of the USSR. The decisions of the military council are binding on all its members, and they are put into practice through the orders and directives of the front commander.

The political directorate of the front is the immediate organizer of party political work among the troops. It takes part in the preparation of data for the front commander to make the decision; in particular, it prepares materials on the political morale of our own troops and about the enemy troops and population in the zone of the impending offensive, on the strength level of the political organs and party political apparatus, on the party and Komsomol element, and on the readiness of the material and technical base for carrying on party political work during the preparation and course of the operation.

The political directorate of the front determines the system for controlling the political organs during the preparation and course of the

operation and assigns them concrete tasks, does the allocation of political directorate forces and means among control posts, puts together operations and agitprop groups and sends them to the troops, makes out the drafts of a number of military council guidance documents on matters of party political work, and organizes accurate and continuous political information. One of the most important functions of its activity is the planning of party political work, for precise planning gives organization, purposefulness, and specific direction to the work of the political directorate, political organs, and party organizations of the front.

The political directorate works out, in accordance with the front commander's decision for the offensive operation and the instructions of the Main Political Directorate of the Soviet Army and Navy, a plan of party political work. In this plan, for the period of preparation of the operation, provisions are made for the preparation of drafts of different documents of the military council of the front (directives, exhortations, instructions) and proposals for discussion at the military council session, for the conduct of meetings, seminars, and activities with various categories of party political workers, for measures to give assistance to commanders, political organs, and party organizations in the work of preparing the operation and to set up extensive mass political and cultural education work, as well as for measures to bring up to strength, allocate, and indoctrinate political worker cadres in accordance with mobilization plans.

Concrete measures are likewise planned to give assistance to the party organizations of staffs and of special and rear services units and facilities in the accomplishment of tasks bound up with the preparation and support of the operation. Provisions are made for study and generalization of advanced experience in party political work on various concrete matters; and measures are outlined to establish and maintain constant contact with the political organs of cooperating formations and large units, including with the political organs of the large units of armies of socialist countries taking part in the operation and with local party and Soviet organizations, and so are other matters.

The main measures of party political work during the operation are reflected in a separate section of the plan of the front political directorate.

Besides a general plan, the front political directorate prepares a special plan of political work among the enemy troops and population, which, along with measures to undermine the morale of the enemy, neutralize

his will to resist, and make him inclined to surrender and get out of the war, includes points regulating the procedure for delivering and disseminating agitprop materials among enemy troops and population.

One of the important and critical avenues of the activity of the military council and political directorate during the preparation of a front offensive operation is to ensure the bringing of troops into combat readiness. In this connection, the political directorate of the front and commanders, political organs, and party organizations carry out concrete party political measures to train enlisted men, NCO's, and officers in a spirit of the necessity for high-level combat readiness under conditions of nuclear warfare. They mobilize the creative activity and inventiveness of the men to shorten the times required for bringing troops to fullest combat readiness, including to notify them on combat alert, quickly load and remove reserves of materiel from permanent garrison points, and to exceed norms in removing combat equipment from storage, starting it up and moving it out, performing routine servicing, etc. Much attention is paid to party political work with the personnel of units and subunits performing combat-alert duty.

In case the mobilization of large units and units is done during the preparation of an offensive operation, the political directorate of the front and the commanders and political organs of formations and large units, in conjunction with the military commissariats, decide the questions of bringing them up to strength with personnel, motor transport, and combat and special equipment, as well as with materiel-technical means coming in from the national economy, and they give assistance to the commanders, political organs, and party political apparatus of the expanding large units and units in the conversion to wartime organization and T/O&E, in the political morale and psychological preparation of personnel for the offensive, and in the combat integration of the mobilized large units and units.

The success of a front offensive operation will largely depend on the extent to which the officer personnel are prepared for it. Our officer cadres are the representatives of the Communist Party and the Soviet Government in the army and the fleet and the bearers of the policy and ideology of the CPSU among the troops. Officer cadres are charged with complete responsibility for the combat effectiveness and combat readiness of the troops and for the organization and successful conduct of combat actions. The country has entrusted to them the fate of hundreds of thousands of subordinates and, to a considerable extent, her own fate.

TS #798245
Copy #____

Soviet officers have high political morale and professional qualities. Nevertheless, during the preparation of an operation it will be necessary to carry on additional work with them connected with the accomplishment of concrete combat tasks, the more so as there will have been called into the army a large detachment of reserve officers part of whom need improvement of knowledge and experience in the control of combat actions in modern operations.

The content of work with officers includes such matters as familiarizing them with the political and military-strategic situation in the country and in their theater of military operations; studying the decisions of the Central Committee of the CPSU and the Soviet Government, the orders and directives of the higher command, and the tasks assigned the troops; studying new questions of military theory and practice directly connected with the impending offensive operation; studying the military, political, and economic state and fighting morale of the enemy; discussing questions connected with increasing the vigilance and combat readiness of formations and large units; and examining the content, forms, and methods of party political work during the preparation and course of an operation; as well as improving the work methods of officer cadres in a combat situation.

Political directorate workers, going out to the troops, give assistance to commanders and political organs of large units and units in the training and instruction of officer personnel, paying special attention to the command personnel at intermediate and lower levels -- the commanders of battalions, companies, platoons, and equivalent subunits -- since this category of command personnel is the youngest and least prepared as organizers and leaders of battle and does not always have the necessary experience in conducting party political and political indoctrination work.

An object of special concern of the political directorate of a front during the preparation of an operation is work with the cadres of political workers to increase their military, technical, and political knowledge and to examine in greater detail the problems of theory and practice of party political work during the preparation and conduct of an operation. To this end, it conducts meetings, assemblies, and seminars with the chiefs of political organs, party organization workers, editors of army and division newspapers, propaganda officers, the assistant chiefs of political organs for Komsomol work, and other workers. The number of assemblies, their duration, and the methods and place of conducting them will depend on the total time available for preparing the operation, the complexity of the situation, and other conditions.

Occupying an important place in the great array of party political work during the preparation of an offensive operation is the proper distribution of Communists so that there is continuous party influence at all levels, above all among the first-echelon troops and on the main axis of the offensive. It is necessary to see that every company and every platoon has organizationally strong, full-blooded, constantly active, and energetically working party organizations, that Communists are in all platoons, sections, and crews and have constant influence on the nonparty men. It is necessary to determine the specific mission for each Communists and make clear the methods for carrying it out, to carefully instruct the party activists and provide them with the necessary reference materials, and to prepare and conduct party meetings to discuss the tasks of Communists in the impending offensive operation.

Special attention is devoted to the party organizations of staffs and directorates, since the command personnel of the large units and formations of the front are concentrated in them. Party work in these organizations is advisably directed towards an increase among the Communists of the sense of personal responsibility for operational control of subordinate troops, towards the attentive study and knowledge of the operational situation by Communists, towards timely development and conveyance of directives, combat orders, and instructions to executors and organization of constant monitoring of their fulfilment, towards timely and exhaustive information of higher organs, troops, and adjacent forces about the situation, towards organization of cooperation between departments and directorates within the staff and between staffs and the apparatus of the chiefs of branch arms and services, and towards ensuring exemplary order and reliable security at control posts and communications centers. Of great importance in the work of the party organizations of staffs and directorates is the inculcation in the Communists of such qualities as a high sense of duty in the performance of their party and service functional responsibilities, vigilance, the ability to accurately and quickly analyze a situation and draw the proper conclusions from it, daring and initiative, and honesty and truthfulness.

A serious task is work with the party activists. The party activists are a great force among the troops. They form public opinion and mobilize the Communists, Komsomol members, and all Soviet fighting men to successfully fulfil their assigned tasks. Therefore, during the preparation of an operation, political organs must pay much attention to working with the party activists. The main forms of working with them are holding meetings with party activists, conducting assemblies, seminars, training sessions, lectures, and reports on concrete problems connected with the impending operation, and systematically informing them of the

instructions of the higher party organs.

During the preparation of an offensive operation, political organs and party organizations devote serious attention to working with Komsomol organizations and to mobilizing Komsomol members and all the young for exemplary performance of the impending combat tasks. To these ends, they exercise day-to-day party control of the Komsomol organizations, support and develop their initiative in every way, foster in the members of the Communist Youth League and all the young a spirit of selfless devotion to the Soviet homeland and hatred towards its enemies, ensure that every Komsomol member takes a progressive role in performing the combat task, and show concern for strengthening the party nucleus in Komsomol organizations, selecting Komsomol cadres, and passing on to them experience in political and organization work under combat conditions.

One of the most important avenues of party political work during the preparation of an offensive operation is the political morale, psychological, and military technical preparation of all personnel for the offensive. In organizing this work, one should go by the famous instructions of V. I. LENIN that "in every war, victory, in the final analysis, is determined by the condition of spirit of those masses that shed their blood on the battlefield. Conviction of the justice of a war and consciousness of the need to sacrifice their life for the good of their brothers raises the spirit of the soldiers and makes them bear unprecedented burdens... This awareness by the masses of the objectives and causes of the war has enormous importance and ensures victory."*

The historical experience of our party teaches that any practical task can be accomplished only when it is grasped by the masses, when the masses are aroused and inspired to perform it. Therefore, people and work with them have always been at the center of attention of the party, and it is this which has brought it success in the accomplishment of great historical tasks.

The decisive role in achieving the objective of an offensive operation will belong to the personnel. It will require of each man such qualities as high Communist conscientiousness, conviction of the righteousness of the cause which he serves, a strongly developed sense of responsibility for the performance of his military duty, discipline, organization, and high qualities of will.

---

* V. I. Lenin, Complete Collected Works, vol. 41, page 121.

The political morale and will qualities of Soviet people are formed by the whole socialist structure of our life, the whole course of affairs in society, but above all by the purposeful, assiduous ideological indoctrination work of the party and all its organizations. These qualities are formed and developed in servicemen throughout the entire period of their service. During the preparation of an operation, this work is intensified and closely tied in with the impending operation, with mobilization of the enlisted men, NCO's, and officers for precise and timely fulfilment of the tasks assigned the troops, and with preparation of the minds of the servicemen for actions under conditions of the use of nuclear weapons and other modern means of destruction by the enemy and our troops.

The forms and methods of political morale preparation of the men in this period follow from the conditions of the prewar situation. Thus, for instance, the subject matter of the Marxist-Leninist training of officer personnel and of the political training sessions with the enlisted men and NCO's will be adapted to the international and internal situation that has developed and to the nature of impending combat tasks. Political training sessions, possibly, will be replaced by a political hour; more attention will be devoted to group and individual talks, political reports, reading of newspapers and leaflets, and study of instructional booklets. Great efficiency is required of the political directorate of the front in the preparation, publication, and dissemination of propaganda materials.

Having particularly great effect on the mentality and psychology of the personnel will be the personal example of commanders, political workers, Communists, and Komsomol members and their attitude towards the performance of their military duty and service responsibilities.

During the preparation of an operation, troops must perfect their combat proficiency and improve teamwork in the actions of subunits, units, and large units. In this connection, it is important that training activities, particularly field ones, take place in a situation maximally approaching combat reality, with live firing, flights of combat aircraft directly over the troops, bombing strikes in front of advancing troops, negotiation of water obstacles on the bottom by tank personnel, throwing of live hand grenades, jumps into the water with full equipment, negotiation of minefields and zones of obstacles and contamination, with simulation of nuclear bursts, fires, and other phenomena characteristic of modern battle. All of this will promote the formation in personnel of a psychological state to some extent similar to that which may come about in a future operation.

The strength of fighting men in an offensive is determined by the level of their military knowledge, ability, and practical skills -- that is, by military proficiency. M. V. FRUNZE used to point out that another thing that determined the troop spirit of the Red Army was the level of its combat training; for, even with a good political attitude, with a readiness to go into battle and give up our lives, we may prove incapable of gaining victory if we have poor training. He emphasized that to train a member of the Red Army means to simultaneously stress both the political and military technical aspects. During the immediate preparation of troops for an operation, study of weapons and combat equipment is increased for skilful and smooth use of them under the conditions of a combat situation. Particularly great importance is attached to the study of weapons and equipment by personnel coming in from the reserve.

Party political work is carried on with due regard for the tasks to be accomplished by the branch arms in the operation and for the special characteristics of the conduct of combat actions. The political organs, in conjunction with the technical services, publish various instructional booklets for the personnel and organize extensive study of them; they carry out measures to improve the qualifications of specialists using and servicing weapons and combat equipment and publicly acclaim the men outstanding in military technical training.

Successful conduct of an offensive operation, as we know, can be achieved only through the joint efforts of all branches of the Armed Forces and branch arms. Coordinated actions of the troops participating in the operation will be ensured by careful organization of cooperation, which is to be carried out on the basis of the decision of the commander and the operation plan. Consequently, political support of the cooperation of forces and means is one of the most important areas of party political work.

The substance of this work involves ensuring that all the men know exactly the specific combat tasks of the cooperating branch arms, large units, units, and subunits and the methods of performing them. It is necessary to see that servicemen firmly master the established signals and be trained in implementing them and that they know how to effectively exploit the results of our nuclear strikes and to observe safety in using their nuclear weapons. It is desirable that commanders and political workers and, where possible, enlisted men and NCO's of directly cooperating troops be personally acquainted and establish and maintain the necessary contacts with one another. It is also necessary to carry out certain work with the Communists of staff and headquarters party organizations, on whom

the precise and continuous control of troops and the organization and maintenance of their cooperation largely depend.

In order to organize cooperation in the work of political organs, meetings and seminars of the chiefs of political organs and political workers of supporting and attached units are conducted, at which joint measures are coordinated and the exchange of letters of exhortation is organized.

The result of such great organizational and ideological work of the military councils, commanders, political organs, and party and Komsomol organizations carried out in the preparation period is to bring about high political enthusiasm among all categories of personnel and to increase their readiness to successfully perform assigned combat tasks.

3. Party political work during an offensive operation

During an offensive operation with the use of nuclear weapons, party political work is directed towards ensuring coordinated use of nuclear weapons to inflict decisive damage on the enemy, rapid actions of tank and motorized rifle divisions in cooperation with aviation and airborne landing forces to complete the defeat of the remaining enemy forces and seize the most important areas of territory in short periods of time, and quick restoration of the combat effectiveness of troops subjected to enemy nuclear strikes.

During the conduct of an operation with the use of only conventional means of destruction, party political work is directed towards mobilization of the enlisted men, NCO's, and officers for the most effective and coordinated use of conventional means of destruction and for successive defeat of the enemy groupings in the border engagement and during the development of the offensive, towards the timely conduct of measures to increase survivability and preserve combat effectiveness of the troops, and towards maintaining their constant readiness for actions with the use of nuclear weapons.

The efforts of the front political directorate are concentrated on giving assistance to the supervisory and command personnel, political organs, and party organizations of the covering units, of the tank and motorized rifle large units advancing in the first echelon, particularly on the axis of the main thrust, and of the missile, artillery, aviation,

airborne landing, and airborne assault large units and units and air defense troops participating in the operation.

In this connection, the main body of workers of the front political directorate regularly go out to the formations and large units to give them assistance there, while part of them, remaining in the political directorate, analyze the information coming in from the troops, send additional orders and instructions to the political organs, and prepare political information for the Chief Political Directorate of the Soviet Army and Navy and the front commander.

One of the important demands on party political work during an operation is ensuring its continuity, efficiency, concreteness, purposefulness, and aggressiveness. Party political work is a factor that is constantly operating; it cannot cease in any situation whatever. The more complex, intense, and dangerous the situation, the stronger the political influence on the masses of fighting men must be.

Fulfilment of these demands is achieved through the timely assignment or refinement by commanders (chiefs) and higher political organs of the tasks of political work in connection with changes in the situation during the operation, through proper determination of party political work forms and methods most in keeping with the developing situation, through the continuous organizing and political indoctrination activity of commanders (chiefs), political organs, and party and Komsomol organizations directly in subunits among the masses of servicemen, through energetic political influence on every fighting man, through constant and thorough knowledge by the political organs and party political apparatus of the combat situation, the decisions made, and the combat orders and instructions issued to the troops, through the maintenance of constant contact of the political organs (party political apparatus) with staffs and directorates, through the exchange of information between them, through assurance of the leading role of Communists and Komsomol members in battle, and through the personal example of the courage and valor of commanders (chiefs) and political workers. Also of great importance will be organizational measures, in particular, timely rotation of Communists and Komsomol members, replacement of political workers put out of action, strengthening of the party and Komsomol organizations, utmost increasing of their activeness and aggressiveness, and timely, continuous, and reliable political information from below and from above downwards.

During an operation it is necessary to maintain and build up the morale and offensive spirit of the troops. The experience of the Great

Patriotic War showed that the political morale and psychological state which are produced in personnel during the preparation of an operation may prove inadequate for complete victory; therefore it is necessary for political organs and party organizations during the operation not only to maintain but also to build up political morale superiority over the enemy. Employed for this purpose are such forms and methods as commending the men who have distinguished themselves in battle, putting the most deserving of them in for government decorations, publishing large editions of leaflets relating the courageous deeds and high political morale and fighting qualities manifested by men in various specialties and distributing them among the troops, and sending reports about the best fighters for the country to their former places of work. Radio broadcasts, movies, combat leaflets, flash newssheets, talks, and other forms of party political work are used for these same purposes.

Of great importance for maintaining and building up the morale of the troops during an operation is the personal example of commanders, political workers, Communists, and Komsomol members. V. I. LENIN has pointed out that example has enormous power to convince; and conviction, as we know, is the main method of party control of the masses. In the years of the Great Patriotic War, commanders and political workers, Communists and Komsomol members selflessly went to the most dangerous spots, performing the most crucial tasks, and through the personal example of heroic conduct in battle inspired the men.

During an offensive operation being conducted with the use of nuclear weapons it will be a particularly important task of party political work to ensure the elimination of the aftereffects of enemy nuclear strikes and restoration of the combat effectiveness of the troops.

Maintaining the high political morale state of personnel who find themselves in the areas hit will require great efforts on the part of the front and army military councils and of all commanders, political organs, and party organizations. It will be necessary first of all to establish communications with subordinate commanders and political organs; to ascertain, together with the front staff, the degree of combat effectiveness of the formations and large units subjected to strikes and the political morale and psychological state of the enlisted men, NCO's, and officers; to determine the measures to give assistance to personnel in restoring morale and psychological readiness to continue combat actions; and to give the necessary instructions to the troops.

After enemy nuclear strikes, political organs and party organizations may themselves have sustained considerable damage and some of them will have been completely put out of action. Therefore one of the primary tasks of the front political directorate will be to restore the incapacitated political organs and party organizations by replenishing or establishing them anew and to give them assistance in the conduct of party political work for restoring the combat effectiveness of the afflicted troops and preparing them for the offensive.

A very important means of affecting the mentality and psychology of the men, along with personal example, will be an appropriate word in keeping with the developing situation from the commander or a political worker, Communist, or comrade. A word can encourage, pick up their spirits, inspire confidence in their own strength, and reduce the effect of imagination and terrifying fantasy. An important means of restoring the normal nervous and psychological state of the servicemen is also to organize their physical and mental rest. Regardless of all the complexity of the situation in the offensive zone of a front as well as the great volume of work to eliminate the aftereffects of nuclear strikes, it is necessary to manifest constant concern for the feeding and minimum necessary sleep and rest of the men. This can be ensured by replacing exhausted large units and units with fresh ones and seeking out possibilities of shortening the times troops are in centers of destruction and removing them to uncontaminated zones and areas.

In order to get personnel out of a state of elevated nervous and psychological tension, it is advisable to use medical preparations conducive to the prevention of high levels of psychological tension and the increase of nervous and psychological stability of the men in a combat situation.

High-maneuver and rapid actions of troops during an offensive operation will largely depend on their ability to negotiate zones of destruction and contamination and operate in these zones. It will be the task of all political organs and party organizations to bring home to all personnel the great importance rapid negotiation of areas of contamination and destruction has for the success of the operation. At the same time it is necessary to give the troops assistance with technical means to increase their capabilities to negotiate contamination and destruction.

The successful development of an offensive operation is in direct relation also to the ability and training of troops in negotiating water obstacles during the offensive. When an offensive is conducted with the

assault crossing of water obstacles, it will be necessary to mobilize the personnel for careful preparation of this assault crossing, to intensify party political work, and to strengthen party and Komsomol organizations, especially in forward detachments, in airborne landing troops, and in the units and subunits of amphibious crossing means, of the provost and traffic control service, and of the movement control service on routes and at crossings. The substance of party political work in these troops must be directed towards mobilizing the personnel for the rapid capture of existing bridges and crossings and making a swift assault crossing of the water obstacle from the march and a nonstop offensive on its opposite bank.

In rear services units, large units, and facilities, the efforts of party political work during an operation are directed towards mobilizing the personnel for successful performance of the assigned tasks of rear services support of the troops, especially of those accomplishing the main tasks, for the achievement of organization, high discipline, and order in the rear, and for irreproachable performance of his functional responsibilities by every serviceman of the rear services. The requirement of an individual approach to the servicemen in rear services units and facilities assumes particularly great importance since in them, unlike among any of the other troops, there are many men having the most varied military specialties.

During an offensive, political work must be done among the troops and population of the enemy and this is a most important component of ideological work. The main task of ideological warfare with the enemy under combat conditions consists in undermining the morale of his troops, breaking their will to resist, and persuading them to get out of the war. The main avenues of special propaganda are defined in special regulations put into effect by order of the Minister of Defense of the USSR.

The most effective forms of ideological pressure on the enemy are printed, radio, oral, and visual propaganda. To effect this pressure, the troops have the appropriate technical means of special propaganda.

The most important conditions for the effectiveness of special propaganda are high principle and vigor, inclusion of the greatest possible part of the armed forces personnel and population of the enemy -- and also of his territory -- in the areas of combat actions, maximum intelligibility, and a differentiated approach to the enemy.

Well-organized party political work in the offensive operation of a front is a necessary condition for the successful fulfilment of tasks and the achievement of its objective. It is the most important component of all the activity of formation commanders, military councils, unit commanders (chiefs), political organs, and party and Komsomol organizations to control troops during both the preparation and the course of an offensive operation. Party political work must be carried on continuously, flexibly, purposefully, and concretely, with skill and in full keeping with the tasks to be accomplished by the troops, forces, and means of the front and with the conditions of the situation.

CHAPTER 7

REAR SERVICES SUPPORT OF TROOPS IN A FRONT OFFENSIVE OPERATION

1. Organization of rear services support

Rear services support of the troops in an operation is organized and carried out under the direction of the deputy commander for the rear/chief of rear services of the front in accordance with the decision and instructions of the front commander and the directives of the General Staff. It includes the array of measures for materiel, transport, technical, medical, airfield engineer, airfield technical, and other types of support of the troops.

Rear services support is done by the forces and means of the tactical, army, and front rear services. The front rear services are the main link in the system of rear services support of the troops in a theater of military operations. They have at their disposal powerful forces and means in all services and are capable for a long time of independently providing troops with everything necessary for daily living and battle.

The front rear services are charged with the following tasks: provision of troops with all types of materiel; timely establishment and maintenance of the prescribed reserves and continuous delivery of them to the armies and large units and units subordinate to the front; preparation and support of the steady operation of transportation routes and transport, with the organization of road traffic control service on front military motor roads; collection, recovery, and repair of damaged combat equipment and armament; giving of medical assistance and treatment of the sick and wounded; conduct of antiepidemic and sanitary-hygienic measures in the offensive zone of the front; and organization of the protection, defense, and security of rear services installations and maintenance of order in the rear zone of the front. Besides this, the front rear services are charged with the tasks of veterinary and quarantine support and trade services for the troops as well as the exploitation of local resources and captured equipment.

The makeup of the front rear services is not constant, and they may have 250 to 300 independent rear services large units, units, and facilities. Making up the front rear services may be two or three forward

front bases and two rear bases with all types of supply depots and servicing units, two or three front mobile missile technical bases and other units for support of the rocket troops, two or three front surface-to-air missile technical bases, two or three railroad brigades, three or four road traffic control brigades, two or three motor vehicle brigades, two or three pipeline brigades, six to eight forward and three rear front hospital bases, separate medical detachments and other special medical units and facilities, military transportation service facilities, repair and recovery units and facilities of branch arms and services, rear services communications units and facilities, and military trade, state bank, and military postal field organs and rear security large units and units.

Besides these, they may have rear services units and facilities meant for reinforcement of combined-arms, tank, and air armies, in particular separate tank repair battalions, separate motor vehicle repair and rehabilitation battalions, separate road construction and bridgebuilding battalions, separate medical detachments, and others.

This composition of the front rear services makes them highly maneuverable and capable of supporting the combat actions of troops both with and without the use of nuclear weapons. Having mobile rear services large units, units, and facilities, the front rear services can bring these closer to the advancing armies and give them direct assistance in the support of troops and restoration of their combat effectiveness under the most difficult conditions of a situation.

The capabilities of front rear services made up as indicated make it possible to maintain 170,000 to 180,000 tons of materiel reserves (and considerably more, if stationary depots are taken into account), to ensure restoration of two railroad lines at a rate of 25 to 45 kilometers a day, to have three or four military motor roads with a total traffic capacity of 25,000 to 30,000 vehicles per day, to carry 20,000 to 25,000 tons of cargo in one trip of motor transport, to supply 6,000 tons of fuel every day by pipeline to a distance of up to 600 kilometers, to rehabilitate 100 to 120 tanks and over 250 motor vehicles a day through medium repair, and to organize the treatment of over 100,000 sick and wounded. The capabilities of the front rear services to perform loading and unloading operations and carry out measures for protection of the rear services units and facilities have grown considerably.

Effectiveness in the employment of front rear services forces and means depends to a decisive extent on the proper organization of rear

services support of the troops in an operation. This consists in the planning and implementation of an array of measures for the preparation of the rear services, their timely transition from peacetime to wartime status, the organization and maintenance of survivability of the rear services, comprehensive support of the troops, and for continuous firm control of the rear services.

Preparation of the rear services is done with due regard for the tasks of the troops and it provides for a large number of the most varied measures requiring an enormous expenditure of forces, means, and time. Therefore, preparation for the rear services support of troops must be carried out beforehand, while it is still peacetime.

Underlying this preparation must be such requirements in particular as maintenance of the tactical rear services and a certain minimum of army and front rear services units and facilities in constant combat readiness, establishment of materiel reserves in amounts that satisfy the full needs of troops in an operation, dispersal and reliable sheltering of them, preparation of the transportation network and all types of transport for operation under the conditions of a nuclear war, preparation of military hospitals and civilian medical facilities for reception of the sick and wounded in the first days of combat actions, and ensuring of the rapid mobilization expansion of army and front rear services.

The front rear services are deployed and carry out their work in the front's rear zone, which is limited on the right and left by the demarcation lines from adjacent fronts, and in the rear by the rear boundary of the front to be established by the Supreme High Command (General Staff) directive on rear services; frontwards the zone extends to the disposition areas of the mobile army bases.

In the departure position for an offensive, the depth of the rear zone of a front may be as great as 400 to 500 kilometers; and during the operation, 1,000 kilometers or more. This will depend on the composition and operational disposition of front troops, the nature of the theater of military operations, the development of the network of transportation routes, and the times required for restoring them.

Forward front bases in the departure position for an offensive are positioned 80 to 100 kilometers from the border (line of contact of the sides) and in the vicinity of railroads. For the dispersed positioning of a forward front base, an area of up to 150 square kilometers is needed. Should the front have only one forward front base by the start of an

operation, it is advisable to position it in two areas -- the main component for support of troops operating on the axis of the main thrust, and a branch of the forward base for support of the troops advancing on the axis of the other thrust.

Rear front bases are deployed, as a rule, in the depth of the rear zone of the front, 250 to 300 kilometers from the border, along railroad lines. Each such base may occupy an area 80 to 100 kilometers or more in depth and 40 to 50 kilometers across the front. To bring reserves closer to the troops, it is advisable to have branches of the rear front bases in the departure position at a distance of 120 to 150 kilometers from the border (line of contact of the sides).

If by the start of an offensive operation the front has only one rear front base, it is advisable to deploy its main component on the main railroad line and to allocate a branch of the base to another line; in this case, it is advisable to have a second branch of the base in reserve for setting up a temporary transshipment area or for moving up to the foremost section of a restored railroad.

Front mobile missile technical bases are usually deployed by the start of an operation 30 to 40 kilometers from the siting areas of the missile brigades; and separate missile transport battalions, 10 to 15 kilometers from unloading stations, ports, and materiel support airfields. Front surface-to-air missile technical bases are deployed 70 to 100 kilometers from the line of contact of the troops of the opposing sides.

Front motor vehicle brigades and their units are positioned on the main axes of the deployment of front and army bases near the places of work so that they can be most effectively used during the immediate preparation and course of the operation.

The main forces and means of the road troops of the front are concentrated by the start of combat actions on the foremost sections of the front military motor roads in readiness for their buildup during the offensive. Part of the forces and means of the road traffic control brigades are used for the preparation and technical coverage of front military motor roads.

Pipeline brigades set up pipelines from stationary and front fuel depots first of all in the interests of supporting the main grouping of front troops. If there are two or three pipeline brigades in a front, several pipelines can be set up on one or two offensive axes of the troops.

Field main pipelines can, in addition, be used for delivering aviation fuel to the airfields of the air army, for pumping fuel across water obstacles and around destroyed railroad junctions, and in dispersing reserves of fuel from large depots.

It is advisable by the start of an operation to have medical facilities in the following disposition: 50 to 70 kilometers from the front line on the main offensive axes of the troops are deployed a rear front hospital base and its branches, which include also local hospitals located in the immediate areas; one rear front hospital base is set up in the depth of the rear zone of the front so as to provide for the troops of the second echelon and reserves of the front, the air army, front large units and units of rocket troops, special troops, and rear services, as well as the formations and large units of the branches of the armed forces operating in the front zone; forward front hospital bases are moved up into the zones of the first-echelon armies in readiness for deployment during the operation; and separate medical detachments are positioned near the troops of the second echelon and reserves of the front for the eventuality of eliminating the aftereffects of enemy nuclear strikes. Should the front lack rear hospital bases by the start of an operation, forward hospital bases are deployed beforehand.

In all cases, by the start of an operation there must be deployed in the zone of each first-echelon army such a number of medical facilities that they are capable of ensuring reception of the sick and wounded from the troops throughout the first two or three days of combat actions.

Railroad troops and special contingents of the transportation ministries are positioned on the foremost sections of the main railroad lines so as to ensure the timely restoration of roads during the operation. Part of the forces and means are allocated for technical coverage of the most important transportation installations in the railroad network.

Mobile repair and recovery units are moved forward by the start of the operation into the zones of the armies or are attached to them for reinforcement; the rest are positioned, as a rule, in the areas of front bases and their branches.

During preparation of a first operation, the complement of front rear services, especially of front bases, road, railroad, and pipeline brigades, and hospital bases may be very limited. In view of this, the previously established materiel-technical base, motor transport columns coming in from the national economy, local road and transport contingents, and military

hospitals and civilian hospitals placed at the disposal of the front must be used on a wide sacle. The tactical and army rear services will work more intensively.

It is advisable to allocate mobile branches from stationary bases and charge them with the functions of forward front bases and branches of rear front bases. Rail and water transport must be used extensively for delivering materiel, evacuating the wounded, and recovering unserviceable combat equipment.

When the relocation of rear services large units, units, and facilities of the front during the operation is planned, it must be based mainly on the rates of advance of the troops and the conditions of the situation. In principle, the distance of forward front bases from the mobile army bases must not exceed the length of half a day's run of the front motor transport (approximately 150 kilometers). Deployed front hospital bases can receive wounded only as long as the distance from the medical-sanitary battalions (separate medical detachments) does not exceed 120 to 150 kilometers, since evacuating the wounded in motor transport for more than five or six hours is not allowed.

Front mobile missile technical bases are relocated behind the advancing troops in leaps of 150 to 200 kilometers, and separate missile transport battalions relocate as railroads are restored or new materiel support airfields are prepared. Front surface-to-air missile technical bases are relocated, with due regard for the rate of advance of the troops, no oftener than once in two days.

Rear front bases regularly move their branches forward during the operation to the foremost sections of restored railroads placed in operation. In some cases branches of the rear front bases can be laid out on the ground, but it is necessary to allocate additional motor transport for this. Rear front bases can be relocated to new areas in full strength only towards the end of the operation.

Rear hospital bases deployed in the departure position remain in place until the end of the operation, and those arriving in the front are moved up to the foremost railroad sections and deployed in the areas adjoining them, releasing the forward hospital bases deployed earlier. Another variant of the employment of rear front hospital bases is also possible -- moving them forward on motor transport if there are personnel for evacuation hospitals in the deployment areas.

Extension of transportation routes during an operation may take place chiefly at the level from rear front bases to forward front bases, but from the forward front bases to the mobile army bases it must remain basically constant. This ensures stability of the supply system at the decisive level of the operational rear services.

To provide operational and supply shipments at the front level, all forms of transportation lines are used: rail, water, land, and air.

In the rear zone of a front there must be a minimum of two or three axial and two or three lateral railroad lines, with a total traffic capacity on the axial lines of 60 to 70 train pairs a day. Depending on the availability of railroad troops, one or two railroad lines with a total traffic capacity of 20 to 30 train pairs a day can be restored during an operation. The rate of restoration of railroad sections without tunnels with the forces of two railroad brigades reinforced by special contingents of the Ministry of Railways may be 40 to 45 kilometers a day when there is damage here and there, and 20 to 25 kilometers a day when there is continuous damage.

Two or three regulating stations are designated on the railroad network of the front, and one or two alternate regulating stations are prepared. For the large units and formations of the front, unloading stations are designated, which, as a rule, are selected near the areas where depots and bases are situated. Each division and each mobile army base can be allocated two or three unloading stations.

On waterways regulating ports are designated for the front, and unloading ports or landing stages for the armies.

For troop movement, materiel delivery, and evacuation by motor transport in the zone of the front, a network of motor roads is prepared, which must connect the front bases with their branches and mobile army bases, the unloading stations (ports, materiel support airfields) with the disposition areas of the missile technical units, and these with the siting areas of the missile large units and units; and the front military motor roads with the areas where the supply bases of the air army and the depots of the air technical regiments are located, with the hospital bases of the front, and with other rear services large units and units subordinate to the front.

For each first-echelon army, as a rule, there is prepared one front military motor road with a traffic capacity of up to 8,000 motor vehicles a

day. Lateral roads are also prepared at the line of the location of front and army bases (their branches) and along large water obstacles, and so are approaches to rear services installations.

The work of the road troops is organized in close cooperation with the engineer troops of the front. Roads and bridges restored by the engineer troops in the rear zone of the front must be exploited to the utmost for the passage of rear services units and facilities, the delivery of materiel, and the evacuation of wounded.

In modern operations air transport will find extensive use in the delivery of materiel and evacuation of the wounded. For this, in the areas of front bases and missile technical bases, the forces and means of the front rear services and the air army organize materiel support airfields or landing sites and set up hospitals for receiving the wounded.

The total materiel requirement of a front for an offensive operation is made up of the expenditure during the preparation and course of the operation and of the reserves it is necessary to have by the end of the operation.

The expenditure of materiel in an operation is very uneven. It will depend on the nature of the operation, the opposing enemy, the rates of troop advance, the scale of employment of weapons of mass destruction, and other factors. Thus, in a front operation with the use of nuclear weapons, the expenditure of materiel (according to the experience of exercises) may be two to 2.5 units of fire of small arms ammunition, three to 3.5 units of fire of artillery and mortar ammunition, 3.5 to 4.5 units of fire of tank ammunition, 4.5 to six units of fire of antiaircraft artillery ammunition, 15 to 16 units of fire of aviation ordnance, 4.5 to 5.0 fuelings of gasoline, 5.5 to 7.0 fuelings of diesel fuel, and 15 to 16 fuelings of aviation fuel. During the conduct of an offensive operation without the use of nuclear weapons, the expenditure of artillery and mortar ammunition in a front operation may be half again or double; and the expenditure of small arms and tank ammunition also increases, though on a smaller scale. As for the expenditure of fuel, it will be about the same since the depth and duration of the operation are the same.

Materiel support of the first offensive operation is done through the use of reserves which are established while it is still peacetime in the line units and at the bases and depots of armies, military districts, and groups of forces. The amounts of these reserves must fully provide for the forward movement of the troops, for their conduct of the first operations

to their entire depth, and for the necessary reserves by the end of the operation.

Reserves of materiel by the end of an operation must be sufficient to safely support subsequent combat actions. The minimum amounts of these reserves may be as high as 100 percent of the established supply norms in large units and armies, and 70 to 80 percent in the front.

The total volume of deliveries in a front in an operation being conducted with the use of nuclear weapons (depending on the composition and strength level of troops of the front) may be 250,000 to 300,000 tons; and during the conduct of an operation with only conventional means of destruction it may grow to 350,000 to 400,000 tons. Considering that as much as one-third of the expenditure of materiel goes for troops situated in the depth of the rear zone of the front (aviation, reserves, air defense units, rear services organs) who can get reserves directly from the bases and depots of the front with their own transport, the average daily volume of deliveries to first-echelon armies may be 15,000 to 20,000 tons. Such a volume of deliveries can be carried out only with integrated use of all types of transport -- rail, water, motor vehicle, air, and pipeline.

Technical support in modern operations has grown considerably in volume and in the complexity of carrying it out in practice. Exercise experience and research conducted indicate that, during a front offensive operation with the use of nuclear weapons in the Western Theater of Military Operations, average daily losses of the launchers and ground equipment of missile systems may reach 13 to 14 percent; of guns, mortars and small arms, three to four percent; of tanks, 12 to 15 percent; of armored personnel carriers and infantry combat vehicles, five to six percent; of the armament and combat equipment of the air defense troops, eight to 10 percent; of motor transport equipment (counting technical breakdowns), seven to 10 percent; and of aviation equipment, 10 to 12 percent of the listed strength. Troops will sustain considerable one-time losses as the result of enemy massed nuclear strikes. During the conduct of an operation with conventional means of destruction, the average daily losses of combat equipment may decrease by a factor of one and a half to two.

Of the total amount of damaged combat equipment, 40 to 50 percent (65 percent of the motor vehicles) will require the performance of running repairs, 20 to 25 percent (14 percent of the motor vehicles) will require medium repairs, and seven to 10 percent will require major repairs; irrecoverable losses will be as high as 20 percent (14 percent of the motor vehicles). The organic repair units of the troops and rear services of the

front are capable during an operation of repairing 100 percent of the equipment requiring running repair, 20 to 25 percent of that requiring medium repair, and eight to 10 percent of that requiring major repair. In view of the fact that the repair units themselves will sustain losses, their capabilities may be considerably lower. Therefore, it is necessary in all cases to make extensive use of the local repair base (plants, workshops) and to remove equipment to the interior of the country.

The main principle of technical support is the movement of repair and recovery means of the front into the areas of the greatest accumulation of damaged equipment and restoration of it on the spot. These means are generally used in a centralized manner, but they can be attached to armies when the rates of troop advance are relatively low.

The front repair units are deployed for work, as a rule, at the damaged vehicle collection points of the armies or the front. The main method of repair is the unit repair method with replacement of individual assemblies and parts, with the combat equipment requiring the least expenditure of forces and time to put it back in order being restored first. The recovery units of the front move forward during the operation behind the first-echelon armies and carry out the collection and removal of damaged equipment to the front collection points or to loading points for shipment to the interior.

Medical support includes the organization and performance of medical-evacuation, antiepidemic, and sanitary-hygienic measures. Underlying the organization of this form of support is the principle of bringing the medical units and facilities as close as possible to the areas of mass medical casualties, i.e., performing medical-evacuation measures predominantly on the spot.

Medical casualties in a front operation when weapons of mass destruction are used may be 30 to 35 percent of the original numerical strength, and the greatest number of wounded at one time is to be expected from the initial nuclear strike of the enemy (20 to 25 percent of the total losses for the operation). Among those injured by nuclear weapons, as many as 80 to 85 percent may have combined injuries (trauma, burns, radiation sickness). When an operation is conducted with conventional means of destruction, total medical casualties may amount to 12 to 13.5 percent or more of the numerical strength of the front. On the basis of expected medical losses, the front may need around 120,000 to 130,000 hospital beds, including 40,000 to 50,000 by the start of the operation.

The wounded are evacuated from the medical-sanitary battalions of divisions and the separate medical detachments to the front hospital bases by the ambulance means of the armies and the front. For evacuation of the sick and wounded needing urgent qualified and specialized medical assistance, aircraft and helicopters of military medical and transport aviation are allocated. During actions on coastal axes, medical support is organized to allow for the possible evacuation of wounded by sea transport and for giving assistance in reception of the wounded from the fleet in front hospital bases.

The front commander bears full responsibility for rear services support of the troops. He controls the rear services personally, through the front staff, the deputy for the rear, and the chiefs of branch arms, special troops, and services directly subordinate to him.

The front commander's instructions on rear services support define the rear services tasks during the preparation and course of the operation, the main axes for deployment of front bases, the deadlines for establishment of materiel reserves, their amounts and norms of expenditure, the complement of military transport aviation for delivering materiel to the troops, the main measures for the protection, defense, and security of the rear, the rear services readiness times, and the location of the rear control post.

The front staff in a timely way conveys the orders and instructions of the front commander on matters of rear services support to the deputy commander for the rear and to the chiefs of branch arms, special troops, and services, informs them of changes in the troop strength and operational situation, organizes continuous communications for control of the rear, allocates forces and means for the protection, defense, and security of the rear if necessary, and also provides for cooperation with the services not subordinate to the front deputy commander for the rear. The latter, in turn, personally or through the rear staff, must notify the front chief of staff about the supply level of the troops, the condition of transportation routes and transport means, and changes in the rear services situation and coordinate the most important instructions on rear services support with him.

The front deputy commander for the rear/chief of the rear services is the main organizer of the rear services support of troops in an operation. Under his supervision are resolved the most important matters on behalf of all the branch arms, special troops, and services of the front that carry out rear services support in the operation. Such measures include, above all, the planning of rear services support, the disposition of the rear

services, their protection, defense, and security, the preparation and use of transportation routes for military shipments, the delivery of all types of materiel (except missiles and nuclear warheads by special transport), the use of the local materiel-technical base, and the organization of communications and control of the front rear services. He organizes the materiel and technical support of troops by subordinate services and the transport, medical, veterinary, and billeting support and trade service of the troops.

Providing the troops with missiles, ammunition, and technical and other special types of supplies is the responsibility of the chiefs of branch arms, special troops, and services. They inform the deputy commander for the rear about the level of their type of supply among the troops, submit requests for all types of transport (except special transport) for deliveries and evacuation, and participate in working out the directive on the rear services and in planning rear services support (especially on matters of the positioning and relocation of rear services units and facilities, the delivery of materiel, and the protection, defense, and security of rear services installations).

The instructions of the front deputy commander for the rear on matters of the positioning and relocation of the rear services and on the organization of their protection and defense, of the delivery of materiel by all types of transport, and of the supplying of troops by subordinate services are binding on all chiefs of branch arms, special troops, and services as well as on the commanders of armies (large units).

Planning of the rear services support of troops in an operation is done by the rear staff of the front. The basis of this is the front commander's decision for the operation, his instructions on rear services support of the troops, and the directive of the higher level on rear services.

The plan of rear services support is worked out graphically on a map with an explanatory memorandum, or textually with the attachment of a map.

The map of the plan shows the combat line of the troops, the demarcation lines of the rear zone of the front, the transportation routes and axes and the deadlines for their restoration, the regulating and unloading stations (ports), the temporary transshipment areas, the groupings of rear services large units, units, and facilities in the departure position and by tasks (lines) of the front, the axes and deadlines for laying out field main pipelines, the materiel support

airfields, the positioning of mobile army bases and their relocation during the operation, and the rear control posts of the front and armies and the axes of their relocation.

In the explanatory memorandum (or in the textual plan) are set forth all the necessary calculations and validations for rear services support. It usually contains the following sections: the main rear services tasks during the preparation and course of the operation, the makeup of the rear services (the availability and arrival of rear services large units, units, and facilities before and during the operation by days), the organization of rear services (the basic principles underlying the organization of rear services support of the troops), the transportation routes (the procedure for using railroad and road troops, special contingents of the Ministry of Railways and local transportation organizations, the organization of technical coverage, the forces and means to be allocated for setting up temporary transshipment areas), materiel support (of the front as a whole and of the armies and large units subordinate to the front), the delivery of materiel (total volume of deliveries during the preparation and course of the operation by tasks and levels, the organization of delivery, and its distribution among the types of transport), medical support (calculation of medical casualties, availability of hospital beds, and organization of the evacuation of wounded), coverage against strikes from the air, protection, defense, and security of the rear, and the organization of control and communications of the rear.

The plan of rear services support is signed by the deputy commander for the rear and the chief of staff of the rear of the front, coordinated with the [front] chief of staff, and approved by the front commander.

Also integral parts of the plan of rear services support of the troops of a front in an operation are the calendar plan of rear services preparation, the delivery plan, the rear communications plan, and the plan of political work in the rear. Worked out in addition if necessary in a front are plans for support of troop regroupings, of commitment of the second echelon to the engagement, and of airborne and amphibious landing forces, and other plans.

The chiefs of branch arms, special troops, and services work out support plans for their branch arms (services). These plans are worked out on a map with an explanatory memorandum or textually, coordinated with the front staff, the deputy commander for the rear, and the chiefs of branch arms concerned, and approved by the front commander.

TS #798245
Copy #____

The plan of support of front troops with missiles, ammunition, and armament is worked out by the missile and artillery armament service of the front. This plan indicates the concentration and siting areas of the missile large units (units); the deployment areas of missile technical units, depots, and repair and recovery units; the procedure for the relocation of missile technical units and repair and recovery units, with an indication of the movement routes and readiness time in the new areas; and the routes for delivering missiles (delivery vehicles, warheads), missile propellant, and ammunition. Attached to the plan are calculations on the provision of missiles, ammunition, and armament and on the repair and recovery of armament.

The plan of tank technical support of troops in the operation is worked out by the chief of the armored service of the front. It stipulates the main tasks for tank technical support of the troops during the preparation and course of the operation, the organization of technical servicing of armored equipment (the expenditure of mileage reserves according to tasks of the operation, the measures to be carried out to ensure the dependable operation of equipment, the types of technical servicing, and the possible lines or areas for carrying them out), organization of the repair of armored equipment, the recovery of broken-down equipment, the procedure for providing troops with armor supplies, organization of the dismantling of armored equipment not to be repaired and the procedure for using the assemblies, units, and parts taken off, measures for the protection, defense, and security of the repair and recovery units, and organization of control of the tank technical service.

The plan of motor vehicle-tractor support of the troops in an operation, to be worked out by the chief of the motor vehicle-tractor service of the front, reflects the main tasks of motor vehicle-tractor support of troops during the preparation and course of the operation, the availability and technical condition of motor vehicle-tractor equipment by the start of the operation and the possible arrival of equipment during the operation, the establishment of a reserve of motor vehicle-tractor equipment, organization of the repair of motor vehicle-tractor equipment (calculation of expected losses by types of repair and front capabilities for restoring motor vehicle-tractor equipment, the employment of repair units, the areas for positioning them, and the relocation procedure), organization of the recovery of damaged vehicles, provision of motor vehicle-tractor supplies (areas of the deployment of depots and their branches, the supply requirement and levels, the methods of delivering supplies), measures for the protection, defense, and security of repair and recovery units, and the organization of control of the motor

vehicle-tractor service.

2. Rear services support during an offensive operation

The nature, volume, and content of measures for rear services support of the troops during a front offensive operation will depend above all on the conditions under which combat actions begin and are conducted -- with or without the use of nuclear weapons.

If nuclear weapons are employed from the very outset of the operation, then the main attention in rear services work must be concentrated on ensuring the rapid restoration of the combat effectiveness of troops subjected to enemy nuclear strikes, the conduct of medical-evacuation measures in centers of mass destruction, and elimination of the aftereffects of the attack on rear services installations, especially on front bases, depots, and transportation routes. Under these conditions, the situation in the rear may be so complicated that it requires introducing fundamental changes in the previously adopted organization of rear services support of the front, carrying out a redistribution of materiel reserves, and changing the axes of delivery and the composition of the established groupings of rear services.

But if the operation is conducted with the use of only conventional weapons, the operational rear services can work more regularly, having the necessary forces and means in readiness for support of the troops should they go over to actions with the use of nuclear weapons.

For successful rear services support of troops during an operation, it is necessary to prepare new areas intended for the deployment of rear services large units, units, and facilities in time and occupy them secretly.

In the first days of an operation, it is advisable to carry out rear services support with those forces and means that have been deployed in advance during the occupation by troops of the departure position for the offensive. Materiel reserves expended in this period must necessarily be replenished up to established norms and, if possible, in increased amounts. This will be facilitated by the relatively small separation of troops from supply bases and the more extensive capabilities for using all types of transport, including railroad, for deliveries.

Special attention must be paid during the operation to timely provision of the troops with missiles, ammunition, and fuel. Expended missiles and missile propellant must be replenished immediately; for this the front mobile missile technical bases, front surface-to-air missile technical bases, missile propellant depots (their branches), and the separate missile propellant transport battalion are relocated successively behind those missile large units and units for which they make deliveries. The separate missile transport battalions are relocated as railroads are restored and materiel support airfields prepared, and uninterrupted preparation of missiles and timely delivery of them to the troops must be ensured while the transport battalions are being relocated.

In an operation conducted with the use of conventional means of destruction, the greatest expenditure of ammunition may occur on the first day. On this day it may be as high as 1.6 front units of fire, and as high as 2.6 army units of fire in armies operating on the main axis, with 50 to 60 percent of this ammunition having to be expended to ensure the breakthrough of the forward defense line of the enemy. In order to replenish such a large expenditure of ammunition when the troops go over to the offensive, motor transport loaded with ammunition travels immediately behind the troops, in readiness to set it out at artillery fire positions in front of the forward defense line. After turning over the ammunition, the line unit, army, and front transport that is released immediately returns to the areas of the respective depots, where it is now loaded with materiel, which it delivers in order to replenish expended reserves.

In order to replenish expended reserves of fuel during an operation all types of transport are used, above all, motor vehicle and pipeline transport. Chief attention must here be paid to timely delivery of diesel and aviation fuel, which constitutes 65 to 70 percent of the total volume of fuel deliveries.

When organizing delivery during an offensive operation, one must, in principle, be guided by the following basic requirements: expended materiel reserves must be replenished daily up to established norms among troops up to armies inclusively, with reserves being replenished first among troops having the greatest success; all types of transport at all rear services levels must be exploited to the utmost for delivering materiel; and operational formations and large units of the second echelon and reserves until committed to the engagement, as well as combat and rear services units and facilities located in the rear zone of the front, can carry materiel from the closest unloading stations, depots, and bases with their own transport.

To establish a stable system of materiel support and exploit the transport capabilities of all rear services levels to the utmost during an operation, the mobile army bases and forward front bases (their branches) with reserves of materiel must be brought closer to the troops soon enough that their separation at each delivery level does not exceed half the average daily run of motor transport; the rear services organs of the front must be in constant readiness to supply materiel to the troops by air transport (by parachute or landing methods); and it is advisable in all cases where the situation permits to supply materiel, especially ammunition and fuel, directly to the troops, avoiding superfluous transshipments at intermediate levels.

Effectiveness in the use of transport during an operation will largely depend on the stable operation of transportation routes and on the timely preparation and restoration of them behind the advancing troops. Delivery of materiel at the operational level must be done, as a rule, over the roads being maintained. Therefore, the rates of restoration of rail and motor roads and those of laying field main pipelines must correspond to the rates of troop advance.

The main efforts of railroad, road, and pipeline large units and units must be concentrated on the main axes and on the foremost sections of restored roads (lines). During actions in the operational depth, isolated sections of railroads 150 to 200 kilometers long and the rolling stock on them can be used. Finding extensive use will be temporary transshipment areas, which can be set up when the bridges over large water obstacles are destroyed or isolated sectors of railroads are used and in other cases when some major hurdle on railroad or river transportation routes has to be overcome.

The average daily volume of materiel delivery is in direct relation to the possible average daily expenditure of materiel, and it may amount on the average to 7,500 to 10,000 tons of ammunition of all types in an operation with the use of nuclear weapons, 14,000 to 18,000 tons in an operation without nuclear weapons, 9,000 to 12,000 tons of fuel, 1,500 to 1,600 tons of rations, and 3,500 to 4,000 tons of military technical and other supplies.

The actual volume of deliveries will be very uneven, both by days of the operation and by axes of the actions of front troops. It will be considerably greater on the first days of the operation and during the negotiation of enemy defense lines, the repulse of counterthrusts of enemy reserves, the breakthrough of fortified areas, the assault crossing of

water obstacles, and the accomplishment of other important tasks on the way to achieving the objective of the operation.

A change in the average daily expenditure of ammunition will require a corresponding redistribution of transport for delivering other materiel. Thus, upon transition to the use of nuclear weapons, the role of motor vehicle, pipeline, and air transport will grow considerably as a result of heavy destruction on the railroads. It will be necessary to allocate additional motor transport for back-up of railroad shipments from rear front bases to their branches and for working in temporary transshipment areas. All of this will sharply reduce the capabilities of the motor transport of the front to deliver materiel from the branches of rear front bases to the forward front bases and mobile army bases; and to supplement this it will be necessary to make extensive use of line unit and army transport in order to deliver materiel according to the principle of "get it yourself."

In the critical situation that may develop after an initial nuclear strike, replenishment of materiel losses among the troops can be done by using army and front mobile reserves, delivering it from army and forward front bases, supplying cargoes by air, and issuing fuel from the closest sections of pipelines. A frequent occurrence will also be redistribution of surviving reserves among the armies (large units) and reconsignment of transport with cargoes en route.

The groupings of rear services must not confine the maneuver of troops during the operation. On the basis of this requirement, the rear services large units, units, and facilities of the front, regardless of their subordination, are relocated and positioned according to a common plan, which is to be worked out by the rear staff of the front in conjunction with the services.

Rear services large units, units, and facilities have the greatest effect when they are employed in a centralized manner. But under certain conditions of a situation, part of the front rear services forces and means (repair, medical, transport, and other units and subunits) can be attached for reinforcement of the armies -- without, however, overloading the army rear services since this may have a negative effect on their mobility and maneuverability.

The groupings of rear services forces and means established must support definite attack groupings of troops as far as possible throughout the entire operation. This achieves harmony and mutual cooperation in work

of the army and front rear services and simplifies the organization of communications, record keeping, and accounting. Changes in the previously established procedure of troop support (attachment to other bases for supplies, evacuation of wounded to hospitals on other axes, etc.) must be introduced only in those cases when the situation necessitates it and it simplifies maneuvering.

When rear services large units, units, and facilities are relocated to new areas, it is necessary to observe the principle of continuity in the positioning of related rear services organs (supply bases, hospital bases, repair units and facilities) as well as to make extensive use of the method of relocation by "leapfrogging."

Mobile army bases during an operation must travel unfalteringly behind the troops without being separated more than 100 to 120 kilometers from them. Hence, their relocation may take place once every two or three days, depending on the rates of troop advance.

Forward front bases are relocated behind the first-echelon armies. The separation of forward front bases and their branches from the mobile army bases must not exceed 150 kilometers. Consequently, when the average rate of troop advance is 40 to 60 kilometers a day, forward front bases will have to be relocated every three days, in full strength or by moving their branches forward.

Forward front hospital bases are moved up to locations of the most medical casualties and deployed 40 to 50 kilometers from the front line. Each base can be deployed in one or in two or three areas, depending on the situation and where the wounded are.

Evacuation of the wounded from the medical-sanitary battalions of divisions and separate medical detachments is done predominantly with the medical transport of the armies and the front. When medical casualties are great, particularly after an initial enemy nuclear strike, general-purpose motor transport and military transport aviation can also be used for evacuating the wounded. In the first two or three days of combat actions, it is advisable to evacuate the wounded to rear front hospital bases, stationary military hospitals, and local medical facilities, freeing the mobile hospitals for maneuvering during the operation.

The repair and recovery means of the front must be in constant readiness to carry out restoration work in centers of mass losses of combat equipment after enemy nuclear strikes. Since an army does not have its own

repair means, it is advisable under these conditions to use repair units of the front in conjunction with the repair units of the large units in order to repair equipment immediately at line-unit damaged vehicle collection points. This achieves a faster return of damaged equipment to service and restoration of the combat effectiveness of large units subjected to enemy nuclear strikes.

Mobile repair and recovery units move forward on the main offensive axes of the front troops, go to places of the greatest accumulation of damaged equipment, and deploy for work at damaged vehicle collection points, remaining there until the items for repair are taken care of. Their relocation to new areas is done, as a rule, by leapfrogging.

The relocation of rear front bases and hospital bases and other less mobile units and facilities of the front rear services during an operation is done as railroads are restored, in such a way as to have formed, by the end of the operation, rear services groupings capable of accomplishing the troop support tasks in a subsequent offensive operation.

Rear services support of the movement forward and commitment of a second-echelon army to the engagement is an important task of the rear services of a front during an operation. By the time this army is committed to the engagement, a dependable materiel-technical base has to have been established in the immediate vicinity of the line of deployment. Materiel reserves expended while moving up are replenished from the nearest depots and bases, and the sick and wounded are evacuated to deployed hospitals. Defective equipment which cannot be restored by the repair means of the troops is handed over to the front.

In order to support the commitment and subsequent actions of the army, as a rule, a forward front base and a forward front hospital base or branches of them are deployed in its zone.

The mobile missile technical base of the army is moved forward to the departure area beforehand, and the supplying of missiles to the large units is done as they come to this area. The army surface-to-air missile technical base is deployed 30 to 40 kilometers from the line of commitment.

A front military motor road is prepared in the zone of actions of the second-echelon army, and a field main pipeline is laid if possible.

When committed to the engagement, a second-echelon army may be reinforced with repair and recovery units, separate medical detachments,

and medical motor transport from the reserve of the front. The maneuvering of forces and means of the front rear services to support the commitment of the army must be provided for in advance and be done in short periods of time and secretly. The army can obtain part of the materiel reserves, as well as deployed medical facilities and prepared road sections, from forward operating troops on the spot in the zone assigned to it.

Rear services support of the combat actions of airborne landing forces is done by the forces and means of the landing forces themselves and those of the front rear services. Until the moment the airborne forces are joined by the advancing troops, materiel reserves are supplied to the area of their combat actions by air transport (by parachute or landing method) from materiel support airfields prepared in advance. This same transport evacuates the sick and wounded. In order to give medical assistance to the sick and wounded in the area of combat actions, airborne landing forces can be reinforced with separate medical detachments or physician specialists.

The landing force must immediately be given assistance in all types of rear services support when the front troops get to its area of combat actions; and for this it is necessary that the forces and means designated for its support be moved up immediately behind the forward detachments of the advancing troops.

During the assault crossing of large water obstacles it is necessary to simultaneously support troops operating on both banks. To this end, one establishes the exact procedure and sequence of the arrival of rear services units and facilities at the river, of their crossing to the opposite bank, and of the deployment of mobile army bases and forward front bases or their branches, hospital bases, and repair and recovery units of the front near the water obstacle; and steps are taken for the rapid laying and erection of bridges and ferry crossings and for their technical coverage. If necessary, temporary transshipment areas are set up by the forces and means of the front. The delivery of materiel to troops operating on the opposite bank and the evacuation of wounded, when conditions are present, must without fail be backed up by air transport.

The transition of troops to actions with the use of nuclear weapons during an offensive operation will require the introduction of substantial changes in the organization of rear services support of the troops. These changes are provided for already during the planning of the operation and are made upon the immediate threat of the use of nuclear weapons by the enemy.

Upon receipt of instructions of the commander about immediate preparation for the use of nuclear weapons, it is necessary to immediately, if it has not been done earlier, supply the missile and missile technical large units and units with nuclear missiles, ammunition, and bombs, and the appropriate amount of missile propellant, to bring special ammunition to the artillery and mortar firing positions, to replenish mobile reserves of materiel among the troops and at mobile army bases, to get the troops and rear services units stocked up on means of protection against weapons of mass destruction, and also to replenish reserves of clothing in the troops, chemical defense units, sanitary-epidemic detachments, and forward depots.

The operational rear services will have to maximally disperse and shelter reserves in large depots and at the same time bring the repair and recovery units, mobile army bases, and forward front bases (their branches) up closer to the troops being supported and refine the composition and tasks of the front hospital bases and separate medical detachments in such a way that they can get to the areas of probable mass losses no later than two or three hours after the initial nuclear strike of the enemy. Considerable changes will also have to be introduced in the grouping of forces and means for technical coverage of rail and motor roads and in the allocation of transport means among the levels of delivery, with due regard for obstructed sections on the transportation routes.

In order to increase the stability of control of the rear services, it is necessary to safely shelter rear control posts, determine alternate areas for them and refine the procedure for handing over control in case the rear control post goes out of operation, provide for the allocation of operations groups to areas with the most complex situation, and ensure reliable and stable rear services communications at all levels.

Control of rear services of the front during an operation must ensure continuous replenishment and -- in cases of necessity -- maneuver of materiel reserves in keeping with changes in the situation, particularly under conditions of mass losses; rapid restoration and recovery of damaged combat equipment; timely giving of medical assistance to the sick and wounded; evacuation and treatment of them; relocation of rear services large units, units, and facilities behind the advancing troops; and dependable technical coverage of transportation routes and transport; as well as the capability of quickly eliminating the aftereffects of enemy nuclear strikes against the troops and rear services installations of the front.

During the conduct of an operation, the front deputy commander for the rear, the rear staff, and the chiefs of branch arms, special troops, and services will have to show great efficiency in implementing the plans worked out and refine decisions in time, or adopt new ones if necessary, in keeping with the developing operational and rear services situation.

Centralization of the matters of control of the rear must be combined with intelligent initiative and responsibility of the commanders and chiefs of the rear services large units, units, and facilities for the support of troops. This applies especially to forward and rear front bases, whose headquarters have modern means of communications and are capable, if necessary, in addition to their own specialized matters, of accomplishing a whole array of measures for rear services support of separate groupings of troops in the assigned zone (axis).

During an operation, the front's rear control organs maintain constant communications with the front staff, the rear control posts of the armies, and the subordinate rear services large units, units, and facilities; continuously monitor the operational, rear services, radiation, and biological situations; and organize the maneuver of forces and means.

The commander and chief of staff of the front brief the deputy commander for the rear and the chiefs of branch arms in time about changes in the operational situation and the decisions adopted, assign rear services tasks, and regularly hear their reports about the materiel support of troops, the state of transportation routes, the progress in repairing and rehabilitating damaged equipment, and the evacuation and treatment of the sick and wounded. Should there be a need to reinforce the rear services, additional forces and means can be allocated by decision of the commander.

The rear staff and the headquarters of the branch arms and services of the front constantly keep working maps according to which direct control of the rear services support of subordinate troops is exercised. Control of the rear during an operation is exercised, as a rule, through separate orders and instructions or, if there are radical changes in the situation and there is time, through directives on rear services. Rear services tasks must be assigned to troops and rear services large units, units, and facilities in advance and refined as the situation changes. This is particularly important when a meeting engagement is foreseen, second-echelon armies of the front are committed to the engagement, airborne landing forces are set down, the assault crossing of wide water obstacles is made, enemy counterthrusts are repelled, and when efforts are

being switched to a new axis.

In a front offensive operation on a coastal axis, rear services support is organized with consideration for the conduct of joint combat actions by front troops and fleet forces, with their rear services working in close cooperation. The main matters of cooperation may be the use of materiel and combined-arms rations in the interests of support of joint actions, the allocation of areas for positioning rear services units and facilities in the coastal zone, the use of transportation routes and transport means and of medical and repair facilities, and the giving of mutual assistance in eliminating the aftereffects of enemy nuclear strikes.

In order to ensure close cooperation, it is advisable to reciprocally allocate operations groups or rear services representatives to rear control posts. Such groups can also be allocated if necessary during the operation to the front command post, to points of the reception of rear services units and facilities arriving in the front, to supervise the support of airborne and amphibious landing forces, to effect cooperation with the rear services organs of allied troops, to supervise the rear services support of troops advancing on a separate axis, and in other instances.

Relocation of the rear control post of a front is done by echelon in such a way that control and communications are not disrupted during its relocation. For deploying in a new area, the communications forces and means of the second position of the rear control post are used.

Should control of the rear be disrupted as a result of enemy nuclear strikes, it must be restored immediately; and for this it is necessary to provide the necessary forces and means in advance. Transfer of control of the front rear services can be made to a rear services operations group located at the command post, to the headquarters of one of the front bases, or to the rear headquarters of one of the first-echelon armies. The rear control post of the front, in turn, must be in constant readiness to exercise control of the troops should the command post and forward command post go out of operation.

CHAPTER 8

TROOP CONTROL IN A FRONT OFFENSIVE OPERATION

1. Content and main principles of troop control and the requirements imposed on it

The essence of troop control is the activity of the commander, staff, and other control organs of the front to supervise subordinate formations and large units during the preparation and course of an offensive. The main thing in control is to ensure maximum effectiveness in employing the available forces and means in keeping with the conditions of the situation in order to successfully accomplish the tasks of the front in the operation.

The content of troop control involves accomplishment by the commander and control organs of tasks connected with comprehensive preparation of the operation and supervision of the troops during its conduct. Of these tasks, the main ones are maintenance of the high political morale and constant combat readiness of the troops to accomplish combat tasks, continuous collection, processing, and analysis of data on the situation and detection of enemy intentions, timely adoption of the decision on the operation and conveyance of tasks to the troops, planning of the operation, organization and maintenance of continuous cooperation of troops, comprehensive support of combat actions, supervision of the preparation of troops to accomplish combat tasks in the operation, supervision of troops during performance of the tasks of the operation, monitoring of the performance of assigned tasks, and giving of assistance to the troops.

Successful performance of these tasks under modern conditions is impossible unless an orderly system of control is established and the most effective methods are used in the work of the commander and control organs during the preparation and course of the operation.

Troop control is organized and exercised according to established principles of control and the requirements imposed on it.

Principles of control are the main starting points of the theory and practice of troop control. In the Soviet Armed Forces they were developed and tested in practice during the founding of the Red Army and the conduct

of the civil war, in the prewar period, and in the experience of directing the Armed Forces in the tough years of the Great Patriotic War. In the postwar period, the principles that developed have been tested and refined in the experience of operational training and building of the Armed Forces in peacetime, especially in connection with the adoption into service and widespread introduction of nuclear weapons, with changes in the nature and methods of conducting modern operations, and with the appearance and development of new technical means of troop control.

Under modern conditions in the Soviet Army and Navy, practice has determined and proven the following basic principles of control: an intelligent combination of centralization and decentralization, reliability and continuity, firmness and flexibility. Proper application of these principles in the processes of control brings about conditions for the most effective use of troops during the accomplishment of the tasks of an offensive operation.

The principles of control are inseparably bound up with the requirements imposed on troop control.

As the destructive power, range, and rate of operation of weapons and the technical equipping and mobility of troops grow, the nature of operations changes and the conditions of their preparation become more complex: The spatial scale of operations and the fluidity and intensity of combat actions grow and the volume of control tasks increases, while the times for carrying them out are simultaneously reduced. In view of this, the requirements on troop control are growing more and more.

The most important requirements imposed on troop control are high constant readiness of the control system, efficiency, quality, stability, and concealment.

The requirement for high constant readiness of the control system is due to the possibility of a surprise enemy attack and the necessity of ensuring the high combat readiness of troops to ward off this attack and defeat the enemy under any conditions of the commencement of an operation. Only with a well-organized control system and its maintenance at a high level of readiness is it possible to ensure the rapid transition of troops from peacetime to wartime status and their organized deployment and entry into the engagement in keeping with the operation plan.

Hence, the combat readiness of the control system must, in principle, be higher than the readiness of subordinate troops, and the control system

adopted and established in peacetime must not undergo much readjustment with the start of a war.

The chief, pivotal thing in ensuring the high combat readiness of a control system is the availability of well-integrated and well-trained control organs capable of setting about combat work at any time without delay and providing reliable control of subordinate troops while they are brought into full combat readiness and during the accomplishment of combat tasks in the operation.

The achievement of high combat readiness of control organs is inseparable from the readiness of their support and servicing units. This applies first of all to communications and reconnaissance units and to the means of collecting and processing data on the situation.

A most important condition for ensuring the high combat readiness of control is for all generals and officers of the control organs to have irreproachable knowledge of their jobs, of the true condition of subordinate troops, of the opposing enemy, and of the theater of military operations and be ready for work under field conditions.

Efficiency of control consists in constantly knowing the situation, quickly and flexibly reacting to all changes in it, and in exerting timely influence on the course of the situation in the interests of successful fulfilment of assigned tasks in the operation.

The increased requirements on efficiency of control under modern conditions are caused above all by the possibility of rapid, abrupt changes in the situation, which require at times instantaneous decisions on the use of nuclear weapons and other means of destruction and on changes in the tasks and actions of the troops and means of support. From another aspect, [they are] due to the growth of the number of sources and the volume of information which it will be necessary to collect, process, and assess in short periods of time in order to adopt a sound decision and assign tasks to the troops in time. For instance, information about the commencement of an enemy launch of intercontinental missiles loses its value in 20 to 25 minutes; of Polaris and Poseidon missiles, in five to ten minutes; and of operational-tactical missiles, literally in a few seconds. Aviation can take off and appear over strike targets in short times. Ground forces are capable of rapidly negotiating great distances and changing their location. This requires great speed in getting data about the nuclear attack means of the enemy and about all changes in the position and actions of his troops,

and in adopting decisions, assigning tasks to troops, and carrying out the necessary measures to support their combat actions.

Quality in troop control presupposes thorough substantiation of the decisions adopted and the plans worked out, skilful supervision of the troops during the operation, and achievement of maximum effectiveness in employing the available forces and means to accomplish the assigned tasks. The quality aspect of control can be assessed as the relationship of the results achieved in accomplishing the tasks of an operation to the expenditures of forces, means, and time. Thorough substantiation of the decision and operation plan and effective use of forces and means during combat actions is achieved through constant knowledge of the situation, accuracy in operational and other types of calculations, use of quantitative and qualitative assessments of possible variants of the decision, rapid comparison of them with one another and ascertainment of the optimum variant of the decision and methods of troop actions, and prediction of the possible course and outcome of the operation by using mathematical methods and electronic computers.

Stability of control expresses itself in the ability of the troop control system to perform its tasks in a complex situation, under conditions of enemy actions with nuclear and other types of weapons against control posts and means and under heavy electronic jamming on the enemy's part.

Increased requirements on the stability of control are tied in above all with the fact that a large volume of data on the situation will now be coming in to the command post and other control posts of the front over technical means of communications under conditions of a rapidly changing situation and extensive enemy use of the means of electronic action. Control posts and communications centers and lines are now first-priority targets of nuclear strikes and other means of destruction of the enemy. Therefore, they must be safely sheltered in engineer structures and armored facilities and covered by air defense means against enemy strikes from the air. Special measures also have to be carried out for the protection of electronic means.

The probable enemies are doing intensified reconnaissance of our whole system of control, making wide use of various forces and means. Used for conducting reconnaissance are special aircraft and ships equipped with various electronic gear, and also -- in the last ten years -- space means. Hence, along with an increase in stability, a very important requirement is to achieve concealment of control.

Concealment of troop control consists in concealing from the enemy the control system adopted and the main measures for preparation of the operation and direction of troops during combat actions. It is achieved through concealed positioning and relocation of control posts and communications centers and lines, use of secure communications equipment, observance of strict operating procedures for technical means of control, and camouflage of them, as well as through the conduct of special measures to lead enemy intelligence astray.

All the requirements on troop control listed above are interconnected and must be performed integrally in combination. Integrated putting into practice of the requirements listed above is one of the most important conditions for increasing the effectiveness of exploiting the combat might of troops in accomplishing the tasks of an offensive operation.

2. Organs and means of control of front troops

Control of front troops in operations is exercised by the front commander directly and through the staff.

To examine and decide all the most important matters of the life and activity of the front there is instituted a military council, which bears responsibility to the Central Committee of the CPSU, the government, and the Minister of Defense for the condition and combat readiness of troops of the front.

The control organs of the front include the front staff, the political directorate, the chiefs of branch arms, special troops, and services with the respective staffs (directorates, departments), and the deputy commander for the rear/chief of the rear services with the rear staff.

The front staff is the main control organ and is superior to the other staffs, directorates, departments, and services of the field headquarters of the front, as well as to the staffs of subordinate troops. It is responsible for organizing combat actions in time and for ensuring firm and continuous control of subordinate troops under any conditions of a situation. The staff carries out all work on the basis of the decisions and instructions of the commander as well as the instructions of the General Staff. It accomplishes its tasks in close cooperation with the political directorate of the front and with the chiefs and staffs of branch arms, special troops, services, and the rear. It has an operations

directorate, an intelligence directorate, a communications directorate, an organizational accounting and manning directorate, an eighth department, a topographic department, a radioelectronic warfare department, and other organs.

The operations directorate is the leading staff directorate in matters of operational control of troops. The chief of this directorate, being the deputy chief of staff, has the right to call upon the chiefs of branch arms, special troops, services, and directorates (departments) of the staff for working out planning and other combat documents and to get the necessary materials and summaries from them.

The intelligence directorate organizes reconnaissance and the collection and study of data on the enemy and the terrain. It performs its tasks in close cooperation with the operations directorate and the chiefs of branch arms, special troops, and services, as well as with the political directorate.

The communications directorate is charged with organizing and ensuring stable communications with the troops, higher staffs, adjacent forces, and cooperating staffs.

The organizational accounting and manning directorate is called on to maintain troops in the prescribed organization and at such a strength level in personnel, armament, and equipment that it ensures the high combat effectiveness of troops.

The eighth department organizes secure troop control and provides monitoring of the preservation of state and military secrets and of the conduct of the secret office work in staffs and among the troops.

The topographic department plans and carries out topogeodetic support of the combat actions of troops.

The radioelectronic warfare department works out proposals on matters of radioelectronic warfare, and plans and organizes electronic neutralization. The radioelectronic warfare department performs its functions in close cooperation with the operations, intelligence, and communications directorates and with the chiefs of branch arms, special troops, and services.

The political directorate exercises supervision of party political work among the troops and is responsible for interpreting and putting into

practice the decisions of the CPSU and the Soviet government, for maintaining high political morale of the personnel, and for mobilizing them to perform the assigned tasks. In its activity, the political directorate is guided by the Program and Rules of the CPSU and the decisions of the Party Congresses and those of the Central Committee of the CPSU and the Soviet government; and it bases its practical work on the Statute on the Political Organs of the Soviet Army and Navy, the orders and directives of the Minister of Defense and the chief of the Main Political Directorate of the Soviet Army and Navy, and the decisions and instructions of the front commander.

The measures to be carried out by the political directorate are coordinated with the measures to be carried out by the staff and chiefs of branch arms and special troops (services).

The chiefs and staffs (directorates, departments) of branch arms, special troops, and services organize the combat employment of their subordinate troops in keeping with the commander's decision for the operation and bear responsibility for the successful fulfilment of the tasks charged to them and for the materiel and technical support of troops according to their own specialties.

The chief of the rear services, who is at the same time the deputy commander for the rear, and the rear staff bear responsibility for the organization and implementation of rear services support during both the preparation and course of the offensive operation.

All the control organs carry out their activity to organize combat actions and direct troops during the operation on the basis of the commander's decision for the operation and his instructions. To support this activity, the field headquarters of the front has the necessary array of forces and technical means of support of control.

Depending on purpose, technical means of control can be subdivided into the following groups: means of collecting data on the situation; communications means with terminal transceiver equipment; automatic secure communications, enciphering, and encoding equipment; means of processing information and performing operational calculations; devices for visual display of situation data; and means for drawing up and duplicating combat documents.

Means of collecting situation data are meant for the acquisition the data necessary for adopting the decision, planning the operation, and

controlling the troops during its conduct. They include the various technical means that enable one to get all the necessary data on the enemy, one's own troops, and the conditions of conducting the operation in various spheres (land, sea, air, and space) and transmit them over communications channels.

Data on the enemy are obtained by all types of reconnaissance -- agent, radio, radiotechnical, aerial, special, seaborne, space, etc. -- which have in service various technical means -- aerial photography, optical and infrared surveillance devices, radiotechnical, radar, television, and other equipment, means of radio intercept and radio direction finding, of seaborne and space reconnaissance, and others. Data about the enemy are also obtained by questioning prisoners and local inhabitants and by studying documents, captured weapons, combat equipment, control equipment, etc.

Data on one's own troops come in mainly from the reports of subordinate commanders and staffs over communications means and in personal meetings with subordinates. At the same time, many data will be obtained through the use of various equipment for monitoring the actions of subordinate troops, their location and status, their observation of camouflage measures, etc.

Assuming more and more importance for the collection of situation data at the present time are artificial satellites. Through their use one can get exact data on missile launches and various targets of the enemy and do surveillance of the basing of his aviation on airfields, of the concentration areas of the ground forces, and of the departure of surface ships and submarines from bases. With the use of satellites, it has become possible to establish a common geodetic grid for all territory and obtain the hydrometeorological situation in any region of the world.

Thus, the commander and the front control organs subordinate to him have at their disposal various means for collecting situation data. Purposeful and effective use of these means is possible only if a common collection and processing system for situation data is established that will provide control organs with the needed information at the necessary time and in a certain volume. In view of this, the acquisition of situation data, like the assignment of tasks to the troops, is unthinkable without stable and continuous communications.

Communications are the decisive means of ensuring troop control. Without stable and continuous communications, not a single control task can be accomplished. In turn, communications can be reliable and continuous

only with integrated use of the various means in a common system.

Communications means are meant for ensuring the receipt and transmission of situation data, orders, instructions, signals, and commands. The main ones are radio, radio-relay, wire, messenger, and signal means. In recent years, tropospheric communications and communications with the use of artificial satellites have become widespread.

Radio communications are the main and, in many cases the only, means of controlling troops in the most complex forms of their combat activity. Therefore, at the present time staffs prepare to control troops above all by radio. At the same time, it is necessary to consider that radio communications have a number of drawbacks. These include such things as susceptibility to enemy jamming and the effect of high-altitude nuclear bursts, and the possibility of enemy direction finding of the operation of radio sets and intercept of radio messages. This obligates staffs to prepare for control of troops by radio under conditions of heavy enemy jamming and to take special measures to protect radio means.

On the condition that special measures are carried out for protection against jamming and other means of enemy action, radio makes it possible to ensure continuous stable communications and carry out the rapid transmission of messages simultaneously to a large number of subscribers with a *minimum* expenditure of forces and means. Use of artificial satellites in the interests of communications provides stable radio communications to virtually any distances.

Radio-relay communications are a form of radio communications by ultrashort wave, based on the principle of multiple retransmission of signals. The main positive feature of radio-relay communications is their large number of channels, which allow simultaneous conduct of as many as several dozen or hundreds of telephone conversations and telegraph transmissions. Radio-relay communications channels have high quality and more dependability by comparison with radio communications. Radio-relay stations are easy to connect with terminal telephone and telegraph equipment. Among the drawbacks of radio-relay communications one may include the relatively short range of communications between stations, the dependence on the relief of the terrain, and the vulnerability of antenna structures. The possibility of direction finding of the stations and interception of transmissions is not out of the question, and neither is enemy jamming. This must be taken into acount when organizing and using this form of communications.

Wire communications have an important place in the communications system in an offensive operation. The positive features of wire communications are the high quality of channels, little dependence on meteorological conditions, imperviousness to enemy jamming, convenience in conducting conversations, and relative security of conversations and transmissions. At the same time, wire communications are very vulnerable to the effect of nuclear and conventional means of destruction and require more time and forces to lay and service communications lines, and this limits their use under the conditions of high-maneuver combat actions. Therefore, they will be used mainly in troop concentration areas, in departure areas for the offensive, and when repelling enemy counterthrusts, as well as for organizing internal communications at control posts.

With the use of radio, radio-relay, and wire means and the appropriate stationary and terminal equipment, the following types of radio, radio-relay, and wire communications can be organized in a front: telephone, telegraph, and photofacsimile, and -- in the future -- telecode, signal code, television, and video communications.

Among the means of receiving and transmitting information, one may also include sound recording equipment and loudspeaker communications equipment with which control organs are now provided.

Automated secure communications, enciphering, and encoding means are meant for ensuring concealment of control and keeping secret from the enemy the content of the orders, instructions, reports, and other information transmitted over communications channels and lines. This group of control means includes secure communications equipment and encoding and enciphering machines.

Means of processing information and performing operational calculations include keyboard calculators, punchcard machines, electronic computers, computation and analysis stations, computation instruments and scales (PES-m, LRP, etc.), tables, charts, and nomograms.

Keyboard calculators are for mechanizing computational tasks. They enable calculations in which uncomplicated arithmetic operations predominate and the number of logical conditions is limited to be performed quickly enough and accurately.

Punchcard machines, like keyboard calculators, are for mechanizing computational tasks. However, punchcard machines enable one to perform, along with arithmetic operations, also certain logical operations, for

instance, to select the required information from a large file in accordance with one criterion or a set of criteria. Arithmetic operations are performed on the selected information, with the ensuing output of a printed document of the results.

Electronic computers are the most modern technical means of processing information. With them it is possible in short periods of time to perform the most complex and cumbersome operational calculations based on modern mathematical methods. Electronic computers have extensive computational capabilities, and they can perform a number of logical operations, both elementary and complex; besides that, they can accomplish a number of tasks which cannot be done by hand or with other computational means. The use of electronic computers increases work productivity dozens of times by comparison with hand methods. Solution of any problem on the electronic computer amounts to the automatic performance in a predetermined sequence of mathematical and logical operations, the sum of which constitutes the program of the solution of the given problem. The program and the necessary input data are entered into the memory bank with the aid of special equipment.

Devices for visual display of situation data are used for displaying at control posts the dynamics of the development of events in the operation with the least time delay, as well as for providing persons in charge with various reference data. They include electronic screens having a cartographic base, panels and plotting boards, electric light screens, television equipment, video communications equipment, demonstration boards, automatic cassettes, reference devices, and projection equipment, including movie projectors. All these means can be used for visual reproduction (display) of information on the situation at group and individual work positions.

Means of drawing up and reproducing combat documents are for mechanizing one of the most laborious processes of the work to control troops. The use of technical means of drawing up and reproducing combat documents ensures an increase in the efficiency of troop control and promotes an increase in the working skill of staffs. This group of means includes printing presses, photocopiers, thermocopiers, mimeograph machines, and stamping-drafting sets, as well as staff and commander's scales and templates for plotting the situation, zones of radioactive contamination of the terrain, and other data.

3. Organization of troop control

Organization of troop control is understood as the array of measures to be carried out by the front commander and staff and directed towards establishing a stable system of control and ensuring continuity of its operation during the preparation and course of the offensive operation.

The main measures for the organization of troop control are maintenance of the high political morale of personnel of the control organs and communications, security, and servicing units; determination of the tasks and work procedure of the control organs during the preparation and course of the operation; advance preparation, timely deployment, and ensuring of the stable and concealed operation of the troop control system; planning of the relocation of control posts and maintenance of stable communications and functioning of the situation data collection system during the operation; organization of the defense and security of control posts and communications centers and lines; organization of the protection of control posts and communications centers and lines against weapons of mass destruction and means of electronic action of the enemy; planning of measures for eliminating the aftereffects of the use of nuclear weapons by the enemy and for restoring disrupted troop control; and organization of provost and traffic control service in the zone of the front.

All these measures are performed during preparation of the operation in accordance with the decision of the commander and the instructions of the General Staff. During the operation they are made more detailed and specific and carried out with due regard for the nature of tasks to be accomplished and the concrete conditions of the operational situation.

The system of control of front troops is the aggregate of functionally related control organs and control posts, the communications system, and the system for collection and processing of situation data. It is established in advance in keeping with the plan of the offensive operation and is constantly in readiness to exercise control of the troops while they are being brought to full combat readiness, deploying in the departure area, and accomplishing the tasks of the operation with the use of nuclear weapons and with the use of only conventional means of destruction under the various conditions of a situation.

The front staff in advance determines the control posts and compiles the combat allotment, which may include the allocation of personnel, communications means, and transport among the control posts, the

reinforcement of the operations, intelligence, and other directorates (departments) at the expense of the departments and organs whose tasks will be limited upon commencement of combat actions, and the allocation of personnel of the control organs according to the tasks to be performed and functional responsibilities.

For control of troops in the offensive operation of a front there is established a system of control posts incorporating fixed control posts, mobile field control posts, and airborne command posts.

Fixed control posts are established in advance and used before and during the start of the operation. For troop control during the operation, mobile field control posts are deployed: a command post, a forward command post, an airborne command post, and a rear control post. In addition, an auxiliary control post can be established.

The command post is the main control post. It is from here, as a rule, that the commander exercises control of troops in the operation. At this post, together with the commander, are usually located the chief and main body of the staff, the chief and main body of the political directorate, the chiefs of branch arms, special troops, and services with their control organs or groups of officers directly involved with control of the combat actions of the troops, a rear services operations group, and operations groups or representatives of the cooperating and supporting troops, as well as personnel of the communications, support, and servicing units. These are all arranged according to command post elements, the main ones of which are the combat control center, the staff group, the political directorate group, the control post of the chief of rocket troops and artillery, the front air defense command post, the work positions of the chiefs of engineer and chemical troops with their staffs (departments), the rear services operations group, the operations groups of the staffs of cooperating formations, the communications center, the computer center, and the command post security, support, and servicing group.

The combat control center is the place from which the commander directly controls the troops. It is a specially equipped space (shelter, group of command-staff vehicles) where the commander, the chief of staff, and the member of the military council are situated and work. Their work positions have high-frequency sets, secure communications equipment, and remote set-ups for radio communications and a panel for internal switchboard and video communications.

TS #798245
Copy #____

Constantly coming in to the work positions of the commander and the chief of staff are data on the situation, information from adjacent forces and the higher staff, and reports of subordinate commanders and persons in charge of the other control posts.

A special work room is established in the combat control center. In this room work positions are prepared for working with maps and documents, and screens for displaying the air and ground situation and various-purpose display panels are set up. Constantly on duty in this room is a specially prepared combat crew for control, made up of officers of the operations and intelligence directorates and the staffs of branch arms, as well as of technical personnel who see to the continuous stable operation of the means of control. In this same room or near it are prepared work positions for the chiefs of the operations and intelligence directorates, the chief of rocket troops and artillery, and the representatives of the air army.

Not far from the work space (room) of the combat control center is set up the center for collecting and processing situation data. Its task includes continuous collection of new data on the composition, status, and nature of actions of our own and the enemy's troops, as well as on the conditions of conducting the operation. The incoming situation data are processed with the aid of means of automation and sent to the work positions of the appropriate persons in charge. Collated data are reported to the commander and the chief of staff.

The center for collecting and processing situation data works under the direct supervision of the chief of the operations directorate. It may be headed by the chief of the information department of the operations directorate.

The main directorates of the front staff and of the staffs of branch arms are situated close to the combat control center. Support and servicing subunits are situated apart. Transmitting radio centers are taken considerable distances away.

The forward command post is deployed forward of the command post on the axis of the main thrust. It participates in troop control as instructed by the commander and chief of staff of the front and must always be ready to assume control of all the troops and to perform the functions of the command post.

The forward command post is usually headed by the first deputy commander. Its composition includes groups of officers that are headed by

the deputy chief of staff of the front, the deputy chief of the political directorate, the deputy chiefs of staff of the branch arms, and the deputy chiefs of the directorates of special troops. If necessary, there can also be representatives from the staffs of cooperating formations and large units working there.

The forward command post can be allotted up to roughly 18 or 20 percent of the officers of the main body of the field headquarters of a front and the necessary communications, support, and servicing subunits. The communications means must ensure the establishment of direct communications with all the other control posts of the front, with subordinate troops, and with the higher staff. The commander can exercise control from the forward command post in those cases when the situation requires his prompt direct personal influence on the course of combat actions or when control from the command post is impeded, as well as during the relocation of this post or in case it goes out of operation.

The rear control post is for ensuring supervision of the rear services, and it is headed by the deputy commander/chief of rear services of the front. In extreme cases, the rear control post must be ready to assume control of troops for a certain time.

At the rear control post are situated the rear staff; the front staff departments (services) that take care of the supply, support, and manning of the troops; a certain component of the political directorate; and the officers of the staffs (directorates, departments) of branch arms, special troops, and services who have not been included in the composition of the command post and forward command post. Also situated here are communications, support, and servicing subunits designated for support of the operation of the rear control post.

The airborne command post is an alternate control post and is meant for increasing the stability and continuity of troop control under conditions of high rates of advance, during the relocation or incapacitation of the ground control posts, and also for control of the combat actions of airborne operational landing forces through the transmission (receipt) of signals, formalized commands, and instructions (reports) both directly from the airborne command post and through ground control posts.

An auxiliary control post is established during an offensive under special conditions and is meant for directing troops operating on a separate axis when control of them from the command post is impeded or

impossible.

The place and time of deployment of front control posts is generally established for the command post by the General Staff; and for the remaining control posts, by the commander or -- according to his instructions -- by the chief of staff of the front.

The disposition of control posts on the terrain must ensure dependability of troop control, tie-in to the communications centers and lines of the General Staff, survivability of the control organs and means, camouflage of control posts, and the best conditions for work in the staffs, directorates, and departments. Moreover, one must consider the nature of the tasks to be accomplished in the operation, the actual enemy, and the conditions of the situation and theater of military operations. Hence, it is advantageous to position the command post behind the main grouping of first-echelon troops, the forward command post closer to troops on the axis of the main thrust, and the rear control post near the deployment areas of the rear front bases.

According to the experience of operational command-staff exercises conducted in recent years, the distance of the command post of the front from the border (from the line of battle contact of the sides) has averaged 70 to 90 kilometers; and that of the forward command post, 20 to 30 kilometers. The rear control post is generally positioned 20 to 30 kilometers from the command post of the front. Alternate disposition areas for maneuvering are determined in advance near the main disposition areas of the control posts. In order to mislead the enemy concerning their true disposition, dummy control posts may be established in keeping with the operational camouflage plan.

The dispersal of control posts on the terrain must be done in keeping with the requirements of ensuring their survivability and normal conditions for contact between the official personnel of the control post elements, as well as rapid setup and closedown. It is necessary here to take into account the capabilities of the available means of internal communications, of the security, defense, and servicing forces, and of engineer preparation and camouflage.

Engineer preparation of control posts is done for the purpose of protecting personnel and equipment against enemy means of destruction and of ensuring normal conditions for the work of control organs and rapid and concealed setup and closedown of control posts. It includes engineer reconnaissance and checking of the control post disposition areas for

mines, preparation of paths for traffic, erection of protective shelters, conduct of camouflage measures, preparation of water supply points, organization of electrical power supply, preparation of landing sites for liaison aircraft and helicopters, and engineer measures to ensure the security and defense of the control posts.

The security and defense of control posts is organized through use of the subunits included in their complement. In case of necessity, combat subunits can also be allocated. Besides this, it is imperative to define the tasks of the personnel of control organs in case of an enemy attack. The measures for security and defense of the control post are treated in a special document, the control post security and defense plan.

Of great importance for ensuring continuous control of troops during an operation is the timely and organized relocation of control posts. This matter is worked out in advance during the planning of the operation. When doing so, one determines the routes for relocation of the control posts, the possible times and procedure for their relocation to the new deployment areas, the procedure for engineer preparation of control post deployment areas and for the organization of communications at them, and the organization of security and of provost and traffic control service.

Of great importance in achieving stability of control under modern conditions is the interchangeability of control posts. Interchangeability expresses itself in the fact that, should this or that control post go out of operation, another previously prepared post must promptly assume the functions of the one that has gone out of operation. It is ensured by having the necessary complement of official personnel and communications means at the control posts, especially at the forward command post and the rear control post, having the appropriate documentation on control, and purposefully informing control posts about the situation. Occupying an important place in the achievement of control post interchangeability is the training of personnel in discharging responsibilities when control post functions change and in working at limited personnel strength. In principle, should the command post go out of operation, its functions must be discharged by the forward command post; and, should the command post and forward command post go out of operation at one time, the rear control post must assume the functions of command post. Should the rear control post go out of operation, its functions must be discharged by the rear services operations group located at the command post or by the headquarters of one of the front bases.

The communications system is an integral and decisive element of the whole system of troop control. In a front offensive operation, communications must ensure timely transmission of signals and commands to bring troops into combat readiness and on the use of nuclear weapons, the delivery of the massed aviation strike in the air operation, the acquisition of reconnaissance information about the enemy and -- first and foremost -- his nuclear weapons, and the control of subordinate formations, large units, and units, as well as the operational rear services.

A very important communications task is to ensure cooperation of the front with adjacent fronts, long range aviation, the Air Defense Forces of the Country, and -- during an offensive on a coastal axis -- with fleet forces, as well as cooperation of the combined-arms and tank armies of the front among themselves and with the aviation and rocket troops of the front and with airborne and amphibious landing forces.

In order to accomplish the tasks enumerated, the front establishes a communications system whose basis consists of the communications centers of formation and large unit control posts, auxiliary communications centers, courier mail communications centers, and communications lines made up of radio, radio-relay, and wire means.

The communications system must have a readiness level higher than the readiness level of front troops. This is achieved through high combat readiness of the communications troops and through the establishment in peacetime in the front zone of a developed and protected supporting communications net that includes fixed centers, radio centers, and radio-relay and underground-cable communications lines. The supporting net ensures timely establishment of communications and greater reliability and concealment of its operation, and it also allows a considerable part of the field means to be kept for developing communications during the operation.

The communications system is unified to ensure control of all subordinate combined-arms formations and large units of the front and of the formations, large units, and units of the branches of the armed forces, branch arms, and special troops participating in the operation. This unity is achieved through centralized supervision of communications and establishment of common communications centers, stations, and lines for formations, large units, and units. It [the communications system] must have great survivability, flexibility, and mobility, and must connect with the communications system of the General Staff and that of subordinate and cooperating formations and large units and ensure control of troops one or more levels down.

Survivability, flexibility, and mobility of the communications system are ensured through integrated use of communications means, organization of direct and roundabout communications links, establishment and proper positioning of a communications reserve, and conduct of measures to ensure communications under conditions of high-altitude nuclear bursts and electronic jamming as well as to protect communications installations against the effect of conventional and nuclear means of destruction.

Communications in a front are organized in keeping with the decision of the commander, the instructions of the chief of staff, and the General Staff's instructions on communications, with due regard for the availability of forces and means. In an offensive operation, communications are established from the command post, forward command post, rear control post, and auxiliary control post according to the principle of ensuring both direct communications with the control posts of subordinate and cooperating formations, large units, and units and [indirect communications] through auxiliary communications centers and communications retransmission posts and stations.

Radio communications are organized by radio links and radio nets. To increase the reliability of radio communications with subordinate armies, with front missile brigades, and with other large units subordinate to the front, they are established on several channels. The number and composition of the radio nets and links are here determined by the combat strength of the troops and by the availability of radio means.

Radio communications of the front commander with the large units of his armies are established by getting the commander's radio sets into the army radio nets and links. When he goes out to the troops and is located outside of control posts, radio communications are provided by personal radio sets that are constantly with the commander.

From the airborne control post, radio communications can be provided directly with the control posts of the front, armies, and front missile brigades; and with the other large units and units they are provided through the ground-based communications centers of the front control posts or auxiliary communications centers.

To provide radio-relay and wire communications, there are generally set up one main and one or two auxiliary communications axes and several lateral lines, as well as communications links. The main communications axis begins at the rear boundary or rear control post of the front and is

erected along the axis of relocation of the front command post to the entire depth of the operation. Auxiliary communications axes are erected along the axes of relocation of the command posts of armies operating on other axes, most often to the depth of the immediate task. Lateral lines are usually set up at the lines on which the front command post is positioned.

At the intersection of axial and lateral lines, and also in areas from which it is more convenient to provide communications with the control posts of subordinate and cooperating troops, auxiliary communications centers are set up.

Courier mail communications in the front are provided through courier mail communications centers and stations by links with the large units and front missile brigades; and, as a rule, by circular routes and by axis with the other large units and units. A forward courier mail communications center is set up in the area of the command post; and a rear one, in the area of the rear control post of the front. Courier mail communications stations are set up at the control posts of the front, as well as in areas where the large units and units subordinate to the front are positioned.

When an operation is conducted without the use of nuclear weapons, communications must be ready to ensure reliable troop control during transition to the use of them and during the conduct of combat actions under these conditions. This requires constantly maintaining communications with the missile and missile technical units, ensuring the interchangeability of the control post communications centers, and having a strong reserve of communications forces and means, as well as providing for measures to protect communications from the effect of nuclear weapons.

The system for collecting and processing situation data includes all sources of information, the corresponding staff organs to obtain and process them, and also means for displaying and documenting data on the strength, capabilities, and activities of the enemy and our own troops, as well as on the conditions of conducting the operation.

Situation data come in over the appropriate channels to the staff of the operations directorate at the command post, where a special center to collect and process situation data can be established. Here they are analyzed, collated, and reported in the necessary form and volume to the commander for the adoption of a decision, and also transmitted to the work positions of other official personnel in the part that concerns them. Information also comes in to the front command post from the General Staff,

the main staffs of the branches of the armed forces, adjacent forces, and the staffs of cooperating formations (large units).

Control of all sources of information and transmission of situation data are done over the common communications system of the front.

The main measures for organizing troop control are reflected in the commander's decision and his instructions on control, in the operation plan, in the plans of combat employment of the branch arms, in the plans on the types of combat support, and in the plan of rear services support. Sometimes, as the practice of operational training of staffs shows, a special working document of the front staff -- a plan of control of front troops in the offensive operation -- can be worked out.

In accordance with the decision adopted and the instructions of the commander on the organization of control, the chief of staff directly organizes troop control and determines the work procedure of the control organs, control posts, and control means when troops are brought to full combat readiness and while they are performing tasks in the operation.

Concerning control posts, the chief of staff determines (refines) their composition, the procedure for getting to, deploying, and working at the control posts, the forces, means, and volume of engineer works to prepare (finish preparing) them, the procedure for relocating the command post and forward command post during the offensive operation, and the measures for camouflage of the control posts, protection and electromagnetic compatibility of the electronic means, and secure troop control.

The chief of staff issues instructions to the chief of communications on the organization and operating procedure of the communications system and on its protection against electronic reconnaissance and electronic jamming, and he carries out monitoring of its timely deployment and working during the operation.

The chiefs of branch arms, special troops, and services and the deputy commander for the rear/chief of rear services, on the basis of the commander's decision for the operation and the instructions of the chief of staff, organize control of the troops directly subordinate to them during both the preparation and course of the operation.

Occupying a large place in the work of control organs is the preparation of combat documents. Depending on purpose and content, combat

documents are subdivided into three types: troop control, information reporting, and reference documents.

Troop control documents are for formulating the commander's decision, assigning tasks to the troops, and controlling them during the operation. In particular, they include the commander's decision for the operation, the working maps of the chiefs of branch arms and services, the operational directive, the combat order and combat instructions, the operation plan, the plan of combat employment of branch arms, the directive and instructions on rear services, instructions on the types of combat support of the operation, plans on the types of support of the combat actions of the troops, the plan of political work, and other plans and documents connected with troop control.

Information reporting documents are for reports to the higher organ on the progress in task performance, on the developing situation, and on the new decisions to be made, and also for information of lower and cooperating staffs. These documents include combat reports, operational and intelligence summaries, reports on the types of support, summaries on the rear services, records, logs of combat actions, and reporting maps and charts.

Reference documents include the documents prepared as references during the adoption of the decision by the commander, during planning of the operation, and on the results of combat actions.

The list of combat documents, the time for their preparation and presentation, and instructions on the form and content of the documents are defined by the front chief of staff in keeping with the instructions of the General Staff and on the basis of the nature of tasks and the conditions of the situation.

Combat documents must be characterized by brevity, maximum precision, and clarity of expression, by timeliness in development and conveyance to the executors (staffs concerned), and by high quality and lucidity of format.

Of particularly great importance at the present time in view of the introduction of means of automation and automated systems of control and communications is the necessity that the form and contents of combat documents fully correspond to the capabilities of the means of documenting, reproducing, and transmitting them, which makes it possible to considerably improve the efficiency of troop control.

One of the ways of fulfilling this requirement is the use of formalized combat documents. They expand the possibilities of using computer equipment to process the large volume of information that comes in with the aid of combat documents. This applies in particular to documents that reflect data on the strength level and position of groupings of our own and the enemy's troops, on the provision of troops with various types of materiel, etc.

4. Troop control during the operation

During an offensive operation, the efforts of the commander, staff, political directorate, and other control organs are directed towards the continuous maintenance and buildup of the high political morale of troops and of their combat effectiveness and readiness to accomplish both the previous tasks and those that arise suddenly, towards the acquisition, study, and analysis of new situation data, and towards the timely refinement of decisions or adoption of new ones and prompt conveyance of tasks to the executors, comprehensive support of the combat actions of troops and maintenance of their continuous cooperation, monitoring of the fulfilment of assigned tasks, and giving of assistance to the troops.

When the troops are placed on combat alert and while they are being brought to full combat readiness, the commander and field headquarters of the front direct main attention towards continuously keeping an eye on the actions of the enemy and on the rapid bringing to and maintenance in high readiness of the rocket troops, the air army, and atomic artillery for delivery of the initial nuclear strike, of the air defense troops for repelling enemy strikes from the air, of the covering forces for repelling the attacks of groupings of enemy ground forces, and the first-echelon troops for a rapid offensive.

When repelling an enemy attack, the commander exercises control of the troops from the command post from his work position in the combat control center. It is not out of the question that, when a massed attack of enemy aerospace means is being repelled, he will control troops from the air defense command post. In such a situation, the front staff, on receiving data about a mass takeoff of enemy aviation, about the bringing of enemy missiles into readiness, or about the launch of them, promptly notifies the troops and rear services installations, issues the signal (command) to prepare air defense forces and means for warding off the raid of the air enemy and rocket troops for delivering a nuclear strike, and brings into

readiness the system for plotting nuclear bursts and the forces and means for carrying out measures to eliminate the aftereffects of the use of nuclear weapons by the enemy.

Reconnaissance efforts are directed towards ascertaining the position and readiness of the attack groupings of the enemy and of his airborne and -- on a coastal axis -- amphibious landing forces and towards discovering the composition of these forces and the probable axes of their actions and tasks. The staff gets these data from various reconnaissance means and chiefly from aerial reconnaissance.

During actions on a coastal axis, the efforts of aerial and naval reconnaissance are coordinated, and the matters of joint actions with the fleet forces to disrupt and repel the landing of enemy airborne and amphibious forces are refined.

The initial nuclear strike of the front will be carried out upon the established signal (command) of the General Staff. The front staff continuously monitors the targets of the nuclear strike and establishes which of them are authentic and able to be hit without further reconnaissance and which ones need final reconnaissance. By the beginning of the strike, the staff must know where and in what status the launchers, delivery aircraft, and atomic artillery allocated for the strike are, when they can carry out launches (sorties, fire), what nuclear warhead yields they have, and where the aircraft allocated for final reconnaissance of the strike targets are. These data continuously come in and are displayed on a screen and panels of the combat control center of the command post.

The chief of rocket troops and artillery and the commander of the air army monitor their own targets of destruction and the readiness of forces and means for a strike against them.

The command (signal) for the nuclear strike is given by the commander and conveyed to the executors over the command control system. Data confirming the receipt and fulfilment of the command are received over this same system. On a screen (map) and special panels of the combat control center of the command post, a record is kept of the time of launch of each missile, of the delivery of a strike by each delivery aircraft, and of the rounds of the guns and mortars employing nuclear warheads against each specific enemy target.

The most important tasks of control in this period will be the collection and assessment of the results of our own nuclear strike and of

the aftereffects of the use of nuclear weapons by the enemy, determination and implementation of measures to restore the combat effectiveness of the troops and disrupted control and to eliminate the aftereffects of the enemy nuclear attack, the adoption of a decision for development of the operation, conveyance of tasks to the troops, refinement of the matters of cooperation, and restoration of the system for support of the combat actions of the troops.

The collection of situation data during delivery of the initial nuclear strike is organized by the front chief of staff through the operations directorate, the chief of intelligence, the chiefs of branch arms, special troops, and services, and through the rear staff. Data on the results of the initial nuclear strike are obtained from the reports of the chief of rocket troops and artillery, army commanders, and the commander of the air army, as well as through reconnaissance. The intelligence directorate, in conjunction with the staff of the air army, organizes aerial reconnaissance, refines the tasks of acting reconnaissance, and additionally allocates reconnaissance aircraft and helicopters, which report the results of observation directly from on board the aircraft (helicopter).

To assess the effectiveness of the initial nuclear strike of the front, the operations directorate will use not only the reconnaissance data, reports, and information of subordinate and cooperating staffs but also information about the coordinates and parameters of nuclear bursts that comes in from front plotting means, as well as the data of calculations based on analysis of the missile launches, delivery aircraft sorties, and gun (mortar) fire conducted, with due regard for enemy counteraction.

Used for ascertaining and assessing the condition of one's own troops and rear services organs are the reports of the army and large unit commanders, automatic nuclear burst plotting posts, radar posts of the air defense troops and the air army, the personal observations of the generals and officers of the field headquarters of the front, and the observations and reports of the crews of all aircraft and helicopters and radiation and chemical reconnaissance posts. To the areas of nuclear bursts with which there are no communications, generals and officers of the front staff are sent in aircraft, helicopters, and other mobile means.

The data obtained are checked and refined, analyzed and assessed with the aid of computers. On this basis operational calculations are performed in order to determine the damage done to the troops and rear services

organs by the enemy nuclear strike, the effectiveness of the initial nuclear strike of the front on enemy troops and rear services installations, and the changes in the balance of forces and means of the sides. The time required to restore troop control and combat effectiveness of the troops is calculated, and the measures and times to restore the attack groupings of the front or form new ones are determined. Calculations are also performed to determine the combat capabilities of the surviving rocket troops, artillery, and aviation and the requirement for munitions to destroy unhit and newly detected enemy targets. The combat capabilities of the air defense troops to ward off repeat enemy attacks are determined. Zones of flooding, destruction, obstructions, and conflagrations, the air and ground radiation situation, and the chemical situation are predicted; and the combat capabilities of the engineer and chemical troops to support the subsequent actions of the front are determined.

The rear staff performs operational rear services calculations in order to determine the replacement of materiel-technical losses and support of the subsequent actions of the troops.

The operations directorate, on the basis of the reports and calculations, prepares collated data on the situation that has come about as the result of the nuclear strikes of the sides. Conclusions from them and proposals for the decision are reported by the chief of staff to the front commander.

The first offensive operation of a front may begin and be conducted for some time without the use of nuclear weapons. Under these conditions, the most important tasks of the commander and staff of the front will be control of the participation of front forces and means in the air operation in the theater of military operations and in repelling the strikes of enemy aviation, detection of the axes (areas) and concept of actions of the main grouping of the enemy and specification of the methods to defeat it, organization of the destruction by fire of the opposing enemy forces and reserves, exercise of control of the deployment and transition of troops to the offensive and of their actions to defeat the enemy covering forces, ensuring of the organized entry into the engagement with the main forces of first-echelon troops of the enemy, and specification of the methods of defeating them in accordance with the conditions of the situation (with breakthrough of an enemy defense, in a meeting engagement, etc.). Along with this, they will be required to determine the measures to build up the efforts of the first-echelon troops, to refine the matters of cooperation, to monitor enemy measures for the preparation and use of nuclear weapons,

and to ensure the constant readiness of their own nuclear forces for delivering an initial nuclear strike.

During the operation, depending on the tasks to be accomplished and on the conditions of the situation, the commander will control the troops from the command post and, at certain times, from the forward command post. Nor is it out of the question that the commander may go out and control troops from an army control post. The staff must provide him with the possibility for control from any of these places and even while he is travelling about on the ground and in the air. For this the commander must have communications with the subordinate armies and large units and with the control posts of the front and be accompanied by a small group of generals and officers of the staff with control documents.

Very widespread among the methods of work to control troops at this time may be personal conversations of the commander, chief of staff, and other responsible officials of the field headquarters of the front with subordinates, receipt of reports from them, issuing of combat instructions, and transmission of signals and commands over technical means of communications. Also widely employed is the sending out of staff officers and chiefs of branch arms in helicopters (aircraft) and other mobile means to ascertain the situation, relay instructions of the commander, do monitoring, and give assistance.

To ensure the continuity and stability of troop control during an operation, a whole array of measures will have to be carried out, of which the main ones are ensuring of the safe protection of control posts against the effects of weapons of mass destruction and conventional means, effective combat against enemy means of electronic neutralization, electronic protection of our own means of control, security and defense of control posts, and careful organization of their relocation. It is likewise important to constantly maintain the readiness of the forward command post and rear control post to assume control of the troops and to maintain the continuous stable operation of the communications system. To ensure stable control in an intense period of the situation, the airborne command post of the front must take off and operate. Requiring much attention will be maintenance of the dependable operation of the system for collecting and processing situation data and the provision of information at the command post and between control posts, subordinate, and cooperating troops.

To protect communications and electronic means against enemy jamming, one can carry out such measures as going over to alternate frequencies,

employing the frequencies used by the enemy for communications, organizing concealed radio nets and links, using roundabout links, organizing combined communications lines, and employing radio means with high jamming protection or special equipment and antenna setups. Simultaneously with this, measures are carried out for reconnaissance and neutralization of the electronic means of the enemy and for camouflage of our own electronic means.

The front staff sees to the concealment of the disposition and to the timely relocation of control posts. The forward command post can, in the interests of achieving stability of control, be in a concealed status for a certain time, which will make it hard for the enemy to discover our control system and will increase its stability.

Engineer preparation of new areas for the positioning of control posts is done before the start of their relocation. The nature and volume of works will depend on many factors, principally on the availability of time to do the works. According to calculations, the preparation of a front command post will require 20 to 24 hours, and a forward command post, eight to 12 hours. In this time it is possible at a front command post to prepare 18 to 24 protective shelters for personnel, 150 to 200 shelters for transport means, as well as trenches for the security and defense personnel, and to prepare 10 to 12 protective shelters and 60 to 100 shelters at a rear control post.

The new area for positioning the command post is determined by the commander. To further delineate the area for the positioning and preparation of the command post, the chief of staff sends out a group of officers with means of communications, and security, engineer, and traffic control subunits. An officer of the operations directorate in charge of control posts is generally designated the senior officer of this group. Before going, he receives from the chief of staff the task, which indicates the new area for positioning the command post and the route of travel, by what time to organize communications, the volume and deadlines for engineer preparation, the control post readiness time, and the report time. Besides this, the chief of staff may indicate an alternate area for the control post and the procedure for maintaining communications and organizing traffic control during relocation.

Moved into the new area first can be the first echelon of the command post, headed by the chief of the operations directorate. Then, as a rule, separately from the march echelons of the command post, the commander with a group of the chiefs of branch arms and the duty shift of officers is

relocated in a specially equipped helicopter (aircraft). When the commander arrives at the new area of positioning the command post, the second echelon of the command post headed by the chief of staff begins to move. While the command post is moving, communications with the troops are carried on by radio and radio-relay communications from short stops. It is advisable to relocate control posts along the main lines of wire and radio-relay communications in order to use them for troop control.

The front chief of staff reports to the General Staff and informs the staffs of subordinate and cooperating troops and adjacent forces of the start and completion of the relocation of the command post to a new place.

The rear control post of the front is generally relocated in two echelons, but the forward command post in one.

During relocation and in the new area of positioning the control posts, security is organized for them, for which posts and patrols are set out and all-round defense is organized. Air defense of control posts of the front on routes and in the disposition areas is provided in the overall air defense system as well as by specially allocated air defense units.

When the system of control posts is being established and when they are relocated, measures are taken for their interchangeability, and the established procedure for transferring control from one post to another is strictly maintained.

Transfer of control is done quickly and secretly, and the efficiency and dependability of control must be ensured while it is done. In case the command post goes out of operation, the forward command post assumes control of the front troops on a previously established signal (command) or on its own initiative.

Transfer of control from the command post to the rear control post may most often happen under conditions when the command post and forward command post are put out of operation at the same time and their restoration cannot be done in short periods of time. Here, whereas the forward command post can realistically discharge the functions of troop control without special reinforcement with personnel and communications means, the rear control post must, at the expense of other control posts, be reinforced for this with operations officers, intelligence officers, communications personnel, officers of the air defense troops, and political workers, as well as communications means. Besides this, the chief of the rear has to have in a sealed packet the decision for the operation and the

necessary documents for control. The rear control post must regularly get data on the actions of the enemy and our own troops, keep a situation map, and be posted on all the important decisions of the commander during the operation.

The procedure for restoring control posts will depend on the nature of their damage, the condition of the communications system, and the availability of reserves. In case control is transferred to the forward command post, it is advisable to make it the command post. At the same time, a new forward command post should be established in another area. When control is transferred to the rear control post, it is not advisable to turn it into a command post. A command post will have to be reestablished in a new area.

During an offensive operation, the front staff, when restoring disrupted troop control, organizes and implements the receipt of data on the status and functioning of the command post, forward command post, rear control post, and of the means of communications and collection of data on the situation and, if necessary, prepares an order to designate the main official personnel in place of those put out of action, restores control organs by replacing personnel losses at the expense of other control organs and the reserve, transfers control posts to alternate areas, and replaces losses in communications means and radiotechnical systems through redistribution and at the expense of the reserve. Aircraft and helicopters are used widely to restore control of troops with whom communications have been lost.

5. Organization of the performance of operational calculations in the processes of troop control

The preparation and the conduct of a modern offensive operation require the performance of numerous operational calculations by operational staffs in order to determine the quantitative and qualitative bases necessary for adopting a decision, planning the operation, and organizing support, as well as for predicting and assessing the conditions of the operational situation.

The procedure of performing operational calculations is each time determined in keeping with the nature of the situation, the volume of calculations required, the availability of computer equipment, and developed methods of performing operational calculations.

The main organizer of the performance of operational calculations during the preparation and course of an operation is the chief of staff. He determines the volume of these calculations, assigns the tasks for performing calculations, and monitors the work of the computer center of the front. The operations directorate, on the basis of the instructions of the chief of staff, determines the list of calculation problems and of the participants in the preparation of the initial data, organizes the work of the computer center, analyzes the results, and prepares generalized conclusions from them.

Officer executors of operational calculations [job control officers] determine the type of computer equipment and the methods with which it is advisable to perform the assigned volume of calculations. They fill in the inquiry forms, using the appropriate instructions if necessary, and send them to the computer center.

The chief of the computer center checks on the correct completion of the inquiry forms and then organizes the performance of calculations for the given input data and monitors the correctness of their performance. The calculation results (answer forms) are given to the operations officer who ordered the calculation. The latter analyzes the results and reports them to the chief of the operations directorate or another person in charge. The conclusions and proposals obtained on the basis of analysis of the results of the calculations are reported by the chief of the operations directorate to the chief of staff of the front or, in case of necessity, to the commander.

The chiefs of branch arms, special troops, and services use the computer equipment at their disposal and the electronic computers of the computer center of the front staff to perform calculations for their branch arm (service).

The front staff can work out a special plan for the performance of operational calculations, the plan of computer center use, with determination of the responsible executors and the times for performing specific operations. This plan is a working document of the staff; it is constantly refined in keeping with the conditions of the situation, with the arising needs for calculations (by tasks, volume, and time), and with regard for the actual capabilities of the computer center.

TS #798245
Copy #1

[redacted]

[redacted]

[redacted]

TS #798245
Copy # 1