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CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

19 May 1978

MEMORANDUM FOR: The Director of Central Intelligence

FROM : John N. McMahon
Deputy Director for Operations

SUBJECT : USSR General Staff Manual on the Principles of the Organization and Conduct of Operational Reconnaissance in a Front Offensive Operation

1. The enclosed Intelligence Information Special Report is a translation from Russian of a SECRET manual on the principles of operational reconnaissance produced by the Chief Intelligence Directorate (GRU) of the General Staff of the Soviet Armed Forces in 1974. Intended for use by generals and staff officers of ground forces formations, the manual is a comprehensive study of the theory and practice of reconnaissance in its application to a front offensive operation beginning with conventional weapons and proceeding to the use of nuclear means. Chapter 2 is of particular value for its assessment of the capabilities of the various types of reconnaissance and some of the equipment used. Other chapters deal with indications of enemy preparations for attack, the planning, performance and control of reconnaissance, as well as the targets of interest at different stages of an operation. The problems of reconnaissance in general and also problems specifically encountered on seacoasts, in mountain and desert areas, and in the Far North are treated in the general discussion.

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 N. McMahon

FIRDB-312/00311-78

TS #788076
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HR70-14

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216 pp

Intelligence Information Special Report

COUNTRY USSR

FIRDB - 312/00311-78

DATE OF INFO. 1974

DATE 19 May 1978

SUBJECT

Principles of the Organization and Conduct of Operational Reconnaissance in a Front Offensive Operation

SOURCE Documentary

Summary:

The following report is a translation from Russian of a SECRET manual on the principles of operational reconnaissance produced by the Chief Intelligence Directorate (GRU) of the General Staff of the Soviet Armed Forces in 1974. Intended for use by generals and staff officers of ground forces formations, the manual is a comprehensive study of the theory and practice of reconnaissance in its application to a front offensive operation beginning with conventional weapons and proceeding to the use of nuclear means. Chapter 2 is of particular value for its assessment of the capabilities of the various types of reconnaissance and some of the equipment used. Other chapters deal with indications of enemy preparations for attack, the planning, performance and control of reconnaissance, as well as the targets of interest at different stages of an operation. The problems of reconnaissance in general and also problems specifically encountered on seacoasts, in mountain and desert areas, and in the Far North are treated in the general discussion. The manual also includes a lengthy sample reconnaissance plan and diagrams illustrating the battle formation of radio intercept units, the communications and control of reconnaissance, and the sources and processing of information.

End of Summary

[redacted] Comment:

It would be useful to keep in mind that reconnaissance and intelligence are the same word in Russian, razvedka, which has been translated as one or the other depending on the context.

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The following arbitrary abbreviations were used in the diagrams contained in the report:

ac/hc	aircraft/helicopter(s)
CC	communications center
CP	command post
DF	direction finding
F	Unknown; also F in Russian. See Diagram 4.
OPM	Unknown; same in Russian. Apparently a type of radio van. See Diagram 3.
RC	reconnaissance center
RD	reconnaissance drone(s)
recce	reconnaissance
RIC	radio intercept. There is some question about the interpretation of the Russian, which is given as PRP (post radioperekhvata? post radiopelengatsii?). The latter would mean direction finding post.
RP	reconnaissance post(s)
RT	radiotechnical
RT&A	rocket troops and artillery
SPRG	special-purpose reconnaissance group(s)
SW	shortwave
TA	tank army
USW	ultra-shortwave

GENERAL STAFF OF THE ARMED FORCES OF THE USSR
CHIEF INTELLIGENCE DIRECTORATE

SECRET

PRINCIPLES OF THE ORGANIZATION AND CONDUCT OF OPERATIONAL RECONNAISSANCE IN A FRONT OFFENSIVE OPERATION

Moscow - 1974

The present work has been developed in accordance with the plan of military science work of the Armed Forces for 1971 to 1975.

On the basis of an analysis of the demands made on reconnaissance as a whole and of the capabilities of operational reconnaissance, the work examines the matters of organizing and conducting it in a first front offensive operation beginning with the use of conventional weapons and subsequently going over to the use of nuclear weapons.

The work is intended mainly for generals and staff officers of operational formations of the ground forces, as well as for the professorial and teaching staff and students of academies having a combined-arms curriculum.

Taking part in the development of materials were: General-Leytenant K. N. TKACHENKO, P. S. SHMYREV, General-Mayor A. D. DASHCHENKO, R. G. SIMONYAN, and Colonels B. A. YEFIMOV, A. N. PRANOVICH, V. K. SAVIN, V. R. KRYUCHKOV, A. F. SHEPELEV, and N. F. RUCHKIN.

Responsible editor

General of the Army. P. I. IVASHUTIN

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INTRODUCTION

Throughout its entire history, by pursuing a fundamental Leninist policy, the Soviet Union has shown all progressive mankind an example of firmness, flexibility, and consistency in the solution of timely international problems, adhering resolutely to an anti-imperialist course in the interests of protecting socialism and universal peace.

As we know, the colossal progress in all areas of economy, science, and technology in the USSR and other socialist countries, the triumphant progress of the Leninist ideas of socialism throughout the world, and the success of national liberation movements for peace and the independence of colonial peoples are provoking the rabid fury of the imperialist circles of the world, at the head of which stand the large financial monopolies.

The military-political leadership of the main imperialist states and of the aggressive NATO bloc, fulfilling the wishes of the financial monopolies, is spending enormous resources to perfect and create new, ever more powerful means of destruction and annihilation. At the same time this leadership is intensifying the atmosphere of distrust and the imaginary threat from the Soviet Union and other socialist countries and conducting an unbridled campaign of slander and ideological subversion against them.

In the armies of the capitalist states gathered into the aggressive NATO bloc with the USA at the head, much attention is being devoted to equipping troops with modern weapons and equipment and maximum efforts are being made to perfect and find new, more effective methods of using large units and formations in a modern battle and operation.

Simultaneously with the intensive conduct of combat and operational training of troops and the preparation of theaters of military operations, various doctrines, manuals, regulations, and instructions on the conduct of combat actions and the use of the branches of the armed forces and branch arms are being worked out and improved, with the experience of both the Second World War and the aggressive war in Southeast Asia and the Near East being widely used to form the basic tactical and strategic concepts.

In this situation, as the Central Committee of the Party and the Minister of Defense demand, the Soviet Armed Forces must be constantly ready to ward off any provocation by the enemies of peace and socialism

and capable of conducting successful combat actions to defeat any aggressor under adverse conditions.

Special attention must be paid to the preparation and conduct of strategic operations in continental and ocean theaters of military operations.

A most important component of a strategic operation conducted by the armed forces in continental theaters of military operations is the front offensive operation.

The preparation and conduct of front offensive operations, especially the first ones, both with and without the use of nuclear weapons, are an extremely complex and labor-consuming process in the activity of operational staffs, especially in respect to questions of operational and combat support.

It is not by chance, therefore, that the theoretical and practical solution of these questions is of exceptionally great importance -- the more so as, in comparison with the past war, a modern front offensive operation is a qualitatively new phenomenon. At the present time, the preparation and conduct of such an operation will be done under conditions of the availability of nuclear weapons and other means of mass destruction and the constant threat of their use by opposing sides.

In order to achieve success and make most effective use of all the forces and means of the front during both the preparation and course of the operation, the organization and conduct of operational reconnaissance acquires paramount importance.

It is acknowledged that the organization and conduct of reconnaissance during the preparation and course of combat actions have grown considerably more complicated under modern conditions. Complex new tasks have come to confront reconnaissance. It has become considerably more difficult to obtain information in connection with the increase in the scope of operations and in the dynamism and rapidity of combat actions, with the manifold growth in the number of targets to detect, as well as with the ever-growing capabilities of the enemy to counteract our reconnaissance. The availability of nuclear weapons and modern means of delivering them to target, as well as the high mobility of targets, especially the missile/nuclear means of the enemy, necessitate reducing the time intervals

from the moment a target is detected to the moment it is destroyed. This requires colossal intensity, creativity, and energy in the activity of reconnaissance organs and units at all levels.

The complexity of organizing and conducting reconnaissance in a front offensive operation also consists in the fact that the front is, by its mission, the formation in which all the main forces and means of agent, special, aerial, radio, radiotechnical, and other types of reconnaissance are concentrated.

The dependability of providing all interested levels with reliable data about the enemy will wholly and entirely depend on skilful coordination by target, place, and time of the actions of the reconnaissance forces and means at the front level.

Definite and at times considerable difficulties in the accomplishment of reconnaissance tasks during the first front offensive operation under conditions of the use of nuclear weapons will also be occasioned by the necessity of a rapid and precise resolution of questions of replenishing losses in reconnaissance forces and means, especially of restoring the system of control of the reconnaissance organs and units.

On the whole, in the matters of organizing and conducting reconnaissance in a modern first front offensive operation there are still many problems not fully solved which require urgent solution on both the theoretical and the practical planes.

The present work examines the principles of the organization and conduct of reconnaissance in the first front offensive operation on the basis of the experimental research materials of various exercises of recent years.

CHAPTER 1

NATURE AND SPECIAL CHARACTERISTICS OF A FIRST FRONT OFFENSIVE OPERATION. DEMANDS MADE ON THE ORGANIZATION AND CONDUCT OF OPERATIONAL RECONNAISSANCE

Soviet military science, on the basis of an analysis of the current situation in the world, of the intensification of the struggle between socialism and imperialism, the forces of progress and the forces of reaction, as well as the availability of nuclear weapons among the armed forces of a number of countries, draws certain conclusions about the possibility of the occurrence and conduct of wars which may differ from one another in sociopolitical content, scale, and means of armed combat employed.

In keeping with these distinctive characteristics, the following types of wars between states are possible:

-- local wars between capitalist states and peoples carrying on the struggle for national liberation;

-- local wars between individual capitalist states;

-- local wars of individual capitalist states with individual socialist states.

These three types of wars will probably be waged with the use of conventional weapons. Besides the types of wars indicated, wars are possible between several capitalist and socialist states using conventional means with a transition to limited use of nuclear weapons, and so is a world nuclear war between the capitalist and socialist states with the use of all means of combat.

Since the present publication examines the matters of the activity of operational reconnaissance in support of the preparation and conduct of a front offensive operation carried out under conditions of the threat and the use of nuclear weapons, the last two types of wars are of greatest interest.

A war between several capitalist and socialist states conducted using conventional weapons with a transition to the limited use of nuclear weapons will be marked by great intensity, a keen struggle for the

initiative, mass losses of troops, and the continuous buildup of their efforts through the transfer of reserves from the interior.

Taking on the most important role in this war will be the first operations of the armed forces, during which will be decided the matter of seizing and holding the strategic initiative, disrupting the attack of the enemy, and inflicting decisive damage on the deployed groupings of his armed forces. On the results of the first operations will largely depend the time of going over to the use of tactical nuclear weapons and the outlook for further continuation of the war. Use of tactical nuclear weapons in the operation harbors the danger of going over to unlimited use of the whole arsenal of nuclear means.

A world nuclear war between the capitalist and socialist states with the use of all means of combat will be marked by the decisiveness of military-political objectives and have an intense, destructive, and devastating nature.

A general nuclear war will involve a large number of states and have the coalition nature of a struggle between two opposing social and political systems.

The main means of conducting such a war on both sides will be strategic nuclear forces. Their strikes will have a decisive effect on the course and outcome of military actions.

A general nuclear war may begin with a surprise nuclear strike, or it may come about as the continuation of a local war or a war begun using conventional means with a transition to limited use of nuclear weapons.

Among the indicated methods of the start of a general nuclear war, one must not underestimate above all the possibility and danger of a preventive nuclear strike on the enemy's part. However, with the present-day level of development of the means of detecting a missile launch and of warning, a preventive nuclear strike without a retalitory nuclear strike is impossible. Therefore, guided by the instructions of the Central Committee of the CPSU that the Soviet Union will not use nuclear weapons first, the Soviet Armed Forces must at the same time be ready to respond to nuclear escalation with the immediate use of all types of nuclear weapons.

Such, in general outline, are the main tenets of Soviet military science concerning the classification of modern wars according to sociopolitical content, nature, scale, and means of combat employed.

What, then, are the views of the probable enemy on the methods of the start of a war and the nature of the first operations in a theater of military operations?

VIEWS OF THE MILITARY-POLITICAL LEADERSHIP OF THE AGGRESSIVE BLOCS ON THE METHODS OF STARTING A WAR AND THE NATURE OF THE FIRST OPERATIONS IN A THEATER OF MILITARY OPERATIONS

The revolutionary changes taking place in the world as a result of the victory over German fascism and Japanese militarism and the affirmation of the socialist structure in a number of European and Asian countries were countered by US imperialist circles with a system of aggressive military-political blocs. The members of the blocs formed have combined their economic and military potential; they pursue a common external political course and implement a common military strategy.

Since the nuclear weapons of the United States are the main strength of these blocs, their military strategy inevitably takes into account the main tenets of American military strategy on the questions of determining the types of wars, the forms of preparation of wars, and the methods of starting them, as well as the methods of conducting combat actions.

The identity of views on these matters is particularly apparent in the strategic stands of the aggressive NATO bloc. As we know, the military-political leadership of this bloc, in keeping with the accepted strategy of "flexible response," divides wars between the NATO member countries and the countries of the socialist commonwealth into two types -- a general nuclear war and a limited war. (It is assumed that the latter may be waged with the use of conventional means of destruction and with the use of tactical nuclear weapons.)

General nuclear war. A general nuclear war is regarded in NATO as a war between coalitions of capitalist and socialist states with unlimited use by both sides of all the forces, means, and resources they have. The main distinctive features of this type of war are considered to be the decisiveness of the political and strategic objectives set by the warring coalitions and the massed employment of strategic offensive nuclear weapons and other means of mass destruction. In view of the decisiveness of the political and strategic objectives, it is considered that a general nuclear war will have an exceptionally fierce nature and may involve several continents.

The conditions of the outbreak and the methods of the start of a general nuclear war, in the assessment of the NATO command, may be most varied. It may be started by surprise under conditions of sharp aggravation of the international situation or in the course of a limited war, intentionally or as the consequence of a miscalculation in assessing the actions of the opposing side. Considered most likely is the possibility of starting it after a period of drastic increase of tension, during which both sides may bring their means of nuclear attack (including strategic offensive forces) to a higher level of combat readiness and considerably increase the combat strength of the opposing groupings of ground forces, air forces, and naval forces in the theaters of war.

The most effective method of starting a general nuclear war is considered to be a surprise attack, since with modern means of warfare it will enable one to reduce the nuclear might of the enemy, lessen the results of his retaliatory strike, seize the strategic initiative at the very beginning of the war, and drastically alter the strategic situation in favor of the attacker.

Limited war. Under this type of war the NATO command classifies armed conflicts in which the warring sides set themselves limited political and strategic objectives and deliberately limit the forces and means employed, the area of combat actions, and the number of participating countries.

In limiting the political and military-strategic objectives of the war, the NATO military-political leadership goes on the basis that the nature of the war, the forces and means employed in it, and its scope are determined by the political objectives of the warring sides.

In limiting the means of waging war, NATO strategy assumes that the warring sides in a limited war will endeavor to conduct combat actions with the use of only conventional means and as far as possible avoid using any types of nuclear weapons, particularly in the initial stage of the conflict. Considered most complex is the problem of limiting the use of nuclear weapons in a war.

For NATO's part, nuclear weapons may be employed to achieve the following objectives:

-- demonstration of the determination of the leadership of the bloc to proceed to massed employment of nuclear weapons to force the enemy to cease combat actions;

-- defeat of enemy groupings that have penetrated into the territory of the member countries of the bloc with a threat of the capture of important operational and strategic areas by them when the allied armed forces of the bloc are unable to contain their offensive with conventional forces and means.

Territorial limitations of an armed conflict presuppose a limitation of the zone of combat actions and prevention of the spread of the conflict to other areas.

Depending on the political objectives, a limited war may be started and waged in one theater of military operations or only in a limited area of it (including a limited sea area), or it may simultaneously involve several theaters of military operations and even the whole European Theater of War.

Taking into account the cited views on possible limitations, the NATO command subdivides a limited war into war with the use of conventional means of destruction alone and war with limited use of nuclear weapons.

Considered the most probable motive for starting a limited war is the situation wherein one of the sides comes to the conclusion that the balance of forces has been upset and the other side has lost its military might and political unity.

A limited war in the European Theater of War, in the opinion of the NATO leadership, may occur by surprise or -- what is more likely -- after a definite period of tension in relations between the countries of the North Atlantic Alliance and the Warsaw Pact.

Thus, whereas in their sociopolitical substance the wars considered above are the same and represent the clash of two opposing social systems, in their military-technical content they are different. Nuclear and non-nuclear wars will fundamentally differ from one another in the nature of strategic tasks to be accomplished, the methods of fulfilling them, the means employed, the duration and spatial scope, the probable consequences, and other indices.

It is completely understandable that the differences in the content of a nuclear and non-nuclear war, to whose preparation and conduct are subordinated all the practical measures of the military-political leadership of the aggressive blocs, above all that of NATO, to a considerable extent determine the forms and methods of actions of our armed

forces. Stemming from this, too, are the new demands on reconnaissance, connected with the necessity of carrying on indefatigable surveillance of the activity of the probable enemy, especially for timely detection of the nature of a war being prepared by him and of the forms and methods chosen for starting and conducting combat actions.

Nature of the first operations conducted in a theater of military operations

In the preparation of operations of the allied armed forces in a theater of military operations, the NATO command goes on the basis that their content will follow from the nature of the war, the methods of starting it, and the types of weapons used by the warring sides during its conduct.

In a general nuclear war these operations will involve the whole theater, and the main efforts of the sides will be concentrated on simultaneously destroying both the main groupings of the armed forces of the enemy to the entire depth of their disposition and also his military economic base.

It is considered that the basis of operations under these conditions will be the delivery of massed nuclear strikes against the enemy, which will determine the results and final outcome of the operations.

In a limited war operations will likewise be conducted to the entire depth of the theater of military operations. The available forces and means are expected to be committed to action successively. In the first stage, according to the opinion of the NATO military leadership, "sufficient non-nuclear forces" may be used; in the second, operational-tactical nuclear weapons may be committed to action. In this case, unlike in a general nuclear war, the main targets of actions will be the most important groupings of armed forces.

If a military conflict between the countries of the North Atlantic Alliance and the Warsaw Pact turns into a non-nuclear war, then the combat actions of the allied armed forces of NATO in the theater of military operations will take the form of operations of army groups, allied tactical air forces, and the corresponding formations of the naval forces.

According to the views of the NATO military leadership, the first operations in a theater of military operations must under all conditions of the situation be conducted by large groupings of armed forces of coalition

composition. The basis of these must be the groupings of ground forces, air forces, and naval forces formed in peacetime.

The composition of these groupings is determined by the importance of the theater of military operations, by the objectives and tasks which will be accomplished during the first operation, by the nature of the defense and the composition of armed forces of the enemy, by the mobilization capabilities of the NATO member countries, as well as by the physical geographic conditions and status of operational preparation of the theater.

On the basis of the general concept and objective of the first operation in a theater of military operations, each branch of the armed forces is assigned specific tasks in accordance with its purpose and capabilities. During fulfilment of these, the operational formations of the ground forces (army groups and field armies) within the framework of the first strategic operation in the theater of military operations may carry out their own offensive and defensive operations.

It is assumed that during the offensive the groupings of ground forces will operate in dispersed battle formations, along separate axes, with considerable intervals and gaps between the formations and large units.

Great importance is attached to the actions of armored and airmobile troops during the development of a rapid offensive into the depth of enemy territory.

Under conditions of the massed use of nuclear weapons by the warring sides, the NATO command intends to conduct offensive operations with formations of the ground forces even in the case where their large units will suffer great losses. To replace large units that have completely lost their combat effectiveness and to develop success, the commitment to the engagement of large units from the reserve is expected.

Neutralizing centers of resistance, warding off enemy counterattacks during offensive operations, and defeating his attack groupings in a defense are expected to be done mainly with nuclear strikes as well as with fire by conventional means of destruction.

The formations of the NATO air forces during the first operations in theaters of military operations first perform tasks to gain nuclear and air superiority. After performing these tasks, their main efforts may be concentrated on isolating areas of combat actions and supporting the operational formations of ground forces and naval forces in the operations

they are conducting.

The formations of the NATO naval forces in a strategic operation may conduct combat actions to gain superiority at sea, participate in joint antilanding and amphibious landing operations; and their carrier strike forces, in the accomplishment of other tasks on land as well.

The combat actions of the branches of the armed forces in the first operations in theaters of military operations are expected to be strictly coordinated by time, axes, and targets. Special attention is paid to the organization of cooperation during the use of nuclear weapons.

Underlying the preparation of operations, and of war as a whole, is one general principle -- the endeavor to achieve surprise of attack. As we know, the delivery of a surprise attack always entails serious consequences for the opposing side. Nowadays, a surprise attack becomes especially dangerous, since it may be the decisive factor for achieving victory in a war or in operations during it.

It is considered that surprise in delivering the initial nuclear strike acquires particularly great importance; this may be achieved through advance planning and comprehensive preparation of the armed forces with a gradual buildup of their readiness for war under the guise of everyday activity. To this end, the NATO command has worked out and adopted a system for the countries of the bloc and their armed forces to shift from peacetime to wartime status.

This system includes advance determination of the status of combat readiness of the country and the armed forces, a list of the measures which must be implemented to achieve a set level of readiness, and the procedure for carrying them out, including the signals upon which these measures are implemented.

The NATO allied armed forces and the armed forces of national subordination of the bloc countries within the boundaries of the European Theater of War and its adjacent water areas are kept at a high level of readiness.

Considering the availability of constantly combat-ready and essentially deployed strategic offensive forces (intercontinental missiles, missile submarine fleet, and strategic aviation) and of the necessary number of general-purpose forces (ground forces, tactical aviation, and fleet forces in the main theaters of military operations), the opportunity

is created for the military-political leadership of the aggressive blocs to go over from the ordinary everyday activity of peacetime to combat actions in a short time.

Such are the views of the military-political leadership of the aggressive blocs on the methods of initiating war and on the nature of the first operations in the theaters of military operations.

In adjusting to the new alignment of forces in the international arena, the military-political leadership of the aggressive blocs is preparing for the start and conduct of various wars and operations, which considerably complicates our reconnaissance activity and requires it to accomplish extremely difficult tasks connected with establishing the enemy methods of beginning combat actions and going over to the use of nuclear weapons. The importance of these tasks lies in the fact that the nature of the actions of our armed forces and the forms and methods of conducting the first operations will depend on the timely accomplishment of them.

Since, of all the types of wars and methods and variants of starting them, the one that represents the greatest danger for us is a general nuclear war beginning with a surprise enemy nuclear strike, the main demands on operational reconnaissance must be its ability to detect in time the enemy preparation for an attack and capability to operate successfully during this war.

The high level of combat readiness of the armed forces of the probable enemy requires reconnaissance organs to conduct continuous surveillance of him, not letting him out of sight for one minute. Losing sight of the enemy and his groupings for even a short time can lead to serious consequences since he constantly retains his capability to carry out a surprise attack.

In order to carry out a surprise attack, the probable enemy at the present time has created operational-strategic groupings and deployed them in the main theaters of military operations. Under such conditions, he can start a war, especially a general nuclear war, with the groupings formed in advance without preliminary mobilization or large-scale regroupings of his armed forces. Therefore, timely detection of the immediate preparation of the enemy to start a war and warning of his attack are at the present time an exceptionally important problem not only for operational reconnaissance but also for all reconnaissance as a whole.

Considering that the most important factor in any war is the constant presence of nuclear weapons and the possibility of any conflict developing into a nuclear war, operational reconnaissance must attentively watch the activity of the enemy in any area of a theater of military operations where the interests of the USSR and its allies may be affected, detect in plenty of time the beginning of immediate preparations for an attack and the nature of the attack, and constantly know the status and location of the main targets -- above all, of enemy nuclear weapons -- on whose destruction the outcome of the operation will depend.

It should also be kept in mind that, on going over to immediate preparation for the start of a war, the probable enemy will sharply step up combat against our reconnaissance -- he will strengthen counterintelligence activity and radioelectronic countermeasures and, with the beginning of the war, he will deliver strikes on the locations of its forces and means. Hence arises the problem of ensuring the survivability of reconnaissance and the capability of conducting it under conditions of strong radioelectronic countermeasures.

TARGETS OF OPERATIONAL RECONNAISSANCE AND THE MOST IMPORTANT INDICATIONS OF THE IMMEDIATE PREPARATION OF THE ENEMY TO START A WAR IN A THEATER OF MILITARY OPERATIONS

Possible composition and grouping of enemy troops in the offensive zone of front troops

The military-political leadership of NATO believes that the armed forces of the bloc must be ready to conduct combat actions in theaters of military operations in the composition they are in in peacetime, assuming that significant mobilization expansion of troops before the beginning of a war, especially a nuclear one, will hardly be possible. This applies to the most important theaters of military operations, above all to the Central European Theater, where already at the present time the armed forces are deployed in such groupings that are, in the view of the probable enemy, able to ensure the accomplishment of the tasks of the first operations without additional deployment. Here such operational formations as army groups and allied tactical air forces are formed, their composition is determined, and their plan of actions worked out. Fomerly such formations would be formed, as a rule, before the beginning of a war.

On the basis of the experience of exercises conducted in NATO and of the accepted operational-tactical standards, one can figure that in the offensive zone of front troops there may operate an army group, which is employed on a front of 250 to 450 kilometers. Its composition will, as a rule, be a coalition composition and may include one or two field armies, separate army corps, and divisions. Besides this an army group can have reinforcement units and operational support and rear services support units.

Altogether in the composition of an army group, according to the experience of exercises, there may be 11 to 19 or more divisions with means of reinforcement. The main reinforcement of the formations and large units is nuclear weapons.

According to the experience of NATO exercises and other data, an army group operating on the most important axes to perform tasks in the first operation, including a defensive operation, has been allocated 450 to 600 or more nuclear warheads. An army group operating in other theaters and on other axes, and also in the subsequent operations of the war, has been allocated considerably fewer nuclear warheads.

It is planned to deploy the main forces of the army group, field armies, and army corps during the organization and conduct of a defense on the forward defense line. The width of the defense zone usually amounts to: 50 to 100 kilometers and sometimes more for an army corps, 150 to 200 kilometers for a field army, 250 to 450 kilometers for an army group. The depth of the defense may reach 50 to 90 kilometers or more for an army corps, 150 to 200 kilometers and more for a field army, and up to 300 kilometers for an army group.

The NATO command believes that the grouping of forces and means formed to accomplish the tasks of the first operations must ensure the conduct of successful combat actions under conditions of the use of both conventional and nuclear weapons. Therefore, it has a number of common features. In particular, the operational disposition of troops of an army group and a field army for conducting the first operation under conditions of the conduct of a nuclear as well as a non-nuclear war is drawn up, as a rule, in one echelon: army corps and divisions usually draw up their battle formation in two echelons. The width of the zones of actions of formations, the elements of the operational disposition, and the dispersal of troops are, as a rule, identical.

At the same time, the operational disposition of troops of an army group formed to conduct a first operation with the use of conventional means of destruction alone will have certain peculiarities, the knowledge of which may reveal the concept of enemy actions.

The experience of exercises conducted by the NATO command shows that, whereas under conditions of a nuclear war the first operation of an army group begins, as a rule, with the troops it has available, the conduct of combat actions with the use of conventional means of destruction alone is preceded by a reinforcement of the group through the transfer of large units from other continents, as well as through the activation of new large units in the given theater of military operations.

In view of the fact that under the conditions of non-nuclear war the main means of hitting the enemy is conventional weapons, many times less powerful than nuclear ones, it becomes necessary to create denser battle formations, which in turn leads to the allocation of a larger number of forces and means to the first operational echelon and to the assignment of narrower zones to the large units carrying out a breakthrough or warding off the offensive of the main enemy forces.

Reconnaissance targets in the offensive zone of a front

By the term "reconnaissance targets" is to be understood the forces and means of the enemy, his engineer works, and local features having a certain military importance for our troops. These targets can be destroyed (neutralized) with nuclear strikes (single or grouped) or fire strikes by conventional means of destruction or captured (destroyed) by troops during combat actions.

Depending on the role these targets play in armed combat, in an operation, or in a battle, they are divided into strategic, operational, or tactical.

Targets of operational importance include: operational-tactical missile battalions (batteries); nuclear warheads depots and supply points; divisions (brigades) of the ground forces and their equivalent large units in the other branches of the armed forces and branch arms; surface-to-air guided missile battalions (batteries); home airfields of aviation; control posts of the army group, field army, and army corps and their equivalents; rear services units and facilities (depots, bases) of operational formations; seaports and piers; railroad junctions; bridges and crossings over large water obstacles, etc.

Tactical targets include: nuclear and conventional artillery battalions (batteries), tactical missile subunits, battalions of all branch arms, control posts of divisions and brigades (regiments) and their equivalents, army aviation subunits, subunits and facilities of the tactical rear services, etc.

The division of enemy forces and means into such targets corresponds to their organizational structure; it is in this composition that they operate on the battlefield and in the operational depth, make marches, and situate themselves in concentration areas.

Consequently, in the interests of planning an operation on the whole and the initial strike in particular, it is necessary to know the number and location of the most important enemy targets in the offensive zone of the front.

With regard to conditions in the Central European Theater of Military Operations, as the experience of various exercises and war games conducted by the NATO command shows, opposing a front in the beginning of a war may be a grouping of ground forces roughly equal to an army group, with which an allied tactical air force will be cooperating.

Analysis of the forces of such a grouping shows that, in the zone of the front to the depth of an offensive operation, the enemy may have 600 to 680 reconnaissance targets deployed.

Of the total number, 180 to 220 targets (or 31 to 33 percent) are nuclear attack means, including 26 to 28 batteries of operational-tactical missiles, 20 to 30 squadrons of delivery aircraft (their home airfields), 75 to 90 battalions of tactical missiles and atomic artillery, and 60 to 70 nuclear weapons depots (storage points).

About 100 targets (or 14 to 15 percent) are main and alternate control posts (centers) and staffs of the formations and large units of the ground forces, air forces, and air defense.

The remaining 52 to 55 percent are targets pertaining to the units and large units of the ground forces (divisions, brigades, regiments, battalions, artillery battalions), aviation (home airfields of tactical aviation, airfields and landing strips of army aviation), and air defense units (Nike-Hercules and Hawk surface-to-air guided missile batteries and Chaparral-Vulcan mixed surface-to-air guided missile battalions).

Under the concrete conditions of a situation the number of reconnaissance targets may change in one or the other direction, depending on the composition of enemy troops.

From the cited calculation of the possible number of targets of destruction in the offensive zone of a front, it is important to note that nearly one-third of all the targets are means of nuclear attack, and 27 to 28 percent of these are operational-tactical missile subunits and squadrons of delivery aircraft. In order to thwart an attack by the enemy and defeat him in a short time, the main attention of all types of operational reconnaissance must be concentrated on reconnaissance of these targets during both the preparation and the course of an operation.

It is necessary to keep in mind that 75 to 80 percent of all the targets are mobile. Considering the state of combat readiness of the NATO armed forces and the great extent to which they are equipped with modern means of moving about, one cannot count on their remaining at permanent disposition points under conditions of an immediate threat of the start of war. With any worsening of the situation, the targets can be quickly removed, and aviation and materiel reserves dispersed. This creates great difficulties in conducting reconnaissance of mobile targets, especially in determining the coordinates of their location, and makes it complicated to provide the command with reconnaissance data during the planning of the initial strike or a strike during the operation.

Therefore, during the preparation of an operation, reconnaissance must have at its disposal data not only about the areas of permanent location of the main enemy targets, but also on the areas of their operational assignment; and during the operation it must carry on continuous surveillance of these targets. Only in this case can reconnaissance ensure the designated enemy targets are hit at any time and at any place they may be.

Most important reconnaissance indications of the immediate enemy preparation for an attack

The preparation of the probable enemy for an attack is carried out over a long time and embraces all the most important areas of political, economic, and military activity of the aggressive blocs of imperialism. Immediate preparation has at the present time fused with the process of general preparation for war and is carried on daily and hourly.

At the same time, the exercises, maneuvers, and especially the military conflicts of recent years show that, in spite of the high level of combat readiness of the armed forces to shift from ordinary peacetime activity to combat actions, the military-political leadership requires some time in the final stage before the attack to carry out a number of measures without which it cannot start the war.

It is fully understandable that the substance of these measures -- whose external manifestations are also reconnaissance indications of the immediate preparation for an attack -- stem above all from the methods chosen by the enemy for starting a war.

In order to begin a war, especially a nuclear one, our probable enemies have to first of all make a decision to start it, convey this decision to certain command levels connected with control of various levels of the national and coalition armed forces situated in many theaters of military operations, and on the basis of this carry out the immediate preparation for the attack.

If the attack is planned to be made with the delivery of a surprise nuclear attack, then the enemy, along with the general measures to start any type of war, will concentrate main attention on resolving those questions that are connected with the beginning of a general nuclear war. First of all, he will endeavor to bring all his combat-ready aviation to the highest level of readiness; to take all operational-tactical missile units out of military compounds to launching sites and deploy them for a launch; to take nuclear weapons depots out of deep storage; to deploy mobile field special warheads storage and supply points; to load nuclear warheads into aircraft, helicopters and special motor transport; to obtain the permission of the president of the USA to transfer nuclear warheads to the armed forces of the NATO countries and have American supply organs deliver them to large units and units of the American and allied forces; to fully deploy the control posts, communications centers, and communications means of the missile/nuclear weapons units and tactical aviation on the terrain; to move large units and units of the ground forces from permanent garrison areas to areas of operational deployment and prepare them to conduct combat actions; and to bring the air defense system to full readiness.

The main reconnaissance indications testifying to the completion of enemy preparation for a surprise nuclear attack will be the attachment of nuclear bombs to delivery aircraft on airfields; the passage over the ground forces and air forces command radio nets of highest precedence radio

messages containing the signal (order) for the use of nuclear weapons (S Hour for limited use, R Hour for unlimited) and also of radio messages upward from below confirming the receipt of this signal (order); a stepping up of the radio traffic of the units of operational-tactical missiles and artillery with reporting on the occupation of positions, on readiness for employment of nuclear weapons, and on the assignment of fire tasks; the busy transmission of reconnaissance data about targets for nuclear weapons and of weather reports; intensified sounding of the atmosphere, and other things.

During the immediate preparation for the start of a nuclear war, the enemy will take a number of precautions in the areas where he plans to position and use the means of nuclear attack. The most characteristic of these -- and consequently also reconnaissance indications -- will be: the establishment of prohibited areas and erection of different obstacles and barriers, the existence of strengthened security by field troops and military police, the strengthening of counterintelligence measures in certain areas, restriction and monitoring of movements of the civilian population, and others.

Reconnaissance indications in this period may also be the intensified preparation of troops for conducting combat actions under conditions of the use of nuclear weapons and the implementation of measures to protect troops, important installations, and the population from nuclear strikes, including: preparation to conduct radiation reconnaissance in areas of the location of troops and preparation of them from the antiatomic standpoint; construction of strong shelters for troop personnel, combat equipment, and the population; supplying of troop personnel and the population with individual means of protection and with instructions on antiatomic protection; strengthening of the air defense of airfields, of special weapons depots, of locations of nuclear weapons units, of command posts, and of other important installations; bringing of local defense contingents to full readiness to eliminate the aftereffects of nuclear strikes; evacuation of the population from the border zone (front zone) to the interior of the country.

It is most complicated to detect reconnaissance indications of the immediate preparation of the enemy to use nuclear weapons during combat actions being conducted under conditions of conventional means of destruction. This is due to the fact that combat actions under these conditions are conducted under the constant threat of a transition to nuclear actions. Therefore, many of the measures enumerated above for bringing nuclear means of attack to the highest combat readiness will take

place also under conditions of enemy preparation to start a non-nuclear war.

However, analysis of the nature of the probable actions of the enemy in operations beginning without the use of nuclear weapons shows that these actions will have a number of peculiarities.

In particular, to conduct combat actions without the use of nuclear weapons and with enough time to prepare them, the enemy will obviously take steps to strengthen the existing groupings of troops. Therefore, front reconnaissance will have an additional number of reconnaissance indications of the preparation of the enemy to start combat actions, namely: the transfer of large units and units of the ground forces and air forces to the given theater from other theaters of military operations and continents; the activation of combined-arms large units and units on the territory of the NATO member countries, above all the Federal Republic of Germany; the advance movement of units and large units of the ground forces of the bloc to the areas of operational assignment and especially the deployment of artillery at firing positions for the conduct of preparatory fire; the establishment of higher operational-tactical densities -- by comparison with the conditions of nuclear war -- in breakthrough sectors or on the axes of offensive of the enemy, and other things.

Timely detection of the signs of an immediate preparation of the enemy for an attack requires the careful organization and continuous, purposeful conduct of reconnaissance.

NATURE AND CONDITIONS OF THE CONDUCT OF A FRONT OFFENSIVE OPERATION AND THEIR EFFECT ON THE ORGANIZATION AND CONDUCT OF RECONNAISSANCE

The nature of a front offensive operation is conditioned by the political objectives of the war, by the number and quality of means of armed combat at the disposal of the warring sides, and also by the physical geographic conditions of the theater of military operations.

The political objectives which the warring sides, belonging to two opposing social systems, set themselves predetermine the resolution with which the troops act in achieving these objectives and the intensity of the struggle to seize the initiative from the very beginning of the operation. And the availability to both sides of nuclear and non-nuclear strategic and operational-tactical means of armed combat affords the possibility of

conducting a front offensive operation under conditions of nuclear as well as non-nuclear war, with the use of these means in different combinations and in different sequence.

A front offensive operation may be conducted under various conditions: in main and secondary theaters, on coastal axes, in mountains, in deserts, and in northern regions. In view of the specific conditions of the terrain on which the operation will be conducted, each of them will have its own special features.

An especially important role in the strategic operation in a theater of military operations will be played by the first front offensive operation which the border military districts (groups of forces) prepare and conduct. The successful conduct of these operations will have a substantial effect on the whole course of the war. Within the framework of a strategic operation a front may conduct one or two more offensive operations. In this the role of the front will differ depending on the means of armed combat employed.

In a nuclear war the decisive role in defeating the enemy in the theater will belong to the strategic nuclear forces. In this case, the main task of the front will consist in simultaneously and fully exploiting the results of the initial massed nuclear strike of the strategic and operational-tactical means, completing the defeat of the main enemy groupings in a short time, and taking the most important areas (installations) on enemy territory.

In a non-nuclear war the main role in defeating the enemy in the ground portion of the theater of military operations will belong to the front. In this case, the nature of combat actions of the front troops will have much in common with the operations of the Great Patriotic War. But, at the same time, they will also differ substantially, first of all, because of the presence of a constant threat of the use of nuclear weapons by the enemy and, secondly, because of the equipping of troops with modern equipment and weapons, which has in turn led to a growth in the mobility and maneuverability of troops and an increase in the power of their attacks.

The most important peculiarity of a modern offensive operation is that it will develop under conditions of the absence of a continuous front line, along separate axes, to different depths simultaneously, with great penetration on both sides and the continuous delivery of attacks both day and night.

The objective of the offensive operation of a front is defined by a directive of the General Staff on the basis of the overall objectives and concept of the strategic operation in the theater of military operations.

Under modern conditions, in a strategic operation -- whose depth basically corresponds to the depth of the theater of military operations -- the immediate task will be the defeat of the first strategic echelon of the enemy. At this depth are achieved the objectives of the first front offensive operations, the substance of which will be to defeat the missile, aviation, and ground forces groupings of the enemy, disrupt his mobilization measures, seize the most important operational-strategic areas on his territory, and remove individual countries or groups of countries of the hostile coalition from the war.

Scope of a front operation. By the scope of a front offensive operation is understood the width of its zone, the depth, the rates of advance of the troops, and the duration.

The width of the offensive zone of a front, depending on the developing situation, the number of combined-arms and tank armies making up the first echelon, the conditions of the theater of military operations, and -- in the first operation -- also depending on the territorial boundaries of the military district (front) in peacetime, may be 300 to 400 kilometers. In the course of the operation, the width of the offensive zone may change.

The depth of a front offensive operation is determined by the arrival of the troops in areas by whose capture the objective of the operation is achieved, and it may be 600 to 800 kilometers or more.

The rates of advance of front troops in the operation on different axes and during the performance of different tasks may be uneven and may amount to 40 to 60 kilometers per day or even more under favorable conditions.

The duration of a front offensive operation includes the time from the beginning of combat actions of the troops until the final objective of the operation is attained; it depends on the depth of the operation and the rates of advance of the troops and may be as much as 15 to 20 days.

Tasks of the front. To achieve the objective of the operation, there are defined for a front tasks for the initial massed nuclear strike, an immediate task, and a subsequent task; and, under non-nuclear war

conditions, an immediate task and a subsequent task.

The tasks for the initial massed nuclear strike to be carried out with front means comprise the destruction of the enemy's operational-tactical means of nuclear attack, delivery of decisive damage to his main troop groupings, aviation, and air defense means, as well as hitting of the most important control posts and rear services installations. The initial nuclear strike of the front is made in coordination with the strike of the strategic nuclear forces; its execution will be the beginning of the offensive operation of a nuclear war.

The immediate task of the front comprises the destruction of the enemy means of nuclear attack (destruction of the surviving means of nuclear attack under nuclear war conditions), completion of the defeat or defeat of the main forces of the opposing grouping, and seizure of areas or targets whose capture brings about conditions for further development of the offensive. The depth of the immediate task may be 250 to 350 kilometers or more.

The subsequent task of the front comprises the destruction of the newly detected means of nuclear attack of the enemy, defeat of his deep reserves, and the taking of targets and areas by whose capture the objective of the operation is attained. The depth of the subsequent task may be 350 to 450 kilometers or more.

A modern front offensive operation thus can be characterized by the following indices: depth of the operation, 600 to 800 kilometers or more; average rates of advance, 40 to 60 kilometers per day (more in individual instances); duration of the operation, 15 to 20 days; and width of the offensive zone, 300 to 400 kilometers. However, every offensive operation, conducted in a definite theater of military operations and in a definite strategic situation, will have its own specific indices, which may be greater or smaller than those indicated.

The methods of conducting an operation are determined by the nature of the conduct of combat actions -- with or without the use of nuclear weapons.

The most typical method of conducting an operation with the use of nuclear weapons will be to simultaneously hit the enemy to the entire depth of his operational disposition with the initial nuclear strike and complete the defeat of the opposing grouping through the delivery of a series of splitting attacks by advancing troops with the purpose of getting into the

depth of enemy territory along the shortest axes.

During the conduct of an operation with the use of conventional means of destruction, the defeat of the opposing enemy grouping will be accomplished successively as the troops move forward. This does not, however, exclude the necessity of achieving simultaneous neutralization and containment of the most important troop groupings of the enemy and of delivering powerful attacks on his reserves in the depth.

Action against deep targets and the isolation of enemy groupings are achieved through air strikes and the use of airborne landing forces and airborne assault large units and units as well as through the rapid advance of combined-arms and, above all, of tank formations and large units. When this is done, attacks will be delivered along converging axes for the purpose of encircling and simultaneously destroying the hostile groupings.

In a border zone, the defeat of the enemy will be accomplished by breaking through his defense in narrow sectors and subsequently widening them and developing the offensive into the depth.

Other methods of defeating the enemy during a front offensive operation may be:

-- an attack on one flank with subsequent envelopment and outflanking of the enemy grouping in cooperation with adjacent fronts;

-- an attack on one axis for the purpose of a deep breakthrough and splitting up of the opposing enemy grouping;

-- the delivery of several attacks for the purpose of splitting up, fragmenting, and destroying the opposing enemy grouping in detail.

The front may deliver several attacks (two or three), one of which is the main attack. The axes of attacks are designated as the same for actions with and without the use of nuclear weapons; this permits establishing a single grouping of troops.

The axis of the main attack is chosen for the entire depth of the front operation, and the main forces and means of the front are concentrated there.

Consequently, the axis and number of attacks delivered by the front, as well as the methods of conducting the offensive operation, are selected

with consideration of the concept of actions and the operational disposition of the enemy and its strong and weak points.

Peculiarities of the preparation of a first front operation. A front offensive operation is prepared in accordance with the directive of the General Staff, and it includes the system of measures to be carried out by the command, staffs, troops, and rear services organs for the organization, planning, and comprehensive support of combat actions.

One of the peculiarities of preparation of the first operation is the fact that it is done beforehand under peacetime conditions in order to ensure the constant readiness of the troops of the border military district (group of forces) to perform combat tasks at any time.

Another peculiarity consists in the complexity of preparing an operation in the respect that in one plan it is required to provide for the action of troops and take into consideration the different conditions of the possible entry of the front into war and of the conduct of the operation with conventional means of destruction or with the use of nuclear weapons.

The activity of operational reconnaissance must be organized in keeping with these peculiarities of the preparation of the first operation.

Demands on operational reconnaissance that stem from the nature of a modern front offensive operation. In the recent past, operational reconnaissance to support the first front offensive operation was organized and conducted on the basis of a single variant of the beginning of war. It was assumed that it would begin with a strike by all nuclear means on enemy targets in overseas territories and in all theaters of military operations.

At present time, in connection with the preparation of our armed forces to conduct nuclear and non-nuclear wars, reconnaissance done in support of the front offensive operation must be organized and conducted with due regard for the different forms and methods of the beginning of war, so as to ensure the conduct of combat actions by the troops both with the use of nuclear weapons and with the use of conventional means of destruction. This circumstance considerably complicates the conditions of conducting reconnaissance, placing before it a series of new and extremely complicated tasks; and this in turn requires of the commander and staff of the front a more careful approach to the organization and conduct of reconnaissance.

The drastic increase in the spatial scope of operations, the deep echeloning of troops, and the considerable dispersal of enemy forces and means over a large area, on the one hand, and the equipping of all troop levels from division up with long-range means of destruction, on the other, require organizing the conduct of reconnaissance to a considerably greater depth than it used to be.

The shift of the focus of operational reconnaissance efforts to the depth of the enemy disposition is also connected with the fact that the main troop groupings and most important installations of the enemy are situated considerably deeper than in the past. Whereas, for instance, during the Great Patriotic War up to 70 percent of the enemy targets subject to reconnaissance by the means of operational formations were situated at a depth of up to 20 kilometers, now there are mainly targets of tactical reconnaissance situated at this depth. And the targets of operational reconnaissance are echeloned to the entire depth of the theater of military operations. The depth of reconnaissance under modern conditions must ensure the acquisition of data about the grouping and the nature of possible actions of the enemy and the detection of targets for five means to be used against them at the maximum range, and it must also afford the possibility of anticipating changes in the situation. Reconnaissance is to be conducted over the entire zone and to the entire depth of the combat tasks of the front troops, that is, to a depth of 600 to 800 kilometers or more.

As we know, up to the Second World War inclusively, the decisive means of achieving operational and -- in the final analysis -- strategic objectives was the battle. Combat means directly subordinate to the operational and strategic command could not have a decisive effect on the course and outcome of operations or of the war as a whole.

With the appearance of missile/nuclear weapons, the situation changed radically. Having nuclear weapons and long-range means of delivering them to target, the operational leadership is capable of organizing destruction of the enemy to the entire depth of his disposition and thereby not only of affecting the course of the operation but also of successfully accomplishing tasks which could formerly be fulfilled only through a battle of combined-arms large units. Moreover, nuclear weapons, which are in direct subordination to the operational command, are, under conditions of a nuclear war, the main means of defeating the enemy in operations. Hence operational reconnaissance must not only accomplish tasks to discover the concept of actions and determine the areas of the location of enemy forces and means, but also quickly discover the location of all the most

important enemy targets.

It should here be taken into account that, for planning missile/nuclear strikes, it is above all necessary to have precise coordinates of the targets and not the approximate location of installations in some very large area, which can be considered adequate only for an operational assessment of the location of the elements of the disposition of the enemy troop grouping.

Research shows that the average errors in determining the coordinates of targets to hit with nuclear weapons must not exceed 150 meters for tactical missiles or 200 to 300 meters for operational-tactical missiles.

Since the first front offensive operation is planned in peacetime and since the front troops must be ready to conduct it at any day or any hour, operational reconnaissance must ensure a successful delivery of the initial nuclear strike with conventional means of destruction on the most important enemy targets and a defeat of the opposing enemy grouping in a short time.

The increase in troop maneuverability and mobility, the rapid and drastic changes of the situation on the battlefield, the high mobility of many of the most important targets, as well as the constant endeavor of the enemy to deliver surprise strikes require extensive use of fast-acting means of reconnaissance and an increase in its combat effectiveness.

The nature and conditions of the conduct of combat actions require commanders and staffs of all levels to resolve reconnaissance questions quickly, efficiently, and skilfully; for, in a situation where the opposing sides have means of nuclear attack that are about equal in quantity and quality and capable of hitting any enemy target, reconnaissance becomes problem number one. And this is understandable since under these conditions the side that first manages to detect and, consequently, destroy the enemy targets will gain the victory. Therefore, it is not by chance that more and more attention is being devoted to the questions of finding new forms and methods of organizing and conducting reconnaissance.

CHAPTER 2

FORCES AND MEANS OF OPERATIONAL RECONNAISSANCE AND THEIR CAPABILITIES

Operational reconnaissance is the most important type of support of the combat actions of the troops of the front (army). It is organized by the commanders and staffs of military districts, groups of forces (fronts), fleets, and armies; and it is conducted for the purpose of obtaining reconnaissance data about the enemy in order to prepare and conduct operations.

The present chapter examines the front forces and means of agent, special, aerial, radio, and radiotechnical reconnaissance and their capabilities to obtain reconnaissance information.

AGENT RECONNAISSANCE

Operational agent reconnaissance is one of the main types of operational reconnaissance and it represents the sum total of measures carried out by the staffs of military districts, groups of forces (fronts), and fleets to obtain reconnaissance information and perform special tasks with agent methods in support of the preparation and conduct of operations.

Agent reconnaissance can perform the following tasks:

-- obtain data about changes in the military-political situation in the reconnaissance target countries;

-- detect immediate preparation measures of the probable enemy for an attack on the Soviet Union and other socialist countries and discover his plans for the conduct of operations and the employment of the branches of the armed forces;

-- discover the grouping, combat strength, organization, and equipment of the enemy's ground, air, and naval forces in the theater of military operations, the location of missile units and atomic artillery, the home airfields of tactical aviation, the basing points and combat patrol areas of atomic missile submarines and carrier strike large units, the nuclear warheads depots, the system of troop and weapons control, and the control posts and communications centers;

-- discover the organization and status of air defense and antimissile defense and the location of the positions of surface-to-air guided missile units and of the control and guidance posts;

-- discover the condition and war preparation of the theater of military operations, the nature of engineer preparation of defense lines, nuclear minefield sectors, and demolition zones, and also the enemy measures for rear services support of troops.

Along with this, agent reconnaissance, independently or in cooperation with special reconnaissance units, is capable of carrying out special measures at installations to which penetration is possible through agent methods.

Agent reconnaissance is organized and conducted in peacetime and wartime in close cooperation with other types of reconnaissance to the entire depth of the territory of the reconnaissance target countries and theaters of military operations (including sea and ocean theaters) in keeping with the tasks to be accomplished by the troops of the military districts, groups of forces (fronts), and fleets.

A border military district (group of forces, front) has the appropriate forces and means to organize and conduct agent reconnaissance. Control of the agent reconnaissance of a military district is exercised by the chief of staff of the district. The direct organizer and supervisor of agent reconnaissance is the chief of intelligence, who controls the organs of agent reconnaissance through the apparatus subordinate to him.

An active agent net is created to conduct agent reconnaissance in target countries and an agent reconnaissance reserve is created to reinforce it in peacetime or wartime.

In peacetime the main efforts of agent reconnaissance are concentrated primarily on targets for which reconnaissance results might enable one to draw conclusions about the immediate preparation of the enemy to start military actions.

Such targets include staffs of the formations and large units of the ground forces, air forces, and naval forces of the enemy in the zone of impending combat actions and primarily the organs in them engaged in the planning of operations and the employment of weapons of mass destruction. It is very important to have agents at communications centers and at troop and weapons control posts, in missile units and subunits -- especially the

operational-tactical ones, at the home airfields of delivery aircraft, in nuclear warheads supply organs, and in the servicing subunits of special weapons depots.

On the eve of a war, with a growth of the threat of an enemy attack, when the capabilities of other types of operational reconnaissance to get reconnaissance information are extremely limited in view of their specific character, the role of agent reconnaissance and its responsibility for surveillance of enemy activity grow drastically. In connection with this, the active agent net is reinforced or, if necessary, created anew by getting reconnaissance personnel and agents of the agent reconnaissance reserve into the enemy rear.

The make-up of the agent reconnaissance reserve is determined by the condition and capabilities of the active agent net, by the situation, and by the number of targets to be detected by agents in the zone of impending actions of the front, taking into account the necessity of building up the agent net during the preparation of an operation, replenishing losses, and allocating additional forces and means to accomplish unforeseen tasks during the operation.

Agent capabilities to get reconnaissance information depend on the position occupied by the reconnaissance personnel and agents in the target country, their location, political-morale and professional qualities, training, work experience, and how they are provided with means of communications and other technical means. On the average, when calculating the total number of agent sources necessary to perform the assigned reconnaissance tasks in an operation, one should figure that one source is capable of carrying out reconnaissance of no more than one or two targets at a time.

During the conduct of reconnaissance, technical means are widely used in accordance with the selected methods of getting reconnaissance information. In wartime, moreover, for the purpose of obtaining reconnaissance information and doing material and psychological damage to the enemy, agent reconnaissance organs carry out special measures using agent forces trained for this.

The choice of one method or the other to perform a task depends on the concrete operational situation, on agent capabilities, and on the personal and professional qualities of the reconnaissance personnel (agents).

Along with the positive aspects that agent reconnaissance has, it also possesses a number of substantial shortcomings. First of all, the very process of creating an agent net in a target country and especially the planting of agents at reconnaissance targets is very complicated, laborious, and lengthy. Nor is it less complicated to get agents into the target country (the enemy rear) across the national border (front line). In the immediate performance of reconnaissance tasks, agents -- in view of their limited mobility -- will not always have the capability of conducting continuous surveillance of targets that move about. A great difficulty for reconnaissance personnel and agents is timely transmission to agent reconnaissance organs of the reconnaissance information and materials, especially documentary materials, they have obtained. And, finally, along with performing reconnaissance tasks, agents must also overcome ever-increasing counteractivity on the part of enemy counterintelligence.

In any situation, all these negative points must be carefully taken into account when agent reconnaissance is being organized and conducted.

SPECIAL RECONNAISSANCE

Special reconnaissance is an independent type of operational reconnaissance and is primarily for conducting reconnaissance, as well as carrying out special measures, in the enemy rear in support of the operational formations of the ground forces and navy, and the General Staff.

To perform the reconnaissance and special tasks, a border military district (group of forces, front) has a special-purpose brigade and an agent reserve for special reconnaissance; and every combined-arms (tank) army has a separate special-purpose company.

To perform tasks, groups and larger subunits -- special-purpose reconnaissance detachments of various sizes -- are formed from the brigade.

The detachments and groups, depending on the nature of the tasks to be performed and the situation in which they will have to operate, may be reinforced with crews of special weapons subunits as well as radio and radiotechnical reconnaissance crews. This reinforcement of the reconnaissance groups (detachments), taking into account how they are equipped with reconnaissance and special equipment as well as mines and explosives, enables them to successfully accomplish various reconnaissance

and special tasks in the enemy rear.

From the army company there can be allocated eight reconnaissance groups at one time.

With its own forces and means, the company is capable of simultaneously carrying out reconnaissance of five or six enemy targets to the entire depth of an army offensive operation.

Each reconnaissance group (detachment), depending on the situation, is assigned one or several tasks, which can be accomplished successively or simultaneously. They are assigned an area or a target for conducting reconnaissance. The size of the area will depend on the situation in the enemy rear, the nature of the terrain, the composition of the group (detachment), and the time for performing the task.

To get reconnaissance information, special reconnaissance uses the following basic methods: surveillance, search, interrogation of prisoners, questioning of local inhabitants, and study of documents and models of weapons, gear, and equipment captured as a result of raids and ambushes, and also intercept of enemy radio traffic and direction finding of operating radioelectronic means.

Special measures to destroy or incapacitate weapons of mass destruction and other important enemy targets are carried out with all types of weapons fire during the organization of raids and ambushes, and also through the use of mines and demolitions.

In support of the first offensive operation, special reconnaissance is organized beforehand and conducted, as a rule, with the beginning of combat actions, and its main efforts in this must be concentrated on the axes of actions of the attack groupings of front troops.

Operating in the enemy rear, the special reconnaissance subunits are capable of successfully accomplishing tasks to discover the groupings of enemy troops and observe the nature of their activity, as well as to detect and incapacitate means of nuclear attack and troop and weapons control posts. Moreover, by carrying out special measures they are capable of disrupting the orderly movement of enemy troops, combat equipment, and weapons by rail, highway, and sea and air transport, as well as of disorganizing the work of the rear services organs.

To perform tasks, the special-purpose groups (detachments) are moved into the enemy rear by air, sea, or land. The main method of movement is landing from aircraft and helicopters. Organization of the landing of reconnaissance groups (detachments) in the enemy rear is charged to the chief of staff of the front. He gives instructions on the allocation of aviation, conveys the landing tasks to the aviation chiefs, and takes steps to ensure the safety of the flight of aviation to the drop areas.

During combat actions, the groups (detachments), as a rule, must be moved by lone aircraft and mainly at night.

The landing area must be as far as possible from the location of enemy troops, populated areas, and guarded installations, at a distance that ensures the safety of landing and the fulfilment of tasks in the established time limits.

Successful performance of reconnaissance and special tasks is ensured by proper organization of the control of forces and means and, above all, by the organization of continuous and stable radio communications with the subunits operating in the enemy rear.

In order to shorten the time for the passage of reconnaissance information from the reconnaissance groups (detachments) to the front chief of intelligence it is advisable to combine the locations of the receiving centers and cryptographic organs, to allocate secure communications channels between the control post of the front chief of intelligence and the command post of the brigade, and to provide them secure internal communications.

To ensure the continuity of control of the brigade subunits operating in the enemy rear, the relocation of the command post should be done by echelon, with provision being made for the allocation of communications means and groups of cryptographers to work from two positions. It is very important under these conditions to maintain close cooperation between the communications center of the brigade and the OSNAZ radio center of the front so that these centers can fill in for each other in case of necessity.

In examining the special reconnaissance forces, means, and capabilities of a border military district (group of forces, front), it can be noted that one of its strong points is the ability to detect and destroy (incapacitate) important targets in the enemy rear to the entire depth of the front offensive operation.

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Moreover, equipped with technical means, the special-purpose reconnaissance groups (detachments) operating in the enemy rear can not only detect targets and determine their coordinates with high accuracy, but also interpret what they observe and evaluate the condition and nature of operations of the target as well as distinguish dummy targets from real ones with full reliability. These qualities of the special reconnaissance subunits are confirmed by the experience of the Great Patriotic War and by exercises that have been conducted, and they are acquiring even greater importance under modern conditions.

At the same time, special reconnaissance also has certain negative aspects. Among these, above all, should be classed the complexity of organizing the movement of the groups (detachments) into the enemy rear and providing them with material means to perform the assigned tasks, which will require of the front staff and the command of the brigade a particularly careful approach to the planning of the combat employment of the special-purpose subunits.

AERIAL RECONNAISSANCE

Aerial reconnaissance is one of the most maneuverable types of operational reconnaissance. It plays an important role in the support of combat actions of the troops in modern front operations. The importance of aerial reconnaissance is determined by the ability of reconnaissance aviation to suddenly and covertly penetrate enemy territory to a great depth and observe extensive land and sea spaces in a short time, discovering the status and activity of a large number of targets in support of the employment of nuclear weapons and conventional means of destruction.

Under modern war conditions with the dynamic development of combat actions and the rapidity of changes in them, the requirement of troops and aviation for aerial reconnaissance will be particularly great.

For conducting aerial reconnaissance a border military district (group of forces, front) has, in the air army, reconnaissance aviation organizationally broken down into reconnaissance aviation units and subunits which are equipped with manned and unmanned reconnaissance aircraft (drones).

The air army may have the following aerial reconnaissance forces:

-- a separate operational reconnaissance air regiment;

-- one or two separate tactical reconnaissance air regiments;

-- a separate operational reconnaissance drone squadron.

Besides the T/O&E reconnaissance aviation, one specially trained non-T/O&E reconnaissance aviation squadron is allocated from every bomber, fighter-bomber, and fighter air regiment of the air army to conduct aerial reconnaissance. These are equipped with combat aircraft of their own type of aviation and have no reconnaissance equipment. Non-T/O&E reconnaissance squadrons are intended for performing reconnaissance tasks mainly in support of the actions of their own air units and large units.

The separate operational reconnaissance air regiment is for conducting aerial reconnaissance over the entire zone of the front. The regiment is equipped with YAK-28R* reconnaissance aircraft outfitted with aerial cameras and radioelectronic means of reconnaissance that enable them to conduct reconnaissance in fair and adverse weather conditions day or night.

The speed of the aircraft is 1,900 kilometers per hour with a maximum flight range of up to 2,700 kilometers, which ensures reconnaissance of targets at the following distances from the home airfield: up to 500 kilometers when flying at low altitudes, up to 630 kilometers when flying a variable flight profile, and up to 800 kilometers when flying at altitudes of 10,000 to 12,000 meters.

Reconnaissance equipment is accommodated in the aircraft in three versions.

The equipment of two of these versions is for aerial photography of targets in the daytime. The AFA-54 aerial camera provides photography of targets from any flight altitude of the aircraft. To increase the width of the strip of terrain photographed, two such cameras are mounted in the automatic swinging photo assembly of the aircraft. The short-focus AFA-42/20 aerial camera is used as a mapping camera during reconnaissance from high altitudes and for detailed photography of targets from low altitudes. The slit-type AShchAFA-8 aerial camera permits photographing of the terrain from low and medium altitudes on a continuously moving film under poor light conditions. For aerial photography for cartographic

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*A few regiments continue to have IL-28R and YAK-27R reconnaissance aircraft, which have been taken out of production.

purposes, the AFA-41 topographic aerial camera mounted in a special unit that provides relatively vertical photography is used.

The third equipment version is for photographing targets at night with the NA-Ya-7 aerial camera having an SOU-2 electronic illumination source.

On the whole, the aerial cameras mounted on board the YAK-28R enable aerial photography of the terrain and targets to be done from an altitude of 100 meters up to the service ceiling of the aircraft during the day, twilight, or night.

The radiotechnical equipment is for conducting general radiotechnical reconnaissance in the 2.8- to 37-centimeter bands (SRS-6) and 37- to 200-centimeter bands (SRS-7), with the radiotechnical reconnaissance equipment affording the capability of conducting general reconnaissance of operating enemy radar to a depth of up to 100 kilometers from low altitudes and up to 600 kilometers from high altitudes.

The onboard navigation and bombing system is used for conducting radar reconnaissance of targets and reference points; it enables a radar image of the terrain and targets to be obtained on the screen of the bombsight in any weather conditions day or night.

Some YAK-28R aircraft are equipped with a close-range television reconnaissance system (TARK-1); this enables the targets and terrain over which the aircraft is flying to be observed on the screen of a ground receiving station. Television reconnaissance with the use of this system can be conducted to a distance of up to 380 kilometers from altitudes of 900 up to 15,000 meters, and one is able to distinguish, on the screen of the ground receiving station, aircraft on airfields (up to altitudes of 14,000 meters) and tank and motor vehicle traffic (up to altitudes of 10,000 meters).

If necessary, the image on the screen can be photographed with the aid of a special attachment. The total take of terrain scanned width-wise of the route equals 0.35 to 0.7 of the flight altitude.

Thus, the YAK-28R operational reconnaissance aircraft has varied reconnaissance equipment which ensures the conduct of aerial reconnaissance of the enemy day and night in good and bad weather conditions.

Using the onboard reconnaissance equipment, the crew of a YAK-28R aircraft can perform one of the following tasks in one flight:

-- reconnoiter and determine visually from low and medium altitudes the coordinates of two or three targets 50 to 100 kilometers away from one another with an accuracy of 200 to 300 meters;

-- photograph from high altitudes three or four targets 100 to 150 kilometers away from one another;

-- determine the traffic on three or four sectors of railroads, highways, and dirt roads up to 500 kilometers long;

-- photograph two or three routes up to 150 kilometers long;

-- determine the number of operating pulse radars; discover their operating frequency and mode, and also establish their approximate location to a depth of up to 350 or 400 kilometers, depending on the flight altitude;

-- do radar reconnaissance of two or three targets and establish the reference points on the approaches to them;

-- do final reconnaissance of one or two targets on behalf of the rocket troops and aviation;

-- monitor the results of a strike on three or four enemy targets.

When these things are done, the method of aerial reconnaissance (visual observation, aerial photography, or reconnaissance with the aid of radioelectronic means) is chosen on the basis of the assigned task.

According to the T/O&E, a separate operational reconnaissance air regiment contains 33 YAK-28R aircraft. The sortie rate can be two or three aircraft sorties per day. Taking into account the combat readiness percentage of materiel and the probability of the aircraft negotiating the enemy air defense (the average summary coefficient is about 0.8), the total sortie rate of the regiment in the first twenty-four hours of combat actions may amount to as many as 75 aircraft sorties.

In the course of the first twenty-four hours of an operation, the regiment is able to:

-- reconnoiter 50 to 75 targets and determine their coordinates;

-- scan and determine the traffic on all types of roads with a total length of up to 12,000 or 13,000 kilometers;

-- photograph up to 80 routes with a length of 3,500 to 3,700 kilometers;

-- detect up to 60 or 70 percent of the operating radars of the enemy in the front zone.

The separate tactical reconnaissance air regiment is for conducting reconnaissance on the main axis of actions of front troops in the zone of a combined-arms (tank) army. The equipment of the regiment is the MIG-21R reconnaissance aircraft, which has varied reconnaissance equipment.

The maximum speed of the aircraft is 2,250 kilometers per hour (1,700 kilometers per hour with suspended fuel tanks), the flight range is up to 1,250 kilometers, the service ceiling is 22,000 meters (17,400 meters with suspended tanks). The aircraft can conduct reconnaissance to a depth of 250 kilometers with flights at low altitudes, up to 400 kilometers during flights with a variable profile, and up to 650 kilometers with flights at high altitudes.

The technical reconnaissance means of the aircraft are mounted in four different types of pods, only one of which can be suspended on the fuselage.

The equipment of the aircraft consists of:

-- a pod containing equipment for aerial photography of targets and terrain in the daytime (D);

-- a pod containing photo equipment for photographing targets at night (N);

-- a radiotechnical reconnaissance pod (R);

-- a television reconnaissance pod (T).

Used for aerial photography in the daytime on the MIG-21R aircraft are short-focus AFA-39 aerial cameras, which enable targets to be photographed from altitudes of 500 to 5,000 meters at flight speeds of 400 to 1,500 kilometers per hour. The number of frames in the camera is 200.

The slit-type AShchAFA-5 aerial camera, mounted in this same container, provides photography of the terrain under poor light conditions (at twilight) from altitudes of 70 to 1,200 meters.

The UAFA-47 aerial camera, mounted in pod N, enables targets to be photographed at night from altitudes of 300 to 1,000 meters at flight speeds of 600 to 1,500 kilometers per hour. Used as a source of illumination in this case are special illumination cartridges placed in magazines. The aerial camera is so designed that its shutter opens only after the burst of an illumination cartridge, i.e., the number of pictures depends on the number of illumination cartridges there are on the aircraft. There are 152 illumination cartridges altogether in a night photography set.

On the whole, the photographic equipment of the MIG-21R aircraft ensures fulfilment of the tasks of aerial photography of targets in the tactical depth from low and medium altitudes by day or night.

The radiotechnical reconnaissance pod is fitted out with the same means that are installed in the YAK-28R operational reconnaissance aircraft. Therefore, the capabilities to conduct radiotechnical reconnaissance of operating enemy radar are identical on the MIG-21R and the YAK-28R.

The TARK-2 close-range television reconnaissance system, with a range of up to 150 kilometers, provides reproduction of an observed image at a ground receiving point, where it is recorded on a continuously moving band of photographic paper, with a delay of 30 seconds from the moment of flight. If necessary, the movement of the image on the screen can be stopped and photographed.

Aerial reconnaissance in tactical reconnaissance aircraft is done in pairs. In one flight, a pair of crews in MIG-21R aircraft can perform one of the following tasks:

-- visually reconnoiter an area of the location of missile/nuclear means of 10 to 20 square kilometers on wooded terrain and up to 80 square kilometers on open terrain and detect and determine the coordinates of one

or two targets with an accuracy of 300 to 500 meters;

-- reconnoiter two or three separate targets (airfields, control posts, road junctions, bridges, crossings);

-- reconnoiter one or two troop concentration areas as large as 20 to 100 square kilometers;

-- reconnoiter two or three sectors of roads with a total length of up to 200 or 250 kilometers and photograph up to 100 kilometers of them;

-- determine the number and parameters of operating enemy radars to a depth of 350 or 400 kilometers, depending on flight altitude;

-- do final reconnaissance of one or two targets on behalf of the rocket troops and aviation;

-- monitor strike results on two or three targets.

According to the T/O&E, a separate tactical reconnaissance air regiment has 40 MIG-21R aircraft. The maximum sortie rate in a day may reach three or four aircraft sorties. Taking into account the readiness coefficient (0.85 to 0.9) and the probability of negotiating enemy air defense (0.8), the regiment in the first twenty-four hours of combat actions can complete up to 120 aircraft sorties and has the capability of:

-- reconnoitering 40 to 60 targets, determining their coordinates, and photographing them;

-- scanning and determining traffic on all types of roads with a total length of as much as 4,000 to 5,000 kilometers and as this is done, of photographing routes with a length of up to 2,000 kilometers;

-- reconnoitering 40 to 50 troop concentration areas measuring 20 to 100 square kilometers each;

-- discovering as many as 60 to 70 percent of the operating radars of the enemy in the zone of actions of the combined-arms (tank) army.

The depth to which aerial reconnaissance is conducted by the forces of a tactical reconnaissance air regiment does not exceed 400 kilometers.

The separate operational reconnaissance drone squadron (OAEBSR) is for conducting aerial reconnaissance of targets under conditions of a deeply echeloned, strong enemy air defense. The equipment of the squadron is the one-time use DBR-1 unmanned aircraft (drone); its flight speed is 2,600 to 2,800 kilometers per hour, range up to 3,600 kilometers, and maximum altitude 21,000 meters. The craft is equipped with daytime photo reconnaissance means (four long-focus aerial cameras) and SRS-6 radiotechnical reconnaissance equipment, which enables it to photograph the terrain over a width of 40 to 80 kilometers and a length of 1,400 to 2,700 kilometers, as well as to detect the operation of enemy radar in the zone of the front.

A squadron has four launchers and 12 DBR-1 reconnaissance drones.

According to combat training experience, a separate reconnaissance drone squadron can carry out six to eight launches in the first twenty-four hours of action; this allows reconnoitering up to 12 to 15 large targets, about 10 sectors of railroads and highways, and also to detect the operation of up to 60 or 70 percent of the enemy radars in a strip up to 650 kilometers wide to the depth of its flight range.

In addition to the enumerated T/O&E reconnaissance aviation, aerial reconnaissance will be conducted on behalf of the front, as was pointed out earlier, by the aircraft of non-T/O&E reconnaissance air squadrons of all types of combat aviation. However, it should be kept in mind that there are no technical means of reconnaissance on these aircraft and, consequently, their reconnaissance capabilities are extremely limited. Besides this, reconnaissance aircraft of long range aviation and -- on coastal axes -- aircraft of naval aviation can be allocated to perform aerial reconnaissance tasks on behalf of the front. The main aerial reconnaissance tasks will be accomplished by the T/O&E reconnaissance aviation units, which -- as exercise experience and calculations show -- are capable in cooperation with the other types of reconnaissance of providing the front command with the necessary data about the enemy in support of the preparation and conduct of an offensive operation.

Thus, in the first twenty-four hours of war the operational and tactical manned reconnaissance aircraft can make as many as 330 to 350 sorties. Their actions can be supplemented by six to eight launches of long-range reconnaissance drones. The total depth of this air reconnaissance will be 1,000 to 1,200 kilometers.

As a whole, the T/O&E reconnaissance aviation of the front in the first twenty-four hours of an operation is capable of:

-- detecting as many as 150 to 200 enemy targets and determining their coordinates;

-- reconnoitering up to 100 troop concentration areas in the operational and tactical depth;

-- determining the movement of troops and cargoes on roads with a total length of as much as 20,000 to 25,000 kilometers, of which up to 18,000 kilometers can be photographed from the air;

-- detecting up to 60 to 70 percent of the operating radars of the enemy in the front zone.

The calculation data cited should be considered one of the possible variants of the actions of the reconnaissance aviation of the front in the first twenty-four hours of war, for the real combat situation will undoubtedly have a substantial effect on the conditions and nature of its actions.

It is evident from the calculation data that the reconnaissance aviation of the front is capable of only partially accomplishing the tasks of discovering the main groupings of troops and aviation, detecting the most important targets and determining their coordinates, and revealing reserves and radiotechnical means of the troop and weapons control system of the enemy. Therefore, aerial reconnaissance must be conducted simultaneously with other types of reconnaissance and in constant close cooperation with them.

RADIO RECONNAISSANCE

Radio reconnaissance is one of the types of reconnaissance with technical means, and it obtains data on the enemy through detection of the radioelectronic systems he employs for troop control.

The role and importance of radio reconnaissance is determined above all by the fact that the wide use of radioelectronic means in the enemy armed forces for the control of troops and weapons enables it to get valuable information about the status and activity of the enemy both in

peacetime and wartime, even under conditions of a mass securing of radio communications channels.

In comparison with the other types of operational reconnaissance, radio reconnaissance has a number of positive qualities, namely: the capability of conducting reconnaissance of targets to virtually any depth in any situation regardless of weather conditions, time of year, or time of day; the ability to get reconnaissance information in the real time frame; the relatively low vulnerability to enemy action; the speed of applying forces and means to reconnaissance targets* and intelligence sources; and the complete assurance of concealment during the performance of reconnaissance tasks.

For conducting radio reconnaissance, a military district (group of forces, front) has a separate OSNAZ radio regiment, and each combined-arms (tank) army has a separate OSNAZ radio battalion.

The separate OSNAZ radio regiment has the following main subunits:

-- a command post for controlling reconnaissance means, monitoring the fulfilment of reconnaissance tasks, processing and collating reconnaissance information, and preparing it for reporting to the command;

-- a radio intercept battalion for discovering radioelectronic sources, intercepting their radio transmissions, targeting the radio direction finding means of the regiment on them, and processing reconnaissance information;

-- a radio intercept and synchronous direction finding battalion;

-- five radio direction finding centers for direction finding of enemy radio sets and determination of their location;

-- three mobile companies for intercept in the ultra-shortwave range;

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*The Russian is literally "maneuver by targets," which is defined on page 171.

-- a radio emissions research laboratory meant for detection and technical analysis of new types of radio transmissions as well as for development of methods to intercept them;

-- a communications company to ensure continuous control of the subunits of the regiment during the performance of reconnaissance tasks and to organize command, cooperation, and warning communications.

The separate radio regiment can conduct radio reconnaissance in a zone 400 to 500 kilometers across the front to a depth of 1,000 kilometers or more.

The main reconnaissance targets of the OSNAZ radio regiment are:

-- tactical and operational-tactical missile/nuclear weapons units and subunits;

-- units, large units, and formations of the ground forces and air forces and their control and cooperation organs;

-- home airfields and aircraft of strategic, tactical, reconnaissance, and military transport aviation;

-- rear services and troop supply organs of the enemy.

The sources for the radio reconnaissance units and subunits to get reconnaissance information on the indicated targets are the radio-relay and tropospheric communications serving the corresponding control organs.

During the performance of reconnaissance tasks, the detection of sources of radio intelligence, establishment of their value, and acquisition of information are done through search and surveillance.

Search is the organized activity of radio reconnaissance units to detect enemy radio sets (radio centers, radio nets, radio links) and determine their value as sources of obtaining reconnaissance information.

Surveillance is the coordinated activity of radio reconnaissance units to get reconnaissance information from intelligence sources whose value has been determined, and the acquisition of reconnaissance data about the enemy from this information.

Depending on the intelligence value of sources, surveillance of them can be continuous, periodic, or monitoring.

Continuous surveillance is conducted against those sources that are most important at the given time.

Periodic surveillance is organized against sources whose intelligence value is not constant and which are not the main sources of obtaining information about the enemy in a given situation. With this kind of surveillance, the location of the sources is monitored periodically and partial intercept of their operation is conducted. Periodic surveillance is likewise employed when there is a limited number of radio reconnaissance forces and means.

Monitoring surveillance is conducted against sources having limited intelligence value at the time. With this kind of surveillance, the make-up of the radio nets (radio links) and the locations of radio sets (radio centers) are monitored.

Reconnaissance information is obtained from the intelligence sources in two ways -- by radio intercept and by radio direction finding.

By radio intercept is understood the logging (recording) of transmissions of the detected radio sets and the determination of their technical characteristics.

Radio direction finding consists in taking bearings on the operating radio sets and subsequently determining their locations according to the intersections of the bearings (fixes) taken by several direction finders separated on the terrain.

In accordance with the methods of obtaining reconnaissance information, in the subunits of the separate OSNAZ radio regiment there are deployed radio intercept posts, radio direction finding posts, and technical reconnaissance posts.

Radio intercept posts are subdivided according to the types of transmissions receivable into intercept posts of radiotelegraph (manual telegraphy, high-speed, single channel, multichannel, combined, telecode), radiotelephone, photofacsimile radio transmissions, and transmissions of radio-relay and tropospheric sets.

Each radio intercept post receives a reconnaissance assignment either for search or for surveillance.

A post conducting search is assigned a sector of the radio frequency band in which the operation of the radio set being sought is most likely (its reconnaissance indications are specified).

A post conducting surveillance is given one or two frequencies for an assignment with continuous surveillance, three or four frequencies in the case of periodic surveillance, and eight to ten frequencies with monitoring surveillance. The average (rated) load for one radio intercept post is considered to be four frequencies per hour.

Radio direction finding posts are combined for combat operation into radio direction finding nets (three or more posts in each net). The necessary number of radio direction finding nets is determined by the number of radio intelligence sources in the front zone and by the tasks facing the regiment. The separate OSNAZ radio regiment of a front can deploy two radio direction finding nets based on shortwave radio direction finders and one on ultra-shortwave direction finders. The load norm for one radio direction finding net is the obtaining of 30 fixes per hour by the radio direction finding posts with manual control and 100 to 120 with automatic control.

Technical reconnaissance posts conduct a search for new types of radio emissions, make an analysis of them, determine the technical parameters, and work out recommendations on intercepting them for the subunits of the regiment. Such posts are set up by the radio emissions research laboratory.

On the basis of the table of organization and equipment, the separate OSNAZ radio regiment can deploy 125 reconnaissance posts, including 97 radio intercept posts and 28 direction finding posts. With this number of posts, the regiment can ensure surveillance of radio nets on 388 frequencies and acquisition of up to 150 fixes per hour on the operating enemy radio sets with the forces of two direction finding nets, one of them with automatic control. Altogether, the radio regiment can reconnoiter 40 to 60 enemy targets in the course of a day in the reconnaissance zone of the front.

Naturally, with the radio reconnaissance means of a military district (group of forces, front) it is impossible to organize surveillance of the operation of all sources. Therefore, the main efforts of radio

reconnaissance must be concentrated on detecting the most valuable sources and on organizing surveillance of them, which requires careful calculation of the radio reconnaissance forces and means.

The basic data for this calculation will be: the reconnaissance targets in accordance with the assigned tasks and the number of them, the number of sources and their intelligence value, the actual number of deployable reconnaissance posts, the permissible load norms per post, the necessary density of direction finding means, and the frequency band to be reconnoitered.

The calculation of forces and means of the separate OSNAZ radio regiment indicates:

-- the number of radio intercept posts to be allocated for search;

-- the number of radio intercept posts to be deployed for surveillance;

-- the allocation of intelligence sources and reconnaissance targets among the subunits and reconnaissance posts;

-- the number of radio direction finding nets to be formed and their allocation among the reconnaissance targets;

-- the allocation of sectors of the frequency band among the subunits and posts for conducting search;

-- the number of reconnaissance posts to be allocated to the reserve.

As the situation and the reconnaissance tasks change, the necessary additions and changes must be introduced into the calculation of forces and means. The calculation performed is drawn up in documentary form and reflected in the radio reconnaissance plan of the regiment.

To perform reconnaissance tasks in a combat situation the radio regiment adopts a battle formation (Diagram 1) which, as a rule, is drawn up in one echelon: the headquarters, staff, and command post of the regiment and the radio intercept battalions, separated a distance of three to five kilometers from each other, are positioned at a distance of 100 to 120 kilometers from the line of contact of the troops (25 to 30 kilometers from the front command post); the radio direction finding subunits are 150 to 200 kilometers from the line of contact of the troops and 100 to 120 kilometers from one another across the front (with a total direction finding base on the order of 400 to 500 kilometers); the airborne means are at the airfield of the front reconnaissance aviation. The mobile companies are deployed 10 to 20 kilometers from the line of contact with the enemy and are positioned if possible on commanding heights, on the main axes of concentration of the main reconnaissance efforts of the front.

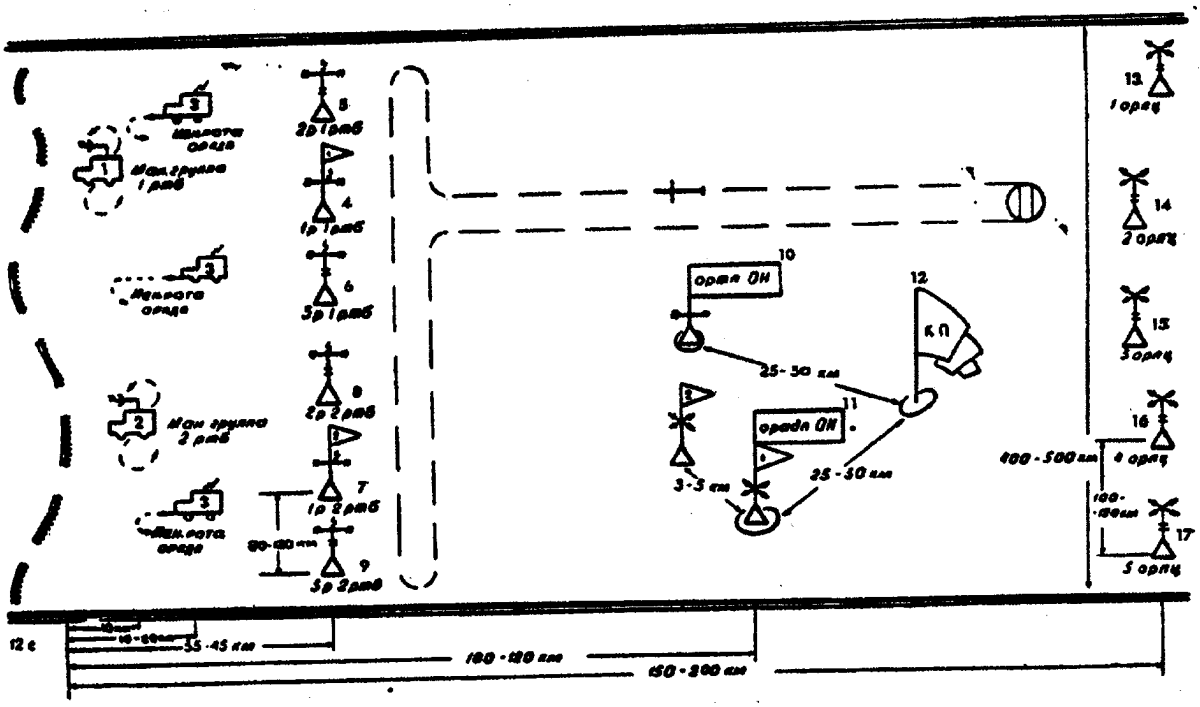

Diagram 1. Basic diagram of the layout of battle formations of front OSNAZ radio and radiotechnical units

1. Mobile group 1st RT Battalion
2. Mobile group 2nd RT Battalion
3. Mobile companies of separate radio regiment
4. 1st Company 1st RT Battalion
5. 2nd Company 1st RT Battalion
6. 3rd Company 1st RT Battalion
7. 1st Company 2nd RT Battalion
8. 2nd Company 2nd RT Battalion
9. 3rd Company 2nd RT Battalion
10. Separate OSNAZ RT regiment
11. Separate OSNAZ radio regiment
12. Front command post
13. 1st Separate Radio DF Center
14. 2nd Separate Radio DF Center
15. 3rd Separate Radio DF Center
16. 4th Separate Radio DF Center
17. 5th Separate Radio DF Center

RT = Radiotechnical; DF = Direction Finding

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The separate OSNAZ radio battalion has the following main subunits:

-- a command post for controlling the work of the reconnaissance subunits and posts, for monitoring the progress of fulfilment of the assigned tasks, processing reconnaissance information, and preparing it for reporting to the command;

-- one local and two peripheral radio intercept and direction finding companies for getting reconnaissance data about the enemy in the reconnaissance zone of the army, including data on the means of nuclear attack, the grouping, the combat strength, and the actions of the units and large units of ground forces (from army corps to regiment inclusive) and about the basing and actions of the aircraft of tactical and army aviation;

-- a communications platoon to provide command and operational communications of the battalion and cooperation communications.

To perform reconnaissance tasks in a combat situation, the battalion employs a one- or two-echelon battle formation. In the first echelon, four to six kilometers from the line of contact of the troops, are deployed the ultra-shortwave intercept and direction finding means; and in the second echelon, at a distance of up to 20 kilometers from the line of contact of the troops, are deployed the shortwave intercept and direction finding means.

The distance across the front between adjacent ultra-shortwave direction finders (the DF base) must be 10 to 15 kilometers; and that between adjacent shortwave direction finders, not more than 30 kilometers.

With this layout of the battle formation, the intervals between the companies of the battalion will be as much as 30 kilometers, with a total DF base within the limits of 60 kilometers for shortwave and 40 to 45 kilometers for ultra-shortwave. The depth of reconnaissance in the battalion DF zone will be as much as 100 kilometers on shortwave and about 20 to 30 kilometers on ultra-shortwave.

On the basis of the T/O&E, the separate OSNAZ radio battalion of the army can deploy 33 reconnaissance posts, 23 of them radio intercept posts and 10 of them direction finding posts. With this number of posts, the battalion can ensure surveillance of radio nets on 80 frequencies and acquisition of up to 60 fixes per hour on the operating radio sets of the enemy. In all, the battalion can reconnoiter 25 to 30 enemy targets in the army reconnaissance zone in the course of a day.

Thus, the operational reconnaissance forces and means examined are able, based on their own capabilities, to accomplish many of the important tasks of obtaining reconnaissance information about the enemy in support of the preparation and conduct of a front offensive operation. However, like any type of reconnaissance, along with its positive qualities, radio reconnaissance also has definite limitations. These include the dependence of its effectiveness on the operation of the radioelectronic means of the enemy and the insufficient accuracy in determining the location of the operating radio means of the enemy.

RADIOTECHNICAL RECONNAISSANCE

Radiotechnical reconnaissance is one of the types of reconnaissance with technical means, and it obtains data about the enemy through detection of the radioelectronic means and systems he uses for control of weapons and support of the combat actions of troops. Radiotechnical reconnaissance can be conducted continuously at any time of day or time of year and in any weather conditions. The reconnaissance data it obtains can be sent to all levels concerned almost in the real time frame, which is very important under modern conditions.

The growing saturation of the armed forces of the probable enemy with radioelectronic means, without the extensive use of which control of troops and weapons is unthinkable at the present time, creates for radiotechnical reconnaissance the objective preconditions for obtaining reconnaissance information about the enemy both in peacetime and in wartime.

Radiotechnical reconnaissance can perform the following tasks:

-- detect the operation of enemy radioelectronic means and determine their tactical-technical specifications, type, and location;

-- discover reconnaissance targets and their purpose, location, and nature of actions;

-- detect reconnaissance indications of the combat activity of enemy troops.

For conducting radiotechnical reconnaissance, a border military district (group of forces, front) has a separate OSNAZ radiotechnical regiment; and each combined-arms army, a separate OSNAZ radiotechnical

battalion.

The separate OSNAZ radiotechnical regiment consists of the following basic subunits:

-- a command post for controlling reconnaissance forces and means, monitoring the fulfilment of reconnaissance tasks, processing reconnaissance information, and preparing data for reporting to the command;

-- two radiotechnical battalions intended for detection, direction finding, surveillance of the operation, and intercept and analysis of the emissions of the ground and airborne radio control, radar, and radio navigation means and means of radio-relay, tropospheric, and ultra-shortwave radio communications, as well as for processing of the reconnaissance information;

-- a radio intercept battalion for discovering the radio nets and radio sets serving the targets of radiotechnical reconnaissance, intercepting their transmissions, and targeting the navigational-direction finding means of the regiment on them;

-- an airborne reconnaissance detachment (flight) for conducting -- with aircraft radiotechnical and radar means -- intercept of the emissions and direction finding of ground radio control, radar, radio navigation, and radio communications means located at an operational-tactical depth and for radar mapping of the terrain;

-- a radio emissions research laboratory, which accomplishes the tasks of seeking and dealing with new sources of reconnaissance information;

-- a communications company, which provides command and operational communications and cooperation communications.

The regiment can conduct radiotechnical reconnaissance of the radio control and radar means in the front zone to a depth of up to 400 kilometers and reconnaissance of the radio navigation and ultra-shortwave radio communications means to a depth of up to 1,000 kilometers or more.

The main reconnaissance targets of the separate OSNAZ radiotechnical regiment are:

-- the staffs, control posts, and radio centers of tactical air forces and air armies, of missile/nuclear weapons units and subunits, and of corps and army artillery;

-- the aircraft of tactical and strategic aviation and their home airfields in the theater of military operations;

-- the organs for control and guidance of tactical aviation to ground targets;

-- the control organs of the air defense system;

-- the command posts, control centers, and firing positions of the surface-to-air missile units and subunits.

The sources for obtaining information on the indicated reconnaissance targets include: troop and weapons radio control systems; radar of the air defense and antimissile defense system; onboard radio navigation and radar sets of aircraft; radar for guidance of aircraft to targets; radio navigation systems; radio, radio-relay, and tropospheric communications of missile/nuclear weapons units and subunits, of air defense and antimissile defense systems, of corps and army artillery, of tactical, strategic, and military transport aviation, and of the organs for cooperation of the ground forces and tactical aviation.

Radiotechnical reconnaissance accomplishes its tasks by the method of search and surveillance. In the process of search and surveillance it carries out radiotechnical intercept of emissions and radiotechnical direction finding of the reconnoitered sources.

An OSNAZ radiotechnical regiment is capable of deploying up to 88 reconnaissance posts with its own forces and means.

A reconnaissance post is the reconnaissance equipment allocated and deployed for fulfilling an assignment and the personnel assigned for the work. A reconnaissance post is the basic entity of radiotechnical reconnaissance.

A radiotechnical regiment deploys radiotechnical posts (ground radar reconnaissance posts, aircraft radar reconnaissance posts, radio navigation

systems reconnaissance posts), radio intercept posts, radio direction finding posts, and posts for reconnoitering new types of radio emissions.

Two, three, or more of the same type of radiotechnical posts from the same or different subunits, spread out on the terrain, and working to perform one assignment either by the method of control from one point or by the method of reciprocal targeting, form a radiotechnical direction finding group.

A radiotechnical direction finding group for reconnaissance of ground radar stations (radio navigation stations) can detect an average of five or six radar (radio navigation) stations in an hour and determine their parameters, type, and location.

A radiotechnical direction finding group for reconnaissance of aircraft radar can detect five or six aircraft an hour and ensure plotting of them (by the operation of the onboard radar).

An aircraft of the airborne reconnaissance detachment of the regiment in one sortie (of eight hours' duration) can detect and determine the parameters and location of 10 to 12 ground (shipboard) radar sets, conduct surveillance of four frequencies in the ultra-shortwave range, and do radar mapping of a strip of terrain up to 100 kilometers wide and 600 kilometers long, with a resolution of 25 to 100 meters.

The capabilities of the radio intercept and radio direction finding posts are determined according to the methods accepted for the OSNAZ radio units.

To ensure constant tracking of reconnaissance targets, it is necessary to ensure surveillance of their sources (radar, radio navigation stations, radios) with a regularity of two to four or more times per day, depending on the nature of the target.

The total reconnaissance capabilities of an OSNAZ radiotechnical regiment are determined by the number and capabilities of the reconnaissance posts, the radiotechnical direction finding groups, and the radio direction finding nets, and by the regularity of surveillance of sources.

The regiment is able in the course of a day:

-- against ground radar -- to detect, establish the type and affiliation, and monitor the location of 180 to 200 sets (with verification four times a day);

-- against onboard radar -- to detect as many as 150 to 200 aircraft and ensure plotting of them through the operation of their radar;

-- against radio navigation systems in the medium-wave and longwave ranges -- to detect, determine the type and affiliation, and monitor the location of 60 to 72 stations (with verification twice a day);

-- against radio communications sets and radio navigation systems in the shortwave range -- to conduct surveillance of 160 radio nets and radio links (frequencies);

-- against means of radio-relay and ultra-shortwave radio communications -- to provide surveillance of 10 to 12 radio-relay communications channels and 16 ultra-shortwave radio nets (frequencies).

For performance of reconnaissance tasks in a front offensive operation, the battle formation of the OSNAZ radiotechnical regiment (see Diagram 1, page 58) is drawn up, as a rule, in one echelon: the headquarters of the regiment, the radio intercept battalion, the radio emissions research laboratory, and the servicing subunits are positioned 25 to 30 kilometers from the front command post, and the radiotechnical companies of the battalions are deployed at a distance of 35 to 45 kilometers from the front line, at intervals of 80 to 120 kilometers from one to another. To ensure more effective operation of the direction finding groups, it is advisable to locate the headquarters of the radiotechnical battalions with the local radiotechnical companies in the center of the battle formations of these battalions.

It is necessary to employ the radio-relay communications lines intercept groups of the radiotechnical battalions and the non-T/O mobile groups on the main axes, situating them at a distance of up to 10 kilometers from the line of contact of the troops.

The airborne reconnaissance detachment can be based at one of the airfields of the air army and make reconnaissance flights 25 to 50 kilometers from the front line.

Such a layout of the battle formation of the regiment ensures the conduct of radiotechnical reconnaissance throughout the zone of the front offensive operation to a depth of:

-- up to 60 kilometers with the radiotechnical direction finding groups at the short-range reconnaissance stations;

-- up to 400 kilometers with the radiotechnical direction finding groups at the long-range stations and with the reconnaissance aircraft posts;

-- up to 1,000 kilometers or more with the radio navigation and shortwave radio station reconnaissance posts;

-- up to 40 or 50 kilometers with the radio-relay communications reconnaissance posts.

Naturally, continuous surveillance of all the sources in the reconnaissance zone of the front cannot be provided by the forces and means available in the radiotechnical regiment. Therefore, the main efforts should be concentrated on reconnaissance of the axes, areas, and even individual targets that have decisive importance in the plans and intentions of the enemy.

The separate OSNAZ radiotechnical battalion has the following basic subunits:

-- a command post for controlling forces and means, monitoring the fulfilment of assigned tasks, processing reconnaissance information, and preparing it for reporting to the command;

-- one local and two peripheral radiotechnical companies, a mobile group, and a helicopter for obtaining reconnaissance data about the enemy in the reconnaissance zone of the army, especially about the means of nuclear attack and the forward control posts and fire positions of the surface-to-air missile (antiaircraft artillery) units and subunits covering the troops and important installations of the enemy.

To perform reconnaissance tasks in a combat situation, the battalion draws up its battle formation, as a rule, in one echelon. The radiotechnical companies are deployed 30 to 40 kilometers from one another at a distance of up to 10 kilometers from the line of contact of the troops. The mobile group is employed on the main axis of the army

offensive, positioned four or five kilometers from the front line. The command post of the battalion with the communications platoon usually is situated with the radiotechnical company located in the center of the battle formation.

With the battalion positioned this way, the total DF base will be 60 to 80 kilometers; and the depth of conducting reconnaissance, from 40 to 60 kilometers.

On the basis of the T/O&E, the battalion can deploy 35 reconnaissance posts, including 24 ground radar reconnaissance posts, 10 posts for reconnaissance of radio-relay communications lines and ultra-shortwave radio nets, and one post for radio emissions search from the reconnaissance helicopter.

In all, the battalion can reconnoiter 56 to 86 ground radars and up to 12 radio-relay channels (ultra-shortwave radio nets) in the reconnaissance zone of the army in the course of a day.

On the whole, radiotechnical reconnaissance, possessing great capabilities for obtaining information about the enemy, is one of the important and promising types of operational reconnaissance.

At the same time, it has certain weak points, among which should be included the indirect nature of the reconnaissance information it obtains and the dependence of its effectiveness on the operation of the radioelectronic means of the enemy.

* * *

Besides the operational reconnaissance forces and means examined, there are organized and conducted, in support of the combat actions of troops of the front, engineer reconnaissance, radar reconnaissance, and radiation, chemical, and biological reconnaissance.

Engineer reconnaissance is conducted for the purpose of determining the nature and extent of engineer preparation of the positions and troop disposition areas of the enemy, the system of obstacles, the passability of the terrain, and the nature of water obstacles and the conditions of their assault crossing.

Engineer reconnaissance is conducted with the forces and means of the subunits of engineer troops. In addition, all the reconnaissance subunits

of the other branch arms take part in the performance of engineer reconnaissance tasks.

Radar reconnaissance is organized and conducted for the purpose of timely detection and identification of an air enemy and continuous surveillance of him; determination of the coordinates, strength, maneuvering, and other characteristics of the air targets; detection of the time and place of the drop of enemy airborne landing forces; and also for surveillance of enemy ground and water targets.

Radar reconnaissance is conducted by the radiotechnical units of the air defense troops of the front and the combined-arms (tank) armies as well as by the radar subunits of artillery, antiaircraft, and air large units and units.

Radiation, chemical, and biological reconnaissance is organized for the purpose of getting data about the radioactive, chemical, and biological contamination of the terrain and air in the zone of actions of the front troops and of providing commanders and staffs with these data in a timely manner.

Radiation, chemical, and biological reconnaissance is conducted by all branch arms and special troops with the use of ground and air means.

CHAPTER 3

ORGANIZATION OF RECONNAISSANCE IN A FRONT OFFENSIVE OPERATION

By organization of reconnaissance is understood the array of measures to be carried out by the front command to get information about the enemy, the terrain, the area of impending actions, and the weather. The organization of reconnaissance includes: determining the objective, tasks, and targets of reconnaissance and allocating the necessary forces and means to perform them; planning reconnaissance and assigning tasks to the executors; coordinating the efforts of all types of reconnaissance by tasks, targets, and time; preparing the units and subunits (groups) allocated to conduct reconnaissance and giving them all-around support; monitoring the fulfilment of the assigned tasks and providing practical assistance to the staffs and commanders of units and subunits in fulfilling them; organizing uninterrupted communications with the reconnaissance units and subunits and with the staffs of subordinate formations (large units) and also organizing the receipt of reconnaissance reports from the crews of reconnaissance aircraft; ensuring the safety and survivability of the reconnaissance units and subunits against weapons of mass destruction; organizing the collection and processing of reconnaissance information, reporting it on time to the formation commander and higher staff, and making information available within the staff and to the subordinate, adjacent, and cooperating formation (large unit) staffs.

All the measures enumerated are inseparably interconnected and must be implemented simultaneously within short time limits.

The organization of reconnaissance is based on a thorough understanding of the nature of modern operations, on constant study of enemy views on the conduct of combat actions and of the organization and armament of his troops, on firm knowledge of the capabilities of one's own reconnaissance forces and means and skilful exploitation of them, and also on a broad manifestation of creativeness, initiative, resourcefulness, and military ingenuity.

Initial data for the organization of reconnaissance are:

-- the combat task of the formation and the front commander's decision for the operation;

-- the combat instruction of the higher staff on reconnaissance;

-- the orders of the commander and the chief of staff on the organization of reconnaissance;

-- the available data about the enemy and the area of impending actions;

-- the condition of reconnaissance forces and means and their capabilities.

Here it is necessary to take into account that the absence of orders from the commander or higher staff does not relieve the front staff, and in particular the chief of intelligence, of the responsibility of timely organization of reconnaissance. An indispensable condition of dependable organization of reconnaissance is the ability to single out the main tasks and concentrate the main efforts on performing them.

In connection with the growing role of reconnaissance under the conditions of modern war and the new demands made on it, success in conducting it will largely depend on the daily purposeful guidance of all the practical activity of reconnaissance on the part of the command and staffs. Therefore, the organization of reconnaissance is a most important responsibility of the front commander, the staff, and the chiefs of branch arms and special troops.

The front commander, on the basis of the combat task and an evaluation of the available data on the enemy, determines the objective and most important tasks of reconnaissance and allocates, where necessary, additional forces and means to conduct it. He indicates the areas and axes to concentrate the main reconnaissance efforts on, and he also determines what forces and means to conduct reconnaissance with in peacetime and during combat actions and by what time it is necessary to get the data he is interested in. Subsequently, the front commander examines and approves the reconnaissance plan, monitors the activity of the intelligence organs personally and through the chief of staff, and hears the chief of staff and chief of intelligence on matters of the organization of reconnaissance, the progress of the fulfilment of reconnaissance measures, and the assessment

of the enemy.

The chief of staff of the front exercises direct control over the reconnaissance activity in the formation and has direct responsibility for the organization of reconnaissance and for its continuity, purposefulness, and aggressiveness. The chief of staff is obliged always to know the enemy in the zone of the front, foresee possible changes in the situation, and be ready to report his conclusions and proposals necessary for the commander to make a decision.

In the process of organizing reconnaissance, the chief of staff of the front works out the details of the reconnaissance tasks set by the commander and the higher staff; determines the sequence of carrying out reconnaissance measures to get information about the enemy; specifies the exact targets, areas, and axes on which it is necessary to concentrate the main efforts; and determines the forces and means to perform the most important tasks and the make-up of the reconnaissance reserve.

The main attention of the chief of staff must be devoted to resolving questions of the coordination of efforts of the reconnaissance forces and means of the branch arms and special troops in the interests of support of the actions of the main grouping of front troops, of the procedure for deploying reconnaissance forces and means upon receipt of an operational directive, of the allocation of the necessary means of communications, and of the organization of materiel-technical support of the units and subunits allocated for reconnaissance. In addition, the chief of staff determines the main measures for preparing reconnaissance forces and means to perform the assigned tasks and the time for submitting the reconnaissance plan and combat instructions on reconnaissance for signature.

The immediate organizer of all the measures for reconnaissance is the front chief of intelligence. He has responsibility for the organization and conduct of reconnaissance; controls the subordinate reconnaissance units; and directs the activity of the chiefs of intelligence of the formations (large units), branch arms, and services of the front. The work organ of the front chief of intelligence is the intelligence directorate.

The chief of intelligence is charged with:

-- planning reconnaissance for peacetime and wartime and carrying out measures to strengthen reconnaissance and quickly build up its efforts through the commitment to action of additional forces and means;

-- getting tasks to the executors in time;

-- organizing and supporting the actions of subordinate reconnaissance units and subunits and controlling them;

-- coordinating matters of the conduct of reconnaissance with the branch arms and special troops;

-- organizing and maintaining stable communications with the chiefs of intelligence of the formations and with the reconnaissance units and other reconnaissance organs doing reconnaissance of the enemy;

-- monitoring and assisting troops and staffs in the organization of reconnaissance and the performance of reconnaissance tasks;

-- collecting and processing the reconnaissance information obtained by all types of reconnaissance and received from the higher staff and adjacent forces, as well as reporting it on time to the command and the higher staff and informing the chiefs of branch arms, special troops and services, staff directorates, lower staffs, and adjacent forces;

-- organizing final reconnaissance of installations and targets in support of the initial and subsequent nuclear strikes.

Besides this, the chief of intelligence has to organize:

-- the interrogation of prisoners and defectors and the questioning of local inhabitants;

-- the study of captured documents and models of new equipment;

-- keeping track of the enemy large units and units and their combat and numerical strength, armament, and equipment;

-- study and generalization of the operational situation in the enemy rear, of new methods and techniques of conducting combat actions, and of the organization of units and large units;

-- work to qualitatively analyze the capabilities of the enemy, objectively calculate the expected effectiveness of his actions according to the main variants of decisions, and to get these data to the troops;

-- preparation and submission of intelligence summaries and reports to the higher staff;

-- participation in the development of measures to counteract reconnaissance, to combat radioelectronic means, and to deceive the enemy.

The work of the intelligence directorate is performed in close contact with the operations directorate, the staffs of branch arms and special troops, the chiefs of services, the adjacent forces, the staff of the border guards, organs of the KGB, and -- on a coastal axis -- with the staff of the fleet.

The staffs (directorates, departments) of the branch arms and special troops are obliged during the organization of reconnaissance to: take part in the development of the reconnaissance plan of the front, plan the reconnaissance of their own branch arm, and get the tasks to the executors; exercise control of the reconnaissance activity of the subordinate reconnaissance forces and means; submit requests for reconnaissance to the intelligence directorate; collect, study, and process reconnaissance data and immediately report them to the chief of intelligence of the front.

The front chief of intelligence must be constantly ready to give the commander (chief of staff) answers to all questions of the organization and conduct of reconnaissance in the front, as well as to report to him valid conclusions and reliable data about the nature of actions, the combat strength, and the grouping of forces and means of the enemy, especially about the location of nuclear and chemical weapons, the possible intentions of the enemy, his combat effectiveness and weak and strong points, and about targets whose destruction and neutralization will considerably reduce the combat effectiveness of the enemy.

The organization of reconnaissance in the first front operation has a number of peculiarities stemming primarily from the conditions of a developing situation that may require beginning combat actions at any time. Therefore, reconnaissance must be organized while it is still peacetime and in such a way that the commander and staff of the military district (front) can have at a given moment the necessary reconnaissance data enabling them to deliver nuclear strikes or strikes with conventional means of destruction in a short time against the most important enemy targets and to take the initiative into their own hands at the very beginning of combat actions.

Consequently, all measures for reconnaissance in support of the first offensive operation must be carefully planned beforehand and comprehensively supported. With a change in the situation, timely refinements and additions must be introduced into the plans that have been worked out. Therefore, the main content of reconnaissance activity in peacetime consists in detecting in time the immediate preparation of the enemy for an attack, his intention, and the possible nature of actions, and in discovering the composition and grouping of forces and means as well as the most important targets of destruction.

Since it is impossible to determine beforehand whether a war will begin with or without the use of nuclear weapons, the organization of reconnaissance must ensure its successful conduct under either condition. In an operation without the use of nuclear weapons, reconnaissance must obtain the most detailed data about the nuclear and conventional means of destruction of the enemy, his grouping, defense works, and strongpoints -- right down to individual fire points -- and other targets necessary for the effective use of conventional weapons; and at the same time it must constantly monitor the readiness of the enemy for employing nuclear weapons and keep under surveillance the targets for the delivery of our own nuclear strikes so as to ensure going over to the use of nuclear weapons at any stage of the operation.

An important peculiarity of the organization of reconnaissance in the period of immediate preparation of the first front operation is refinement of the reconnaissance plan worked out in peacetime, execution of a rapid shift of reconnaissance forces and means from peacetime to wartime status and their commitment to build up efforts, and provision of the front command with data to refine the decision for the operation and deliver the initial nuclear strike, especially the first launch of missiles, if combat actions begin with the use of weapons of mass destruction.

The organization of reconnaissance in a first operation which begins without the use of nuclear weapons must also ensure that data in support of the breakthrough of the forward defense line of the enemy by the front troops are obtained in a short time.

So the main peculiarity of the organization of reconnaissance in a first front offensive operation amounts to carrying out the shift of reconnaissance forces and means from peacetime to wartime status in an extremely short time frame and to providing the front command with data to support successful conduct of the offensive both with and without the use of nuclear weapons. In the process, all reconnaissance measures must be

carried out efficiently and with strict observance of camouflage and clandestinity.

All of this requires careful advance preparation of the reconnaissance forces and means and of the most complicated basic measures to be carried out by the reconnaissance organs and units on the eve of and with the start of combat actions.

Let us examine the most important reconnaissance organization measures in support of the preparation and conduct of the first offensive operation of a front.

DETERMINATION OF RECONNAISSANCE OBJECTIVES AND TASKS

The organization of reconnaissance begins with determining the objective and the main tasks stemming from the situational conditions under which the operation is conducted, determining the content and sequence of the tasks to be accomplished in it by the troops, as well as determining the extent of knowledge of the opposing enemy and of the area of impending actions.

The objective of reconnaissance of a front in an offensive operation consists in ensuring timely and effective use of the forces and means of the front to destroy the enemy with both nuclear and conventional means of destruction.

In order to achieve the assigned objective, reconnaissance must accomplish a number of complex and varied tasks and obtain reliable data about numerous enemy targets.

Under modern conditions, the most powerful means of destruction is nuclear weapons. Effective use of them on the battlefield enables one to inflict heavy losses in personnel and combat equipment on the enemy in a short time. This circumstance poses two important problems for the warring sides -- first, not to give the enemy an opportunity to use his available nuclear weapons effectively and, second, to ensure successful use of one's own means of nuclear attack against the most important enemy targets whose destruction will lead to his defeat in a short time.

Solution of the first problem and partially of the second one depends above all on destruction of the enemy means of nuclear attack. But in

order to destroy these means, it is necessary to detect them first. Therefore, the most important and first-priority task of reconnaissance in a front offensive operation, regardless of whether it begins with or without the use of nuclear weapons, is timely detection of the enemy means of nuclear attack and conduct of continuous surveillance of them right up until they are destroyed.

However, the means of nuclear attack are not the only targets against which the front troops will be delivering strikes. Reconnaissance must discover the strength and location of the ground forces, air forces, and naval forces of the enemy, determine their combat readiness, and also continuously monitor all changes in the grouping of enemy forces and means in order to detect in time the immediate preparation for an attack and determine the beginning of the attack. Here it is especially important to detect in time the movement of missile units to launch site areas and the departure of enemy troops and staffs from permanent garrison posts for the operational assignment areas and to establish the dispersal time and take-off time of tactical aviation.

In support of the conduct of combat actions without the use of nuclear weapons, reconnaissance must discover the main grouping of troops of the enemy and the disposition of his fire means in greater detail in order to hit them effectively with conventional types of weapons. However, one must remember that the threat of the use of nuclear weapons constantly remains; for this reason, operational reconnaissance must not slacken its attention to the timely detection of enemy means of nuclear attack and discovery of readiness to use them.

Very important among the tasks which operational reconnaissance must accomplish in support of the preparation of a front operation is the task of detecting the troop and weapons control system of the enemy.

Under any conditions of the preparation of an operation, reconnaissance must also obtain the necessary data about the area of combat actions for the purpose of determining the make-up of the local population and its attitude toward our army and the army of the enemy, and data about the economic and sanitary-epidemiological status of this area and about the weather situation.

With the beginning of combat actions, the main efforts of reconnaissance must be concentrated on ensuring the fulfilment by the front troops of such highly important tasks as delivering massed nuclear strikes; routing the enemy groupings at the forward, main, and intermediate lines;

seizing separate important targets; making assault crossings of large water obstacles; warding off counterattacks, etc.

If combat actions have begun with the use of nuclear weapons, then reconnaissance must first of all establish the results of the nuclear strikes delivered in the zone of the front and also detect the location (coordinates) of the targets and means of nuclear attack remaining to be destroyed in subsequent missile launches and aviation sorties.

When combat actions are conducted without the use of nuclear weapons, reconnaissance must be ready to provide the command with the necessary data for going over to nuclear actions if such a necessity should arise.

During the development of an offensive, reconnaissance performs the following tasks:

-- monitors the status and position of enemy targets slated for destruction with nuclear weapons;

-- detects changes in the groupings of ground forces, air forces, and especially of means of nuclear attack;

-- determines the time and axes of the movement forward of enemy reserves, their strength, affiliation, concentration areas, and lines of deployment;

-- determines the presence of enemy defense lines, the extent of their preparation, and their occupation by troops;

-- discovers the system of rear services support, in particular the locations of depots and the number of types of supplies stored in them, and the condition and capabilities of pipelines;

-- detects enemy measures for operational camouflage, deception, and warfare against our radioelectronic means of troop and weapons control.

Depending on concrete conditions, the volume and content of reconnaissance tasks can change. Moreover, each of the tasks mentioned above consists of a number of individual, more specific ones which must be accomplished by reconnaissance during the performance of the overall task.

PLANNING OF RECONNAISSANCE AND ASSIGNMENT OF TASKS TO EXECUTORS

The planning of reconnaissance is one of the most important measures in the overall system of planning of the combat actions of front troops in an offensive operation.

Only with thoroughly thought out and careful planning can one get purposeful employment and coordinated actions of all the types of reconnaissance forces and means performing the varied reconnaissance tasks in support of the preparation and conduct of the front offensive operation.

The reconnaissance plan of the front, which is a part of the overall plan of the offensive operation, must be based on the general principles of planning of an operation and must take into account the methods of combat actions of the troops of the front.

The complexity of modern planning of the combat actions of troops consists in the fact that provisions must be made in one plan for the different methods of conducting the operation in keeping with the weapons employed. According to existing views, the plan of a front offensive operation and, consequently, also the reconnaissance plan, must be based on troop actions with allowance for the use of nuclear weapons. Therefore, the initial nuclear strike, regardless of the time it is carried out, is planned with special care. Against the event of the operation's beginning with the use of conventional weapons alone, troop actions must be planned in detail to the entire depth of the task of the front, measures must be provided for to strengthen the troop groupings in order to create the necessary superiority in forces and means on the axes of the intended thrust, and the procedure for fire neutralization of the enemy and the methods of conducting the offensive must be determined. At the same time, troop actions following the delivery of the initial nuclear strike must be carefully planned. The axes of attacks, especially of the main attack, are selected the same for actions with and without the use of nuclear weapons.

The peculiarities of modern planning of a front offensive operation must also be taken into account in reconnaissance planning, which determines the procedure and methods of actions of the reconnaissance forces, means, and organs to perform the tasks facing them for the period of preparation and conduct of the operation.

The planning of front reconnaissance in support of an offensive operation to be conducted at the beginning of a war is done beforehand (in peacetime), is refined upon receipt of a directive to carry out the operation, and is continued until the operation is completed.

The substance of planning consists in making the tasks (targets) specific, allocating them among the operational reconnaissance units and organs in the most expedient manner, and establishing the sequence and time limits for performing them. Planning also provides for the selection of main and alternate positions (areas, axes) for the deployment of reconnaissance forces and means, for determination of the procedure and methods of their actions, for coordination of the efforts of the different types of reconnaissance and staff intelligence organs, for measures to maintain communications and continuous control of the reconnaissance organs, for the procedure for submitting reconnaissance reports, and for the development of other measures directed toward the fullest accomplishment of the assigned tasks.

The planning of reconnaissance is done on the basis of the commander's decision for the operation and the combat instructions of the higher staff, with due regard for the capabilities of the available reconnaissance forces and means. When reconnaissance is planned, it is necessary to provide for concentration of its main efforts in the first place on detection of the means of nuclear attack, the main grouping of troops, the troop and weapons control posts, and other important targets of the enemy.

Only with a clear understanding of the objective and concept of the operation and thorough analysis of the available reconnaissance data and on the basis of actual calculation of the capabilities of reconnaissance forces and means, comprehensive knowledge of the enemy troops and the operational preparation of the theater of military operations, as well as skilful calculation of the time to perform each reconnaissance task with due regard for the nature of the possible actions of the ground and air enemy, can one achieve the proper purposeful planning of reconnaissance.

It is very complicated to plan reconnaissance in an operation beginning without the use of nuclear weapons. The complexity lies in the fact that the planning must be based on a single concept for obtaining data about the enemy which supports the combat actions of troops with the use of both nuclear and conventional weapons.

This is not to say, by any means, that the planning of reconnaissance is basically changed. In modern planning it is necessary to determine in

every detail the tasks for detection of the missile/nuclear and conventional forces and means and to provide for the detection of the most important targets, for maintenance of the continuity or required regularity of surveillance of them, for centralized recording of reconnaissance data, and for reporting of them to the command in the very shortest time periods.

In connection with this, when planning reconnaissance, one should proceed from the necessity of first of all accomplishing those tasks which require its greatest efforts. This requirement can be met by a plan in which provision is made in a single concept for the possibility of obtaining data in the interests of hitting targets with both nuclear weapons and conventional means.

It is advisable to do reconnaissance planning for the period of preparation of the operation and for the period of the conduct of combat actions.

Planning for the period of preparation of the operation involves matters connected with the allocation of reconnaissance forces and means by tasks (targets) and time in order to get the most complete data about the enemy for the front commander to make (refine) his decision and for successful conduct of the offensive operation.

During planning for this period, special attention must be paid to ensuring the conduct of the initial nuclear strike of the front. All targets to be hit in the strike in accordance with the decision of the front commander must be assigned to specific means of reconnaissance, and the time by which reconnaissance (final reconnaissance) of them has to be done must be determined.

In order to facilitate planning, the targets detected already in peacetime must be numbered and systematized according to the respective categories, kinds, and types, with a description of each target and an assessment of its resistance to different means of destruction. This system of targets must be constantly refined, developed, and added to. It is the basis for the allocation of the detected targets among the forces and means of destruction, and it will facilitate the designation of targets when they are being destroyed.

During the operation the front troops will be accomplishing tasks that are most varied in form and content, namely: conducting meeting engagements, negotiating the enemy defense and destroying his defending troops, pursuing and destroying retreating groupings, disrupting and

warding off counterattacks, committing second echelons and reserves to the engagement, making assault crossings of water obstacles, and carrying out airborne landings and, during actions on coastal axes, amphibious landings as well. Therefore, it is advisable that the planning of reconnaissance for the period of the conduct of combat actions be done in the order of successive fulfilment of these tasks by the troops of the front.

When reconnaissance for the period of conduct of combat actions is planned, it is very important to provide for the possibility of allocating or retargeting forces and means for final reconnaissance of enemy targets in the interests of hitting these with nuclear weapons on going over to use of them if non-nuclear actions have been conducted up to this point.

The front chief of intelligence, when setting about planning, begins his work by comprehending the reconnaissance task stemming from the front commander's decision, his orders on reconnaissance, the orders of the chief of staff, the combat instruction on reconnaissance, and the assessment of the conditions of organizing and conducting reconnaissance.

By assessment of the conditions of organizing and conducting reconnaissance is to be understood a comprehensive analysis of the factors that favor or hinder the accomplishment of reconnaissance tasks.

The assessment of the conditions of organizing and conducting reconnaissance is usually performed by elements, and it includes an assessment of the enemy and an assessment of the operational situation in his rear, of the status of reconnaissance forces and means, and of the terrain and time.

In an assessment of the enemy it is necessary to determine: the number and probable location of his most important installations; the expected change in the combat strength, grouping, and nature of actions during the operation and their effect on the expenditure of reconnaissance forces and means and on the nature of their actions; the extent of detection of the opposing grouping of enemy troops; and the measures which the enemy may carry out in order to prevent the conduct of reconnaissance.

On the basis of the assessment of the enemy the chief of intelligence must determine what targets and axes to concentrate the main reconnaissance efforts on.

When assessing the operational situation in the enemy rear, one takes into account those factors which favor or hinder the actions of

reconnaissance forces and means in penetrating to targets of interest.

When assessing the reconnaissance forces and means of the front, one should take into account their status (strength levels in personnel and combat and reconnaissance equipment, practical skills of the personnel in performing reconnaissance tasks, etc.), their location, the time necessary for preparation, deployment, and dispatching (dropping), as well as their capabilities for performing tasks in the operation.

When assessing the terrain, one takes into account its effect on the use of reconnaissance forces and means as well as on the selection of the main and alternate positions (areas, axes) for their deployment (location) and activity.

When assessing the available time, one determines the most expedient allocation of it to carry out the main measures for organizing and conducting reconnaissance.

On the basis of the assessment made of these conditions, the chief of intelligence adopts a decision for the organization of reconnaissance. The main idea of the decision must be to perform the maximum number of reconnaissance tasks with the minimum number of the reconnaissance forces and means of the front in the best manner and the shortest time.

In order to allocate the forces and means among the tasks and targets of reconnaissance and to conduct reconnaissance more purposefully on the basis of a thorough study of the situation and in anticipation of its possible development, one determines the axes and areas of special attention which it is necessary to concentrate the main efforts on reconnoitering. Such areas should include areas in which the deployment of enemy missile units and the presence of troops and other targets are most likely or those which may be designated for the concentration and deployment of large units of the ground forces, especially tank large units, as well as the airfield basing centers of nuclear weapons delivery aircraft, the departure areas for the landing of airborne troops, large depots and nuclear weapons supply bases, important road junctions through which the approach of reserves is possible, troop mobilization areas, and the most important unloading ports for troops and combat equipment.

The number and dimensions of the areas of special attention are determined by the concrete situation and by the capabilities of the reconnaissance forces and means. In the zone of a front offensive, 20 to 30 such areas may be designated. Should forces and means be insufficient

for simultaneous surveillance of all the areas, the reconnaissance tasks can be accomplished successively.

It is advisable that the allocation of reconnaissance forces and means by targets and areas of special attention be done from the enemy rear toward the front line.

To reconnaissance of targets of destruction located at a great distance from the front line, it is advisable to assign first of all forces and means of front subordination as possessing the greatest capabilities in terms of range; and for targets situated at an operational-tactical depth, army means. Reconnaissance in the tactical zone must be planned mainly with the means of the large units and units. Such an allocation of reconnaissance efforts does not contradict simultaneous concentration of them to accomplish the most important tasks or coverage of reconnaissance zones by the means of different levels, particularly in a sector of the breakthrough of the enemy defense by the troops of the front.

The decision adopted is the basis for the planning of reconnaissance. The reconnaissance plan for the first operation is worked out personally by the chief of intelligence.

The reconnaissance plan must reflect: the objective and the specific tasks for peacetime, for the period of a growing threat of war, and for the beginning and the course of the operation, as well as the reconnaissance targets; the allocation of reconnaissance forces and means (executors) by tasks and targets; the time limits for performing reconnaissance tasks; the main and alternate areas of the disposition (basing) of reconnaissance forces and means; the measures to increase their survivability and ensure their safety during actions in the enemy rear; as well as the measures which must be carried out during the transition of the reconnaissance forces and means from peacetime to wartime status. The plan may also reflect other matters pertaining to the preparation and conduct of reconnaissance measures.

In accordance with the work procedure of the staffs which has evolved, the reconnaissance plan of the front can be worked out graphically on a map with the attachment of a short explanatory memorandum, or in writing with the attachment of a map.

The reconnaissance plan worked out on a map shows: the objective of reconnaissance, its main tasks for the periods of preparation of the operation and the conduct of combat actions, the demarcation lines of the

front and armies, the targets and axes of reconnaissance and areas of special attention, as well as the forces and means allocated with an indication of the time they are to begin (finish) operating or performing tasks; the main axes of aerial reconnaissance; the areas (sectors) for photography, the time, method, and scale of it; the home airfields of reconnaissance aviation; the time of deployment of the reconnaissance forces and means of the front in the main and alternate areas and the procedure for relocating them during the operation, as well as the lines accessible to all types of reconnaissance before the beginning of the operation.

The explanatory memorandum attached to the plan must contain: a table of the make-up of the reconnaissance forces and means of the front; a table of the calculation of reconnaissance forces and means according to reconnaissance targets; the volume of organizational measures; a schedule of the simultaneous flight of reconnaissance aircraft; and a diagram of the communications and control of reconnaissance forces and means.

The reconnaissance plan for a first front offensive operation is worked out in writing with the attachment of a map and of the plan of agent reconnaissance, the plan of combat employment of special reconnaissance forces and means, the plan of combat employment of radio and radiotechnical reconnaissance units, the schedule of reconnaissance aviation flights, a diagram of the control of front reconnaissance, and a table of the submission of reconnaissance reports.

The written plan consists of four sections:

-- Section I, the objective and main tasks of reconnaissance.

-- Section II, the allocation of reconnaissance forces and means according to tasks and targets. This is the main section of the plan; it includes a list of the tasks and targets of reconnaissance, the allocation of the forces and means of all types of reconnaissance according to tasks and targets, and the time limits for fulfilment of the tasks by each active reconnaissance organ. The activity of each reconnaissance organ before the beginning of combat actions is planned with special care since the employment of most of the reconnaissance organs in this period requires the implementation of a number of supporting measures.

-- Section III, the main organizational measures. In this section, in addition to the usual matters, it is necessary to indicate the measures for support of the actions of reconnaissance organs before the beginning of combat actions, as well as the measures to ensure the survivability of reconnaissance.

-- Section IV, the calculation of reconnaissance forces and means according to tasks.

APPROVED

COMMANDER OF THE _____ FRONT

_____ _____ _____
(rank) (signature) (name)

___ _____, 197__

RECONNAISSANCE PLAN OF THE _____ FRONT FOR THE OFFENSIVE OPERATION

for the period from _____ through _____. Map _____ (scale), edition _____, 19__.

Reconnaissance objective. To detect the immediate preparation of the enemy for an attack and the intentions of the ... Army Group command for the operational deployment and combat employment of troops, and to determine the time and possible method of starting combat actions.

I. Main reconnaissance tasks

1. To monitor the activity of the missile/nuclear weapons units (delivery aircraft) at permanent garrison points (home airfields), to detect with timeliness the deployment (dispersal) time and the location of siting areas (dispersal airfields), as well as the readiness of the units for strike delivery. To establish the location of the field storage points of nuclear warheads and the time of their issue to means of delivery, with special attention to areas ... To monitor changes in the grouping of the enemy and his intentions to employ nuclear means.
2. To detect enemy measures for possible reinforcement of the grouping of ground forces in the theater, to determine with timeliness the departure of units and large units for operational assignment areas and to monitor the creation of attack groupings and the intentions of the enemy for using them, especially on the ... axes.
3. To detect enemy measures for possible reinforcement of the air force and air defense grouping in the theater, for rebasing of air units to forward airfields, and for deployment of field air defense means, as well as to detect his intentions for using them and to monitor changes in strength and status, especially in areas ...
4. To establish the deployment areas of naval strike forces and monitor changes in their strength and activity, especially in waters ...
5. To monitor changes in the operational preparation of the theater. To ascertain the enemy troop supply system and the location of the main rear services installations of ... (affiliation), and to monitor their activity and location, with special attention to areas ...
6. To continuously verify the position and status of targets to be hit with nuclear weapons.

II. Allocation of reconnaissance forces and means by tasks and targets

No.	Reconnaissance tasks and targets	Forces, means, and times of task performance						Remarks
		Agent reconnaissance	Special reconnaissance	Aerial reconnaissance	Radio and radiotechnical reconnaissance	Recce w/ means of the armies, branch arms, & special troops	Information of General Staff & adjacent forces	
1.	Before beginning of the operation To detect the bringing of the ground forces large units of ... (affiliation) to elevated levels of combat readiness, their departure for concentration areas, movement forward, deployment, and grouping in operational assignment areas, as well as their possible reinforcement through arrivals from ... To detect enemy intentions for use of the troop groupings created.			From ... (time) with daily surveillance and photographing from our own territory	... RIC posts* of ... Separate RT Regiment		General Staff Chief Intelligence Directorate (GRU), staffs of: ... Front (border guards, fleet, etc.)	

*A list of abbreviations appears on page 5.

No.	Reconnaissance tasks and targets	Forces, means, and times of task performance						Remarks
		Agent reconnaissance	Special reconnaissance	Aerial reconnaissance	Radio and radiotechnical reconnaissance	Recce w/ means of the armies, branch arms, & special troops	Information of General Staff & adjacent forces	
	Special attention to be paid to:							
	a) nuclear weapons units and subunits:							
	... Pershing Battalion, No. ... (area of special attention)	Source ... from ... (time)		... ac/hc of ... Separate Recce Air Regiment from ... until ... with crossing of the border to line of ... ...RD launches of ... Separate RD Squadron	... RIC posts of ... Separate Radio Regiment ... RIC posts and ... RT RP of ... Separate RT Regiment	... Army (TA) from ... (time)		
	... Lance Battalion, No. ... (area of special attention)	Source ... from ... (time)				... Army (TA) from ... (time)		
	etc.							
	b) troop and weapons control posts:				... RIC posts of ... Separate Radio Regiment ... RIC posts and RT RP of ... Separate RT Regiment			
	Command post of ... Field Army (area of special attention)	Source ... from ... (time)		... ac/hc of ... Separate Recce Air Regiment from ... until ... with crossing of the border		... Army (TA) from ... (time)		
	etc.							
2.	To monitor the actions of aviation and enemy measures to strengthen the air forces and the air defense system. To detect their immediate preparation for combat actions and to determine the readiness time of air units for strike delivery. Main attention to the air units ... and air defense system ... at the airfields and in the areas of:			From ... (time) daily from our own territory ... RT recce ac/hc of ... Separate Recce Air Regiment. From ... to... RD launches of ...Separate RD Squadron with crossing of the border	... RIC posts of ... Separate Radio Regiment ... RIC posts and ... RT RP of ... Separate RT Regiment		General Staff (Chief Intelligence Directorate, staffs of ... District, Separate Air Defense Army (Front, Fleet, etc.)	

No.	Reconnaissance tasks and targets	Forces, means, and times of task performance						Remarks
		Agent reconnaissance	Special reconnaissance	Aerial reconnaissance	Radio and radiotechnical reconnaissance	Recce w/ means of the armies, branch arms, & special troops	Information of General Staff & adjacent forces	
	a) ... Tactical Fighter Air Wing, ... (name of airfield) etc. Special attention to be paid to air units of delivery aircraft: a) ... Fighter-Bomber Air Squadron, No. ... (area of special attention) etc.	Source ... from ... (time) Source ... from ... (time)		...RD launches of ... Separate RD Squadron with crossing of the border	... RIC posts and ... RT RP of ... Separate RT Regiment			
3.	To determine the strength and deployment areas of the ship groupings of the naval forces of ... (affiliation). To monitor the possible concentration of amphibious landing means. Main attention to naval bases and waters of: a) main naval base, ... etc. Special attention to be paid to carrier strike group(s) in the waters of: a) ... Carrier Strike Group, ... (coordinates) etc.	Source ... from ... (time)		From ... (time) ... ac/hc of ... Separate Recce Air Regt. daily in neutral waters From ... (time) ... ac/hc of ... Separate Recce Air Regt. daily in neutral waters	... RIC posts and ... RT RP of ... Separate Radio Regiment		General Staff Chief Intelligence Directorate, staffs of ... Fleet (District, Separate Air Defense Army)	
4.	To monitor the activity of rear services facilities and organs. To detect their departure from stationary locations for deployment areas. To determine the beginning of the possible activation of new forces and the areas of this. Main attention to rear services installations of ... (affiliation) in the areas of: a) Rear command post and rear services units of ... Field Army, ... etc.	Source ... from ... (time)		From ... to ... with crossing of border to line of ... ... ac/hc of ... Separate Recce Air Regiment, ... drone launches of ... Separate RD Squadron	... RIC posts of ... Separate Radio Regiment		General Staff Chief Intelligence Directorate, staffs of ... Front (Fleet, etc.)	

No.	Reconnaissance tasks and targets	Forces, means, and times of task performance						Remarks
		Agent reconnaissance	Special reconnaissance	Aerial reconnaissance	Radio and radiotechnical reconnaissance	Recce w/ means of the armies, branch arms, & special troops	Information of General Staff & adjacent forces	
	Special attention to be paid to nuclear warhead supply units, subunits, depots, and points in the areas of:			From ... to ... with border crossing ... ac/hc of ... Separate Recce Air Regiment	... RIC posts of ... Separate Radio Regiment			
	a) Control post of ... Artillery Group, No. ... (area of special attention)	Source ... from ... (time)						
	etc.							
5.	To monitor the activity of field gendarme and internal troops for counter-intelligence coverage of troops and installations. To detect measures to evacuate the population and prepare the border zone for the beginning of combat actions. Main attention to the areas of:			From ... (time) with daily surveillance and photographing from our own territory by ... ac/hc of ... Separate Recce Air Regiment	... RIC posts of ... Separate Radio Regiment		Staffs of ... Border Guards (Front, Fleet, etc.)	
	a) ...	Source ... from ... (time)			... RIC posts of ... Separate Radio Regiment	... Army (TA) from ... (time)		
	etc.							
	Special attention to be paid to enemy measures to place nuclear minefields in the areas of:							
	No. ... (area of special attention)	Source ... from ... (time)			... RIC posts of ... Separate Radio Regiment	... Army (TA) from ... (time)		
	etc.							
	Total before beginning of the operation	... sources (number)		... ac/hc without border violation, ... ac/hc with border violation, ...RD launches	... RIC posts			
	Number out of the total for reconnaissance of means of mass destruction	... sources (number)		... ac/hc, ...RD launches	... RIC posts ... RT RP			
	Number left in reserve	... sources (number)		... ac/hc ...RD launches	... RIC posts ... RT RP			

No.	Reconnaissance tasks and targets	Forces, means, and times of task performance						Remarks
		Agent reconnaissance	Special reconnaissance	Aerial reconnaissance	Radio and radiotechnical reconnaissance	Recce w/ means of the armies, branch arms, & special troops	Information of General Staff &	
	During conduct of the operation							
	A. During performance of immediate task							
	Ground forces grouping							
1.	To continuously monitor the operational-tactical missile units. To detect their immediate preparation for a launch, the time, axes of relocation, location of new siting areas. To determine the losses, status, and combat effectiveness of the missile units as the result of fire and nuclear strikes. Special attention to the areas of:			First simultaneous flight of ... ac/hc, ...RD launches D—D2; ... ac/hc, ...RD launches D3—D7	... RIC posts of ... Separate Radio Regiment ... RIC posts and ... RT RP of ... Separate RT Regiment		Staff of ... Front	
	No. ... (area of special attention)	Source ... by ... (time)	SPRG No. ... by ... (time)			... Army (TA)		
	No. ... (area of special attention)					... Army (TA)		
	etc.							
2.	To determine the nature of combat actions of the troops of the first operational echelon of ... Army Group and discover their intentions and the concentration of main efforts. To monitor the maneuver of forces and means and their preparation to go over to the defense at new lines. Main attention to the axes:			First simultaneous flight of ... ac/hc, ...RD launches D—D2; ... ac/hc, ...RD launches D3—D7, etc. (Tasks 2—4)	... RIC posts of ... Separate Radio Regiment ... RIC posts and ... RT RP of ... Separate RT Regiment (Tasks 2 — 4)	Recce organs of front RT&A, directorates of chemical and engineer troops, etc.		
	a) ...	Source ... by ... (time)	SPRG No. ... by ... (time)			... Army (TA)		
	b) ...					... Army (TA)		
	etc.							
	and the areas:							
	a) ...	Source ... by ... (time)	SPRG No. ... by ... (time)			... Army (TA)		
	No. ... (area of special attention)					... Army (TA)		
3.	To determine the status of reserves, pinpoint their location, and discover intentions for use of them. Main attention to the areas:					... Army (TA), etc.	Staff of ... Front	
	a) ...	Source ... by ... (time)	SPRG No. ... by ... (time)			... Army (TA)		
	etc.							

No.	Reconnaissance tasks and targets	Forces, means, and times of task performance						Remarks
		Agent reconnaissance	Special reconnaissance	Aerial reconnaissance	Radio and radiotechnical reconnaissance	Recce w/ means of the armies, branch arms, & special troops	Information of General Staff &	
4.	To pinpoint the location of command posts and monitor their activity and relocation to new areas. Main attention to the command posts of ... (affiliation) in areas: a) ... etc.	Source ... by ... (time)	SPRG No. ... by ... (time)			Recce organs of front RT&A, etc. ... Army (TA)	Staff of ... Front	
5.	BTC.							
	Total	... sources (number)	... SPRG (number)	... ac/hc, ...RD launches	... RIC posts ... RT RP			
	Number out of total for reconnaissance of means of mass destruction	... sources (number)	... SPRG (number)	... ac/hc, ...RD launches	... RIC posts ... RT RP			
	Air forces and air defense means grouping							
1.	To monitor the home airfields of units of delivery aircraft. To determine their losses, combat effectiveness, and readiness for strike delivery. Special attention to the units ... (affiliation) at the airfields of: No. ... (area of special attention) a) ... etc.	Source ... by ... (time)	SPRG No. ... by ... (time)	First simultaneous flight of ... ac/hc, ...RD launches D—D2, etc.	... RIC posts of ... Separate Radio Regiment ... RIC posts and ... RT RP of ... Separate RT Regiment	Front Air Defense Directorate, etc. ... Army (TA) ... Army (TA)	General Staff Chief Intelligence Directorate, staffs of ... Front, District, Separate Air Defense Army, etc.	
2.	To determine the condition of airfields and the aviation losses as a result of the initial and subsequent strikes. To monitor changes in the aviation grouping. Main attention to the units ... (affiliation) at the airfields of: a) ... etc.		SPRG No. ... by ... (time)	... ac/hc, ...RD launches D—D2, etc.	... RIC posts of ... Separate Radio Regiment ... RIC posts and ... RT RP of ... Separate RT Regiment (Tasks 2 — 4)	Front Air Defense Directorate, etc.	Staffs of ... District, Separate Air Defense Army, Front	

No.	Reconnaissance tasks and targets	Forces, means, and times of task performance						Remarks
		Agent reconnaissance	Special reconnaissance	Aerial reconnaissance	Radio and radiotechnical reconnaissance	Recce w/ means of the armies, branch arms, & special troops	Information of General Staff & adjacent forces	
3.	To monitor the air defense system and determine its condition after the initial and subsequent strikes. To detect changes in the air defense system and measures for restoring it. Main attention to the forces and means ... (affiliation) in the areas of: a) ... etc.		SPRG No. ... by ... (time)	... ac/hc, ...RD launches D—D2, etc.		Front Air Defense Directorate, ... Army (Tank Army), etc. ... Army (TA)	Staffs of ... District, Separate Air Defense Army, ... Front (fleet, etc.)	
4.	To detect changes in the system of control of aviation and air defense means. To monitor the relocation and deployment in new areas of the aviation and air defense control centers (posts) of ... (affiliation) and determine their location. Main attention to the areas of: a) ... etc.	Source ... by ... (time)		... ac/hc, ...RD launches D—D2, etc.		... Army (TA)	Staffs of ... Front (fleet, etc.)	
5.	ETC.							
	Total	... sources (number)	... SPRG (number)	... ac/hc, ...RD launches	... RIC posts ... RT RP			
	Number of the total for reconnaissance of means of mass destruction	... sources (number)	... SPRG (number)	... ac/hc, ...RD launches	... RIC posts ... RT RP			
	Naval forces							
1.	To monitor the activity of the naval forces of ... (affiliation) and determine the combat maneuver areas of the strike groups ... (name). Main attention to the waters of: a) ... b) ... etc.			... ac/hc, ... RD launches D—D2, etc.	... RIC posts of ... Separate Radio Regiment ... RIC posts and ... RT RP of ... Separate RT Regiment		General Staff Chief Intelligence Directorate, staff of ... Fleet	

No.	Reconnaissance tasks and targets	Forces, means, and times of task performance						Remarks
		Agent reconnaissance	Special reconnaissance	Aerial reconnaissance	Radio and radiotechnical reconnaissance	Recce w/ means of the armies, branch arms, & special troops	Information of General Staff & adjacent forces	
2.	To detect preparation for the putting ashore of landing forces and determine the axes of sea transit of the convoys, the strength of the landing forces, and their landing areas. Main attention to the areas of: a) ... b) ...	Source ... by ... (time)	SPRG No. ... by ... (time)	... ac/hc, ... RD launches D—D2, etc.	... RIC posts of ... Separate Radio Regiment	... Army (TA)	General Staff Chief Intelligence Directorate, Staff of ... Fleet	
3.	ETC.							
	Total	... sources (number)	... SPRG (number)	... ac/hc, ... drone launches	... RIC posts ... RT RP			
	Number of total for reconnaissance of naval strike forces	... sources (number)	... SPRG (number)	... ac/hc, ... drone launches	... RIC posts ... RT RP			
	Rear services targets & troop activation							
1.	To monitor the activity and relocation to new areas of artillery-technical units, depots, and nuclear warhead supply (storage) points. Special attention to areas: No. ... (area of special attention) a) ...	Source ... by ... (time)	SPRG No. ... by ... (time)	First simultaneous flight of ... ac/hc, ...RD launches D—D2, etc.	... RIC posts of ... Separate Radio Regiment	Recce organs of front RT&A, etc. ... Army (TA) ... Army (TA)	General Staff Chief Intelligence Directorate, staff of ... Front	
2.	To determine the results of the initial and subsequent strikes on rear services targets and to monitor the measures for restoring the rear services of ... (affiliation) and the relocation and activity of their elements. Main attention to the areas: a) ... etc.	Source ... by ... (time)		... ac/hc, ... drone launches D—D2, etc.	... RIC posts of ... Separate Radio Regiment	... Army (TA)	General Staff Chief Intelligence Directorate, staffs of ... Front (Fleet, etc.)	

No.	Reconnaissance tasks and targets	Forces, means, and times of task performance						Remarks
		Agent reconnaissance	Special reconnaissance	Aerial reconnaissance	Radio and radiotechnical reconnaissance	Recce w/ means of the armies, branch arms, & special troops	Information of General Staff & adjacent forces	
3.	To monitor the progress of the activation of troops. To determine their make-up and intentions for using them. Main attention to the areas of:			First simultaneous flight of ... ac/hc, ...RD launches D--D2, etc.	... RIC posts of ... Separate Radio Regiment		General Staff Chief Intelligence Directorate, staffs of ... Front (Fleet, etc.)	
	a) ...		SPRG No. ... by ... (time)			... Army (TA)		
4.	ETC.							
	Total	... sources (number)	... SPRG (number)	... ac/hc, ... drone launches	... RIC posts			
	Number of the total for reconnaissance of means of mass destruction	... sources (number)	... SPRG (number)	... ac/hc, ... drone launches	... RIC posts ... RT RP			
	Other targets							
1.	To determine the results of the detonation of nuclear minefields and to detect new areas of placement of them. Main attention to the areas of:			... ac/hc, ... drone launches	... RIC posts of ... Separate Radio Regiment	... Army (Tank Army), etc.	Staff of ... Front	
	a) ... etc.	Source ... by ... (time)				... Army (TA)		
2.	To determine the zones of contamination, destruction, floods, and fires formed as a result of the use of weapons of mass destruction and fire strikes. Main attention to the areas of:			... ac/hc, ... drone launches	... RIC posts of ... Separate Radio Regiment	... Army (TA)	Staffs of ... Front (Fleet, etc.)	
	a) ... etc.		SPRG No. ... by ... (time)			... Army (TA)		
3.	To monitor the grouping and activity of field gendarme and internal troops of ... (affiliation) To discover the content of counterintelligence measures being carried out. Main attention to the areas of: ...	All operating sources			... RIC posts of ... Separate Radio Regiment	... Army (TA), etc.	General Staff Chief Intelligence Directorate, staff of ... Front	

No.	Reconnaissance tasks and targets	Forces, means, and times of task performance						Remarks
		Agent reconnaissance	Special reconnaissance	Aerial reconnaissance	Radio and radiotechnical reconnaissance	Recce w/ means of the armies, branch arms, & special troops	Information of General Staff & adjacent forces	
4.	To discover new models of weapons and combat equipment and the methods of using them, as well as new methods of armed combat	All operating sources		... Air Army	... Separate Radio Regiment ... Separate RT Regiment	... Army (TA), etc.	Staffs of ... Front (Fleet, etc.	
	Total	... sources (number)	... SPRG (number)	... ac/hc, ... drone launches	... RIC posts			
	Number of total for reconnaissance of means of mass destruction	... sources (number)	... SPRG (number)	... ac/hc, ... drone launches	... RIC posts			
	Total during performance of immediate task	... sources (number)	... SPRG (number)	... ac/hc, ... drone launches	... RIC posts ... RT RP			
	Number of this total for reconnaissance of means of mass destruction	... sources (number)	... SPRG (number)	... ac/hc, ... drone launches	... RIC posts ... RT RP			
	Number left in reserve	... sources (number)	... SPRG (number)	... ac/hc, ... drone launches	... RIC posts ... RT RP			
	B. During performance of subsequent task							
1.	To detect changes in the make-up, status, and grouping of ground forces, especially means of mass destruction, to discover enemy intentions for reinforcing and using it. Main attention to the areas of ...	... sources (number)	... SPRG (number)	... ac/hc, ... drone launches	... RIC posts ... RT RP	Recce organs of front RT&A, ... Army (TA), etc.		
2.	To determine the losses in aviation and air defense means and detect measures for their rebasing, replenishment and restoration. To discover the grouping of air forces and air defense means in the new areas and the intentions of the enemy to employ it, especially the units of delivery aircraft. Main attention to the airfields and areas of ...	... sources (number)	... SPRG (number)	... ac/hc, ... drone launches	... RIC posts ... RT RP	Front Air Defense Directorate, ... Army (TA), etc.	General Staff Chief Intelligence Directorate, staff of ... Front, ... District, Separate Air Defense Army, etc.	
3.	To ascertain the status and changes in basing of the naval forces grouping and detect the possible strengthening and intentions of the enemy for its further use, especially the carrier strike groups ... (designation). Main attention to the areas of ...	... sources (number)	... SPRG (number)	... ac/hc, ... drone launches	... RIC posts ... RT RP		General Staff Chief Intelligence Directorate, staff of ... Fleet	

No.	Reconnaissance tasks and targets	Forces, means, and times of task performance						Remarks
		Agent reconnaissance	Special reconnaissance	Aerial reconnaissance	Radio and radiotechnical reconnaissance	Recce w/ means of the armies, branch arms, & special troops	Information of General Staff & adjacent forces	
4.	To detect enemy rear services restoration measures and new deployment areas of rear services units and facilities, especially of units, subunits, depots, and points of special weapons supply. To monitor the progress of activating new troops, their movement forward, and deployment. Main attention to the areas and axes ...	... sources (number)	... SPRG (number)	... ac/hc, ... drone launches	... RIC posts ... RT RP	Recce organs of front RT&A, ... Army (TA), etc.	General Staff Chief Intelligence Directorate, staffs of ... Front (Fleet, etc.)	
5.	To ascertain the changes taking place on the terrain as a result of military actions as well as to detect enemy measures for additional engineer preparation thereof, especially for the placement of nuclear minefields . To monitor the attitude of the local population as well as the measures to counteract reconnaissance. Main attention to areas...	All operating sources		... Air Army	... RIC posts ... RT RP	... Army (TA), etc.	General Staff Chief Intelligence Directorate, staffs of ... Front (Fleet, etc.)	
	Total during performance of subsequent task	... sources (number)	... SPRG (number)	... ac/hc, ... drone launches	... RIC posts ... RT RP			
	Number of total tentatively planned to be activated for reconnaissance of means of mass destruction (in percent)	...	...	...	... ...			
	Left in reserve	... sources (number)	... SPRG (number	... ac/hc, ... drone launches	... RIC posts ... RT RP			
	Total for the operation	... sources (number)	... SPRG (number)	... ac/hc, ... drone launches	... RIC posts ... RT RP			

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III. Main organizational measures

1. Issue preliminary instructions to OSNAZ units by ... (time). Issue combat instructions on reconnaissance to armies and front reconnaissance units by ... (time).

2. Begin reconnaissance in support of the impending operation as of ... (time) without violation of the border. Submit request to the General Staff for permission to conduct reconnaissance with ... (forces and means) on the axes ... with violation of the border as of ... (time).

3. Implement relocation of OSNAZ units and occupation of positions by them for conducting reconnaissance in support of the operation by ... (time).

4. Give assistance in bringing up to strength and providing with materiel to:
... (designation of unit). Responsibility of ...
... (designation of unit). Responsibility of ...

5. Issue combat instructions on reconnaissance in accordance with the decision of the front commander for the offensive operation ... (length of time) after the decision is announced.

6. By ... (time) work out the schedule of the simultaneous flight of reconnaissance aviation of the front in conjunction with the chief of intelligence of the air army and coordinate the procedure for receiving data from on board the reconnaissance aircraft and for submitting reports and documentary materials of aerial reconnaissance to the levels concerned. Responsibility of ...

7. By ... (time) coordinate matters of cooperation between reconnaissance forces and means and of information exchange before and during the operation with the staffs:
... (name of staff). Responsibility of ...
... (name of staff). Responsibility of ...

8. Before ... (time) coordinate matters of organizing and conducting reconnaissance with the border guard troops and of exchanging information before the beginning of the operation. Responsibility of ...

9. Organize secure teleprinter communications:
-by ... (time) over radio links with ... (designation of recce organs);
-by ... (time) on radio net with ... (designation of recce organs)
-etc..
Request ... (forces and means) additionally to provide communications by ... (time).

10. ... etc.

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IV. Calculation of reconnaissance forces and means according to tasks

Name of groups (targets)	Number of targets	Allocated for reconnaissance																						
		Before start of operation							During performance of ... task								During performance of ... task						
		Agent sources	RIC posts			Sep. KT RP of ... KT Regiment	Aircraft sorties		Agent sources	Special-purpose recce groups	RIC posts			Sep. KT RP of ... KT Regiment	Aircraft sorties		Agent sources	Special-purpose recce groups	RIC posts			Sep. KT RP of ... KT Regiment	Aircraft sorties
			... Separate Radio Regiment	... Separate KT Regiment	Total						... Separate Radio Regiment	... Separate KT Regiment	Total						... Separate Radio Regiment	... Separate KT Regiment	Total			
Ground forces grouping																								
Air forces and air defense means grouping																								
Naval forces																								
Rear services targets and troop activation																								
Other targets																								
Total																								
Number of total for reconnaissance of means of mass destruction																								
Reserve																								
Grand total																								

Chief of Staff of _____ Front _____ (rank) _____ (signature) _____ (name)

_____ _____ 197__

Chief of Intelligence of Front _____ (rank) _____ (signature) _____ (name)

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The reconnaissance plan is signed by the chief of staff and the chief of intelligence and approved by the front commander.

A map attached to the reconnaissance plan shows the assignment of reconnaissance forces and means by targets and their distribution by tasks concretely on the terrain.

The agent reconnaissance plan is worked out in accordance with the requirements of "Instructions on the Organization and Conduct of Agent and Special Reconnaissance".

The plan of combat employment of special reconnaissance forces and means usually shows: the main tasks, the tasks of each special-purpose reconnaissance detachment and group and their performance time limits, the make-up of the groups (detachments), as well as the areas and time of their actions, the preparation procedure, the time and methods of movement into the enemy rear, the airfields from which the movement will be carried out, their drop areas, and the reserve of special reconnaissance forces and means.

The plan of combat employment of the radio and radiotechnical reconnaissance units shows the following matters: the main tasks, the reconnaissance boundaries and the areas (axes) of concentration of the main efforts, the allocation of forces and means by reconnaissance targets (tasks), the assignment to the OSNAZ units of sources for obtaining information, the procedure for cooperation between OSNAZ units and for exchanging reconnaissance data, the number of sorties, the time, routes, and flight profiles of the aircraft (helicopters) having radio and radiotechnical equipment on board. Along with this, provision is made for the maneuvering of forces and means and for the procedure for relocating radio and radiotechnical reconnaissance units during the operation, as well as for the reserve of forces and means to be created in the units and for the organization of control and communications.

The plans of combat employment of the types of reconnaissance forces and means are signed by the chief of intelligence and approved by the front chief of staff; the agent reconnaissance plan is signed by the front chief of staff and the chief of intelligence and approved by the front commander.

The schedule of reconnaissance aviation flights is signed by the chief of staff of the air army and the chief of intelligence of the front and approved by the front chief of staff. The rest of the attachments to the reconnaissance plan are signed by the chief of intelligence and approved by

the front chief of staff.

Of great importance for the purposeful organization and continuous conduct of reconnaissance is the timely delivery of reconnaissance tasks to the executors so that each reconnaissance organ and reconnaissance unit (subunit) knows exactly its task and the methods and time of performing it.

The tasks for reconnaissance are assigned to subordinate formations (large units) by the staff through combat instructions which are delivered to the executors in writing, graphically on a map, or orally (over technical means of communications). The commanders of the reconnaissance units of front subordination are assigned the tasks for reconnaissance through combat instructions, personally in the form of a verbal order or over technical means of communications. Tasks are delivered to aerial reconnaissance units through the staff of the air army. In some instances which do not permit delay, tasks can be assigned directly to the aerial reconnaissance units through the representatives of these units, with simultaneous transmission of instructions to the staff of the air army.

All instructions on reconnaissance issued orally to the troops and reconnaissance units (organs) must without fail be recorded in the log of instructions issued.

Combat instructions on reconnaissance are prepared separately for each executor. They are given to the commanders of the subordinate formations (large units) by the chief of staff in the name of the front commander, and to the commanders of the reconnaissance units of front subordination by the chief of intelligence of the front.

The content of combat instructions on reconnaissance must be extremely brief and clear. They usually contain: brief information on the grouping and actions of the enemy, the reconnaissance tasks (which the subordinate must perform on behalf of the front) and their performance time limits, the areas of special attention, and the procedure for submitting reconnaissance reports.

If necessary, the instructions indicate the methods of conducting the reconnaissance, the reconnaissance measures to be carried out by the senior commander in the zone of the subordinate formation and of adjacent forces, the forces and means to be placed at the disposal of the army by the front, and the reconnaissance organs to be placed at the disposal of the front by the army.

Besides this, the instructions on reconnaissance indicate:

-- for the radio and radiotechnical reconnaissance units: the zone of conduct of reconnaissance, the deployment positions of the subunits and the procedure for their relocation to new areas, the calculation of forces and means according to reconnaissance targets, the number of sorties, time, routes, and flight profiles of aircraft (helicopters) having radio and radiotechnical reconnaissance equipment on board, and the procedure for cooperation with adjacent forces, air defense units, and the radioelectronic warfare service;

-- for the special-purpose units: the make-up of the reconnaissance groups and detachments, the means, time, and methods of their movement into the enemy rear, the take-off airfields and the landing sites in the enemy rear, the measures to support the movement of the groups (detachments), the reconnaissance reserve, the deployment area of the unit and its relocation procedure, the procedure for maintaining communications and submitting reconnaissance information or reports on the fulfilment of tasks.

For the air army the combat instructions on reconnaissance indicate: the latest data about the enemy, the reconnaissance zone or areas, the tasks and their performance time limits, the reconnaissance targets, the procedure for conducting reconnaissance before and during the combat actions, the regularity of observing targets day and night, the type and scales of aerial photography, the type and number of aerial photographs to be submitted, and the procedure and times for submitting reconnaissance reports.

In order to speed up the delivery of reconnaissance tasks to the executors upon occurrence of the threat of an attack, the combat instructions on reconnaissance worked out in peacetime are kept together with the reconnaissance plan of the front or they are distributed to the executors and kept in sealed packets with the combat readiness documents. These packets may be opened only upon a definite signal, which is to be sent from the military district (front) staff. In case of a change in the tasks during refinement of the reconnaissance plan immediately before the beginning of the operation, the changes that have occurred are delivered to the executors through written combat insructions or orally over technical means of communications with subsequent recording in the log of instructions issued.

ORGANIZING COOPERATION OF ALL TYPES OF RECONNAISSANCE

All types of operational reconnaissance of the front participate in a modern front offensive operation conducted in a theater of military operations. In addition, reconnaissance data obtained by strategic reconnaissance as well as by the reconnaissance of adjacent fronts, branches of the armed forces, border guard troops, and the Committee for State Security (KGB) attached to the Council of Ministers of the USSR are used in support of the preparation and conduct of the operation.

It is known that no one type of operational reconnaissance is universal. Each of them has its inherent merits and shortcomings. Because of this, in order to accomplish reconnaissance tasks there arises an objective need to organize cooperation among them; the essence of this consists in coordinating the efforts of all the types, forces, and means of reconnaissance according to tasks, axes, targets, time, and methods of actions, as well as in determining their lines (zones and areas) of responsibility.

Matters of the organization of cooperation of the types, forces, and means of reconnaissance are decided mainly during its planning, and they are refined during the organization of the cooperation of the troops. All measures to ensure cooperation are reflected in the reconnaissance plan of the front, in the plans of combat employment of the types of reconnaissance forces and means, and in the reconnaissance plans of the branch arms, special troops, and services.

The measures to coordinate the efforts of the types, forces, and means of reconnaissance operating on the main axis and performing tasks to discover the enemy means of nuclear attack and other important enemy targets are carried out personally by the chief of intelligence of the front.

The chief organizer of cooperation among the types of operational reconnaissance is the front staff, which must determine:

-- the main targets (areas, axes) of reconnaissance;

-- the sequence and times of performance of reconnaissance tasks by the types of reconnaissance;

-- the procedure for organizing reconnaissance on the boundaries and in the gaps between the first-echelon formations (large units) and on the flanks;

-- the allocation of the frequency range among the radio and radiotechnical reconnaissance units of the front, armies, and divisions;

-- the procedure for conducting aerial reconnaissance in support of the combined-arms and tank armies, especially for final reconnaissance of targets before the delivery of nuclear strikes against them;

-- the procedure for transferring reconnaissance targets from one type of reconnaissance (reconnaissance organ) to another.

In addition, the front staff determines the reconnaissance tasks which must be accomplished by the forces and means of one branch arm on behalf of another, as well as the procedure and times for exchanging reconnaissance data between them.

The intelligence directorate decides a number of questions on the organization of cooperation jointly with the other directorates (departments) of the staff as well as with the staffs of the branch arms and services.

With the operations directorate are coordinated the procedure for bringing the reconnaissance units to increased and full combat readiness, the time and routes of movement forward, as well as their deployment areas at main and alternate positions.

With the radioelectronic warfare department the intelligence directorate of the front staff coordinates the deployment areas of the OSNAZ and special-purpose units and subunits, allocates frequency ranges among them in accordance with the available forces and means, determines the procedure for transmitting information about the enemy's radioelectronic means of control from the radio and radiotechnical reconnaissance units to the radioelectronic warfare units, and establishes the procedure for the support of communications and the transmission of cooperation signals.

When agent and special reconnaissance are being organized, it is necessary to provide for coordination of their efforts with the appropriate departments of the intelligence directorates of the staffs of adjacent fronts and fleets, with the agent organs of the border guard troops, and with the organs of the KGB. When this is being done, special attention

must be paid to the questions of allocating reconnaissance targets in zones of concurrent execution of agent and special measures.

When organizing cooperation of the agent and special reconnaissance organs with the border guard troops, one should allocate the tasks and targets in the border zone, especially those in support of the delivery of the initial nuclear strike, establish the time limits and procedure for accomplishing the tasks and submitting reports, determine the procedure for giving the personnel of the agent and special reconnaissance organs access to the border to carry out reconnaissance as well as to carry out measures to put agents across the border and receive them, establish the procedure for interrogating defectors and other border violators, determine the procedure for exchanging information on the operational situation in the border zone, and organize stable reciprocal communications.

The matters of organizing cooperation of the agent and special reconnaissance organs with the organs of the KGB must provide for:

-- the exchange of information on the operational situation in the target countries;

-- the exchange of legalizing documents and provision of operative personnel with cover documents;

-- coordination of the procedure for joint measures carried out to prevent penetration of enemy agents and traitors into the reconnaissance organs as well as for transferring agents from one organ to another to use them more effectively.

When radio reconnaissance is being organized, provisions are made for cooperation of the front OSNAZ radio regiment with the OSNAZ radio battalions of the armies, with the radio reconnaissance units of adjacent fronts, fleets, and air defense forces of the country, with the OSNAZ radiotechnical regiment, with the radiotechnical units of the air defense troops and the radiotechnical warfare units of the front, as well as with the OSNAZ radio direction finding center of the Chief Intelligence Directorate (GRU) of the General Staff.

It is very important to establish close cooperation of the OSNAZ radio regiment with the radioelectronic warfare units of the front in the interests of using the latter most effectively. These measures are achieved through precise allocation of the location (deployment) areas of the cooperating units, determination of their relocation procedure,

allocation of the sectors of the frequency range for search and reconnaissance, establishment of a single system of numbering the enemy targets and radioelectronic means subject to reconnaissance and neutralization, organization of stable communications for the control of subunits and collection of reconnaissance information, and through the establishment of common signals for the production and cessation of jamming.

Cooperation in radiotechnical reconnaissance provides for coordination of the efforts of the OSNAZ radiotechnical regiment with the radiotechnical battalions of the armies, the OSNAZ radio regiment, and the radiotechnical units of the front air defense, as well as with the OSNAZ radiotechnical units of adjacent fronts.

In the system of organizing aerial reconnaissance it is necessary to provide for cooperation of its forces and means among themselves, with the air defense units, with the reconnaissance of other branches of the armed forces and adjacent fronts, and with the staffs of the combined-arms formations.

The staff of the air army, in the interests of organizing cooperation, must coordinate the aerial reconnaissance tasks by place and time of accomplishment, allocate the tasks among the executors, and specify the measures for support of the combat actions of reconnaissance aviation. Besides this, it has to determine the methods and sequence of the conduct of aerial reconnaissance by different means, to provide for measures for mutually ensuring the flight safety of reconnaissance aircraft and for negotiating the enemy air defense, to resolve questions of the mutual use of airfields and means of flight support, to determine the procedure for transmitting reconnaissance data, and to organize the exchange of information and its delivery to the command and staffs.

In accordance with the instructions of the front staff, the staff of the air army establishes a single system of mutual recognition, target indication, and transmission of reconnaissance data from on board the reconnaissance aircraft according to common code charts and signal tables.

When organizing cooperation with the combined-arms formations and large units, the staff of the air formation (large unit) must specify the time and procedure for conducting aerial reconnaissance of targets and of the results of nuclear strikes against them by the rocket troops, as well as the aerial reconnaissance tasks in the most crucial periods of the front operation. Besides this, it is necessary to determine the procedure for

maintaining communications and mutual exchange of information between the reconnaissance organs of aviation and the combined-arms formations and large units.

When cooperation of the operational reconnaissance forces and means of the front is being organized, it is necessary to take into account the circumstance that a modern front operation is conducted, as a rule, within the framework of a strategic operation in the theater of military operations; taking part in it along with the ground forces will be the strategic rocket forces, the air defense forces of the country, long range aviation, airborne troops, and -- on a coastal axis -- a fleet. These all have their own reconnaissance forces and means, with which the front staff must likewise organize close cooperation in the interests of preparing and conducting the operation in accordance with the instructions of the General Staff.

When the reconnaissance plan for the first front operation is being worked out, matters of cooperation must stipulate:

-- the list of tasks which are performed by the reconnaissance organs of the branches of the armed forces as well as by the GRU on behalf of the front, as well as their performance time limits and the measures to ensure timely information;

-- the procedure for submitting front requests for reconnaissance to the staffs of the branches of the armed forces and to the GRU;

-- the zones of reconnaissance responsibility of the branches of the armed forces, the lines demarcating responsibility, and the procedure for conducting reconnaissance of the targets assigned to the reconnaissance organs of the different branches of the armed forces;

-- the procedure for informing front reconnaissance of data forecasting the radiation and chemical situation in the enemy rear in order to avoid putting reconnaissance subunits into dangerous areas.

Cooperation between the reconnaissance of the front and the reconnaissance of adjacent fronts is organized in the interests of continuously exchanging information about the enemy, of determining responsibility for reconnaissance on the flanks and in gaps, and also of giving assistance to one another in the accomplishment of reconnaissance tasks.

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Cooperation between front reconnaissance and the reconnaissance of the formation (large unit) of air defense forces of the country consists in joint use mainly of the radio, radiotechnical, and radar reconnaissance forces and means to obtain reconnaissance data about the air situation and the nature of actions of the enemy armed forces, especially the means of aerospace attack, and in mutual exchange of these data.

When cooperation between front reconnaissance and long range aviation reconnaissance is organized, provision is made in the first place for the front staff to receive reconnaissance data about deep enemy targets in the interests of the preparation and conduct of the front operation.

The cooperation of front reconnaissance with fleet reconnaissance is based on coordinating the efforts of reconnaissance forces and means to detect enemy targets at sea and on the coastal axis and on mutually exchanging information about these targets.

As for the cooperation of front reconnaissance and airborne troop reconnaissance, it must be subordinate chiefly to ensuring the preparation and conduct of the airborne landing operation. After the drop of the landing force, cooperation must be based on the mutual exchange of reconnaissance data and on the giving of mutual assistance in the performance of reconnaissance tasks.

Thus, well-organized cooperation at all levels of operational reconnaissance is the basis of the efficient and purposeful exploitation of its forces and means, and it ensures the receipt of timely reconnaissance data about the enemy with greater completeness and reliability.

PREPARATION AND SUPPORT OF RECONNAISSANCE FORCES AND MEANS

The general preparation of reconnaissance forces and means to perform tasks is done in the course of daily combat and political training. Their immediate preparation is done on the basis of the plan, combat instructions on reconnaissance, and other documents reflecting the conditions of the concretely developing situation.

The preparation of forces and means to perform the assigned tasks includes: maintaining reconnaissance forces and means in constant combat readiness, carrying out measures to prepare the theater of military operations in support of the operational deployment of reconnaissance

organs and units (subunits), organizing the movement of reconnaissance subunits into the enemy rear, and organizing measures for protection against weapons of mass destruction and all-around materiel-technical support.

The great requirements for the combat readiness of reconnaissance under modern conditions are determined by the presence of a constant threat of attack on the part of the probable enemy, by the growing danger of a surprise outbreak of war, and by the enormous destructive power of modern means of armed combat.

As we know, the combat readiness of any troop entity depends on the state of its main constituent indicators. In this case, for operational reconnaissance these indicators are:

-- the strength level of the reconnaissance units and control organs in personnel, weapons, and combat and special equipment;

-- the training level of all categories of servicemen;

-- the ability of the units to carry out complete manning or full mobilization in the established time periods;

-- the availability and preparedness of control posts;

-- knowledge of the enemy and the quality of the performance of reconnaissance tasks in peacetime.

At the present time the questions of manning, training, and keeping track of reconnaissance cadres have acquired still more importance than they used to have. This is due to the fact that complex modern instruments and special equipment are being adopted to equip the reconnaissance units and subunits. The conditions of obtaining reconnaissance data have become considerably more complex, and demands on their level of accuracy have risen. All of this requires reconnaissance personnel to have comprehensive military and technical knowledge and, in many cases, knowledge of a foreign language in addition. Therefore, the questions of manning reconnaissance units must be resolved by commanders and staffs in close cooperation with the military commissariats through careful selection of physically healthy draftees with high political morale qualities fit for service in reconnaissance. For reconnaissance units, any shortage whatsoever in personnel, weapons, or equipment is intolerable.

An important indicator of the combat readiness of reconnaissance is the degree of training of personnel and the condition of the field skills of the reconnaissance units and their staffs.

Under modern conditions all reconnaissance personnel must have excellent tactical-special training, possess firm knowledge of the reconnaissance indications of enemy targets and of the organization, equipment, and operating tactics of his units, handle reconnaissance and technical equipment perfectly, orient themselves with assurance on any terrain, and quickly and accurately determine the coordinates of a reconnoitered target. Therefore, in the course of everyday training, and especially in the process of tactical-special training, the main efforts must be directed toward excellence of the professional skills of every reconnaissance specialist and the training of small subunits -- the crews (groups, detachments) and platoons.

As for the control organs and the reconnaissance units on the whole, knitting them together and perfecting their field skills must be done not only in the process of tactical-special training but also during all special, tactical, and command-staff exercises conducted by the troops.

The main attention in the training of officers must be devoted to studying the conditions of conducting reconnaissance in a given theater of military operations, to organizing and carrying out reconnaissance and special measures, and to finding new methods and techniques of reconnaissance and final reconnaissance of enemy targets.

An integral part of the combat training of reconnaissance personnel is psychological training. It is based, as we know, on repeated practice sessions in the performance of procedures and actions necessary in a combat situation. These practice sessions should be conducted in all practical exercises under complex conditions with the introduction during their conduct of elements of tension, surprise, danger, and justified risk in conjunction with carefully thought-out and organized safety measures.

Successful performance of reconnaissance tasks, especially under the complex conditions of a combat situation, depends to a decisive extent on the state of morale and the level of political and military indoctrination of the reconnaissance personnel. Therefore, the organization of political work is a most important responsibility of all commanders, chiefs, and political workers. Political work must be differentiated with due regard for the concrete tasks to be performed by the personnel, since their activity, as a rule, is bound up with the overcoming of great difficulties

in the enemy rear, with risk, and even self-sacrifice. All of this requires of reconnaissance personnel an exceptionally high conscientiousness and extreme exertion of moral and physical strength. Party political work must be aimed at instilling in the personnel high political morale qualities, unbounded devotion to the socialist homeland and personal responsibility for its defense, hatred of the enemy, as well as the ability to staunchly endure all burdens and privations when performing assigned tasks.

The reconnaissance plan for the first front offensive operation, before the beginning of war defines the concrete tasks for each reconnaissance unit (organ). This permits the purposeful training of reconnaissance forces and means to perform these tasks to be organized and carried out while it is still peacetime. Here special attention should be paid to the preparation of measures to build up the efforts of all types of reconnaissance on the eve of war, to organize troop surveillance of the national border, to carry out the first simultaneous sortie of reconnaissance aviation, and to put agents and special reconnaissance subunits into the enemy rear.

The preparation of reconnaissance organs and units to accomplish tasks in the first offensive operation is done on the basis of the developed reconnaissance plan of the front, the plan of agent reconnaissance, the plans of combat employment of special, radio, and radiotechnical reconnaissance forces and means, the schedule of the simultaneous flight of reconnaissance aircraft, and the materiel-technical support plans.

Experience shows that more careful and prolonged preparation is required by reconnaissance organs destined for actions in the enemy rear and primarily by agents and special reconnaissance subunits. Therefore, it is advisable while it is still peacetime to work out for the foremost reconnaissance subunits the documents on their operational use and combat employment and keep them in special packets.

During combat training with reconnaissance personnel it is mandatory to conduct practical exercises on terrain closely resembling the actual terrain and to work out the main elements of performing reconnaissance and special tasks (without disclosing or revealing the real task and area of actions). Practical exercises with reconnaissance units must be conducted in the situation that will most probably have developed by the beginning of the operation. All reconnaissance training, especially during the conduct of exercises, must assume the nature of the performance of actual tasks.

Successful activity of reconnaissance forces and means is in direct relationship to the condition and quality of training of the control organs and the means supporting their work, particularly the means of communications.

The personnel of control organs must know their responsibilities exactly and must constantly perfect practical skills in working on means of communications with the use of secure troop control documents. It is very important to prepare the personnel of control organs to handle related specialties, to be interchangeable, and to be able to perform the full volume of work with reduced personnel.

As for communications, their planning and organization have grown considerably more complex under modern conditions. Considering that the beginning of combat actions will drastically increase the load on communications, one must pay special attention to their organization during the bringing of units into full combat readiness, during the shifting of reconnaissance organs and units from peacetime to wartime status, during the putting of reconnaissance subunits into the enemy rear, and during control of all reconnaissance forces and means during the course of the operation.

A most important factor ensuring timely deployment and successful actions of the reconnaissance forces and means is constant study of the peculiarities of the theater of military operations by all categories of reconnaissance personnel, as well as advance preparation and equipping of the theater both on our own and on enemy territory.

During preparation of the theater of military operations on our own territory in the interests of reconnaissance, the following measures must be carried out:

-- selection, reconnaissance, and equipping of the operational deployment areas of the reconnaissance units and control organs -- when doing this, one must be sure to take into account the operational mission of the unit, the distance from its permanent location, and the availability of roads and approach routes; special attention must be paid to the proper selection, from a technical point of view, of sites for the radio and radiotechnical reconnaissance units as well as of areas that ensure concealed placement of the agent and special reconnaissance organs;

-- preparation of alternate airfields, predominantly field ones, for reconnaissance and transport aviation and provision of them with all the

necessary navigational equipment to control and direct aircraft flights; selection and reconnaissance of the waiting areas for reconnaissance subunits before they board the transport means;

-- reconnaissance of crossing points over border water lines and sectors for agents and special reconnaissance subunits to cross the national border;

-- equipping of control posts with wire communications to ensure control of the reconnaissance forces and means from the operational deployment areas under conditions of complete radio silence;

-- preparation of depots and shelters to store materiel-technical reserves intended for supplying the reconnaissance units and subunits.

All the areas selected and reconnoitered must be under constant monitoring of the reconnaissance organs and be regularly updated to take changes in the situation into account.

As for the territory of the part of the theater of military operations beyond the border, its preparation in support of the actions of reconnaissance forces and means must provide for the following measures:

-- description of sites for the landing of the foremost agent and special reconnaissance groups;

-- selection, reconnaissance, and description of places for basing agents and special reconnaissance subunits to be sent into the enemy rear for an extended time;

-- selection of places for, and advance basing of, means of communications and other materiel-technical reserves to support reconnaissance activity.

For preparing the foreign part of the theater of military operations all forces, means, and sources must be exploited. The descriptions of the landing sites and places for basing reconnaissance personnel must be updated periodically, and the advance basing spots checked to monitor the presence and condition of the materiel-technical means located there.

The conduct of reconnaissance and the implementation of special measures in the enemy rear naturally entail overcoming his counteractivity. Therefore, the organization of all-around support of reconnaissance

activity in the first offensive operation must provide for taking definite steps aimed primarily at disrupting or considerably weakening counteractivity on the enemy's part in the interests of safe penetration to the targets and of the successful actions of reconnaissance personnel in the enemy rear.

Under modern conditions the main method of penetration of agents and special reconnaissance subunits into the enemy rear is airlift and landing in the designated areas. However, this method of movement entails negotiation of the powerful air defense system of the enemy by transport aviation. Negotiation of this system is a task of great complexity, whose accomplishment requires the use of reliable methods and tactical techniques that ensure a high probability of the penetration of reconnaissance personnel into the enemy rear.

The main methods of negotiating the enemy air defense system are destruction and neutralization of the fire batteries, radiotechnical centers, and control posts, as well as jamming of the detection and guidance system. This is done within the framework of the overall plan of warfare against the enemy air defense means and ensuring the flight safety of all front aviation. At the same time, during the preparation and course of an operation, tactical methods of negotiating the air defense will also be widely used, especially by the reconnaissance and transport aircraft. Such methods should include the selection of the route, flight profile, time of task performance, flight speed, etc.

For the purpose of exploiting the measures of support for negotiating the enemy air defense, the sortie of reconnaissance and transport aviation can be planned simultaneously with a sortie of combat aircraft.

Of great importance, along with the negotiation of enemy air defense, for the successful penetration of reconnaissance personnel into the enemy rear is proper selection of the landing sites, which must to the extent possible ensure safe conditions for the drop and arrival of the reconnaissance personnel at the assigned target. For the purpose of deceiving the enemy concerning the real landing areas, it is advisable to indicate decoy areas by setting up radio beacons and simulators in them, dropping various cargoes by parachute, etc.

To put reconnaissance subunits into the enemy rear, not only aircraft, but also motor vehicles, motorcycles, tanks or armored personnel carriers, and -- on coastal axes -- fleet means, are used. In the interest of ensuring their safe penetration to the enemy rear, it is necessary

beforehand to select and reconnoiter the routes for getting to the national border and the landing areas of reconnaissance personnel on the seacoast, and to determine the routes for moving on enemy territory and the procedure for getting to the designated reconnaissance target.

Ensuring safety and favorable conditions for the actions of reconnaissance subunits in the enemy rear is achieved through personnel knowing the counterintelligence warfare methods and techniques of the enemy and the conditions of the security and defense of his main installations, as well as through decisive actions and initiative of the reconnaissance personnel and their use of new methods to get reconnaissance data.

One of the most important conditions for the successful conduct of reconnaissance is the degree of protection of its forces and means from weapons of mass destruction employed by both the enemy and our own troops.

Protection is organized by the intelligence organs of the staffs and primarily by the reconnaissance units and subunits on general principles, with due regard for the specific nature of the actions of these or the other reconnaissance forces and means. Therefore, depending on their mission and time of commitment to action, they must, on receipt of a signal to bring troops to increased combat readiness, be moved to the deployment areas or areas of assembly on alert (concentration areas). Special reconnaissance units and agent reconnaissance organs intended for actions with the beginning of war are moved to areas close to the home airfields of transport aviation from which the agents and special-purpose groups will be airlifted into the enemy rear. The radio and radiotechnical reconnaissance units already deployed in peacetime are relocated to alternate positions. Reconnaissance aviation is rebased to field (alternate) airfields.

Thus, timely execution of the enumerated measures will, on the one hand, permit building up reconnaissance actions or creating favorable conditions for this and, on the other, afford the possibility of dispersing reconnaissance forces and means and thereby of ensuring their protection from weapons of mass destruction.

To protect the personnel and equipment of the reconnaissance units and organs from weapons of mass destruction, shelters are prepared in the deployment areas (siting areas).

A very serious problem is the protection of agents and special reconnaissance subunits operating in the enemy rear from our nuclear strikes. This is due to the fact that the indicated reconnaissance organs

are discovering those enemy targets on which our nuclear strikes and strikes with other means of destruction will be delivered. Therefore, to ensure the safety of reconnaissance forces and means, it is necessary to carefully coordinate their actions by time and place with the delivery of strikes, especially of strikes with means of mass destruction. On removal of reconnaissance organs from areas of the expected use of weapons of mass destruction, they can be assigned the task of conducting reconnaissance in the new area.

In order to preserve the combat effectiveness of forces and means, the reconnaissance organs must know well the radiation, chemical, and biological situation not only in their own location but also in the enemy location. As a result of the delivery of a nuclear strike by the front and the use of other means of mass destruction, extensive zones of contamination will be created on enemy territory in which the activity of reconnaissance organs will be limited or impossible for a long time. Consequently, when resolving questions of the movement of agents and special-purpose reconnaissance groups (detachments) into the enemy rear, it is necessary to select areas with the lowest level of contamination.

It is advisable that the main measures to protect reconnaissance forces and means from weapons of mass destruction be reflected in the reconnaissance plan.

An important condition of the successful activity of reconnaissance is well-organized materiel-technical support of the reconnaissance organs and units.

Front reconnaissance, when performing tasks, must be provided with the most varied materiel-technical means, from special weapons to civilian effects and special rations, from parachute gear to foreign currency and foreign maps. Besides this, it is necessary to take into account that reconnaissance units and subunits will be operating over great distances across the front and in depth and will be performing tasks on both our own and enemy territory. Therefore, the organization of materiel-technical support under these conditions is complicated and requires careful planning in advance. Here one should keep in mind that the reconnaissance units and subunits will be operating from the beginning of the operation with those reserves of materiel-technical means which have been created in peacetime, as well as possible losses of these means during the operation both in units and in front depots and bases.

Nor can one fail to take into account the circumstance that, with the start of military actions, mass destruction of transportation routes and the occurrence of extensive zones of contamination are possible, as a result of which the supplying of reconnaissance units from central depots will become even more difficult.

All of this requires serious attention to the conduct of measures to create mobile reserves of materiel-technical means in peacetime and to organize their storage, safekeeping, and preparation for timely use.

Experience shows that, in the interests of the successful performance of tasks, it is advisable to have all necessary reserves immediately in the reconnaissance units with the beginning of military actions.

The reserves created must fully support the combat activity of the reconnaissance units and, at the same time, not overload their transport.

All these measures must be carried out on the basis of a carefully worked out plan of materiel-technical support which stipulates:

-- the norms of the requirement of reconnaissance units for materiel-technical means for the operation and the procedure for accumulating, storing, and using them in peacetime and with the start of combat actions;

-- the procedure for replenishing expended reserves during the operation;

-- the procedure for restoring and repairing reconnaissance and special equipment.

Requiring special attention is the organization of the provision of materiel-technical means to agents and special reconnaissance subunits who will be operating in the enemy rear. The outfitting, arming, and provision of these organs with reconnaissance and special equipment must be done with regard for the peculiarities of the theater of military operations, the time of year, and the nature of tasks to be performed.

With a long stay of reconnaissance organs in the enemy rear, it is necessary to provide for the additional drop of materiel-technical means to them in designated areas. Besides this, the personnel themselves must restore and replenish the necessary reserves by seizing them from the enemy.

Thus, the preparation of reconnaissance forces and means to perform tasks includes a number of important questions on whose solution depends their readiness to get the reconnaissance data on the enemy necessary to make the decision for the operation.

CONTROL OF RECONNAISSANCE FORCES AND MEANS

Control of reconnaissance forces and means consists in bringing the influence of the commander, staff, and chiefs of branch arms, special troops, and services to bear on the activity of the reconnaissance units (subunits, organs) of the front in the performance of reconnaissance tasks and also in carrying out all-around support of them.

The chief of intelligence of the front, on the basis of the instructions of the commander and the chief of staff, and also on the basis of the reconnaissance plan, coordinates the activity of the various authorities to control reconnaissance forces and means in the interests of timely performance of reconnaissance tasks.

To ensure control, the chief of intelligence must maintain reliable communications with the reconnaissance units and subunits, specify and assign them additional tasks in accordance with changes in the situation, get data from them in time about their position and status and about the progress in fulfilling reconnaissance tasks, and also collect the reconnaissance data obtained.

Control of reconnaissance forces and means is an integral part of the overall system of troop control. As we know, the ultimate objective pursued in troop control consists in ensuring the defeat of the opposing enemy in the established time with a minimum of losses. This objective is attained in each concrete situation through the adoption of the most expedient decision by the commander and successful implementation of it in the course of combat actions on the basis of the necessary information. The completeness and timeliness of arrival of reconnaissance information in support of the adoption of the decision by the commander depend on the effectiveness of the control of reconnaissance forces and means. Therefore, levied on the control of these forces and means there are requirements which stem from the general requirements levied on a system of troop control (continuity, firmness, flexibility, efficiency, security) as well as on reconnaissance as a whole (continuity, aggressiveness, purposefulness, timeliness, reliability, and accuracy in determination of

target coordinates), which are in turn determined by the nature of modern combat actions.

The availability of nuclear attack means to the commanders of operational formations enables them to inflict heavy losses on the enemy in a short time. However, in order to inflict such losses, it is necessary to first get data about the specific targets, including precise coordinates, and to transmit them to the staff. But this can be achieved only with the availability of a well-developed, orderly, and reliable system of control of all the reconnaissance forces and means.

Since control of reconnaissance forces and means is an integral part of the system of troop control, the overall reliability of the latter (R) will depend on the reliability of the communications channels over which control of reconnaissance is exercised, since the receipt of target data for the means of destruction is carried out over these same channels.

Example. Special-purpose reconnaissance groups have detected ten targets to be hit. The groups have shortwave radios providing a communications reliability of $R_1 = 0.6$. (This means that, of ten reports, only six can be transmitted and received in time.) The reliability of the communications channels with our missile subunits is $R_2 = 0.95$. Yet, on the whole, the reliability of the passage of data about targets from the reconnaissance organs to the means of destruction will be $R = R_1 \times R_2 = 0.6 \times 0.95 = 0.57$, i.e., of ten targets detected, a strike can be delivered on only six.

Roughly the same results are obtained in target detection by the crew of a reconnaissance aircraft and transmission of the data from on board to the ground control posts of the combined-arms formations and large units.

No matter to what extent the reliability of communications channels with the rocket troops and other means of destruction increases, the overall reliability of control of them will not be higher than the reliability of the control of reconnaissance. So the reconnaissance control system, in terms of the extent of reliability, must meet the requirements levied on the system of troop control as a whole.

Along with reliability, the reconnaissance control system must be marked by high efficiency, since the growing mobility of enemy troops and the existence of a large number of mobile targets to be hit require ensuring the passage of data from the reconnaissance organs to the command in extremely limited periods of time, which are now virtually unattainable

without integrated use of means of automation. Therefore, until the development and introduction of an automated troop control system is completed, it is advisable to limit these requirements to the actual capabilities of the reconnaissance forces and means. (The time of passage of data about enemy operational-tactical means of nuclear attack from the reconnaissance organs to the combined-arms staff must not exceed 15 minutes, nor 15 to 20 minutes for data about other important targets).

Besides this, the system of control of reconnaissance must be flexible, possess survivability, and ensure the maintenance of stable communications with the reconnaissance organs and units as well as the continuous cooperation of the reconnaissance forces and means of the branches of the armed forces, branch arms, special troops, and services over the entire zone to the entire depth of the front operation.

Finally, the reconnaissance control system must meet security requirements. This is because, first of all, the system of control of reconnaissance forces and means is partially deployed and functioning in peacetime and, secondly, the specific nature of the performance of reconnaissance tasks often calls for use of the means of radio communications to control the reconnaissance organs, even under conditions of complete radio silence.

So, the main requirements levied on the system of control of reconnaissance forces and means consist in its reliability, efficiency, continuity, survivability, flexibility, and security.

Fulfilment of these requirements is achieved first of all through creation of a reliable communications system for control of the reconnaissance units and subunits, particularly those operating in the enemy rear, through good training of intelligence officers, scientific organization of their work, provision of control posts with modern technical means of communications, and through the echeloning of control organs (means).

The chief of intelligence controls the reconnaissance forces and means, as a rule, from the command post or -- when the commander is out at the forward command post or the command post is being relocated (has been put out of action) -- from the forward command post. At the forward command post is usually located a deputy chief of intelligence with a group of officers of the intelligence directorate. He is obliged to always know the situation and to take over control of reconnaissance at any time.

The chief of intelligence exercises control of reconnaissance forces and means personally, through the deputies and the chiefs of departments of the intelligence directorate of the front staff, each of whom performs definite functions and employs the corresponding organs and means of control.

The main measures for control of reconnaissance forces and means consist in ensuring the timely and precise performance of reconnaissance tasks. Some of these measures have been examined above. Below are examined the measures to organize and maintain uninterrupted communications, assign tasks to the operating forces and means, and monitor and give them practical assistance.

Organizing and maintaining communications. One of the first-priority measures to ensure control is the organization and maintenance of uninterrupted communications with all reconnaissance forces, means, and organs. Only on this basis can one carry out all the rest of the measures -- assign or refine tasks for the reconnaissance organs located at great distances from the front command post, get the necessary data from them in time, etc.

The main means of communications in the system of control of reconnaissance forces and means is radio communications. In a front offensive operation, to be sure of control of reconnaissance from the command post and forward command post it is necessary to establish the following radio nets and radio links (Diagram 2):

-- a radio net of the front chief of intelligence with the chiefs of intelligence of the combined-arms (tank) armies and separate large units of the front;

-- a radio link of the front chief of intelligence with the chief of intelligence of the air army;

-- a combined radio net made up of radios of the front chief of intelligence and the reconnaissance aviation units;

-- radio links of the front chief of intelligence with the commander of the special-purpose brigade, with the OSNAZ radio center, and with the commanders of the OSNAZ radio regiment and the OSNAZ radiotechnical regiment.

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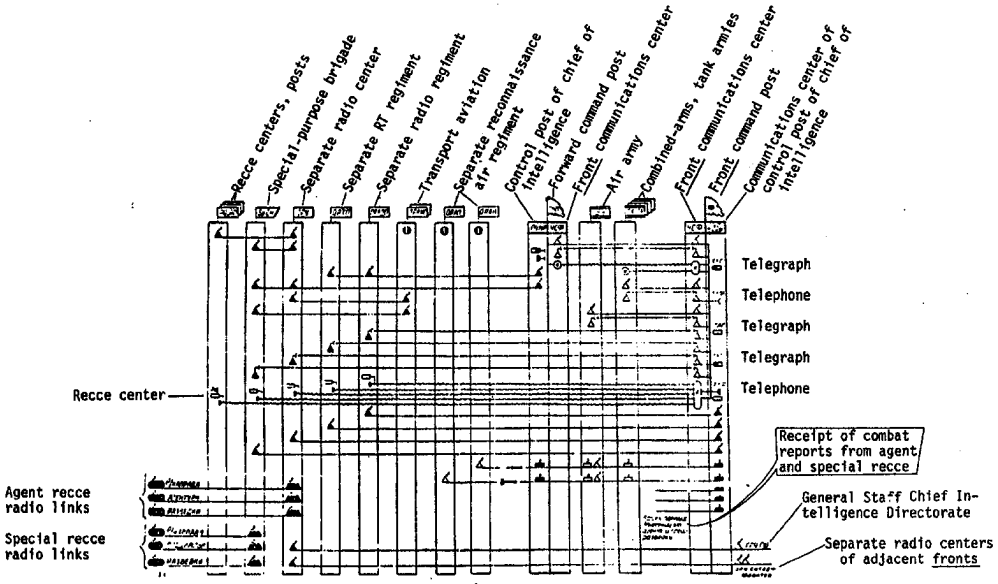

Note. Depending on the forces and means of the reconnaissance units, radio and radio-relay communications can be handled over secure and open telephone or telegraph [REST MISSING]

Radio means of front chief of intelligence

Radio and radio-relay means of front and army chiefs of communications

Wire communications lines and channels allocated for reconnaissance by the front chief of communications

Diagram 2. [Organization of communications with reconnaissance units and organs]

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Moreover, at the same time are decided the questions of organizing communications for collecting reconnaissance information also from the rest of the sources (the GRU, adjacent forces, staffs of cooperating and supporting formations and large units).

The control post of the front chief of intelligence (PUNR), which is a T/O&E subunit with the status of a separate element, is used to ensure control, collection, initial processing, and display of reconnaissance information. It is made up of a communications center, a reconnaissance data collection and processing group, and a punchcard processing equipment group.

The structure and technical equipping of the communications center of the control post of the chief of intelligence must ensure radio communications in the shortwave range at two positions.

Radio communications are organized at each position by links (in each link work is done over two channels -- with secure communications equipment by printer and morse telegraph) with the OSNAZ radio and radiotechnical regiments, the special-purpose brigade, and the OSNAZ radio center, and through it with the reconnaissance center and reconnaissance posts (Diagram 3). Radio-relay, tropospheric, and wire communications are provided over communications channels organized by the front chief of communications.

At the second position radio communications are organized by using part of the forces and means of the communications center of the control post and the radio means of the subordinate reconnaissance units of the front (separate OSNAZ radio center, special-purpose brigade, separate OSNAZ radio regiment, separate OSNAZ radiotechnical regiment).

Radio communications with the forward command post are organized over two radio nets made up as follows -- a radio net including the control post and the radio and radiotechnical reconnaissance regiments and a radio net including the control post, the special-purpose brigade, and the separate OSNAZ radio center.

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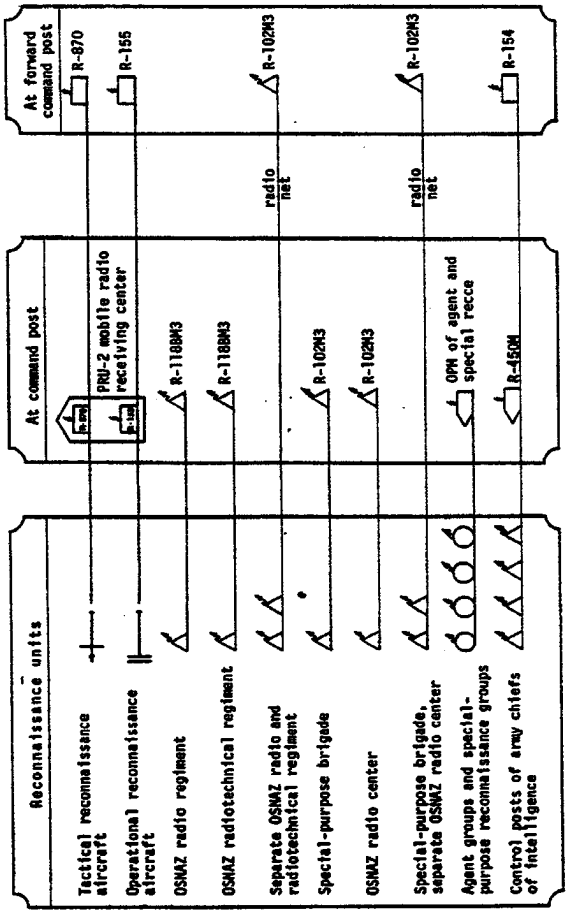

Diagram 3. Basic diagram of the organization of communications of the control post of the chief of intelligence with reconnaissance organs and units

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Besides this, the control post provides receipt of reconnaissance reports from on board reconnaissance aircraft and reception of radio signals from active special-purpose reconnaissance groups (detachments) and agents performing the most important tasks.

Communications of the front chief of intelligence with the chiefs of intelligence of the air and combined-arms (tank) armies, with the commanders of reconnaissance aviation units, and with other reconnaissance organs are handled through the front communications center.

Assignment of tasks to operating reconnaissance forces and means. The highly mobile character of modern operations and the exceptionally rapid, drastic changes in the situation increase the importance of the efficiency of control so much that the successful conduct of reconnaissance is unthinkable without it. Only that staff and its intelligence directorate can count on success which manages, during the preparation and especially during the conduct of an operation, to introduce the necessary corrections in the previously issued instructions or to assign new tasks in time and to redirect reconnaissance forces and means toward detecting those enemy groupings and targets whose destruction and annihilation can lead to thwarting his intention and ensure successful conduct of the front operation.

The refinement or assignment of new tasks during the operation is done as a rule through direct conversations with the executors, through issuing short instructions over technical means of communications, or by going to the subordinate staffs and reconnaissance units. In selecting the forms and methods of assigning tasks, it is necessary above all to proceed in the interests of efficiency in getting them to the executors, of security, and of the prevention of distortions in the instructions to be given.

Consequently, the speed of reacting to the situation in refining or assigning new reconnaissance tasks depends on the extent of knowledge of the nature of changes that have taken place as well as on the ability to foresee the probable nature of actions of the enemy. Timely collection and processing of data about the enemy and knowledge of the position and status of one's own troops, including the reconnaissance units and subunits, as well as of their progress in fulfilment of the assigned tasks, is one of the most important conditions of the efficiency of control of reconnaissance.

The refinement or assignment of new tasks to operating reconnaissance forces and means, as well as the sending out of new reconnaissance organs,

is done: in case of a change in the situation; on receiving reports containing doubtful or false information; when it is necessary to determine the precise coordinates of targets detected by other means of reconnaissance; to check contradictory information discovered during the processing of reconnaissance information; for final reconnaissance of targets prior to the delivery of nuclear strikes; and in other cases.

Of special importance is the assignment of tasks when final reconnaissance of targets is organized in support of delivery of the initial nuclear strike. Therefore, the measures for final reconnaissance of targets must be stipulated in advance and constantly refined in the schedule of the initial nuclear strike and in the schedule of the simultaneous flight of reconnaissance aviation.

It is in the conduct of final reconnaissance in support of the initial strike that the dependence of the effectiveness of control of the means of destruction on the reliability and efficiency of control of the means of reconnaissance -- and, in particular, on the reliability of communications -- may show up most vividly. For instance, if communications with an active reconnaissance organ designated for final reconnaissance of a target are disrupted, then the delivery of a nuclear strike on a preplanned target may not take place either.

Monitoring and giving practical assistance. In order to control them, one must know the position, status, and nature of actions of the executors, their progress in fulfilling the assigned tasks, and what difficulties are arising for subordinates in performing them. Consequently, constant monitoring of the execution is one of the most important responsibilities of any control organ.

In monitoring, one must concentrate attention mainly on checking the fulfilment by reconnaissance units (subunits, organs) of those tasks on which the success of combat actions most depends at the time. Under any conditions one should check on: the timeliness of the receipt of tasks by executors and the correctness of understanding them; the readiness to perform the assigned tasks; the secrecy of preparation of reconnaissance forces and means for actions, especially agents and special reconnaissance subunits; the progress, timeliness, and quality of fulfilment of the assigned tasks and the reliability of the data obtained; the availability of a reconnaissance reserve and the procedure for employing and restoring it.

The methods of monitoring the organization and conduct of reconnaissance can vary. Monitoring can be implemented through having the chief of intelligence (an intelligence directorate officer) go to the subordinate staffs and reconnaissance units (subunits), through personal conversations over technical means of communications, as well as through study of the reconnaissance documents and reports submitted by the subordinate staffs and reconnaissance units and organs.

Personal contact even at the present time, depending on the situation, is one of the best methods of monitoring, especially during the preparation of combat actions. Work of the chief of intelligence in subordinate staffs, units, and subunits permits him to thoroughly check on their activity, take the most effective steps to get rid of deficiencies, and give practical assistance to subordinates. However, under the conditions of dynamic combat actions, trips of the chief of intelligence to the subordinate units may not always be advisable. They should be undertaken in keeping with the situation.

Conversations over technical means of communications permit one to check on the implementation of many reconnaissance measures. However, they do not always ensure that one will determine the extent of fulfilment of the assigned tasks and the condition of the subunits being monitored or give the appropriate assistance to subordinates.

The whole system of monitoring and assistance on the part of the chief of intelligence must bring about such a situation wherein the command of the reconnaissance units and subunits has to understand that not a single deviation from the fulfilment of assigned tasks will be left unnoticed. Therefore, it is of great importance to instill in every intelligence officer truthfulness, honesty, and an inner need to immediately and objectively report the actual state of affairs or the non-fulfilment (untimely fulfilment) of a task received for some reason or other.

Peculiarities of control of different types of reconnaissance forces and means

Agent and special reconnaissance. The essence of control of agent and special reconnaissance forces and means consists in purposefully carrying out organizational measures and influencing the organs (units and subunits) of these types of reconnaissance, as well as the agents and special-purpose reconnaissance groups (detachments) operating in the enemy rear in the

interests of successful fulfilment of reconnaissance tasks and of ensuring the secrecy and safety of their activity.

The main requirements levied on control of these types of reconnaissance are: efficiency, firmness, flexibility, centralization, security, and clandestinity.

When organizing and exercising control of agent and special reconnaissance forces and means, one must take into account the following.

The conduct of agent and special reconnaissance is a many-sided, complex activity which includes training of the forces and means that requires a long time, conduct of many organizational measures to ensure the fulfilment of reconnaissance and special tasks, and careful consideration of all factors, especially the operational situation in the enemy rear. Mistakes in this activity are hard to correct and very often they can lead to serious consequences.

The activity of these types of reconnaissance requires strict observance of measures for camouflage and clandestinity at all levels without exception and at all stages of work, particularly during the preparation of agents and special-purpose groups (detachments) for movement to the enemy rear and during control of their actions subsequently. Separate, even insignificant, errors in this can lead to the collapse of whole links of the active agent net and the network of special-purpose reconnaissance groups.

An important feature of the control of agent and special reconnaissance forces and means is the fact that the influence of the chief of intelligence and his agent apparatus must embrace not merely the organs (units, large units) of these types of reconnaissance, but also numerous separate, isolated agent support points and special-purpose groups and detachments accomplishing the most diverse tasks (doing reconnaissance, recruiting, carrying out special measures, maintaining communications, etc.) in the enemy rear and operating over extensive territory to the entire depth of the theater under various complex conditions of the operational situation.

The chief of intelligence, personally and through his agent apparatus, must assign and refine the tasks for the agent and special reconnaissance units; determine the enemy targets they must concentrate their efforts on reconnoitering; establish the procedure and methods of using the agents of the active net, the agent reconnaissance reserve, and the special-purpose

groups and detachments; determine the nature and volume of measures to be carried out by way of support of the performance of tasks; and maintain continuous communications not only with the commanders of these units but also directly with the sources located in the enemy rear in the interests of getting information from them in time and, in a number of cases, of assigning new tasks most quickly.

A special concern of the chief of intelligence is communications with the reconnaissance personnel and agents operating in the enemy rear. Here it should be taken into account that the agents and special-purpose groups in wartime maintain communications with the organs that sent them out and with the chief of intelligence only by radio, working according to special rules on low-power transmitters over radio links going from each individual source, with observance of the strictest radio camouflage and clandestine measures. Therefore, proper organization of such communications has exceptionally great importance. To this end a special radio communications service is formed, headed by the chief of the communications department of the intelligence directorate and including: the radio means of the control post of the chief of intelligence, the OSNAZ radio center, the radio center of the special-purpose brigade, the radios of the reconnaissance center and reconnaissance posts, as well as the radios of the agents and special-purpose groups and detachments operating in the enemy rear.

The special radio communications system is structured mainly according to the principle of direct radio communications between the radios and the radio center of superior and subordinate, between the radio subscribers operating in the enemy rear and the OSNAZ radio center (radio center of the special-purpose brigade), and from a number of subscribers directly with the control post of the chief of intelligence.

It should also be kept in mind that during combat actions in theaters having extensive territory, great depth, and important separate axes, agent and special reconnaissance may be confronted with complex and unforeseen tasks whose accomplishment requires an adjustment of the control system worked out and the creation of additional control organs on new axes or immediately in the enemy rear. In such theaters, should there be a large number of agents and special-purpose groups operating in the enemy rear, the communications of part of them with the OSNAZ radio center may be hindered for a number of reasons. Additional control organs may also be needed if there are in the enemy rear guerrilla and insurgent detachments which can be used by agents or by special reconnaissance on behalf of the front.

Aerial reconnaissance. When organizing control of the aerial reconnaissance units in a front offensive operation, one must keep in mind that, by virtue of the rapidity of combat actions and the strengthening of enemy air defense, the conditions and methods of performing reconnaissance tasks have grown more complex. This has been reflected in the conduct of simultaneous flights of a large number of aircraft for aerial reconnaissance in the front zone and their use of a wide range of altitudes to the very lowest. Moreover, increasing the efficiency of aerial reconnaissance in support of front troops has required situating aviation control organs and troop control posts together or as near together as possible. It was this requirement which at the time underlay the new system of control of front aviation based on combat control centers and groups to be deployed at the command posts of the combined-arms (tank) armies and motorized rifle (tank) divisions, respectively.

As we know, aerial reconnaissance forces and means in an operation are used in a centralized way in keeping with the reconnaissance plan of the front; however, control of the reconnaissance aviation units is exercised from the command post or forward command post of the air army. Herein lies one of the peculiarities of control of aerial reconnaissance, since its forces and means -- unlike other types of reconnaissance -- are not directly subordinate to the front chief of intelligence but form part of the air army. Therefore, the front chief of intelligence has to control the aerial reconnaissance units through the chief of intelligence of the air army.

Another peculiarity of the control of aerial reconnaissance forces and means lies in the fact that it must ensure, first of all, the capability of timely assignment of tasks to reconnaissance aircraft crews in the air and, secondly, continuous receipt of the acquired data directly from on board the aircraft performing the reconnaissance flight. The main means of control of aerial reconnaissance is radio communications, which allow the exercise of firm control of reconnaissance crews in the air and quick receipt of reconnaissance data from them by all the concerned levels of the ground forces.

Radio and radiotechnical reconnaissance in a front (border military district) is organized and conducted in both peace and wartime. Therefore, the system of control of this type of reconnaissance is established beforehand and is already functioning in peacetime. The chief of intelligence controls the radio and radiotechnical reconnaissance units through the Fifth Department of the intelligence directorate and through the control post. To ensure the concealment of the location and actions of

the radio and radiotechnical reconnaissance units and subunits during the preparation of an operation, control of them is exercised over wire communications channels and by messenger means and -- with the start of combat actions -- by radio as well.

One of the peculiarities of control of radio and radiotechnical reconnaissance lies in the fact that, in an organizational respect, the matters of cooperation with the forces and means of the radioelectronic warfare units, the radio monitoring service of the communications troops, and the air defense reconnaissance means are still not resolved efficiently enough. This may lead to the uncoordinated neutralization of sources in which reconnaissance is interested and to the jamming of our own communications. The situation which has developed places on the reconnaissance control organs a special responsibility for organizing and maintaining cooperation with the control organs of the radioelectronic warfare means, the air defense reconnaissance means, and the radio monitoring service.

As for the forces and means of other types of reconnaissance, such as radar, radiation, chemical, and biological reconnaissance, control of them is exercised by the respective chiefs to whom they are subordinate. The chief of intelligence merely monitors their performance of the main tasks, maintains cooperation with their control organs, and gets reconnaissance information from them.

COLLECTION, PROCESSING, AND REPORTING OF RECONNAISSANCE INFORMATION

Reconnaissance information is information about the enemy, the terrain, the area of impending actions, and the weather necessary for the front commander to make a decision for the operation and to control troops during its conduct.

The volume and content of reconnaissance information the commander needs depend on the concrete situation. What data it is necessary to have by what time, where and what target (areas, axes) to concentrate the main reconnaissance efforts on, and what tasks reconnaissance must perform in support of the impending operation are determined by the commander on the basis of the combat task, an evaluation of the available data about the enemy, and also the instructions of the General staff.

Collecting and processing reconnaissance information, reporting it to the command, and getting it to the concerned staffs and responsible persons are the substance of information work, which is one of the most important integral parts of the reconnaissance activity of the front staff.

All reconnaissance information obtained must come in to the staff on time and without interruption and be quickly processed and reported to the commander. Information work is based on the factual materials obtained by all types of reconnaissance through legal and illegal methods. Reconnaissance information carefully processed and reported on time enables the commander to make the most effective well-founded decisions and effectively exploit the available means of combat.

The experience of the Great Patriotic War and postwar exercises shows that, as the result of the combat actions of troops and the conduct of reconnaissance measures, a large quantity of information about the enemy has been obtained. However, operational reconnaissance has virtually never managed to get complete and reliable data about the position, condition, nature of actions, plans, and intentions of the enemy. Most often one gets disconnected, sometimes contradictory, fragmentary information about individual enemy targets, their position, and nature of actions. Therefore, the officers of the intelligence directorate are faced with a most important task -- to make, through analysis and comparison of this information, well-founded conclusions revealing on the whole the true picture of the developing situation and the substance of these or the other measures being conducted by the enemy. Here it is absolutely necessary to get precise coordinates of the targets in order to hit them with nuclear or conventional weapons.

Consequently, the end results of reconnaissance depend not only on the acquisition of reconnaissance information but also on the ability of the intelligence officers to collect and process the information -- that is, to draw objective conclusions from it and report them to the command -- on time.

Under the conditions of combat actions, tardily collected and reported data about the enemy quickly grow obsolete and lose their value. Shortcomings in information work can bring to naught the results of much laborious work to obtain reconnaissance information.

The nature of modern combat actions, particularly of a first front offensive operation, makes great demands on information work in reconnaissance. These are, above all, timeliness in collecting

reconnaissance information, careful processing of it, and purposefulness and objectivity of approach to the assessment of the enemy. Information work must be done systematically and continuously, on the basis of Marxist-Leninist research principles which consider all events in their interconnection, interconditionality, and change.

Supervision of the information work in the intelligence directorate of the front staff is exercised by the chief of intelligence, who establishes the procedure of collecting reconnaissance information on the basis of the instructions of the chief of staff, personally takes part in the study and collation of information about the enemy, supervises the development of the main information documents, and also monitors the timeliness of reporting them to the General Staff and the delivery of the most important data about the enemy to the subordinate, adjacent, and cooperating staffs and to the responsible persons concerned.

The chiefs of branch arms, special troops, and services collect reconnaissance information from the subordinate reconnaissance organs, process it, and inform the front chief of intelligence of it.

All the information work in the intelligence directorate of the front staff is performed by the officers of the Fourth (Information) Department.

Information work begins with the collection of reconnaissance information from the sources, which include: the higher staff, the staffs of subordinate and cooperating troops, the reconnaissance units and subunits subordinate to the front, the chiefs of branch arms, special troops, and services, prisoners and deserters, documents, samples of weapons and equipment captured from the enemy or picked up on the battlefield, and others (Diagram 4).

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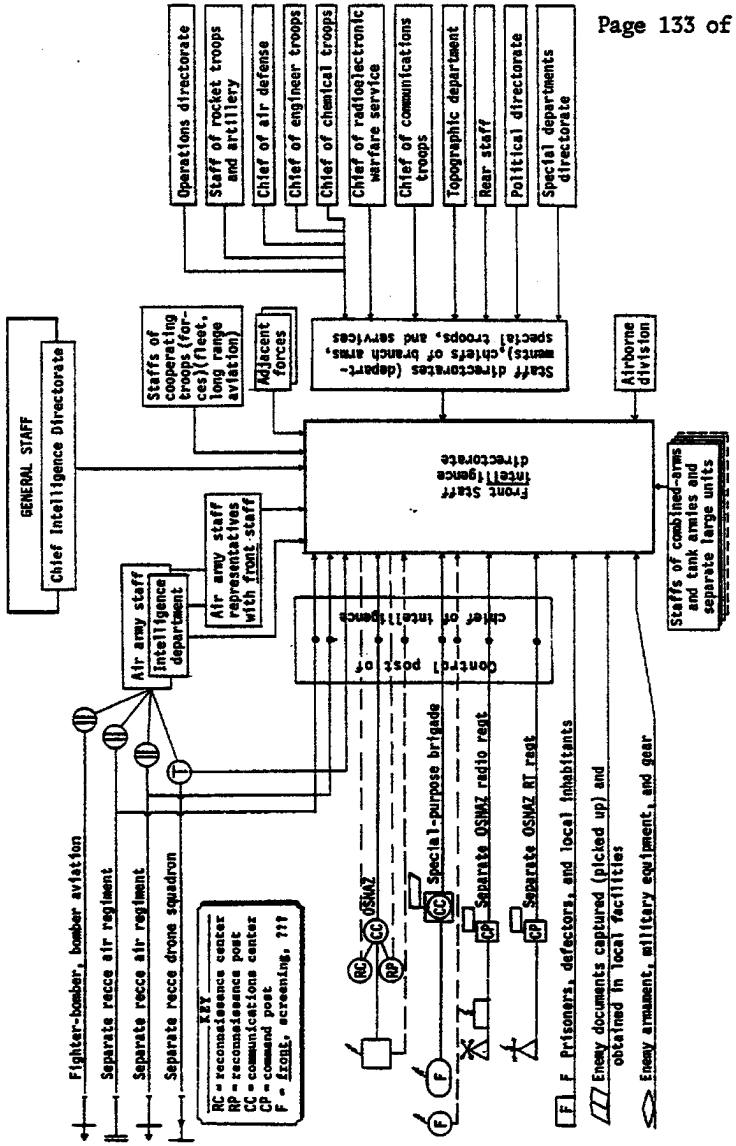

Diagram 4. Sources of reconnaissance information input to the front staff intelligence directorate

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The number of sources of obtaining information about the enemy depends on the combat strength of the troops and the reconnaissance units of the front and the cooperating staffs, and the capabilities for maintaining communications with the sources of intelligence.

Each source is characterized by definite objective and subjective capabilities in terms of its reliability, the degree of reliability of the reconnaissance information obtained, accuracy in determining target coordinates, vulnerability to enemy countermeasures, time of obtaining data, weather conditions, etc.

For instance, in spite of its reliability, radio reconnaissance cannot, for objective reasons, ensure an adequate degree of reliability of the reconnaissance information it gets or accuracy in determining target coordinates. Agent and special reconnaissance personnel are characterized by personal subjective qualities and are vulnerable to enemy countermeasures. Aerial reconnaissance has high reliability, but its capabilities depend to a considerable extent on the time of day, the weather, and opposition on the part of enemy air defense.

Consequently, intelligence officers must know well the capabilities, as well as the strong and weak points, of each source of intelligence; on this to a definite extent depend the continuity and timeliness of receiving the data they get, and they must be guided by this in information work.

Continuity and timeliness of the arrival of reconnaissance information in the front staff are achieved through timely assignment to the executors of tasks to get new data or confirm those obtained, through determination of the procedure for submitting reports by the lower staffs and the reconnaissance organs obtaining the information, and through maintenance of stable communications with all the executors and the staffs of adjacent and cooperating formations (large units). Besides this, in the interests of purposeful assignment of information work, there must be systematic monitoring by the intelligence directorate of the front staff of the timely reporting of the information obtained by the lower staffs and reconnaissance organs, as well as continuous exchanging of information between the intelligence directorate and the other directorates (departments) and staffs (chiefs) of the branch arms, special troops, and services.

All reconnaissance information coming into the front staff is subject to careful processing, during which, on the basis of a thorough understanding of the laws of development of modern combat actions and a comprehensive knowledge of the organization and armament of the troops and the operational-tactical views of the enemy, well-founded conclusions can be drawn about his position, condition, and probable nature of actions.

As experience in information work shows, the processing of reconnaissance information is made up of initial study, recording, analysis, and collation (Diagram 5).

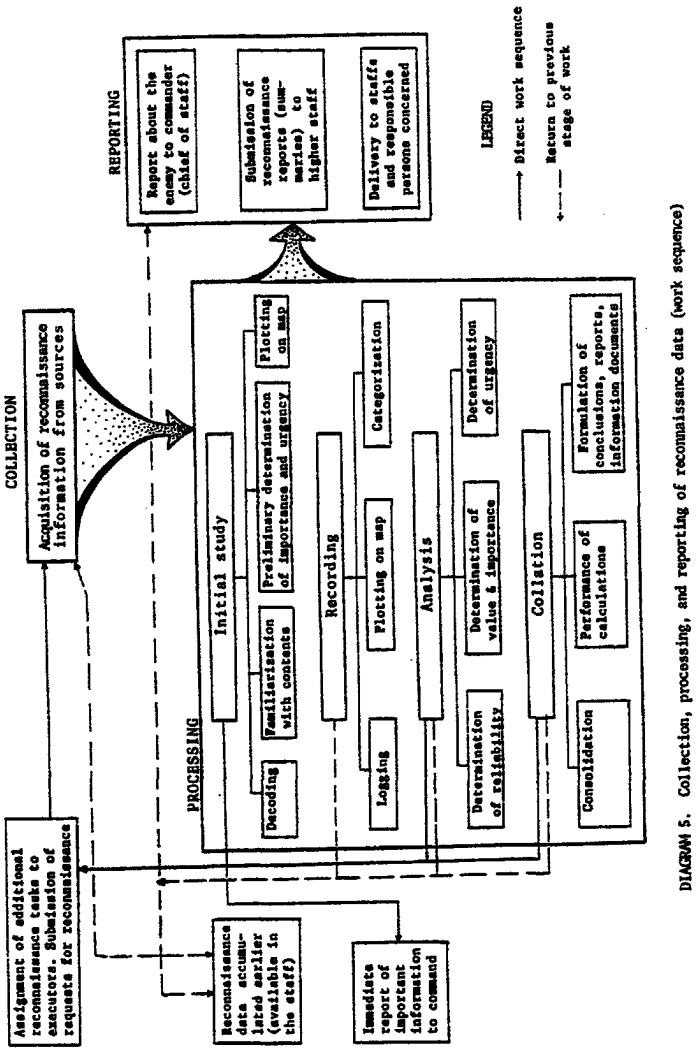

DIAGRAM 5. Collection, processing, and reporting of reconnaissance data (work sequence)

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Initial study consists in the decoding of the information obtained, familiarization with its content, preliminary determination of its importance and urgency, and plotting of it on a working map with the source and time of its receipt indicated.

Important and urgent data, especially about means of nuclear attack and drastic changes in the enemy position and nature of actions, must be immediately reported to the command and communicated to the operations directorate and the staff of rocket troops and artillery.

Recording of reconnaissance information is logging of it in a definite order (categorization) in a logbook and graphic display of it on maps.

Properly organized recording of reconnaissance information keeps it from getting lost and facilitates the work to assess the enemy and to formulate summary and reference information documents.

Analysis of reconnaissance information consists in determining its degree of reliability, importance, value, and urgency.

Reliability is determined through the comparison or correlation of reconnaissance information obtained from different sources with due regard for their reliability and actual capabilities as well as for the correspondence of the data to the situation that has developed. In terms of reliability, reconnaissance information is subdivided into reliable, probable, dubious, and false.

The importance of information is determined by its significance in revealing or refining the combat strength, position, condition, and nature of actions of the enemy, especially in determining his intentions, as well as the effect they may have on the troops' performance of the combat task.

The concept of value of information is similar in content to the notion of importance, but usually this information does not require the quick response of our troops and, consequently, does not always make immediate reporting necessary.

The urgency of information is directly connected with its importance and is determined by the necessary speed of reaction, on the part of the commander and other responsible persons, to the information obtained.

The sequence of further work with incoming reconnaissance information is established in accordance with its importance and urgency. Some information is reported to the commander and higher staff immediately; other information is reported as needed in collated form at the established time. In the process of analysis of reconnaissance information, it is necessary to consider the possibility of deception on the enemy's part. Sometimes information confirmed by a number of sources turns out to be false, while the most -- at first glance -- improbable information obtained for the first time and unconfirmed by anything proves reliable.

Should a doubt arise as to the reliability of information obtained, it is necessary to organize verification of it, which is done by assigning additional tasks to the reconnaissance units (subunits) and making inquiries of the higher staff, adjacent forces, and other sources.

Information in which there are signs of falsity of targets, events, and actions are analyzed with particular attention. Timely discovery of false targets and detection of the intention of the enemy to carry out operational camouflage measures facilitates to a considerable extent the subsequent work to assess the enemy and discover his true intentions.

Collation of reconnaissance information consists in summing it up and consolidating it, in assessing the enemy and his actions, and in compiling on this basis the corresponding conclusions, reports, calculations, and information reporting and reference documents on the enemy and on the conditions of the situation.

The material to be collated is the carefully selected and categorized reconnaissance information that is of importance for assessment of the enemy.

Collation of reconnaissance information and creative processing of it result in detecting the position, condition, and nature of actions of the enemy by a definite time. Then, on the basis of direct and indirect indications as well as of a knowledge of the nature of a modern battle and operation, of the organization, armament, and views of the enemy on the conduct of combat actions, a hypothesis is formed about the possible changes in the position, situation, and nature of actions of the enemy and about his intentions.

The most difficult and crucial thing in the work to collate information is the formation of the hypothesis (assumption) about the nature of actions of the enemy and his intentions. Frequently intelligence

officers come up against the situation where they are hindered by the incompleteness of available information from drawing final conclusions about some matter or the other. However, as the experience of information work shows, even with a limited amount of data obtained, one can make assumptions and draw conclusions close to the truth if they are based on thorough knowledge of the opposing enemy, his views on the conduct of combat actions, the orientation of the combat and operational training of the troops, and the operational preparation of the theater of military operations.

Simultaneously with this it is necessary to take steps to verify the correctness of the assumptions through organization of additional reconnaissance. Well-founded assumptions ensure a more precise and concrete assignment of tasks to executors.

In order to avoid subjectivity in assessing the enemy, our regulations and manuals place the personal responsibility for this work on the commander and chief of staff as well as on other responsible persons having reconnaissance forces and means at their disposal.

The chief of intelligence (intelligence directorate officers), in the process of collecting and processing reconnaissance information, maintains contact with the various responsible persons, consults with them, asks for additional data, and confirms or rejects the previously formed hypothesis; and only after this does he draw final conclusions.

All this work must be performed efficiently and must not delay the reporting of important data and final conclusions to the commander (chief of staff) and the higher staff.

The above-described procedure of collecting and processing reconnaissance information is not cut-and-dried. It gives in a general way the sequence of information work of the intelligence directorate of the front staff.

The collection and processing of reconnaissance information have their own peculiarities for each type of operational reconnaissance.

The collection and processing of reconnaissance information from agents are bound up with limitations of special communications and with the necessity of keeping the intelligence source secret. Therefore, a limited number of persons from the Second Department are allowed to process agent information. Further passage of this information is done in sanitized

form.

There are also certain restrictions in special reconnaissance. Participating in the collection and analysis of information coming in from the special-purpose reconnaissance groups (special-purpose reconnaissance detachments) are officers of the Third Department of the intelligence directorate, as well as the commander, chief of staff, and officers of the operational intelligence section of the staff of the special-purpose brigade.

A large amount of information is obtained by the radio and radiotechnical reconnaissance units. This is collected at the command posts of these units, reworked from "technical" into operational-tactical form, and transmitted to the intelligence directorate of the front staff. Further processing of the information obtained is charged to the officers of the Fifth Department. Besides this, the data collection and processing group of the control post of the chief of intelligence, using punchcard processing equipment for recording, categorization, and storage, must also take part in this work.

Work experience of the control posts of the chiefs of intelligence of military districts shows that the use of punchcard processing equipment has great advantages and facilitates the process of recording, categorization, storage, and selection of the necessary information obtained by radio and radiotechnical reconnaissance from the different sources of radioelectronic emissions.

It is more difficult to resolve certain problems of the collection and processing of reconnaissance information obtained by aerial reconnaissance. Whereas the collection of the results of visual observation by the reconnaissance aircraft crews is done quite efficiently at the present time through receipt of them by radio directly at the control post of the chief of intelligence, the data from the results of aerial photography come in to the intelligence directorate several hours after the aircraft lands because of the complexity and duration of the process of developing the film and interpreting the photographs. The problem of shortening the time of collecting aerial photography materials will be partly solved with the adoption, for equipping reconnaissance aircraft, of aerial photography equipment enabling the film to be developed right on board the aircraft. However, this does not mean that intelligence officers need not seek opportunities on the spot to resolve the problem that exists.

The collected and processed reconnaissance information is reported to the front command and the General Staff. The list of information requiring immediate reporting to the command is set forth in the Field Service Manual for Staffs and the Manual on Operational Reconnaissance.

The report (document) form and contents defined by the manuals in principle are appropriate to the volume of information which must be conveyed.

The report of the chief of intelligence is the collated conclusions from assessment of the position, nature of actions, and possible intentions of the enemy by a certain time. Depending on the situation, the report may be detailed or brief.

During the preparation of an operation, the front chief of intelligence must be ready to give a report in detailed form and set it forth in the following sequence:

1. The military-political situation and the resultant general nature of actions of the enemy and the composition of his forces and means in the theater of military operations.

Under this item the military-political situation is set forth briefly, the actions recently undertaken by the enemy which enable one to discover his concept and intentions are summarized, and collated information is given about the composition of enemy forces and means by branches of his armed forces deployed in the theater of military operations.

2. The strength of forces and means and the grouping of the enemy operating in the zone of the front.

The beginning of this item usually indicates the designation and quantity of combined-arms and air formations (large units). Then it examines separately:

-- means of nuclear attack -- the total number of nuclear warhead delivery means, including the delivery aircraft of tactical and carrier-based aviation, missile launchers and guns of the nuclear artillery, the number of nuclear warheads, and their detected storage depots;

-- ground forces -- the quantity of combined-arms large units of the enemy, their grouping, disposition (operational deployment) areas, the

total number of tanks, guns (minus nuclear artillery), mortars, and antitank means, the operational-tactical density, the strength level and combat effectiveness of the enemy, the capabilities for reinforcing the existing grouping, and a description of the strong and weak points of the ground forces and their operational disposition;

-- air forces -- the composition, affiliation, and basing of aviation and the location of its main grouping, the total number of combat aircraft and a qualitative description of them, enemy capabilities for reinforcement of the aviation grouping and for airfield maneuvering;

-- naval forces -- the strength of carrier strike forces and atomic missile submarines, enemy capabilities to employ amphibious landing forces;

-- air defense means -- the number of surface-to-air guided missile launchers and air defense fighters and a qualitative description of them, the radiotechnical system of detection and control of air defense means, the effectiveness of the enemy air defense system;

-- the control and radiotechnical support system -- formation and large unit control posts, aviation guidance posts and centers, disposition areas of the most important radioelectronic means of control and communications;

-- rear area and rear services support installations -- assessment of the enemy capabilities for rear services support of troops, disposition areas of the most important rear services installations, vulnerable spots in the rear services system;

-- nature of the terrain in the enemy disposition and its engineer preparation -- the effect of the terrain on the use of means of mass destruction, its passability to the branch arms, the presence and nature of water obstacles, the presence, number, and nature of defense lines and obstacles.

3. The probable nature of enemy actions: the methods of starting combat actions, the forces and means allocable for delivering a nuclear strike, capabilities for using chemical and biological weapons, the nature of actions of the ground forces and their operational disposition, the axis of the main attack in an offensive and the variants of conducting defensive actions, the use of reserves, the number of important targets detected in the zone of the impending offensive and those which are to be destroyed first.

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4. The main tasks of front reconnaissance and the procedure for performing them.

During combat actions, depending on the conditions of the concrete situation, the chief of intelligence may be required to give a report on the enemy in abbreviated form.

In this case, the report may set forth the following matters:

1. The general nature of actions and the composition of forces and means of the enemy in front of and on the flanks of the formation (very briefly).

2. The composition of forces and means and the grouping of the enemy operating immediately in the zone of the front (means of nuclear attack, ground forces, air forces, naval forces, air defense and other means are listed with an indication of designation, combat strength, condition, and position).

3. The probable nature of actions of the enemy (the enemy's concept for the conduct of combat actions is revealed and the number of important targets representing the greatest threat and subject to destruction with nuclear weapons first is indicated).

At the end of the report are listed the main tasks of front reconnaissance and if necessary the procedure for performing them.

The contents of the most voluminous second item depend on how much information about the enemy is known to the commander and the chief of staff by the moment of the report. Therefore, the report of the chief of intelligence may be limited to conclusions about the probable nature of actions of the enemy, or it may treat only those matters which are of interest to the command.

Under peacetime conditions as well as during war, the main information report documents for intelligence organs are reconnaissance reports, intelligence summaries, reporting maps, and reconnaissance diagrams.

Reconnaissance reports are written or oral communications of the subordinate staffs and acquiring organs about the enemy by a certain time and about the performance of an assigned task. Reports can be unscheduled or scheduled. Usually the contents of the first item of a reconnaissance report give a general characterization of the actions of the enemy for the

preceding period, the position and grouping of his troops, as well as the changes that have taken place since the previous report was submitted. In the following items are set forth the collated reconnaissance data obtained in the period just ended with an indication of the time and by what means they were obtained. At the end, when necessary, a conclusion is drawn about the combat capabilities of the enemy, and the probable variants of his actions for the immediate future are indicated.

The intelligence summary is one of the main information report documents. It sets forth in collated form the data about the nature of actions, position, and grouping of the enemy obtained generally over 24 hours by all types and means of reconnaissance and through troop combat actions. Indicated successively in the summary is information about the combat capabilities, the vulnerable spots of the enemy, and expected actions, as well as other important reconnaissance data obtained and received in the preceding period, regardless of whether or not these were included and submitted in reconnaissance reports before.

To the summary may be attached reconnaissance diagrams (maps), photographs, memoranda, records of the interrogation of prisoners and defectors, and other documents that clarify or confirm the contents of the summary.

The reporting map is a document reflecting the assessment of the enemy for a definite period of time. On it are plotted the positions and actions of enemy troops in the zone of the front and adjacent forces before the beginning and during the course of combat actions, by the time of fulfilment of combat tasks, when there are abrupt changes in the situation, and by the end of the operation.

The enemy grouping must be plotted down to ground forces brigade (regiment), air force wing (regiment, squadron), naval ship detachment, and -- for means of nuclear attack -- down to the individual operational-tactical missile launcher, tactical missile battery, and nuclear artillery battalion. The map likewise reflects enemy nuclear strikes, with an indication of the type of burst, yield, and time of its delivery. Tables on the map give data on the combat strength of the enemy by axes, with an indication of the densities of forces and means.

In the explanatory memorandum to the reporting map should be indicated the average width and depth of the operational disposition of the enemy in the particular operation, the distance to the areas of the location of his reserves, and the buildup of efforts as our troops approach important lines

and targets.

Besides the reporting map, there are provisions for working out graphic documents on special matters (engineer preparation of the terrain, the airfield network, the condition of the rear, etc.), which are submitted as the command or the General Staff requires.

The reconnaissance diagram is worked out on a large-scale map (base outline map). On it are plotted the collated reconnaissance data by a certain time. Per the requirement of the higher staff, the reconnaissance diagram is submitted as an attachment to the intelligence summary or as an independent information report document. Data which cannot be expressed graphically are reflected in a short explanatory memorandum, which is an attachment to the diagram. If necessary, the reconnaissance diagram is distributed to subordinate staffs.

Information report documents can be drawn up in writing or recorded on magnetic tape (the reports and summaries) and graphically (the maps and diagrams) and sent over technical communications, through courier mail communications, or by liaison officers.

The experience of many troop and command-staff exercises shows that the main question of all the information work of the reconnaissance organs of the combined-arms staffs -- in view of the drastic shortening of time for collecting, processing, and reporting the information obtained to the command, especially during an operation -- remains a problem to this day.

Obviously, the main avenues of solving this problem are: further improvement of the system of reconnaissance for the purpose of increasing its reliability and efficiency, improvement of the technical means now in service and introduction of new ones that provide rapid collection and processing of reconnaissance information, as well as further improvement of the communications system in reconnaissance and the development of control posts.

On the whole, information work, as the main component of the activity of the staff intelligence organs, by virtue of its specific nature, volume, and special complexity, demands constant attention on the part of commanders, chiefs of staff, and intelligence officers at all levels in the interests of further improving it.

CHAPTER 4

CONDUCT OF RECONNAISSANCE IN A FRONT OFFENSIVE OPERATION

Four characteristic stages can be distinguished in the activity of operational reconnaissance in a first front offensive operation beginning with conventional means of destruction and subsequently going over to the use of nuclear weapons:

-- first stage -- conduct of reconnaissance before the start of the operation;

-- second stage -- conduct of reconnaissance with the beginning of and during combat actions with the use of conventional means of destruction;

-- third stage -- conduct of reconnaissance during the immediate preparation for the use of nuclear weapons;

-- fourth stage -- conduct of reconnaissance with the beginning of and during the use of nuclear weapons.

Naturally, in each of these stages reconnaissance will have to accomplish reconnaissance tasks that differ in importance and content. The selection of methods as well as of forces and means to perform them will depend above all on the conditions of the situation.

In the period of preparation of the operation and conduct of combat actions without the use of nuclear weapons, the main task for operational reconnaissance is timely detection of the immediate preparation of the enemy to employ nuclear weapons and provision of data in support of the initial nuclear strike of front troops. At the same time, it should be taken into account that, in a war beginning and waged for some time with conventional means, the decisive role in the defeat of the opposing enemy groupings will belong to the fronts. Therefore, along with the accomplishment of tasks to disrupt a surprise enemy nuclear attack and his use of his nuclear weapons, a considerable part of the forces and means must be allocated for reconnaissance of the battle formations and operational disposition of the large units and formations of the ground forces, as well as of the air forces and air defense of the enemy, his system of defensive installations and obstacles, and other targets in support of the combat actions of the troops.

During combat actions, the enemy means of nuclear attack will be in a high state of combat readiness, indications of their use will appear for a short time, the number of these indications will be insignificant, and their appearance insufficiently clear-cut. This circumstance will not only require a constant knowledge of the location and nature of activity of these means during combat actions; but, with the appearance of the first indications of their use, it is necessary in a short time to concentrate all reconnaissance efforts for incontrovertible confirmation of the enemy's intentions to employ nuclear weapons and for final reconnaissance of targets in support of the initial nuclear strike of the front troops.

With the beginning of the use of nuclear weapons, when great losses are possible, reconnaissance will have to be conducted with limited forces and means, under conditions of a drastic change in the general and particular situation, of a large number of important reconnaissance targets on the battlefield and in the deep rear of the enemy, and of the presence of extensive zones of radioactive contamination, fires, and destruction.

CONDUCT OF RECONNAISSANCE BEFORE THE START OF THE OPERATION

The main objective of reconnaissance during the immediate preparation of a front offensive operation consists in detecting on time the concept of the enemy, the possible time period within which the combat actions will start, and the nature of these combat actions, as well as in providing the command with data on the location and condition of the most important enemy targets in support of the delivery of the initial front nuclear strike or massed strike with conventional means and of the successful conduct of combat actions by the front troops.

To achieve this objective, reconnaissance, before the start of combat actions, must:

-- detect enemy measures to prepare for the start of a war and his plans for use of the branches of the armed forces and their units, large units, and formations with the start of combat actions;

-- determine the time of departure of the enemy troops from permanent garrison posts, the axes of their movement, and the coordinates of the places of their location in operational deployment areas, especially the positions and control posts of the missile/nuclear weapons units, nuclear and chemical warheads depots and supply points, the command posts of the

ground forces and air forces formations, the deployment lines and battle formations of the mechanized and tank large units of the first operational echelon, as well as the concentration areas of the operational and strategic reserves;

-- determine precisely the grouping of tactical aviation, the home airfields, the types and number of aircraft located at them, especially of nuclear weapons delivery aircraft, and their readiness for delivery of the initial strike;

-- ascertain the time of departure from bases of atomic submarines, strike carriers, and other naval combat forces, their operational deployment areas, and their readiness to conduct combat actions (on coastal axes);

-- determine precisely the organization of the air defense, the combat positions of surface-to-air missile and antiaircraft artillery units, as well as the positions of air defense radiotechnical means;

-- discover the nature of engineer preparation and the degree of occupation by troops of the cover zone, the forward and successive defense lines, and especially areas (sectors) of nuclear minefields;

-- discover the field system of rear services support of troops, especially the locations (coordinates) of special weapons supply bases, large depots, combat equipment, and POL.

The complexity of accomplishing these tasks is determined by the following circumstances.

First, reconnaissance at this stage must be conducted in a way to simultaneously support the combat actions of troops both in the interests of accomplishment of the tasks of an operation conducted with conventional means alone and with the use of nuclear weapons. Therefore, it will be necessary to simultaneously conduct reconnaissance of a large number of targets dispersed over a territory of considerable area.

Second, the time available for the performance of tasks at this stage will be extremely limited in view of the fact that the time for bringing to full combat readiness and deploying the main opposing enemy groupings in the main theaters of military operations may be extremely short. Thus, the period of immediate preparation of the probable enemy for an attack, according to NATO exercise materials, has been from 14.5 hours to 2.5 days,

with a clear tendency toward shortening it.

Third, the majority of operational reconnaissance targets are able to change their location in a few hours and even minutes, which will considerably enlarge the volume of tasks for reconnaissance and final reconnaissance of them.

During reconnaissance before the start of an operation, it will be necessary to determine or confirm the coordinates of nearly all mobile targets marked for destruction in the initial front strike. And the data on the location of these targets must be received in such time as to exclude a change of their location and ensure a preemptive strike on them. In order to ensure continuous surveillance of the most important mobile targets in this period, reconnaissance of them must be conducted at three positions -- at the points of permanent location in order to determine the time and direction of their movement, on the travel routes (without losing sight of them), and in the concentration or operational deployment areas, in order to give the data for their destruction to the command in time. All of this requires a great expenditure of forces and means.

Fourth, the reconnaissance will have to be conducted with limited forces and means, as well as by methods permissible under peacetime conditions. Thus, aerial reconnaissance will, as a rule, be conducted using flights along the national borders and over neutral waters and only in individual cases by violating the national borders of adjoining countries. For well-known reasons, special reconnaissance forces and means will not be activated.

Fifth, the accomplishment of reconnaissance tasks will be going on simultaneously with the implementation of a large number of measures connected with the deployment and full mobilization of reconnaissance forces and means and their conversion from peace- to wartime status. Consequently, all the work to strengthen reconnaissance will be carried out under conditions of maximum physical and psychological burdens on the personnel of the reconnaissance units and organs.

Finally, sixth, reconnaissance will have to be conducted under conditions of increasing counteractivity on the enemy's part, which will considerably complicate the use of reconnaissance forces and means.

Favoring the successful accomplishment of tasks under these conditions will be continuous and active reconnaissance of the opposing enemy while it is still peacetime.

Such actions can be ensured only with constant high-level combat readiness not only of the active forces and means of reconnaissance but also of a sufficient number of reserve forces and means capable of reinforcing reconnaissance on the most important axes within short time periods. Of exceptionally great importance will be the careful preparation beforehand of the most important reconnaissance measures and, first and foremost, the preparation of the mass movement of agents and special reconnaissance forces and means into the enemy rear and the organization of the first simultaneous flight of reconnaissance aviation.

In support of the first front operation, the forces and means of agent, radio, radiotechnical, and aerial reconnaissance establish continuous surveillance of the everyday activity of enemy staffs and troops in permanent garrison points, and they also take under surveillance other important targets in the theater of military operations. The main efforts of operational reconnaissance in peacetime are concentrated on surveillance of the targets which are marked for destruction in the initial strike of front troops and where the indications of the immediate preparation of an attack may be sure to appear.

Agents and radio and radiotechnical reconnaissance means must be constantly assigned to these targets regardless of the value of the information we get from them in peacetime from the standpoint of making our knowledge of the reconnaissance targets more detailed.

In order to achieve high effectiveness of the reconnaissance measures carried out to detect the immediate preparation of the enemy for an attack, it is very important, on the basis of previously accumulated data, to detect the indications of preparation of a surprise attack, the time and nature of their appearance, and the key points (targets) at which these indications may appear with the greatest probability and reliability and at the very earliest stage.

The accumulation and categorization of the indications is advisably done according to the variants of possible enemy actions just prior to and during the war. Such indications must appear both in the activity of the armed forces and in the political, economic, and other areas. They permit timely detection in a short time of the concept and possible nature of actions of the enemy and proper determination of reconnaissance tasks, as well as of the procedure and methods of actions of the reconnaissance organs, by place and time.

Taking into account that, in the period of immediate preparation of an operation, the actions of aerial reconnaissance will be restricted and the use of special reconnaissance forces and means entirely out of the question, the main burden in the performance of reconnaissance tasks on behalf of the front command will be on agent, radio, radiotechnical, and radar reconnaissance.

Agent reconnaissance will play one of the main roles in the period of immediate preparation of the operation. Located right at the reconnaissance targets or close to them, agents observe the actions of the enemy and his preparation for an attack, get documentary and other materials revealing the plans and intentions of the enemy, determine the bringing of his armed forces to full combat readiness and the departure of troops and ships for operational deployment areas, and determine the composition and combat effectiveness of the main groupings and the location and relocation of the most important targets.

In anticipation of combat actions without the use of nuclear weapons, agent reconnaissance has to accomplish a number of tasks to discover the enemy groupings in the immediate depth in the interests of hitting them with conventional weapons. Called upon to perform these tasks are the agents of the border guard troops, as well as part of the forces from the agent reconnaissance reserve of the military district (front).

All reconnaissance personnel and agents of the active net, including those on ice, are called on to conduct active reconnaissance in the period of immediate preparation of an operation.

The main efforts of the agent reconnaissance reserve in this period are directed toward the accomplishment of those tasks which cannot be performed by the forces of the active net and chiefly for reconnaissance of important mobile targets in their operational deployment areas as well as for final reconnaissance of targets on which data must be confirmed by two or more sources.

The agent reconnaissance reserve must be used intelligently, taking into account that with the start of combat actions reconnaissance will be confronted with many new important and urgent tasks and be required to continuously build up its efforts to the entire depth of the theater of military operations. Therefore, the chief of intelligence must constantly have a sufficiently strong agent reconnaissance reserve.

The reconnaissance center puts the special-purpose agents operating in the enemy rear on a wartime work regime, steps up their reconnaissance activity, assigns tasks for conducting final reconnaissance of the targets of special actions, and prepares conditions for carrying them out with the start of war. The most reliable agent groups of the special reconnaissance reserve may be sent across the national border into the enemy rear to conduct active reconnaissance (through capture and interrogation of servicemen and local inhabitants or capture and study of documents) as well as to carry out special measures at individual important targets with the start of combat actions.

Special reconnaissance. Special-purpose brigades, in the period of preparation of the operation, go out in full combat readiness to the operational assignment areas and carry out the preparation of groups and detachments for the conduct of reconnaissance and performance of special measures in the enemy rear.

It is very important for the staffs of the special-purpose units in this period to organize timely receipt of all the data on the operational situation in the enemy rear, especially in the areas of targets against which special actions are planned to be carried out with the start of war.

Aerial reconnaissance. It is a characteristic feature of aerial reconnaissance before the beginning of the first operation that it will be conducted under considerable restrictions on the use of available forces and means through the performance of flights in small groups or by single aircraft along the national border or over neutral coastal waters predominantly without violating the airspace of the probable enemy.

The main task of aerial reconnaissance will consist in detecting, in conjunction with other types of reconnaissance, direct or indirect indications of the immediate preparation of the enemy for a surprise start of combat actions and in ensuring the acquisition of data about the targets of the strike of front troops.

The main efforts of aerial reconnaissance are concentrated on detection of the areas of the location of operational-tactical means of nuclear attack, the groupings of ground forces and tactical aviation, the nature of their activity, and the time required to get ready to deliver strikes.

Aerial reconnaissance in this period is conducted by the best-trained crews of the reconnaissance aviation units of the air army according to the

plan of the front staff, as well as by reconnaissance aircraft of long range aviation and naval aviation.

The main methods of aerial reconnaissance are oblique aerial photography and visual observation as well as reconnaissance with the use of side-looking radar and airborne radiotechnical reconnaissance sets.

Integrated use of the methods listed permits the conduct of surveillance of enemy activity to a depth of up to 100 kilometers and surveillance of the operation of radiotechnical means of the troop and weapons control systems up to 350 or 400 kilometers.

With aggravation of the general military-political situation, the intensity (frequency) of flights for aerial reconnaissance without violation of enemy airspace increases. At the same time, particularly in case of the occurrence of crisis situations, individual flights for aerial reconnaissance which violate the national border and territorial waters of the probable enemy can be made with the permission of the General Staff. Such flights are made by single manned aircraft or drones of the front reconnaissance aviation through a surprise intrusion at low or high altitudes into enemy airspace and approach to reconnaissance targets deep in his territory. Here the main methods of aerial reconnaissance will be aerial photography and aerial reconnaissance of the targets with the aid of the onboard radiotechnical and radar equipment.

When aerial reconnaissance is conducted before the start of combat actions, control of its forces and means is exercised with observance of the principle of strict centralization (from the command post of the commander of the air army). All flights for aerial reconnaissance, especially with violation of a national border, are carefully prepared and carried out, as a rule, under conditions of strict radio silence.

Radio and radiotechnical reconnaissance is conducted continuously in peacetime and wartime. It is perfectly obvious that, when tasks for these types of reconnaissance are determined in peacetime, the tasks for reconnaissance of targets in support of the preparation and conduct of the first front (army) operation must be taken into account.

To successfully accomplish tasks just prior to and with the start of war, radio and radiotechnical reconnaissance must, while it is still peacetime, accumulate the necessary information not only about the targets of wartime reconnaissance and their reconnaissance indications, but also about the sources of information and the nature of their work, taking into

account radio camouflage and deception which the enemy may carry out in this period.

To this end, the radio reconnaissance units in peacetime, in performing tasks for reconnaissance of the missile/nuclear weapons, air forces, air defense system, and ground forces of the enemy, pay special attention to discovering the nature of the operational-tactical training of troops and its orientation and of the organization, progress, and results of the exercises and maneuvers of enemy armed forces. In studying the organization and operation of radio communications in maneuvers and exercises, radio reconnaissance accumulates data on the procedure of using radio communications means to control troops and weapons in wartime, it discovers and accumulates the reconnaissance indications of changes in the status and activity of the armed forces and uses these to notify the command of a possible attack. In studying the radio communications of the enemy armed forces, radio reconnaissance detects the introduction and use of various new systems of radio communications and types of radio transmissions to control troops and discovers the methods of secure troop control, radio camouflage, and deception employed by the enemy in radio communications.

Analogous work is done by the radiotechnical reconnaissance units, paying special attention to radar, radio navigation, and radio remote control means.

The availability of all this information permits, on the eve of a war, more efficient and effective use of the forces and means of radio and radiotechnical reconnaissance in the operation.

It is necessary to keep in mind that the results of conducting radio and radiotechnical reconnaissance will depend, on the one hand, on the number, power, and location in the reconnaissance zone of the front of enemy means sending out emissions, the duration of emission, and the frequency of their relocation and, on the other hand, on the number of radio and radiotechnical reconnaissance means, their qualitative condition, operational-technical capabilities, location in respect to the sources of intelligence on the terrain, the degree of automation of the processes of obtaining and processing reconnaissance information, as well as on the degree of training of the specialists, and certain other factors.

As the work practice of radio and radiotechnical reconnaissance units and the experience of exercises show, with the current abundance of means of radio communications, radar, radio navigation, and radio remote control

in the armies of the probable enemies, radio and radiotechnical reconnaissance is in a position to accomplish a large number of tasks during both the preparation and course of an operation.

During the immediate preparation of a front offensive operation, radio and radiotechnical reconnaissance can determine opportunely: the time the armed forces are shifted to different levels of combat readiness, the time of the departure of the means of nuclear attack and the ground forces large units and units from permanent locations and their deployment areas, changes in the basing and nature of activity of the air forces and naval forces, and new areas of the location of air defense means, control posts, large communications centers, and other important targets.

Depending on the situation, during this period the radio and radiotechnical reconnaissance units conduct reconnaissance from permanent locations, alternate areas, or the main operational deployment areas. Reconnaissance of the targets is conducted in accordance with the front reconnaissance plan for the first operation with the full application of forces and means. Relocation of the units and subunits to new areas must be carried out covertly without disrupting the continuity of reconnaissance or altering the operating routine of radio communications means. To ensure the concealment of their deployment in new siting areas, it is advisable to leave the main radio stations operating in peacetime in the former areas and to use the previously organized wire or radio-relay communications for control of the subunits.

The movement of the radio and radiotechnical reconnaissance units up to the operational deployment areas is organized as far as possible beforehand or among the forward units of the advancing troops of the front. This is done early enough for the OSNAZ units to get used to the new targets and the changed radioelectronic situation by the time of the arrival of the front (army) control posts and ensure the timely issue of information about the enemy to the command.

Depending on the conditions of the situation and time, the movement of the units (subunits) up to the operational deployment areas is organized by echelon or simultaneously. When this is done, the continuity of radio and radiotechnical reconnaissance is ensured through the conduct of reconnaissance on the move or during brief stops. In order to ensure concealment of the movement forward, the control of subunits by radio during this period is, as a rule, prohibited.

The routes of the movement and the new location of all subunits must be coordinated with the operations directorate (department) of the front (army) staff to avoid locating them in the same place with installations that are important targets for enemy nuclear strikes as well as with powerful radio transmitting stations (centers) and radioelectronic warfare subunits.

The shifting of the radio and radiotechnical reconnaissance units from work under peacetime conditions to performance of tasks according to the plan of reconnaissance for the first front operation will inevitably require additional deployment of forces and means and reallocation of them by reconnaissance tasks and targets. The reallocation must be carried out in a short time and according to a previously developed plan.

The number of reconnaissance posts is increased through the deployment of reserve forces and means and through having the personnel of the subunits go over to two- or three-shift work.

To increase the depth of radio and radiotechnical reconnaissance, provision is made to conduct it with airborne means. Here one must carefully think out the array of measures directed toward not giving the enemy a chance to get data about the activity and intentions of our troops or about their operational disposition. One cannot, for instance, allow the zones of reconnaissance from radio and radiotechnical reconnaissance aircraft and helicopters to coincide with the reconnaissance zones of the armies and the front. The information obtained must be turned over mainly after they land, and radio communications can be used only to transmit especially urgent information.

In the organization and conduct of radio and radiotechnical reconnaissance, it is necessary to take into account the circumstance that the enemy, with the beginning of immediate preparation of an attack, will be carrying out measures of a deceptive nature. His most probable method of actions will be an endeavor not to step up the operation of his radioelectronic means, but to retain their operating routine established for peacetime. Therefore, radio and radiotechnical reconnaissance must pay attention to even insignificant changes in the radioelectronic situation.

For radio reconnaissance the important sources of obtaining reconnaissance information in this period may be the following radio nets and links:

-- warning nets and links over which are transmitted the signals to bring the enemy armed forces to higher levels of combat readiness;

-- air traffic control nets or links over which may pass requests for flights by aircraft of the enemy air forces as well as data on changes of the flight plans of commercial aircraft;

-- nets or links of the air traffic control organs of the air forces (in this period the enemy may create special organs to centralize control of air traffic at the level of the theater of military operations);

-- cooperation nets and links of carrier strike large units with the allied armed forces in theaters of military operations;

-- cooperation nets and links of the commands of different levels of the air forces and ground forces;

-- enemy reconnaissance nets and links;

-- tactical aviation nets and links, the surveillance of which will enable detection of the dispersal of aviation to alternate airfields, of an increase in the intensity of aerial reconnaissance, and of other changes in its activity;

-- nets and links of the air defense system for the purpose of detecting measures being carried out to strengthen it. Here special attention must be paid to the control radio nets of surface-to-air guided missile battalions of the Nike-Hercules and Hawk types.

Radio reconnaissance can get important information in this period through surveillance of the operation of the radios of the subunits, units, and large units moving up to the border zone as covering troops, the radios of the engineer troops and military police supporting their movement, as well as the radios of army aviation, especially of the aerial reconnaissance subunits, and the radios of organs engaged in mobilization work.

In order to detect enemy intentions to employ nuclear weapons, radio reconnaissance must pay special attention to surveillance of the following radio nets:

-- nets of operational-tactical and tactical guided missile and atomic artillery battalions;

-- nets of artillery technical brigades, groups, and battalions whose forces set up the mobile field nuclear ammunition supply points in corps and army rear areas;

-- nets of the nuclear minelaying platoons of the combat engineer battalions of infantry, mechanized, and armored divisions, as well the radio nets of army and corps engineer-combat engineer groups, which usually have nuclear minelaying platoons and teams;

-- nets of army aviation which is used to deliver nuclear warheads from the stationary depots to the field supply points of the units.

For radiotechnical reconnaissance units, the main sources of obtaining reconnaissance information in this period may be:

-- operating radar in the radiotechnical support system of the air defense, air forces, and ground forces, the radar of the control and warning centers and posts, long-range radar detection posts, and posts for guiding tactical aviation to ground targets, ground target reconnaissance radar, as well as aircraft (ship) and surface-to-air missile site radar of various functions;

-- operating radios in the radar and radio remote control systems.

Detection of changes in the operating routine of the enemy communications system in a theater of military operations in conjunction with the intercept of information and direction finding of ground and aircraft radios as well as surveillance of the operation of radar and radio navigation means enables radio and radiotechnical reconnaissance to get valuable and reliable data on time about the immediate preparation of the enemy armed forces for an attack.

Radar reconnaissance in peacetime is conducted mainly by air defense radar posts (stations) and performs the tasks of continuous tracking of the activity of aviation, timely detection and identification of air targets which are in immediate proximity to our borders, and determination of their coordinates, strength, and flight routes.

With the beginning of immediate preparation for starting a war, the enemy will step up aerial reconnaissance and begin the regrouping of his forces and means.

In this period radar reconnaissance must pay special attention to surveillance of the flights of reconnaissance aviation, particularly of its routes, in order to detect the possible flight axes of bomber aviation with the beginning of combat actions.

Of very great importance for achieving the most success in accomplishing the tasks confronting operational reconnaissance in the period of immediate preparation of an operation is precise cooperation of all the reconnaissance forces and means within the framework of the formation, as well as their cooperation with the reconnaissance of the border guard troops and the territorial organs of the KGB and with the reconnaissance of the air defense forces of the country, long range aviation, the navy, and adjacent fronts.

The agent, aerial, radio and radiotechnical, and other types of reconnaissance forces and means of the border guard troops, besides the tasks performed in the interests of security of the national border, will be conducting reconnaissance also in support of the first operation of the front troops. Their efforts are directed toward discovering the grouping of the first echelon of the enemy ground forces, tactical and operational-tactical nuclear weapons, and also the engineer preparation of the terrain to a depth of 100 kilometers or more. Reliable and efficient communications must be established in advance to receive the information from the border guard reconnaissance organs.

A regular exchange of information is carried on with the staff of the formation of air defense forces of the country on the matters of: enemy preparation for an aerospace attack; the strength of the grouping, basing, degree of readiness, and nature of activity of the units and large units of intercontinental ballistic missiles and of strategic and tactical aviation; the airlifting of nuclear weapons and enemy troops; the location and activity of the staffs and control posts of the air forces; and the grouping and nature of activity of enemy radiotechnical means which support air navigation, bombing, and aircraft guidance.

The staff of the long range aviation large unit conducting reconnaissance through flights along national borders and over oceans and seas informs the front staff of the grouping of enemy troops in the border zone, the basing of strike aircraft carriers and other combat ships as well as the activity of naval bases and ports, the nature and intensity of shipments by sea, and the location and nature of activity of enemy air defense installations.

The successful performance of reconnaissance tasks on a coastal axis largely depends on close and continuous cooperation with fleet reconnaissance.

In the period of immediate preparation of an operation the staff of the cooperating fleet informs the front staff of the combat strength and nature of activity of the carrier strike large units, atomic missile submarines, and surface large units of the naval forces; the strength, basing, and activity of the carrier- and land-based aviation of the enemy naval forces; the condition of the sea lanes and the movement of troops and cargoes by sea; the preparation of the enemy to put amphibious landing forces ashore; the radar coverage and the system of air and antilanding defense on shore.

In turn, the front staff informs the staffs of the formations of the air defense forces of the country, long range aviation, and the fleet on all matters of interest to them.

By way of cooperation, the front staff continuously exchanges information with the adjacent fronts about the overall situation in the zone of the front and about regroupings being carried out by the enemy which may have an effect on the course of combat actions of the adjacent front.

Of very great importance for front reconnaissance in this period will be the information of the GRU about the status and activity of the enemy -- especially of his deep reserves in the zone of the impending offensive -- and the timely provision of photo mosaics based on aerospace reconnaissance data.

Of exceptionally great importance for the cooperating staffs in the period of preparation of an operation, besides the exchange of information about the grouping and nature of activity of the troops of the enemy and other installations of his, is the regular exchange of data on the operational situation in the enemy rear in support of the conduct of reconnaissance itself. In particular, it is very important for the staff of the advancing front to receive data on time about changes in the border security system, the border counterintelligence and regular police procedures, about measures to strengthen the security of installations, and about other measures to counteract our reconnaissance.

It is necessary to keep in mind that the period of transition from routine everyday activity to combat actions may be extremely short. At the

same time, the front command will require exhaustive data of the most varied nature to refine the decision for the operation.

The flow of information coming in during this period from subordinate staffs, reconnaissance units and organs, as well as from cooperating staffs and the GRU will grow drastically. Therefore, it is extremely important at this time to have direct high-speed communications channels with the indicated staffs and reconnaissance organs to ensure the transmission and receipt of reconnaissance information literally in minutes.

In order to successfully accomplish reconnaissance tasks in this period, it is necessary to conduct reconnaissance covertly and clandestinely and at the same time aggressively and purposefully without dissipating efforts against all the targets and over all the territory of the enemy. For this, each type of reconnaissance is assigned precise areas of special attention and specific targets which they must conduct surveillance of. The number of targets and areas of special attention and their dimensions must be assigned on the basis of the capabilities of the type of reconnaissance and the concrete conditions of the situation in the theater of military operations. Control of the deployment and actions of all the operational and tactical reconnaissance forces must be exercised centrally at the front level and in strict conformity with the operational camouflage plan of the troops.

CONDUCT OF RECONNAISSANCE AT THE START AND DURING THE COURSE OF COMBAT ACTIONS WITH THE USE OF CONVENTIONAL MEANS OF DESTRUCTION

The start of combat actions introduces significant changes into the conditions of conducting reconnaissance. The intentions, concept, and nature of combat actions of the enemy become clearer; and the axes of concentration of his main efforts stand out more precisely. Restrictions on the conduct of reconnaissance directly in the enemy rear with all available forces and means, as well as on the methods of obtaining reconnaissance information, are removed. Aerial and special reconnaissance means are activated to the maximum extent.

In connection with this, substantial changes occur in the role of the different types of reconnaissance. There is a particularly sharp growth in the importance of aerial and special reconnaissance. The number of sources of obtaining reconnaissance information increases considerably (prisoners and local inhabitants, documents, weapons, and combat equipment captured in

battle, enemy radioelectronic means additionally deployed and operating, tactical and operational landing forces and guerrilla contingents operating in the enemy rear, etc.).

Having an effect on the conduct of reconnaissance with the start of combat actions will be the advance of our troops into the depth of enemy territory, the extent of neutralization of his air defense system, as well as the changes in the operational situation in the enemy rear. All of this must be taken into account beforehand while the reconnaissance plan is still being worked out, and the measures to carry out according to this plan must be refined in keeping with the concretely developing situation.

The main peculiarity of the conduct of operational reconnaissance with the start of combat actions begun with the use of conventional means of destruction will consist in the fact that it has to accomplish two groups of important tasks in parallel.

The first group of tasks will consist in completely discovering and keeping under continuous surveillance the enemy targets slated for destruction in the initial nuclear strike, should matters come to the point of delivering it. Here it is necessary to detect on time the immediate preparation of the enemy to employ nuclear weapons.

For accomplishment of the first group of tasks during combat actions, reconnaissance must:

-- opportunely detect the signs of preparation and determine the time frame of the enemy's going over to the use of nuclear weapons and also establish the concept for use of them;

-- detect and determine the coordinates of operational-tactical and tactical missile units;

-- determine the home airfields of the delivery aircraft and monitor their activity and readiness for employing nuclear weapons;

-- discover the location (coordinates) of field nuclear and special weapons depots and monitor their activity;

-- discover the areas and lines of nuclear minefields.

The second group of tasks will consist in providing the command with data on the enemy for the successful conduct of combat actions with

conventional means of destruction without slackening efforts to accomplish tasks in support of possible combat actions with the use of nuclear weapons.

For accomplishment of the second group of tasks by the front troops, reconnaissance must:

-- establish the extent of damage to the enemy in the first air and artillery strike and his intentions to conduct combat actions to hold the cover zone and forward defense line;

-- pinpoint the disposition areas, the condition, nature of actions, and strength of the ground forces groupings;

-- discover the siting areas of the operational-tactical and tactical means of nuclear attack;

-- establish the regrouping of enemy aviation to new home airfields and the number and types of aircraft at them;

-- pinpoint the locations of air defense means, troop and weapons control posts, as well as of depots, supply bases, and other important targets;

-- establish the presence of operational-strategic defense lines, the extent of their engineer preparation, the measures to improve them, and their degree of occupation by troops;

-- discover the areas and lines of the establishment of antitank and antilanding obstacles and demolitions in the operational-strategic rear;

-- determine the nature of water obstacles, the condition of their defense, and the availability of crossings;

-- discover the intentions of the enemy for defense of large population centers and installations of operational-strategic function;

-- determine the concentration areas of operational-strategic reserves and the enemy concept for use of them;

-- discover the mobilization measures being carried out by the enemy as well as the transfer of troops, weapons, and combat equipment to the theater of military operations from other areas;

-- monitor antilanding measures in areas of the proposed drop (landing) of airborne and amphibious landing forces.

The two indicated groups of reconnaissance tasks coincide in that the reconnaissance targets of both groups are located within the same reconnaissance boundaries. Surveillance of the home airfields of aviation, air defense installations, command posts, ground forces large units, and nuclear weapons installations has the same important significance for the conduct of combat actions both with and without the use of nuclear weapons.

At the same time, accomplishment of the first group of tasks requires continuous surveillance of targets located at a great depth which at the moment may not present an immediate threat to the advancing troops but which may be important targets for our nuclear weapons (deep reserves, important road junctions, airfields, communications centers, etc.).

Along with this, in support of the conduct of combat actions without the use of nuclear weapons, reconnaissance must pay much attention to targets located at the forward edge and in the tactical defense zone of the enemy, to his immediate reserves, and to other targets which have an immediate effect on the course of combat actions without the use of nuclear weapons.

Considering that reconnaissance must simultaneously accomplish the two groups of tasks in parallel, it is necessary to properly distribute its efforts and use the available reconnaissance forces most expediently on the whole.

Obviously, with the start of combat actions, part of the most effective and best-prepared operational reconnaissance forces and means of the front and the armies must be activated to accomplish the first group of tasks.

The number and nature of reconnaissance forces and means allocated to accomplish these tasks will depend on the commander's decision for the operation and mainly on the targets which are slated for destruction with nuclear weapons and which must without fail be reconnoitered (given final reconnaissance) and taken under constant surveillance. Here account is taken of the importance of the targets, the sequence of delivering nuclear strikes on them, the condition of forces and means, and the concrete conditions of conducting reconnaissance.

The rest of the forces and means of operational and tactical reconnaissance are activated to accomplish the tasks of the second group, i.e., to support combat actions with the use of conventional means of destruction.

This allocation of reconnaissance forces and means by tasks and targets is conditional and will depend in each concrete case on the nature of the reconnaissance targets, the operational situation and the areas where they are located, the availability of the necessary reconnaissance forces and means, and other factors.

The nature of a modern operation and the uncertainty of the times of the possible use of nuclear weapons during it require the availability of a strong combat-ready reserve of all types of reconnaissance forces and means to quickly build up reconnaissance efforts upon getting the first indications of the preparation of the enemy for the use of nuclear weapons and to accomplish the tasks that arise suddenly during combat actions.

The conditions and nature of the conduct of reconnaissance by the individual types of it with the start and during the course of combat actions with the use of conventional means of destruction will be characterized as follows.

Agent reconnaissance. With the start of combat actions, the conditions for the conduct of agent reconnaissance, the nature of its tasks, and the activity of the organs themselves will change to a considerable extent. In particular, all types of operational and tactical reconnaissance will actively begin to operate in full scale according to a single plan. Therefore, those tasks which can be accomplished by the forces and means of aerial, special, and tactical reconnaissance will, with the arrival of their reconnaissance organs at the reconnaissance targets, be taken from the agents. At the same time, with the start of the operation agent reconnaissance will be confronted with new tasks, namely, discovery of the mobilization measures of the enemy, determination of the extent of damage to his installations subjected to the strikes of our troops, detection of the transfer of troops from other axes, and other things.

For agent reconnaissance the opportunity will arise to build up efforts quickly through the movement of agents into the enemy rear by air and sea, as well as in conjunction with operational airborne and amphibious landings. As a consequence of a change in the operational situation in the interior of the enemy countries, new opportunities will develop for agent

penetration into the army and to important military and military-economic installations.

Under these conditions, operational agent reconnaissance must concentrate its main efforts on discovering the intentions of the enemy to employ weapons of mass destruction and establishing continuous surveillance of his nuclear grouping and other targets.

Occupying an important place in the accomplishment of organizational tasks with the start of combat actions will be organization of the movement of agents into the enemy rear. Here it is necessary to take into account that during the development of combat actions with conventional means the enemy air defense system will be quite stable. In connection with this, special measures must be worked out at the front level to ensure safety of the flight of aircraft (helicopters) with reconnaissance personnel into the enemy rear and their landing.

As our troops move forward during combat actions, the agent reconnaissance organs take steps in advance to relocate agents from the zone of combat actions to the deep rear of the enemy, endeavoring to preserve a stable system of surveillance of his transportation routes and to keep under surveillance targets which may have an effect on the course of combat actions.

Special reconnaissance. With the start of combat actions, the special reconnaissance large units and units land groups and detachments in the enemy rear in such a way as to take the most important enemy targets under surveillance, as well as to cover the main road junctions, and sectors and areas where the movement or deployment of troops and, above all, means of nuclear attack of the enemy, is most likely. At the same time some of the groups (detachments) are moved into the area of targets to be put out of operation.

The main efforts of the special reconnaissance forces and means are concentrated on discovering the means of nuclear attack and the most important groupings of ground forces.

When conducting reconnaissance of the enemy, the groups and detachments, through aggressive actions, conduct target searches in the assigned area, capture and interrogate servicemen, and carry on the questioning of local inhabitants and the capture and study of documents and samples of weapons and equipment. Besides this, they do radio intercept of conversations and direction finding of ultra-shortwave radios, intercept of

emissions and direction finding of the radar of the enemy air defense system (observation and warning posts), and other things.

Along with the conduct of reconnaissance, the groups and detachments carry out special measures to disrupt the functioning of the rear services and transportation lines and to incapacitate nuclear weapons means in storage, during transport, on the march, in concentration areas, and at launch sites, as well as to incapacitate troop control posts and radar, radio navigation, and radio remote control means.

Special measures are conducted through ambushes and raids as well as through covert mining of targets and firing on them with special types of weapons. In some cases, with the sanction of the chief of intelligence, such measures can be carried out jointly with agents or with their assistance.

The actions of special reconnaissance forces and means to get information on the enemy and carry out special measures must be purposeful, energetic, and daring.

Aerial reconnaissance with the start of a front offensive operation is conducted without restrictions and with maximum exploitation of all its forces and means. Its role in support of the offensive operation grows sharply.

In a front operation begun with the use of conventional means, the main objective of the first strike of the front troops will be to hit the missile/nuclear grouping and aviation grouping of the enemy as well as the troops of the first operational echelon. Destruction of the aviation and nuclear groupings of the enemy with conventional means will significantly undermine his defense potential and facilitate the accomplishment of all the other tasks by the front troops.

Achievement of this objective in a non-nuclear variant of the start of war will be realized through the delivery of a massed front strike with conventional means. The basis of this strike will be air army combat actions to destroy the aviation, nuclear attack means, the most important control posts, and the air defense installations of the enemy as well as rapid actions of the ground forces of the front to defeat his first operational echelon.

As we know, aerial reconnaissance in support of the initial nuclear strike of the front is done most effectively through the flight -- carried

out in a single operational disposition of the air army forces -- of a large number of aircraft of reconnaissance aviation allocated to participate in the strike.

With the beginning of combat actions with conventional means, the first flight of reconnaissance aircraft will be made in the period of preparatory fire. Fewer aerial reconnaissance forces will be activated in it than in the nuclear variant of the start of war since a considerable part of them will be called on later to provide air support of the ground forces and also be located in the reserve for actions in case of the possible use of nuclear weapons. In this connection, not more than 60 percent of the combat ready T/O&E and non- T/O&E forces of aerial reconnaissance may be activated during preparatory fire, and their main efforts must be concentrated on reconnaissance of the enemy troops and targets in the tactical and immediate operational depth.

During preparatory fire it is advisable to use aerial reconnaissance forces in the make-up of two groups of the general operational disposition of the air army.

The first group operates together with the support echelon for final reconnaissance of targets on behalf of fighter-bomber and bomber aviation, search of new targets, and conduct of radiotechnical reconnaissance. The reconnaissance data obtained are used by aviation and artillery when support of the ground forces begins.

The second group operates with the attack forces and does target search in support of the combat actions of aviation, artillery, and ground forces, as well as of the strikes of missiles and aviation of the front that are in readiness for the probable use of nuclear weapons.

The objective of the first flight of reconnaissance aircraft is to do reconnaissance and final reconnaissance of enemy targets for them to be hit in the first massed strike of the ground forces and aviation of the front and to monitor the results of this strike.

The number of reconnaissance aircraft participating in the first flight for aerial reconnaissance will depend on the availability of combat-ready forces and means as well as on the completeness of the available reconnaissance data about the targets by the time of the strike.

Aerial reconnaissance efforts in this flight are concentrated on the main axes of actions of the ground forces of the front within the limits of two zones (tactical and operational aerial reconnaissance zones) which differ sharply in the availability of reconnaissance targets and in the necessary frequency of surveillance of them.

In the first zone (depth, 300 to 350 kilometers) will be the troops of the first operational echelon with their means of nuclear attack, the main command posts, and up to 40 or 45 percent of the airfields of tactical aviation. Therefore, final reconnaissance of the targets in this zone must be done by surveying the main axis of troop actions in the zone of the whole front. Areas of special attention in the zone are surveyed by specially allocated tactical reconnaissance aircraft.

In the second zone (depth, 350 to 500 kilometers or more) aerial reconnaissance can be conducted through surveillance of the main railroad and highway transportation lines as well as of individual areas in which the presence of important enemy targets is possible. Operational reconnaissance aircraft are allocated for this.

In support of the first massed strike of the front, individual reconnaissance aircraft of long range aviation can be called on to conduct reconnaissance beyond the tactical range of the front reconnaissance aviation.

The main method of aerial reconnaissance and final reconnaissance during the first flight will be visual observation with immediate transmission of the reconnaissance data by radio from on board the aircraft.

Control of aerial reconnaissance forces and means during the flight is exercised centrally from the command post of the air army.

After the first strike of the front troops and aviation, the main efforts of aerial reconnaissance are concentrated on timely detection of the indications of enemy preparation to employ weapons of mass destruction and on support of the initial nuclear strike of the front troops; for this, systematic search and continuous surveillance of the detected means of nuclear attack are conducted.

Acquiring special importance in this period are sorties for reconnaissance on call from the command posts of the air army or its operations groups with the combined-arms and tank armies.

Radio and radiotechnical reconnaissance. With the start of combat actions, the enemy will naturally lift restrictions on the use of radioelectronic means of control, which will considerably increase the number of sources of radio and radiotechnical intelligence. At the same time, it is necessary to take into account the negative influence on the effectiveness of conducting reconnaissance of such factors as the employment of secure troop control methods, the frequent change by the enemy of radio operating data and control post locations, and the possible losses of OSNAZ units in personnel and equipment as a result of the first enemy strikes.

Under these conditions radio and radiotechnical reconnaissance units and subunits must quickly get to know the radioelectronic situation, discover the most valuable sources of obtaining reconnaissance information, and find out the new system of radio operating data of the enemy.

Playing an important role in this period will be properly organized search work and direction finding.

To increase effectiveness, search work must be organized centrally and conducted through the combined efforts of the radio and radiotechnical reconnaissance units of the front and -- against certain most important targets -- in conjunction with the forces and means of the OSNAZ units of cooperating fronts.

Under conditions of the mass security of communications channels, the most important means of getting data about the enemy grouping will be the direction finding service. Therefore, special attention must be paid to the preciseness of organizing direction finding and to increasing the effectiveness of this work.

In order to avoid duplication in the use of forces and means, to include as many reconnaissance targets and sources of intelligence as possible, it is necessary to allocate them precisely among the OSNAZ units and subunits and to introduce changes in them on time in the plan of combat employment in accordance with the developing situation.

Considering that the most important task of radio and radiotechnical reconnaissance with the start of combat actions will be timely detection of

the enemy preparation to employ nuclear weapons and other means of mass destruction, it must concentrate the main efforts on surveillance of those targets and sources where the indications of this preparation may appear with the greatest probability.

To this end, radio reconnaissance must attentively monitor the following main radio nets (links):

-- warning nets over which are transmitted the signals of the imposition of R hour;

-- nets of artillery-technical units and subunits;

-- nets of guided missile, free rocket, and atomic artillery battalions;

-- nets of the on-alert forces of tactical aviation and cooperation nets of the ground and air forces;

-- nets for control of nuclear minelaying platoons and teams.

Simultaneously with this, radio reconnaissance continues to monitor enemy measures for mobilization expansion and transfer of troops from other axes and theaters to the offensive zone of the front, for preparation of new defense lines, for erection of engineer obstacles, and other things.

Radiotechnical reconnaissance conducts surveillance of the operation of the tactical aviation control systems, of the onboard radar and radio navigation sets of aircraft, as well as of the operation of the ground radar of the air defense and field artillery.

To ensure the continuity and purposefulness of conducting radio and radiotechnical reconnaissance during an operation, it is necessary to carry out maneuver of the forces and means by targets, by time, and on the terrain.

Maneuver of forces and means by targets consists in the timely retargeting of subunits and refining their tasks or assigning them additional tasks for the purpose of concentrating the main efforts on the reconnaissance targets most important at the moment.

Maneuver of forces and means by time consists in activating the maximum number of reconnaissance forces and means and using them with the

greatest intensity in the most crucial periods of the operation and in the periods of most intensive operation of enemy radioelectronic means. Naturally, to keep all the reconnaissance forces and means of the OSNAZ units under intense pressure throughout the entire operation is impossible, and there is no need for this. Even in the course of a day there will be periods of more and less active operation of radioelectronic means; therefore, maneuver by time must be employed in accordance with the conditions of the combat situation.

Maneuver of units and subunits on the terrain is done during an offensive so as to prevent their separation from the sources of obtaining information and to ensure electromagnetic access to them. This is the most complex and crucial form of maneuver, since the relocation of forces and means must be carried out without disrupting the continuity and completeness of the performance of reconnaissance tasks, which is achieved through the relocation by echelon of the subunits conducting reconnaissance and having them work on the move.

The staff of the OSNAZ radio regiment usually relocates at the same time as the control post of the front chief of intelligence. The radio intercept battalions and direction finding companies are relocated by echelon in such a way that during relocation no less than two-thirds of the radio direction finding means and half the means of radio intercept conduct reconnaissance from the previous positions. Radio intercept posts during movement do not stop their work but continue to perform the assigned tasks. Companies for the reconnaissance of radio-relay communications lines are relocated right behind the advancing troops.

The staff of the OSNAZ radiotechnical regiment, the command post, radio intercept battalion, and servicing subunits of the regiment are advisably relocated in two echelons and not less often than once a day. No more than two or three radiotechnical companies are relocated simultaneously with each echelon. Depending on the situation, each radiotechnical company should be relocated in one or two echelons.

During relocation of the OSNAZ units, the total number of forces and means activated to perform reconnaissance tasks will be reduced, which may lead to losing some reconnaissance targets. Consequently, in order to achieve continuity and completeness in the performance of reconnaissance tasks, it is necessary in this period to intensify the conduct of aerial radio and radiotechnical reconnaissance from airborne means, maximally activate army means, and organize the continuous receipt of data from the air defense radiotechnical regiment and radioelectronic warfare units of

the front, as well as from the OSNAZ units of adjacent fronts.

Maneuver on the terrain is also done through the drop of mobile groups onto the most important reconnaissance axes for detection of the most valuable sources and surveillance of their operation. These groups must be equipped with means of intercepting radio-relay stations and ultra-shortwave radio communications, and with radiotechnical means.

Radar reconnaissance. With the start of combat actions, the activity of combat and reconnaissance aviation on boths sides is stepped up, and the number of aircraft in the air at one time grows sharply. In this complex air situation, radar reconnaissance, in cooperation with radiotechnical reconnaissance, must quickly and accurately accomplish the task of recognizing the affiliation of aircraft (friend or foe) and opportunely detect the aircraft of bomber aviation and determine their flight routes and coordinates. An important task of radar reconnaissance is detection and determination of the time and place of the drop of enemy airborne landing forces.

With the start of combat actions, aerial radar reconnaissance will be conducted to a great depth, which will give it an opportunity to more effectively discover the disposition of enemy reserves and the concentration of aviation at airfields as well as to make a more detailed radar map of the terrain in support of the combat actions of bomber aviation.

In this period, a considerable amount of reconnaissance information will be obtained directly by the troops carrying on the battle as well as through interrogation of prisoners and inhabitants located in the captured territory. Therefore, under the conditions of a rapidly changing situation, timely receipt from the troops of the reconnaissance information they get acquires very great importance for reconnaissance, and so does the competent assignment of prisoner-of-war interrogation work.

CONDUCT OF RECONNAISSANCE DURING IMMEDIATE PREPARATIONS FOR THE USE OF NUCLEAR WEAPONS

In the examination of this question, one should go on the basis that, in conducting combat actions with conventional means, the warring sides will, due to a number of reasons and circumstances, refrain from using nuclear weapons but may use them at any moment in a certain situation.

Consequently, in the interest of ensuring the safety of troops and successful conduct of the operation, front reconnaissance must be sure to opportunely detect enemy intentions to employ nuclear weapons.

During combat actions conducted with conventional means, our probable enemies contemplate the possibility of using nuclear weapons when the developing situation forces them to. The transition to the use of nuclear weapons may be realized through so-called escalation of their use or through the delivery of a massed nuclear strike on a global scale.

Enemy delivery of the initial nuclear strike during combat actions will differ radically from the conduct of such a strike at the beginning of a war. This is due, first of all, to the fact that all his means of nuclear attack -- from tactical to strategic -- will be fully deployed and kept in a high state of readiness for the delivery of a strike; and the forces on alert are kept in constant full combat readiness. Second, all the reconnaissance forces and means of both sides will be aggressively operating to discover, above all, nuclear means and other targets slated to be hit in the initial nuclear strike.

Under these conditions, success in defeating the enemy will depend first and foremost on the stage at which front reconnaissance discovers the intentions of the enemy to employ nuclear weapons and provides the command with data for the effective delivery of a preemptive strike and the rapid offensive of the front troops.

Thus, the period of immediate preparation for the use of nuclear weapons during an operation will be the most crucial for reconnaissance. At the same time, this period will also be the most complex since the enemy preparation of the initial nuclear strike will not take a significant amount of time and there will be no clear-cut signs of the preparation.

In this connection, the question arises as to whether there will be a period of immediate preparation for the use of nuclear weapons at all if the sides are already conducting combat actions. Objectively, such a period must exist if only because the enemy will inevitably have to carry out a number of final measures, and these can be detected by reconnaissance from direct and indirect indications.

Such final measures may be:

-- adoption by the higher military-political organs and command levels of the decision to employ nuclear weapons and the delivery of it to the

executors;

-- refinement of the plans of conduct of combat actions and assignment of new tasks to troops to exploit the results of the nuclear strikes;

-- creation or certain alteration of the grouping of forces and means so that it corresponds to the conditions of conducting combat actions with the use of nuclear weapons, ensures the safety of troops, and best allows them to exploit the results of the nuclear strikes (dispersal of the units and large units of the armed forces branches to the permissible limits, provision for the safety of the most important installations from the effect of the shock wave, light wave, and radioactive contamination through a change of their location and sheltering them before the moment of employing nuclear weapons, etc.);

-- provision for the protection of the population, objects of military and military-economic importance, as well as of military, political, and state administration organs deep in the enemy rear.

In the period of implementation of these measures, staffs and troops, civil defense organs, government and state facilities step up their activity connected with the immediate use of nuclear weapons and provision for their own safety.

With the appearance of signs of enemy preparations for the use of nuclear weapons, the front troops will immediately take steps to disrupt the enemy strike, first and foremost through preemption in the delivery of strikes with nuclear and conventional means. Therefore, providing data about the intentions of the enemy to use nuclear weapons and about his most important installations will be chief in the activity of all types of reconnaissance, which in this period must concentrate the main attention on accomplishing the following tasks:

-- to determine the time of beginning the nuclear attack, its objective, scale, method of delivery, and the number of forces and means to be allocated for this;

-- to pinpoint the locations of targets designated to be hit in the initial nuclear strike of the front and to give data about them for the proper use of means of destruction; here the main attention must be paid to reconnaissance of the home airfields of the delivery aircraft, of the launch sites of the operational-tactical missile units, of the nuclear warheads depots, of the command posts of formations, of important air

defense installations, and also of the concentration areas of armored and mechanized large units;

-- to pinpoint sites of the emplacement of nuclear mines on the main axes of the offensive of the front troops and ascertain the intentions of the enemy for use of them;

-- to discover the enemy measures for air defense and antinuclear protection of troops and important objects of military and military-economic importance.

It should be kept in mind that the number of targets, including mobile ones, that may be hit by the troops of the front in an initial strike carried out during the operation will largely depend on how effectively, continuously, purposefully, and completely they have conducted reconnaissance and kept track of these targets during combat actions without the use of nuclear weapons.

The accomplishment of reconnaissance tasks in this period is facilitated by the fact that by this time the entire reconnaissance system will be operating and a considerable number of the targets to be hit in the initial nuclear strike will be known to the front command.

At the same time, in preparing a nuclear strike, the enemy may, for safety purposes, change the location of the most important installations (targets for nuclear weapons). Therefore, it is very important that the activity of those reconnaissance forces and means which were assigned to these targets earlier be purposeful, aggressive, and continuous. They must be especially active in periods of an abrupt change of the overall situation on the fronts, when the enemy may turn to extreme measures, including the use of nuclear weapons.

With the appearance of signs of the immediate preparation of the enemy to use nuclear weapons, the chief of intelligence must take steps to further gear up all the forces and means conducting reconnaissance, to retarget them where this is possible to reconnaissance (final reconnaissance) of targets to be hit by the troops of the front in the initial nuclear strike, and at the same time to activate a considerable part of the available reserve.

Along with this, it is necessary to intensify measures to ensure the safety of reconnaissance forces and means from nuclear strikes since, according to the view of the enemy, they are targets of special importance

which must be destroyed as a first priority in order to deprive us of the capability of delivering a selective retaliatory strike.

Also of special importance in this period is high efficiency of the reconnaissance forces and means, their ability to carry out reconnaissance (final reconnaissance) of a large number of targets simultaneously in a short time for the nuclear strike of our troops, to obtain exhaustive data on these targets, and to get these data on time to the command, staffs, and responsible persons concerned.

The activity of the types of reconnaissance in this period will be characterized as follows.

Agent and special reconnaissance in the period of immediate preparation for the use of nuclear weapons during an operation concentrate their efforts on the acquisition of data by which one may judge the times and plans for the use of nuclear weapons by the enemy as well as on reconnaissance of targets slated to be hit in the initial and subsequent nuclear strikes of the front.

Called upon to accomplish these tasks must be the most reliable agents possessing the appropriate capabilities. The tasks for the agents must be refined in a short time, covertly and clandestinely.

Special-purpose reconnaissance groups and detachments, as well as special-purpose agents, along with tasks of a purely reconnaissance nature, must be assigned tasks to conduct special measures, above all to capture and interrogate servicemen -- staff workers and nuclear weapons unit personnel -- and to incapacitate missiles and nuclear warheads at depots, at launch sites, in waiting areas, and on the march, as well as delivery aircraft at airfields, and their means of navigation and control. Together with this, they must perform tasks to guide our aviation to areas of the location of the most important targets, using radio beacons and other guidance instruments for this.

Aerial reconnaissance. A special characteristic of the conduct of aerial reconnaissance in the period when the enemy is carrying out preparation for the use of weapons of mass destruction is the fact that all its forces and means are directed toward the immediate support of the initial nuclear strike to be delivered by the rocket troops and aviation of the front.

Of special importance here is the high efficiency of aerial reconnaissance, the capability of its forces and means to perform final reconnaissance of a considerable number of enemy targets in extremely compressed time periods and to reliably monitor the effectiveness of hitting them. This is achieved through conduct of a simultaneous flight of reconnaissance aircraft as well as through the retargeting of crews accomplishing other, less important tasks. Part of the forces of the other types of front aviation is also called on to participate in the simultaneous flight.

During the simultaneous flight, aerial reconnaissance concentrates the main efforts on timely detection and determination of the coordinates of such important targets as missile/nuclear means, nuclear weapons delivery aircraft, and special warheads depots. During the performance of this flight, final reconnaissance of targets in support of the strike of front and army missiles and monitoring of the results of this strike are done by the forces of the operational and tactical reconnaissance air regiments.

Final reconnaissance of targets slated to be hit by front bombers and fighter-bombers as well as monitoring of the results of their combat actions are usually charged to those air divisions and regiments which deliver the strikes on these targets.

Aerial reconnaissance during the simultaneous flight is conducted from high, medium, and low altitudes. The actions of all reconnaissance aircraft crews are closely tied in by time and targets with the tasks to be accomplished during the nuclear strike by the rocket troops and aviation of the front. Their efforts are coordinated with the actions of the other types of reconnaissance and among themselves.

The main methods of aerial reconnaissance will be visual observation, which ensures maximum speed in transmission of aerial reconnaissance data from on board the aircraft to the ground command posts, and also reconnaissance with the aid of television equipment. Along with this, aerial radar and radiotechnical reconnaissance will also be widely used. To ensure the greatest efficiency of aerial reconnaissance, each crew receives a minimal number of targets (basically one or two) for reconnaissance and final reconnaissance.

Control of aerial reconnaissance forces and means in this period is exercised centrally from the command post or forward command post of the air army. The receipt of reports from on board the reconnaissance aircraft occurs simultaneously in the front staff and the staff of the air army as

well as in the staffs of the combined-arms (tank) armies, in the air divisions, and in the divisions of the first echelon of the advancing troops.

Radio and radiotechnical reconnaissance. With the detection of the first signs of preparation for the use of nuclear weapons by the enemy, radio and radiotechnical reconnaissance concentrate their efforts on determining the times and scales of their employment and on pinpointing the grouping of missile/nuclear weapons units and tactical aviation as well as the locations of command posts, communications centers, and armored and mechanized large units to the entire depth of the operational disposition of enemy troops.

During performance of these tasks the main sources of obtaining information for radio reconnaissance will be the nuclear weapons control radio nets and attack forces warning nets, over which the signals and commands to employ nuclear weapons will most likely be sent.

The sources of obtaining reconnaissance information for the radiotechnical reconnaissance in this period may be the missile/nuclear weapons control stations, systems of control and guidance of tactical aviation to ground targets, the onboard radar and radio navigation sets of aircraft, and -- on coastal axes -- also the Omega and LORAN-C long-range radio navigation systems employed by atomic missile submarines for support of missile launches.

Surveillance of the sources of obtaining information on enemy missile/nuclear weapons must be conducted continuously. Very important here for radio reconnaissance is the precise distribution among the reconnaissance posts, with observance of an overlap, of the frequencies employed on the nuclear weapons control radio nets, as well as the allocation of a sufficient number of posts to search for new sources in the troop warning and nuclear weapons control system. Radiotechnical reconnaissance must continuously maintain surveillance of the previously detected nuclear weapons installations and other targets to be hit in the initial nuclear strike by the troops of the front and carry out a search for new radar, radio remote control, and radio navigation means serving the actions of the attack groupings of enemy troops.

Radar reconnaissance. The efforts of radar reconnaissance in the period of preparation of the front troops for the use of nuclear weapons are directed toward timely detection of the beginning of the take-off of enemy delivery aircraft to deliver a nuclear strike and determination of

their flight axes and the aircraft strength of the groups. Of great importance in this period is precise cooperation of the radar reconnaissance of the radiotechnical units of the air defense and the air army with the radiotechnical reconnaissance of the front, which is capable of detecting air targets considerably sooner via the operating onboard radar.

Of special importance in the period of immediate preparation for the delivery of an initial nuclear strike is the efficiency of reconnaissance, particularly in the area of detecting enemy means of nuclear attack and passing reconnaissance information about them.

In order to increase efficiency it is necessary to assign the areas and most important targets of reconnaissance to definite reconnaissance organs (reconnaissance aviation crews, radio and radiotechnical reconnaissance posts, special-purpose reconnaissance groups, and agents) and to brief the reconnaissance units in time about the location of targets according to the data of other types of reconnaissance. This allows the time to search for targets to be shortened considerably when final reconnaissance of them is organized.

CONDUCT OF RECONNAISSANCE WITH THE START OF AND DURING THE USE OF NUCLEAR WEAPONS

With the start of the use of nuclear weapons, considerable changes take place in the conditions of conducting reconnaissance. These will be particularly abrupt in case nuclear weapons are employed massively from the very start.

The initial massed nuclear strike of the front troops and the strike of the strategic rocket forces will lead to many targets and areas in the enemy rear losing importance for reconnaissance. A considerable number of the important targets will have been destroyed, and in extensive areas troop actions will not be conducted because of fires; destruction, and radioactive contamination of the terrain. After determination of the results of the nuclear strikes and detection of the axes (areas, sectors, zones) on which the enemy is concentrating his main efforts, it will be necessary to reassess the importance of a number of targets (axes) of reconnaissance. In connection with this, it will be necessary to redistribute reconnaissance efforts, too, by redirecting its forces and means to new targets and removing some of them from axes and targets that

have lost their importance as well as by committing additional forces and means from the reserve to action.

As a result of the nuclear strike, the reconnaissance units, subunits, and organs may sustain considerable losses. The experience of exercises and war games shows that the reconnaissance aviation of a front, during the simultaneous flight for reconnaissance and final reconnaissance of targets to be hit in the initial nuclear strike, may lose as many as 18 to 20 percent of its aircraft. Losses no smaller may be sustained by the forces and means of agent and special reconnaissance as well as by the radio, radiotechnical, and radar reconnaissance units, which have reconnaissance equipment that is vulnerable to nuclear strikes. The capabilities of some types of reconnaissance will diminish in connection with the formation of ionized areas from high-altitude nuclear bursts as well as with the effect of radioactive emissions on optics and photographic equipment. Finally, the reconnaissance system itself may be destroyed and considerable difficulties in controlling its forces and means brought about because of the disruption of communications with the operating reconnaissance organs and units.

All of this will require the conduct of urgent measures to eliminate the aftereffects of the nuclear strikes, the restoration of the control and combat effectiveness of reconnaissance through organizational restructuring of the reconnaissance units and subunits at the front (army) level, and replenishment of losses in personnel, weapons, and equipment by using the internal resources of the front.

With the start of the use of nuclear weapons by both sides, front operational reconnaissance must concentrate its efforts on accomplishing the following main tasks:

-- to determine the degree of destruction of enemy targets during the initial nuclear strike as well as to ascertain the radiation situation and condition of the terrain in the areas of impending troop actions;

-- to discover the enemy's concept for the further conduct of combat actions;

-- to discover the missile/nuclear means undestroyed or newly introduced into the theater;

-- to determine the regrouping of aviation, new home airfields, and the number and types of aircraft at them, especially of delivery aircraft;

-- to discover newly deployed command posts and communications centers;

-- to ascertain the progress in activating new units and large units;

-- to determine the areas of the landing of amphibious and airborne landing forces.

The main targets of reconnaissance in this period will be the nuclear means and surviving reserves and troops capable of affecting the further course of combat actions.

Of all the tasks listed above, the foremost, the most important and complex, will be the task of determining the results of the initial nuclear strike. Timely and complete accomplishment of it will afford the possibility of determining the level of combat effectiveness of the opposing enemy, of detecting the strong and vulnerable places in his operational disposition, and in the final analysis, of providing the front commander with the data necessary to make a well-founded decision for the further conduct of the operation.

The activity of operational reconnaissance forces and means in this period will be characterized as follows.

Agent and special reconnaissance. Besides the possible losses and difficulties caused by destruction and radioactive contamination, the following factors will have an effect on the conduct of agent and special reconnaissance:

-- the disorganization of all aspects of the life and activity of the population in the enemy rear and the disruption of administrative-economic contacts of some areas with others as a result of the destruction of the most important political, economic, and administrative centers, transport, and means of communications;

-- the enormous moral and psychological effect of the nuclear strikes on the population, which may lead to its panic and flight from the large cities subjected to strikes to rural areas and forests;

-- disruption of the air defense and antilanding defense system;

-- disruption of the counterintelligence and police system created by the enemy in peacetime and on the eve of war and, in particular, loss of

the traditional capabilities of control of the population;

-- loss of contact with many agent sources as a result of the nuclear bursts;

-- possible losses in transport aviation providing the airlift and landing of reconnaissance personnel in the enemy rear as well as the destruction of airfields usable by agent reconnaissance organs and special-purpose units;

-- the possibility of antigovernment and antiwar statements and a guerrilla movement occurring deep in the enemy rear as a consequence of the struggle of progressive forces with nuclear catastrophe.

Under these conditions, the main efforts of the agent reconnaissance organs and special-purpose units must be directed toward determining the results of the nuclear strikes of the front and getting reconnaissance data concerning the enemy's concept for the further conduct of combat actions, as well as toward detecting new missile/nuclear means and contingents of enemy troops in the zone of the front offensive.

In the situation that has come about, agent and special reconnaissance organs will be required to build up the efforts of their forces and means, which must be done through the assignment of additional tasks and stepping up of the activity of the reconnaissance personnel (agents) and special-purpose groups remaining in the enemy rear, as well as through involvement of the agent and special reconnaissance reserve.

However, all measures to strengthen agent and special reconnaissance will have to be taken with a shortage of forces and means and in extremely short time periods. Therefore, the agent reconnaissance organs and the staffs of special-purpose units, to accomplish the tasks that have arisen, must find the most effective and, at the same time, simple ways and methods, skilfully exploiting for this the situation that has developed in the enemy rear.

In this period, the movement of new agent and special reconnaissance groups into the enemy rear and the buildup of surveillance forces must be done with regard for the important targets, especially the nuclear weapons means, which the enemy has left after the strike, for the extent of destruction and radioactive contamination of the terrain, and for the tasks to be accomplished by the troops of the front.

Along with the accomplishment of reconnaissance tasks, the chiefs of agent reconnaissance organs and the commanders and staffs of special-purpose units will have to carry out much work to eliminate the aftereffects of nuclear strikes. During this work, it is above all necessary to restore communications and ascertain the status of the agents and special-purpose groups (detachments) operating in the enemy rear as well as to give them the necessary assistance, for which reconnaissance personnel and agents with means of communications can be sent from the reserve into the enemy rear.

Furthermore, in the process of eliminating the aftereffects of nuclear strikes, provisions should be made for:

-- organization of rescue operations and evacuation of the wounded (casualties), including from the enemy rear, and giving of medical aid to them;

-- monitoring of the contamination of personnel, weapons, and equipment and decontamination of them;

-- collection of data on the radiation situation in areas of the actions of agents and special-purpose groups for the purpose of their timely removal from areas of fires and of high levels of radiation;

-- replenishment of losses in personnel, weapons, and equipment through centralized deliveries and the use of local resources;

-- organizational restructuring of the agent reconnaissance organs and special-purpose units and subunits if a need for this arises.

Aerial reconnaissance. Having a substantial effect on the conduct of aerial reconnaissance in this period will be the considerable possible losses in crews and aviation materiel, partial disruption of the control of reconnaissance and combat aviation units, as well as the complication of their basing and materiel-technical support.

Under the conditions that have come about, continuity in the conduct of aerial reconnaissance may be achieved through rapid restoration of the combat effectiveness of the reconnaissance aviation units and subunits, proper distribution of their efforts, and skilful use of the reserve of aerial reconnaissance forces and means.

In this period, the most important tasks of aerial reconnaissance will be determination of the results of the nuclear strikes of the front, detection of the new means of nuclear attack of the enemy, as well as surveillance of the regrouping of his troops and of the nature of actions of the deep operational reserves.

In performing the task of determining the results of nuclear strikes, aerial reconnaissance -- in cooperation with other types of reconnaissance -- must determine the ground zero coordinates and radiation levels, establish the extent to which targets were hit and the nature of destruction, discover the measures being carried out by the enemy to eliminate the aftereffects of the nuclear strikes, and discover the nature of his further actions.

These tasks must be accomplished first of all by the bomber aircraft incidentally to the performance of the main combat tasks, as well as by part of the TO/&E manned and unmanned reconnaissance aviation, which it is advisable to allocate for monitoring the results of nuclear strikes on the most important targets. The tasks to determine these results are performed by the reconnaissance aircraft crews through visual observation and photography.

In assigning tasks for aerial reconnaissance of the results of nuclear strikes, one should keep in mind that, in an area of nuclear bursts, for 10 to 15 minutes after a burst there remain high radiation levels hazardous to a crew. Aerial photo reconnaissance of the results of nuclear strikes is possible in one to five hours after the burst, when the radioactive cloud has risen to the maximum altitude and been carried off by the wind away from the reconnaissance target, and the radiation levels do not exceed tolerable values (not over five roentgens of exposure of the film for the flight). In this connection, in the front staff, every sortie of aircraft for reconnaissance of the results of nuclear strikes must be preceded by careful forecasting and assessment of the aerial radiation situation. For purposes of crew safety and preservation of the qualities of the aerial photography film, the flight of every aircraft must be so planned that, at the moment of burst of a warhead of 10 to 100 kilotons' yield, the aircraft is located no closer than 10 to 15 kilometers from ground zero.

Radio and radiotechnical reconnaissance. With the beginning of the use of nuclear weapons, radio and radiotechnical reconnaissance must concentrate the main efforts on getting data about the results of the delivery of nuclear strikes and about the extent of disruption of the troop and weapons control system of the enemy. At the same time it must monitor

the surviving grouping of troops, devoting special attention to the detection of means of mass destruction, and observe the deployment of new organs and means of control and the employment of newly formed reserves.

Radio and radiotechnical reconnaissance accomplishes these tasks through continuous search, intercept of transmissions, analysis of radio emissions, and through direction finding of the means of radio communications, radar, radio navigation, and radio remote control.

The disorganization of the troop and weapons control system of the enemy will have a substantial effect on the conduct of reconnaissance in this period. The incapacitation of many wire, radio-relay, and tropospheric communications lines will force him to use ultra-shortwave and longwave communications means more extensively. There will be more frequent instances of violation of the rules of secure troop control. This will to some extent facilitate the performance of assigned tasks.

At the same time, as a result of the nuclear strikes delivered by the enemy on our troops, the radio and radiotechnical reconnaissance units may sustain considerable losses in personnel and combat equipment. Communications with certain subunits may be disrupted. The radiotechnical and radio direction finding nets established may prove unable to function on account of the incapacitation of radiotechnical stations, radio direction finders, and radio communications means.

All of this will require the front chief of intelligence and the commanders and staffs of the units to adopt urgent measures to replenish losses and restore the combat effectiveness of the subunits through the use of reserve forces and means set up in each OSNAZ unit. With considerable losses, when there is no possibility of restoring the radiotechnical net this way, steps must be taken to redistribute forces and means among the subunits, as well as to form new temporary subunits capable of performing the assigned reconnaissance tasks. Incapacitated direction finding companies can be replaced by non-T/O radio direction finding groups formed through the use of the forces and means of radio direction finding platoons of the intercept battalions and unimpaired direction finding companies.

At the same time steps must be taken to withdraw radio and radiotechnical reconnaissance forces and means from areas under a threat of radioactive contamination. This circumstance, along with the assignment of additional tasks to the units, will require the timely maneuver of forces and means and the dispatch of mobile groups for surveillance of the most important reconnaissance targets. In addition, it will be necessary to

provide for stepping up reconnaissance in the ultra-shortwave and longwave ranges, since radio communications in the shortwave range may be cut off for a long time with aerial nuclear bursts.

An important condition of the successful conduct of radio and radiotechnical reconnaissance in this period is the maintenance of close and continuous cooperation of the OSNAZ units of the front and the armies with the radiotechnical units of the air defense troops, the radioelectronic warfare units, and among themselves.

Radar reconnaissance. During the initial nuclear strike, radar reconnaissance, in doing surveillance of the air situation, concentrates the main attention on timely target detection and identification and on sending the necessary data to the command post of the air defense troops of the front.

The great speed of flight of the air targets, the short time they remain in the zone of radar access, the variety of altitudes, axes, and tactical methods they employ, as well as the simultaneous presence in the air of a large number of air targets, require that reconnaissance of the air enemy -- especially of his delivery aircraft -- in this period be conducted by all possible forces and means and in close cooperation among them. Taking part in reconnaissance of the air enemy must be the radio, radiotechnical, and radar reconnaissance means of the air defense forces of the country, the air defense troops of the front, the radio and radiotechnical reconnaissance units of the front (armies), as well as the reconnaissance subunits of the surface-to-air missile and antiaircraft artillery units, and the observation posts of the subunits and units of all branch arms. Consequently, the success of reconnaissance of the air enemy will depend on the proper allocation of tasks, targets, operating frequency range of the radioelectronic means, and areas and axes of responsibility, on the timely targeting of certain reconnaissance means according to the data of other means, as well as on the competent organization of communications which ensure the timely assignment of tasks, transmission of reconnaissance data, and continuous cooperation of staffs and reconnaissance organs.

Radiation reconnaissance. One of the most important tasks for support of the activity of the troops of the front in the period of going over to the use of nuclear weapons is the conduct of radiation reconnaissance both in the location of our own troops and in that of the enemy for the purpose of establishing the zones, areas, and sectors with high levels of radioactive contamination.

Overall assessment of the radiation situation and forecasting of it will be done on the basis of information about the parameters of the nuclear bursts, particularly ground bursts, taking weather data into account. The forecasting results are used when tasks are assigned to the reconnaissance units and subunits.

Reconnaissance of the radiation situation on behalf of the front command is conducted by the radiation and chemical reconnaissance subunits of the troops as well as by the crews of aircraft and helicopters fitted with equipment enabling them to automatically measure radiation levels, determine the boundaries of areas of contamination, and transmit the data to information collection points.

SOME SPECIAL FEATURES OF THE CONDUCT OF RECONNAISSANCE WHILE FRONT TROOPS ARE PERFORMING TASKS DURING AN OPERATION

With the start and during the course of an operation, the front troops may conduct meeting engagements, negotiate defense lines occupied earlier by the enemy, make assault crossings of large water obstacles, repel counterattacks, support the commitment of second echelons and deep reserves to the engagement, carry out the landing of amphibious and airborne landing forces, and pursue a retreating enemy. Therefore, reconnaissance must be conducted during the operation with regard for the accomplishment of the upcoming tasks of the front troops and the special characteristics of this or that type of combat actions in order to support them beforehand in respect to reconnaissance. In this connection, the front chief of intelligence must anticipate, in terms of time and place, the possibility of these tasks arising and be able to quickly redirect reconnaissance forces and means to accomplish them.

In anticipation of a meeting engagement, the efforts of operational reconnaissance are directed toward accomplishment of the following main tasks:

-- detection of enemy columns at the greatest possible distance from our troops (special attention here must be paid to discovering the strength of enemy forces and means, especially nuclear ones), the axes and routes of their movement, as well as the time they reach certain lines;

-- determination of the areas (lines) and time of the enemy deployment for conducting a meeting engagement and of the existence of exposed flanks

and other weak places he may have, as well as detection of the preparation and landing of airborne and amphibious landing forces in the rear of the front troops;

-- determination of the nature and passability of the terrain in the deployment area for the meeting engagement.

During the meeting engagement, the efforts of reconnaissance are, in addition, concentrated on conducting continuous surveillance of the enemy regroupings being carried out so as to prevent unexpected actions on his part, particularly on the exposed flanks of our troops.

All types of reconnaissance participate in accomplishing the indicated tasks successively or simultaneously; however, the main role will be played by aerial reconnaissance. The tactical reconnaissance air regiment and non-T/O reconnaissance squadrons of the air divisions must conduct reconnaissance of the battlefield, and the operational reconnaissance air regiments must provide surveillance of approaching deep operational reserves. Crews of reconnaissance aviation must be assigned to the probable forward movement routes, deployment lines, and detected columns of enemy troops.

In anticipation of a meeting engagement, aerial reconnaissance is conducted with maximum intensity in order to detect the attack grouping of the enemy, the axis of its movement forward, and the probable lines of deployment in the shortest time periods. Reconnaissance groups of the agent and special reconnaissance must also be sent out to the movement routes and deployment lines in advance.

During the meeting engagement, aerial and other types of operational reconnaissance pay chief attention to discovering the areas of the location of means of nuclear attack and the intentions of the enemy for regrouping his troops, as well as to detecting a threat of the outflanking and envelopment of troops of the front from the flanks or the approach of enemy reserves.

The main method of conducting aerial reconnaissance during a meeting engagement is visual observation and aerial television reconnaissance.

Reconnaissance in support of the negotiation of a defense line occupied earlier by the enemy, besides accomplishing other tasks, must determine or refine the disposition of the enemy defense, the status and nature of its engineer preparation, and its occupation by troops. Special

attention is paid to detecting the outline of the forward edge and defensive positions and discovering defense areas (centers of resistance), locations of artillery and antitank firing positions, and minefields, especially of nuclear mines, and also to discovering the presence of gaps and sectors in the defense which are poorly defended by troops.

Reconnaissance of defense lines is organized in advance, mainly by the forces and means of aerial, agent, and special reconnaissance of the front, and carried out in such a way that, by the moment the advancing troops approach the defense line, the front command can be presented with the data to work out the decision for breaking through the enemy defense.

Detailed reconnaissance of the defense lines is advisably charged to the reconnaissance forces and means of the combined-arms (tank) armies and the large units belonging to them as well as to the means of tactical aerial reconnaissance. The reconnaissance forces and means of the front in this case must concentrate on detecting the means of nuclear attack, discovering the maneuvering of aviation and deep reserves, and establishing continuous surveillance of the movement of troops by air, sea, and land, of the activation of troops, and of the preparation of new defense lines by the enemy.

One of the most important reconnaissance methods permitting reliable information to be obtained about the nature of the enemy defense is aerial photography.

It should be kept in mind that, in the first front offensive operation in the Central European and certain other theaters, the front troops will not always have a continuous, previously prepared defense zone before them. Therefore, it is advisable to carry out aerial photography on those axes where the front troops will concentrate the main efforts. Here the nature of the terrain and the grouping and probable nature of actions of the enemy must be taken into account. The depth of photographing of the sectors of the defense lines must reach 40 to 50 kilometers so as to take in all the most important installations, including the siting areas of tactical and operational-tactical missiles and nuclear artillery. Sectors of intermediate and final defense lines not occupied by troops are photographed to a depth of up to 10 kilometers.

Of great importance during combat actions is the quick development and timely delivery to staffs and commanders concerned of the aerial photography results. Fulfilment of these tasks is promoted by: use in the reconnaissance aircraft of equipment that permits film to be developed

directly on board the aircraft as well as of a phototelegraph to transmit the reconnaissance documents; the availability of direct secure telephone communications between the front intelligence directorate and the reconnaissance units of the air army; the availability of functional and technically well-equipped field laboratories and centers for processing the aerial photography data in the air armies, and the allocation of representatives of the front intelligence directorate to the reconnaissance aviation regiments.

Reconnaissance in support of the repulse of enemy counterattacks. During the offensive operation the enemy may undertake a number of simultaneous or successive counterattacks on one or several operational axes with his reserve forces. Therefore, during combat actions all types of operational reconnaissance must establish reliable surveillance of the detected reserves of the enemy and his activation of new ones in order to opportunely detect the enemy's intentions for use of the reserves and to determine their strength, time and axes of movement, and lines of deployment for delivery of a counterattack. For the same purposes, reconnaissance must attentively observe the home airfields of military transport aviation and areas of the location of enemy airborne forces, and detect on time their possible use in support of a counterattack.

With the start of the movement of counterattack groupings toward the area of combat actions, reconnaissance, particularly aerial reconnaissance, must be conducted with maximum intensity and opportunely establish the deployment of enemy troops from march columns into approach march and battle formations, that is, the moment that is most advantageous for delivering nuclear strikes or strikes with conventional means of destruction against the enemy. With the approach of the enemy columns to a distance of 100 to 150 kilometers from the forward units of front troops, continuous aerial surveillance of them must be established.

The main method of aerial reconnaissance of the approaching columns of the counterattack grouping is visual observation and aerial photography.

Reconnaissance in support of the assault crossing of large water obstacles is organized in advance. All data about the nature of the defense of the large water obstacles which the front troops are going to have to make an assault crossing of must be obtained in such time as to permit the command to make the decision for the assault crossing in time and carry it out from the march if necessary. Refining data on the water obstacle must be obtained and delivered to the troops three to four hours before they approach it.

For the successful assault crossing of a water obstacle, reconnaissance must determine the nature of the obstacle itself (width, depth, nature of the bottom and the banks, availability of fords and crossings, etc.), the system of defense in the sector of the possible assault crossing, the existence of obstacles, as well as the grouping of defending troops and especially the disposition of nuclear weapons and reserves.

The main role in accomplishing these tasks will belong to reconnaissance aviation, agents, and special-purpose reconnaissance groups, and, with the approach of the troops, to the tactical reconnaissance subunits.

In anticipation of the commitment to the engagement of the second-echelon troops of the front, the chief of intelligence must organize and step up the conduct of reconnaissance both in the zone of the impending commitment and on the flanks of the grouping to be committed to the engagement. Here special attention must be paid to detecting defense lines and especially enemy groupings of troops which he may employ to deliver counterattacks and counterthrusts.

To support the successful landing of an airborne landing force in the enemy rear, the chief of intelligence must organize in advance the reconnaissance of the routes of its flight and the landing areas as well as of the targets against which the actions of the landing force will be directed.

Reconnaissance must, by the beginning of the landing, submit to the command of the front and of the landing force exhaustive data on:

-- the grouping of enemy air defense forces and means in the designated flight zone of the military transport aviation carrying the landing force (areas of launch sites of surface-to-air guided missile batteries and control posts of air defense forces and means, home airfields of fighter aviation, areas of the concentration of field air defense means, the air defense radar support system, etc.);

-- the areas of the landing and actions of the airborne force as well as the targets in them and groupings of enemy troops situated nearby (nature of the terrain and the condition of its antilanding defense in the landing areas, the condition of the weather, the radiation and sanitary-epidemiological situation, the condition of the targets against which the actions of the landing forces are directed, groupings of troops

located within 150 to 200 kilometers of the areas of the landing and actions of the landing force, etc.).

The main means of reconnaissance and final reconnaissance of the landing areas and targets of the actions of the landing force in the enemy rear are agents and special-purpose groups, which are moved into these areas immediately upon adoption of the decision for a landing. Final reconnaissance of the flight routes of the military transport aviation as well as of the landing areas is done by the operational reconnaissance aviation units and subunits and, beyond the limits of their range, by the forces of long range aviation.

During the preparation for a landing, reconnaissance aviation through aerial photography discovers the nature of the terrain and the availability of sites for the drop and landing of the airborne force, and it also determines the presence and nature of antilanding obstacles in the area designated for the landing.

Before the start of the landing, aerial reconnaissance pinpoints changes in the grouping of aviation, air defense, and ground forces of the enemy in the areas of the landing and combat actions of the landing force. Through visual observation and with the aid of television equipment, it conducts final reconnaissance of the targets of the strikes to be delivered prior to the drop of the airborne force and determines their results. Besides this, aerial reconnaissance ascertains the radiation and weather situation in the flight zone of the airborne landing force and in the landing area. Special attention is devoted to final reconnaissance of the landing sites and the flight routes to them and of targets which may have an effect on the force when it is landing and assembling. Final reconnaissance of all targets must be performed simultaneously five or six hours before the drop of the landing force.

The main method of final reconnaissance is visual observation and aerial photography, which enables one to get the necessary information not only about the air defense installations and troop groupings of the enemy and the targets against which the actions of the landing forces are directed, but also about the nature of the terrain and its antilanding preparation.

It is advisable to perform photography on the following scales: landing and combat actions areas, 1:40,000; drop sites, 1:10,000; airfields (sites) for the airlanded groups of the landing force, 1:30,000; and enemy targets, 1:4,000 to 1:15,000.

The developed aerial photographs are delivered directly to the staff of the airborne landing force and the staff of the military transport aviation group no later than two to three hours before take-off.

During the conduct of combat actions in the enemy rear, reconnaissance within a radius of up to 100 kilometers is conducted by the landing force itself; the T/O&E reconnaissance subunits of the large units and airborne subunits of them are used for this.

The forces and means of operational reconnaissance, especially of aerial reconnaissance, must be aimed at reconnaissance of those enemy groupings and targets which may have an effect on the performance of the tasks assigned to the landing force. Called on for support of the actions of the landing force are not only the reconnaissance aviation, but also combat aviation, as well as the forces and means of agent, special, radio, and radiotechnical reconnaissance.

Reconnaissance during pursuit of the enemy. Pursuit of the enemy is carried out by front troops during the performance of the immediate or subsequent task, simultaneously over the whole zone of offensive or on separate axes.

Upon detecting the first signs of the preparation and start of an enemy retreat, the chief of intelligence must refine the tasks for the reconnaissance units and organs operating in the enemy rear, concentrating their efforts on determining: the concept of the enemy, the beginning and the axes of the retreat of his main grouping (routes, forces, and make-up of columns); the disposition of means of nuclear attack, the axes of their relocation, and the new deployment areas; the strength and nature of actions of the enemy rearguards; the existence of intermediate defense lines, the nature of their engineer preparation, and the time of occupation by troops; the final line of retreat and the possible nature of enemy actions after the retreat; the presence and nature of obstacles, demolitions, contamination, and flooding of the terrain; the strength, concentration areas, and axes of forward movement and employment of the reserves.

The indicated tasks are accomplished through the joint efforts of all types and means of operational and tactical reconnaissance. Here reconnaissance of the retreating enemy groupings and his immediate reserves is conducted by the first-echelon large units of the front. The main efforts of operational reconnaissance are concentrated on discovering the operational-tactical means of nuclear attack and operational and strategic

reserves as well as on monitoring the main transportation routes of the enemy to the entire depth of the theater of military operations.

During pursuit, the main attention is devoted to building up reconnaissance efforts in the operational depth through the movement, mainly by air, of agents and special-purpose groups and detachments as well as through the timely relocation and rapid deployment of the radio and radiotechnical reconnaissance means and the rebasing of reconnaissance aviation behind the advancing troops.

During a pursuit the situation may develop in such a way that considerable groupings of enemy troops find themselves in an encirclement or semi-encirclement as a result of the maneuvering and rapid actions of the troops of the front. The front chief of intelligence must anticipate this and in advance move agents and special-purpose groups into the areas which the enemy may utilize to organize a defense in the encirclement. In addition, the front staff must assign in a timely manner, to the armies operating on the axes of the probable encirclement of a large enemy grouping, reconnaissance tasks whose fulfilment can ensure the acquisition of the most complete data about the encircled enemy.

* * *

A front offensive operation ends with the achievement of the objectives and the creation of the necessary conditions to conduct (with no interruptions whatsoever) the subsequent operation. Consequently, reconnaissance in the final stage of an operation must simultaneously accomplish two groups of tasks: one in the interests of successful completion of the operation being conducted, and the other in support of the preparation and conduct of the subsequent operation of the front.

During the preparation of the subsequent operation of the front, the chief of intelligence, on the basis of available data, assesses the opposing enemy for the adoption of the decision for the operation by the front commander and he organizes reconnaissance in support of its conduct.

The organization and conduct of reconnaissance in this period are done on the basis of the concept of the new operation, the command's instructions on reconnaissance and comprehensive assessment of the opposing grouping of enemy troops, the status and position of the reconnaissance units, as well as of the reconnaissance organs operating in the enemy rear. As the first offensive operation is completed, the depth of conducting reconnaissance is extended through the use of all forces and means,

primarily those of aerial, agent, and special reconnaissance. Here the main efforts of reconnaissance are concentrated on discovering those enemy groupings and targets whose destruction the success of the impending operation will depend on. Tasks are refined for the agents and special-purpose groups and detachments operating in the enemy rear in keeping with the reconnaissance plan for the new operation. If necessary, a regrouping of the reconnaissance forces and means, first of all of the radio, radiotechnical, and radar reconnaissance forces and means, is carried out.

Reconnaissance on the main axes of the impending offensive of the troops can be strengthened through sending out mobile groups and employing radio and radiotechnical reconnaissance units of the large units and formations joining the front and intended for actions on these axes.

CHAPTER 5

SPECIAL CHARACTERISTICS OF THE ORGANIZATION AND CONDUCT OF RECONNAISSANCE IN FRONT OPERATIONS ON A COASTAL AXIS AND IN MOUNTAIN, NORTHERN, AND DESERT AREAS

Most of the theaters of military operations have extensive territories adjacent to sea and mountain, desert, and northern areas whose special natural conditions have a substantial effect on the preparation and conduct of offensive operations.

Thus, the main peculiarity of coastal axes is considered the presence within their boundaries of land and sea sectors, straits zones, and islands, as a result of which the front cannot limit itself to conducting combat actions only on land.

Consequently, a front in an offensive operation will have to operate with an exposed coastal flank and -- along with accomplishing tasks in the land sector -- take straits zones and islands, carry out the landing of amphibious forces, and conduct antilanding defense of the coast taken during the offensive.

Coastal axes are characterized by unique, sometimes very complex, terrain and hydrographic conditions (the sharply indented coastline, wide floodplains of the rivers flowing into the sea, extensive areas that are difficult to traverse and subject to floods, etc.). These conditions will to a considerable extent hinder and limit the maneuvering of troops of a front in an offensive operation.

Also unique are the conditions of conducting combat actions of troops in mountain areas. The very broken relief and the discontinuity of operational axes, the limited number of roads, and the difficulty the troops have moving around where there are no roads are reflected in the conduct of the operation and the impossibility of fully exploiting the increased mobility and striking power of the troops. As a result, a front offensive operation in a mountain area will, as a rule, be carried out along separate axes, to a lesser depth, at a lower rate, and with limited maneuvering of troops.

As for an offensive operation in the desert, it is marked by the possibility of executing a wider maneuver and conducting it to a considerable depth at a high rate. However, the lack of natural shelters,

the difficulties in orientation and camouflage of troops, the underpopulation and scanty network of roads, the frequent strong winds causing dust storms, the unwholesome sanitary-epidemiological condition of certain areas, the shortages of water and fuel, and the sharp temperature gradients in the course of a day considerably reduce the combat capabilities of troops.

No less complex are the conditions of the preparation and conduct of operations in northern areas, which are marked by the difficult nature of the terrain and poor development of transportation routes, a harsh climate and nearly utter lack of fuel, great discontinuity of operational axes and considerable distances between targets of operational importance, difficulties of orientation and camouflage of troops, unusual supply conditions, and frequent ionospheric and magnetic storms. As a result of this, the scope of a front offensive operation, both in respect to the depth of tasks performed and in terms of the rates of advance, will be considerably limited. At the same time, the zone of a front offensive will be much larger than under ordinary conditions and the attack groupings -- just as in mountain and desert areas -- will have to advance over isolated axes at great distances from one another.

These conditions of front offensive operations on coastal axes and in mountain, desert, and northern areas have a telling effect on the realization of all measures of operational and combat support of troops and in the first place on the organization and conduct of all types of reconnaissance.

The experience of the Great Patriotic War and postwar exercises shows that the general work procedure of the commander and staff of a front to organize reconnaissance under the conditions being considered is analogous to the work performed under ordinary conditions. At the same time, in the organization and especially in the preparation, equipping, and combat employment of reconnaissance forces and means there are a number of peculiarities, which are considered in this chapter.

SPECIAL CHARACTERISTICS OF THE ORGANIZATION AND CONDUCT OF RECONNAISSANCE ON A COASTAL AXIS

Very great importance is attached to the first offensive operations on coastal axes. The growing role of these operations is due above all to the fact that their successful conduct favors the defeat of flank groupings of

the enemy in theaters of military operations and even the removal of a number of countries of the opposing coalition from the war, as well as ensuring the capture of the most important strategic areas, including straits areas, the taking of which opens an outlet for the main forces of our fleets to open sea theaters.

On the basis of the conditions of coastal axes, the combat actions of troops will be conducted, as pointed out above, in land and sea sectors. The volume of tasks which reconnaissance must accomplish in support of an operation grows drastically since, along with the conduct of reconnaissance on land, extensive sea areas adjacent to the coast must also be under surveillance.

Therefore, simultaneously with the performance of general tasks, reconnaissance in a front offensive operation on a coastal axis must:

-- discover the nature of the defense of the most important installations on the coast, particularly naval bases and ports, as well as of straits zones and islands;

-- determine the sectors of the coast accessible for a landing and the nature and engineer preparation of these;

-- determine the location and nature of actions of the important ship groupings of the enemy, particularly of carrier strike groups (large units) and atomic missile submarines;

-- detect the preparation of the enemy for carrying out amphibious landing operations, the concentration areas of his assault transports, and shipments of troops and materiel by sea;

-- determine the measures of the enemy to evacuate groupings of troops pressed to the sea.

The accomplishment of these tasks is charged first of all to the operational reconnaissance forces and means of the front.

Agent reconnaissance must take under surveillance the most important ports and naval bases through which will be carried out the movement of troops and the reinforcement of groupings of the enemy. Special attention must be paid to detecting the movements of missile/nuclear weapons and the time of going over to use of them. Agent reconnaissance may also be charged with the task of detecting the preparation of the enemy to conduct

amphibious landing operations and of discovering the nature of the antilanding defense and the enemy forces in the planned landing sectors of our amphibious landing forces. Considering the necessity of quickly building up the agent net on the eve of war and with the start of the first operation, the front staff must make maximum use of the capability of putting agents into the enemy rear with the means of the navy.

Special reconnaissance must concentrate the main efforts to accomplish tasks on the axis of the main attack of the front, i.e., in the land sector. However, a certain part of its forces should be used to conduct reconnaissance on islands, in the areas of naval bases, and directly on the shore in the sectors of the planned landing of amphibious landing forces, etc. On this basis, the front staff must prepare the personnel of special-purpose subunits in advance while it is still peacetime for movement into the enemy rear with the means of the fleet (study with them the special characteristics of the conduct of reconnaissance of sea and shore targets and their reconnaissance indications), determine the needs for sealift means, and coordinate with the staff of the fleet the questions of procedure and times of allocating these means.

Radio and radiotechnical reconnaissance is capable of getting data not only about the land and air targets in the zone of the front offensive but also of targets located at sea and on overseas territories. However, the considerable increase in the number of tasks and targets of radio and radiotechnical reconnaissance in the zone of the front and adjacent sea spaces may lead to a dissipation of its efforts. In connection with this, it is necessary for the front staff to coordinate the matters of allocating tasks by targets and areas with the reconnaissance of the cooperating fleet and the formation (large unit) of the air defense forces of the country after having concentrated the main efforts of the front radio and radiotechnical reconnaissance units on the performance of tasks in support of the troops operating on the main axis, i.e., in the land sector. However, when the troops are performing tasks connected with the landing of an amphibious force and the conduct of antilanding defense, part of the forces and means can be activated to conduct reconnaissance of sea targets.

In this case it should be taken into account that the radio and radiotechnical reconnaissance units of the front may have no experience in reconnaissance of the naval forces of the enemy.

Therefore, before the start of the operation it is necessary to organize with the personnel of OSNAZ units a study of the reconnaissance indications of the communications systems and radar, radio navigation, and

radio control means of the enemy operating in the coastal waters.

Aerial reconnaissance, along with accomplishing general reconnaissance tasks, is capable of monitoring the status and nature of activity of objects of the enemy naval forces at sea as well as the activity of naval bases and ports.

However, the conduct of aerial reconnaissance of sea targets is bound up with definite difficulties in view of their mobility and the special characteristics of the sea surface which lacks reference points. Therefore, reconnaissance of these targets, particularly the determination of their coordinates, requires special reconnaissance equipment and training of personnel. In this connection, aerial reconnaissance of targets located on the open sea is usually organized by the forces of fleet reconnaissance aviation.

The efforts of front reconnaissance aviation should be concentrated on the land sector. At the same time, during the performance by front troops of tasks to take a straits zone, during the landing of amphibious forces, or during the organization of an antilanding defense, it is advisable to also call upon front reconnaissance aviation to conduct reconnaissance of sea targets located in coastal waters. This will to some extent free part of the fleet reconnaissance aviation to conduct reconnaissance on the open sea (ocean) at great distances from the coast.

Thus, aerial reconnaissance by front and fleet means can be conducted in the overall interest through independent actions and joint accomplishment of reconnaissance tasks in one and the same areas; for this it is necessary to organize close cooperation between them.

Radar reconnaissance in an operation on a coastal axis, along with detecting air and ground targets, accomplishes important tasks to detect sea targets. Used for these purposes from among the radar reconnaissance means of the front are the moving-target detection radar of the army and division artillery reconnaissance units and subunits. However, the most effective for reconnaissance of sea targets are the shore and shipboard radar means of the fleet. When organizing reconnaissance, the front staff, on the basis of the available radar means, must provide for the establishment of continuous radar coverage along the entire seacoast and for the possibility of increasing it during the operation.

Taking into account the possibility of the delivery of massed air strikes by the enemy against the troops and installations of the front with

the forces of carrier-based aviation, the front staff must maintain close cooperation and mutual warning with the fleet staff and the staff of the formation (large unit) of air defense forces of the country operating on the given axis, which are capable through their own means of strengthening radar reconnaissance in the direction of the sea and considerably enlarging the zone of air target detection.

Besides the types of reconnaissance of the front and of the forces cooperating with it that have been examined, in an operation on a coastal axis, seaborne reconnaissance (to be organized by the fleet staff) will be employed extensively; it performs a large volume of reconnaissance tasks and in individual instances is the most effective type of reconnaissance.

On behalf of the troops of the front, seaborne reconnaissance performs tasks to discover the nature of shore fortifications, minefields, and other enemy means which may impede the landing of amphibious forces, to detect enemy ship groupings -- including landing ship groupings -- in sea transit and determine their strength and destination, and also to support the landing of front special-purpose reconnaissance groups and agents on the enemy shore. The enumerated tasks on behalf of the fleet [sic] must be accomplished by seaborne reconnaissance in combination with other tasks.

Organization of reconnaissance. The conditions of conducting the operation under consideration and the nature of the operation substantially affect the content of reconnaissance planning in the front staff. Thus, whereas in an offensive operation under ordinary conditions reconnaissance is planned for the period of preparation and conduct of the operation by tasks (i.e., in support of the performance of the immediate and subsequent tasks to be accomplished by the front troops), in an operation on a coastal axis it is advisable to plan reconnaissance in addition by specific tasks which are accomplished by the front during performance of the overall combat tasks.

Thus, set apart as independent sections during the planning should be the reconnaissance tasks to be accomplished, for instance, in support of the seizure of a straits zone, to support the landing of an amphibious force, and in support of the organization and conduct of the antilanding defense of the coast, etc. Such planning will promote a more concrete selection of reconnaissance targets and a more expedient distribution of the efforts of forces and means.

One of the most important measures in planning reconnaissance is the organization of cooperation, since the proper coordination of the

reconnaissance efforts of the front and the other branches of the armed forces leads to more purposeful use of them and increases the mutual effectiveness and economical expenditure of forces and means.

The implementation of measures to organize cooperation must begin with a detailed study of the situation for the purposes of a common assessment of the condition and probable nature of actions of the enemy by all the cooperating staffs, which is achieved through the mutual exchange of reconnaissance information among them.

The second stage in organizing reconnaissance cooperation must be the mutual study of reconnaissance tasks by the representatives of the cooperating staffs. When this is done, the general tasks which are accomplished by the reconnaissance of all or several branches of the armed forces participating in the operation must be set apart; the tasks to be performed by the reconnaissance of one branch of the armed forces on behalf of another must be determined; and finally the independent specific tasks to be accomplished by reconnaissance only on behalf of its own branch of the armed forces must be specified.

In order to accomplish the tasks, it is necessary to determine the time limits for their performance, allocate reconnaissance targets, pinpoint the areas of joint actions, and calculate the necessary resources of reconnaissance forces and means.

In view of the fact that in an operation on a coastal axis the greatest number of reconnaissance tasks accomplished jointly will be handled by front and fleet reconnaissance, the closest cooperation is organized between them.

Here the efforts of fleet reconnaissance in support of the front operation are directed toward performing mainly the following tasks:

-- detection of enemy ship strike groupings destined for actions against the troops of the front and especially of the presence in them of missile/nuclear means;

-- surveillance of enemy sealifts to reinforce his coastal grouping;

-- discovery of the nature of the enemy antilanding defense in sectors of the planned landing of amphibious forces;

-- detection of the preparation and practical measures of the enemy to carry out amphibious landing operations on the flank or in the rear of the advancing grouping of the front;

-- surveillance of the nature of enemy actions to raise a blockade and evacuate groupings encircled or pressed to the sea.

In turn, front reconnaissance must perform the following tasks in support of the actions of fleet forces:

-- monitor the activity of naval bases, ports, and anchorage or shelter areas of enemy ships;

-- discover the system of enemy shore fortifications and fire means capable of opposing the fleet forces;

-- discover the nature of the defense of straits zones and the system of fortifications and obstacles in the straits;

-- monitor the work of the maritime navigational systems and radiotechnical means of the enemy on the axes of combat actions of the fleet forces.

In areas of the joint use of front and fleet reconnaissance forces and means, the staffs coordinate the methods of their actions and mutual identification and the procedure for exchanging information and transferring the targets detected from one type of reconnaissance to another.

Additionally coordinated are the areas of deployment and basing of the reconnaissance means of the front and the fleet as well as questions connected with support of the movement of reconnaissance subunits into the enemy rear on the ships of the fleet.

The cooperation of front and fleet reconnaissance organized in the period of preparation of the operation is constantly maintained during the entire operation.

SPECIAL CHARACTERISTICS OF THE ORGANIZATION AND CONDUCT OF RECONNAISSANCE IN MOUNTAIN AREAS

Having a substantial effect on the nature of a front offensive operation, the natural conditions of mountain areas also have no less effect on the nature of the enemy defense, and this must be taken into account first of all in the organization and conduct of reconnaissance.

An enemy defense in mountain areas is based on holding the lines of transportation, passes, and defiles in order to prevent the breakthrough of advancing troops over mountain passes to the depth and to hold vitally important areas of the country. The large units and units designated for the defense draw up battle formations in two or three, and sometimes even four, echelons. The defense is drawn up on the principle of creating separate strongpoints and defense areas, to the entire depth of a mountain pass, with the presence of long intervals covered by engineer-chemical obstacles and nuclear minefields.

Siting areas of missile/nuclear means in a defense in the mountains are selected predominantly in valleys, on mountain plateaus, or on the slopes of mountain ridges over roads. Reserves, especially the large units and units of armored troops, are situated on axes accessible for use of them.

On the basis of the conditions of mountain areas and the characteristics of the organization of the enemy defense, reconnaissance must, along with performing the usual tasks, determine:

-- the presence of strongpoints and centers of resistance in passes, before tunnels, and in narrow mountain passages;

-- the nature of the terrain, the existence and condition of roads and trails, and the possibility of using equipment off the roads;

-- the nature of obstacles and minefields, especially nuclear ones;

-- the condition and state of mountain rivers and the areas of possible landslides, rockslides, and avalanches;

-- the availability to the enemy of special mountain large units and units and the extent to which they are equipped for actions in the mountains;

-- the provision of the terrain with cableways and mountain lifts to deliver supply items to troops operating in difficult areas to reach.

The conditions of the conduct of an offensive operation in a mountain area have a substantial effect on the combat employment of the reconnaissance forces and means of the front.

For agent reconnaissance, the sparsity of population and the great remoteness of population centers in the mountains creates a difficulty in legalizing reconnaissance personnel in the needed areas.

The employment of special reconnaissance subunits in an operation in a mountain area is bound up with great difficulties. It is first of all necessary to keep in mind that in the mountains the enemy will more strongly guard not only important installations and groupings of troops but also road junctions, ravines, canyons, and commanding elevations -- everything that could be used by our reconnaissance to organize surveillance. Moreover, the employment of these subunits requires training the personnel in mountain climbing techniques of getting around and providing them with mountain gear and warm clothing.

The conduct of radio and radiotechnical reconnaissance in the mountains, particularly in the ultra-shortwave range, is greatly hindered as a consequence of the screening effect of the mountains. As a result, areas of considerable size beyond the mountain ranges may be outside the field of observation of radio and radiotechnical reconnaissance, and fixing and direction finding of the enemy radioelectronic means detected will be done with large errors. It is necessary to take these characteristics into account when selecting the deployment areas of radio and radiotechnical reconnaissance forces and means, to make more extensive use of these means in helicopters and aircraft, as well as to back up the performance of the tasks using other types of reconnaissance.

Aerial reconnaissance in mountain areas is conducted mainly along the roads, valleys, and ridges. The conduct of aerial reconnaissance in mountains is facilitated by the possibility of concealed approach of the reconnaissance aircraft to targets, since in a mountain area the enemy cannot set up continuous radar coverage. At the same time, the conduct of aerial reconnaissance in this area in hindered by the dense vegetation, long shadows from the mountain ridges, low cloud cover, and the persistence of fog in mountain valleys and canyons. Mountainous terrain relief sharply reduces the possibility of conducting aerial reconnaissance at low altitudes. All of this requires superior proficiency of the crews of

reconnaissance aircraft as well as the organization of close cooperation of aerial and other types of reconnaissance.

Of great importance in an offensive operation in a mountain area is engineer reconnaissance. The increase in the volume and importance of the tasks for reconnaissance of the terrain and detection of the location of various obstacles and minefields, particularly nuclear ones, requires the allocation of a considerably larger number of engineer reconnaissance forces and means than under ordinary conditions.

The conditions of a mountain theater greatly complicate the organization of stable communications with reconnaissance units and subunits, and this requires the front staff to set up auxiliary communications centers and relay posts, which must be deployed on commanding elevations. This in turn entails the additional allocation, for the needs of reconnaissance, of radios and means of transporting them (helicopters, all-terrain vehicles, etc.).

Thus, although reconnaissance in an offensive operation in a mountain area is organized and conducted in accordance with the same principles as in an ordinary operation, the special characteristics of the natural conditions have a substantial effect on the content and volume of reconnaissance tasks as well as on the combat employment of the reconnaissance forces and means of the front.

SPECIAL CHARACTERISTICS OF THE ORGANIZATION AND CONDUCT OF RECONNAISSANCE IN DESERT AREAS

A front offensive operation in a desert will be conducted predominantly for the purpose of defeating the enemy troops covering important economic areas, centers, and installations and of taking these areas, centers, and installations.

When this is done, the offensive of the attack groupings of the front will be carried out along separate isolated axes, as a result of which the spacial scope of the operation increases and, consequently, so does the area of conducting reconnaissance.

Together with this, certain characteristics of reconnaissance in a desert will accrue also from the nature of the enemy defense, the disposition of which under these conditions is assumed to be in a single

echelon on a wide front with the allocation of powerful mobile reserves.

The main efforts of reconnaissance in a front offensive operation in deserts must be concentrated on the axes of actions of the attack groupings of the troops. Along with performance of the usual tasks, particularly great importance should be attached to reconnaissance of population centers, oases, reservoirs, rivers, and areas well supplied with water, as well as to reconnaissance of the terrain from the standpoint of its passability.

When organizing reconnaissance in a desert, it is necessary to take into account the special characteristics of natural conditions which may both facilitate and complicate the conduct of reconnaissance. The level open terrain and the absence of natural hiding places and other shelters makes it hard for the enemy to camouflage troops from air and ground surveillance, and this facilitates the detection of his most important installations. Under these conditions the effectiveness of aerial reconnaissance is considerably increased, and the capabilities of radio reconnaissance in the ultra-shortwave range and of the means of radiotechnical and radar reconnaissance are expanded.

At the same time, the uniformity of the relief of desert areas and the paucity of recognizable landmarks hinder orientation and determination of target coordinates. With inadequate training of personnel, errors in the determination of distances in the case of visual observation may be as high as 50 percent of the distance. On particularly hot days, mirages and fluctuations of the heated air hinder and sometimes completely rule out the use of optical instruments.

Agents and special reconnaissance subunits should be used for surveillance of the movements, regroupings, and concentration and deployment areas of troops and means of nuclear attack of the enemy, and they should be infiltrated closer to oases, population centers, and road junctions.

When organizing the movement of special-purpose groups into the enemy rear, it is necessary to approach the question of their materiel support with special care. Considering the sharp temperature fluctuations in the desert, it is necessary to provide reconnaissance personnel with special outfits which do not confine their actions but at the same time serve as good protection at low temperatures as well as during storms and hurricanes.

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When planning the movement of the groups into the enemy rear, it is necessary to make sure to provide for the matters of setting up caches there with reserves of water and food supplies.

Although on the whole the capabilities of radio and radiotechnical reconnaissance in a desert area are greater than in other areas, frequent sand and dust storms greatly hinder radio intercept and produce much interference in direction finding of the detected targets. The high air temperature impairs the operation of radio reconnaissance equipment, and this is reflected in the accuracy of determining bearings and leads to an increase of errors in determining the location of radioelectronic means being reconnoitered.

All of this necessitates the careful preparation of radio reconnaissance equipment for operation under desert conditions and in particular the sealing of individual elements of it against the penetration of dust and sand.

Aerial reconnaissance in an offensive operation in the desert is capable of performing tasks with greater effectiveness to detect the presence and locations of means of nuclear attack, groupings of enemy ground and air forces, control posts, and rear services installations. The open nature of the terrain permits using not only manned aircraft but also reconnaissance drones. However, the small number and, at times, total lack of landmarks complicates the determination of target coordinates, even with aerial photographs. Therefore, it is necessary to create man-made reference points on the terrain in the enemy disposition through the detonation at certain places of aerial bombs with special coloring substances.

Although in most cases desert spaces are accessible to the traffic of combat equipment at any time of the year, with the exception of individual difficult areas to traverse (shifting sands, dunes, salt marshes, snowdrifts, etc.), the natural conditions of the desert may, unless proper measures are taken, seriously affect the performance of tasks by the organs of field, artillery, chemical, and other types of reconnaissance which use transport and combat equipment. In the hot season, vehicle engines overheat, their power drops, and in many cases equipment quickly breaks down. In strong winds and during sand and dust storms, mechanisms get clogged with sand and dust, equipment and weapons refuse to operate, vehicle drive trains quickly wear out, and POL consumption norms rise sharply. All of this requires special preparation of combat, reconnaissance, and transport equipment for actions in the sands, the

creation of additional mobile reserves of POL and water, and the performance of special preventive measures.

When organizing reconnaissance, it should also be taken into account that in case of going over to the use of nuclear weapons the area and duration of radioactive contamination under desert conditions increase considerably. Besides this, it must be kept in mind that desert areas are always unwholesome from the standpoint of sanitary-epidemiological conditions. In this connection, the organization and conduct of radiation, chemical, and biological reconnaissance at all levels acquire special importance in an offensive in the desert.

Thus, the natural conditions and the nature of an offensive operation conducted in a desert area have a substantial effect on the organization and conduct of reconnaissance and chiefly on the combat employment of the forces and means of all types of reconnaissance. This obliges staffs of all types to pay constant attention to the training of the personnel of reconnaissance subunits and preparation of the combat and reconnaissance equipment to conduct active reconnaissance under the adverse conditions of desert terrain.

SPECIAL CHARACTERISTICS OF THE ORGANIZATION AND CONDUCT OF RECONNAISSANCE IN NORTHERN AREAS

A front offensive operation in a northern area, depending on the overall plan of conduct of the war, may be an integral part of a strategic operation or be conducted independently.

In both the one case and the other, the main methods of conduct of troop combat actions in an operation are the delivery of deep, splitting, and flank strikes on several separate axes apart from one another with the extensive use of flanking detachments and various landing forces.

The choice of these methods is determined by the unique natural conditions of the area under consideration and by the nature of the enemy defense, which will most likely be drawn up along roads and axes accessible to troop actions and consist of a system of strongpoints and centers of resistance prepared for all-round defense and echeloned to a great depth.

Reconnaissance in support of an offensive operation under these conditions must be organized and conducted over the entire zone with

concentration of the main efforts on the axes of actions of the main attack groupings of front troops.

Along with the performance of tasks to discover the main groupings of troops and means of nuclear attack, reconnaissance must determine the characteristics of the organization of the enemy units and large units, the level of their provision with all-terrain, combat, and transport equipment, as well as the extent of training of the personnel for actions in northern areas; discover the nature of the enemy defense and its engineer preparation; and find out the characteristics of the terrain in the area of combat actions (determine the axes and sectors accessible to or hindering the employment of troops and combat equipment).

It is very important also to pay attention to reconnaissance of such important targets as areas where there are areas of exploitation of useful minerals having great military-economic importance, industrial centers, air and naval bases, airfields and ports, supply bases, stationary communications centers, and control posts. The detection and destruction of these targets may have more serious consequences for the enemy than on other axes of the theater, since restoration of them will be greatly impeded under the harsh conditions of the North.

The characteristics of natural conditions and the nature of combat actions of our own and enemy troops will have an effect on the combat employment of reconnaissance forces and means, and this will find reflection in the planning of reconnaissance and coordination of its efforts as well as in the preparation of personnel and combat, special, and transport equipment of the reconnaissance units and subunits.

It is preferable to infiltrate the special reconnaissance subunits to road junctions, population centers, ports, and naval bases, as well as into areas between lakes, i.e., the places where it is most likely that the means of nuclear attack and troops of the enemy will be located or through which they can relocate. More than anywhere in other areas, under northern conditions the special-purpose reconnaissance subunits, along with reconnaissance of enemy targets, must perform tasks to destroy them as well.

Definite difficulties will arise during the preparation of groups for actions in the enemy rear. They must be provided with food supplies and means of heating for the entire term of their stay and even with some reserve, which will naturally make the gear of the reconnaissance personnel heavier and restrict their moving about during the performance of tasks.

In connection with this, it is advisable to set up bases where the groups may take shelter and leave food supplies, ammunition, and other supply items.

The special-purpose reconnaissance groups (detachments) are moved in the same way as under ordinary conditions. At the same time, it is necessary to carefully think out the matters pertaining to providing the reconnaissance personnel with means of moving about during their actions in the enemy rear.

Radio, radiotechnical, and radar reconnaissance acquires very great importance under northern conditions, especially during the polar night and in the case of limited visibility, when the capabilities of other types of reconnaissance are sharply curtailed.

Their efforts must be directed toward discovering the combat strength of the opposing grouping of the enemy and finding out his intentions, particularly regarding the use of nuclear weapons. However, the natural and especially the climatic conditions of the North have a considerable effect on the nature of combat employment of radio, radiotechnical, and radar reconnaissance forces and means. Magnetic storms and polar auroras adversely affect radio reconnaissance. The frequent rains and snowfalls impair radar surveillance. Low temperatures, strong winds, and snow squalls complicate the work of personnel and require painstaking care of equipment. In organizing radio and radiotechnical reconnaissance, one should approach the selection of deployment sites of the reconnaissance subunits and organs as well as the selection of their relocation routes with special attention.

Aerial reconnaissance in an offensive operation in a northern area accomplishes the same tasks as under ordinary conditions. However, whereas under conditions of the polar day aerial reconnaissance accomplishes these tasks with even greater effectiveness than in other areas, during the polar night capabilities for visual observation and aerial photography diminish sharply, because of which the performance of some of the tasks must be compensated for by other types of reconnaissance.

Thus, the organization and conduct of reconnaissance in a front offensive operation on a coastal axis and in mountain, desert, and northern areas are substantially affected by the nature of combat actions of the troops and the natural conditions of these areas, and the timely and proper consideration of these promotes fuller utilization of the capabilities of the reconnaissance units and subunits and an increase of the effectiveness of reconnaissance under the concrete conditions of the situation.

CONCLUSION

In accordance with the plan of development of this work and its scope, the authors have set forth only the principles of organizing and conducting operational reconnaissance in support of the preparation and conduct of a front offensive operation beginning with the use of conventional means of destruction and subsequently going over to the use of nuclear weapons. Therefore, every chapter and even certain sections of chapters might be a topic of independent research of military science work.

The necessity of further developing questions of the theory and practice of reconnaissance is bound up first of all with the existence of a number of extremely complex and important problems pertaining to support of the preparation and conduct of modern front operations and, in the first place, to support of them from the reconnaissance standpoint.

In this connection, the authors in setting forth the material have, along with explaining the substance of the activity of the operational reconnaissance of the front in an offensive operation, endeavored also to reveal the essence of the main problems confronting it and, to the extent possible, determine the most expedient ways and courses of solving them.

In turn, the authors of the work direct the attention of all intelligence officers at the operational level to persistently seek out possibilities of further improving the forms and methods of organizing and conducting operational reconnaissance in support of the preparation and conduct of a front operation and, ultimately, in the interests of resolving the existing problems.

Occupying first place at the present time among the matters of organizing reconnaissance is the task of skilful planning of reconnaissance, precise determination of its tasks, and proper selection of the most effective forces, means, and methods of accomplishing them, with due regard for the nature of the targets to be destroyed and the conditions under which reconnaissance is to be conducted.

Stating the matter this way is connected with the fact that operational reconnaissance, on the basis of the views of the probable enemy on the methods of starting a war and the nature of the first operations in a theater of military operations, will be forced, in addition to performing tasks to support the combat actions of the front with the use of conventional means of destruction alone, to accomplish tasks in support of

the effective use at any moment of nuclear weapons. This in turn causes definite complications and difficulties in both the organization and conduct of reconnaissance.

It is very important to resolve the matter of increasing the effectiveness of reconnaissance on the eve of a war, when operational reconnaissance is conducted with limited forces and means, as well as during the transition to the use of nuclear weapons in the course of combat actions conducted with the use of conventional means.

A further, no less complex, problem pertains to the questions of organizing communications, which are the greatest bottleneck in the overall system of control of reconnaissance forces and means. At the present time, communications of the chiefs of intelligence of military districts (groups of forces) with the operational reconnaissance organs and units and, during war, with the reconnaissance organs operating in the enemy rear, are planned and carried out in many steps, through intermediate levels, and do not fully ensure continuity and stability in control of them, and, by the same token, hinder the transmission of urgent information within the required time limits.

The problem connected with accomplishing the task of ensuring timeliness in reporting the data obtained to the command has now acquired special importance. As the experience of exercises shows, with the presently existing work methods, reconnaissance data are delivered to the staffs concerned with great tardiness, and it is extremely risky to make decisions based on them, particularly decisions for the use of nuclear weapons.

Therefore, the task consists in seeing that reconnaissance information, above all information about indications of the immediate preparation of the enemy for an attack and about his intentions to employ weapons of mass destruction be transmitted to all command-staff levels concerned on a real time scale, i.e., at virtually the same moment that it is obtained.

In researching the problems pertaining to the support of front operations, the authors of the work consider it extremely important to particularly single out the problem of reconnaissance (final reconnaissance) of targets before delivery of the initial nuclear strike. On this plane, the interests of successful conduct of the front operation and, above all, of the employment of nuclear weapons, require a particularly attentive and creative approach to the choice of the most

efficient reconnaissance forces, means, and methods of their actions for reconnaissance (final reconnaissance) of the targets of destruction. On the whole, though, the solution of this problem must be based on the integrated use of operational reconnaissance forces and means and on close cooperation among them.

Also requiring further development are the matters of ensuring continuity of reconnaissance, of organizing and carrying out the simultaneous flight of reconnaissance aviation, of methods of assessing the enemy, etc.

The authors of the work consider that theoretical research and practical working out of the existing problems in the area of operational reconnaissance are an indispensable condition of its further development in the interests of ensuring the high level of combat readiness of our Armed Forces.