MEMORANDUM FOR: The Director, Defense Intelligence Agency

SUBJECT: Field Service Regulations of the Armed Forces of the USSR (Division-Corps)

Enclosed is a verbatim translation of the Field Service Regulations of the Armed Forces of the USSR (Division-Corps), published by the USSR Ministry of Defense in Moscow in 1959. This document supersedes both the 1949 issue of the same publication (CSDB-31680, 31 May 1955) and the 1954 atomic tactics manual (CSDB-37398, 3 May 1956). Additional copies of the enclosed document have been forwarded to your office through the normal channels.

FOR THE DEPUTY DIRECTOR, PLANS:

RICHARD HELMS

Enclosure

CSDB-3/648,642
FIELD SERVICE REGULATIONS
OF THE ARMED FORCES
OF THE UNION OF SSR'S
(DIVISION-CORPS)
SECRET

MINISTRY OF DEFENSE OF THE UNION OF SSR's

SECRET

(SEAL)

FIELD SERVICE REGULATIONS
OF THE ARMED FORCES
OF THE UNION OF SSR's

(DIVISION-CORPS)

MILITARY PRINTING OFFICE
OF THE
MINISTRY OF DEFENSE OF THE UNION OF SSR's
MOSCOW 1959
ORDER
OF THE MINISTRY OF DEFENSE OF THE USSR
No. 031

2 March 1959 MOSCOW

1. The Field Service Regulations of the Armed Forces of the
Union of SSR's (Division-Corps) are now in effect.

2. The Field Service Regulations of the Armed Forces of the
Union of SSR's (Corps-Division) of 1948 and the Manual on the
Characteristics of the Conduct of Combat Operations Under
Conditions of the Employment of Nuclear Weapons (Corps-Battalion)
of 1954 are herewith superseded.

Minister of Defense of the USSR
Marshal of the Soviet Union

R. Malinovskiy
The Field Service Regulations (Division-Corps) set forth the principles of modern combined-arms combat, and provide instructions on the preparation, organization and conduct of combat operations by a division and a corps. They also provide instructions on the employment of the arms of troops, aviation, and special troops in various kinds of combat operations and conditions of the situation.

Considering that none of the Soviet Government's persistent proposals for the prohibition of atomic weapons and other means of mass destruction has yet received due recognition, the Soviet Union, proceeding from the requirements of security, has been compelled to train its Armed Forces for operations under conditions of the employment of these weapons.

For this reason, the propositions set forth in the Regulations take into account the constant threat of the employment of atomic weapons and other means of mass destruction by the enemy. At the same time, the Regulations provide general propositions for the use of these weapons by our troops, when the special directive to do so is issued.

The propositions contained in the Regulations must be used in strict conformity with the situations which develop.
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Prepared under the supervision of General-Mayor Yesaulov, P. G. and Colonel Zlatoverov, B. S.
TRANSLATOR'S NOTE: The Table of Contents appeared at the end of the original text. Several terms used in the original Russian text do not have precise English equivalents. The following are some of these terms and an explanation of their treatment in translation:

a. Соединение, as used in the Soviet Army, refers to a corps, a division, or a brigade. The components may be of a single arm or of various arms and services. In this translation, the term соединение has been translated as "large unit".

b. Часть, as used in the Soviet Army, designates any unit of regimental or smaller size that is administratively self-contained and separately numbered, e.g., a rifle regiment, engineer battalion of a rifle division, or signal battalion. In this translation, the term часть has been translated as "unit".

c. Подразделение, as used in the Soviet Army, refers to a sub-unit of a часть. It is a unit which cannot be fully identified numerically except by reference to the larger unit of which it is a component, e.g., battalions, companies, and platoons of a rifle regiment; the battalions and batteries of an artillery regiment; the companies of an engineer or signal battalion. In this translation, the term подразделение has been translated as "sub-unit".

d. Объединение refers to a combined-arms large unit such as an army or front, and has been translated as "formation".

e. Направление refers to either the area or direction of military action, and has been translated both ways, or as "axis", depending on the context.

f. Рубеж refers to an area or line of disposition, and has been translated both ways, according to the context.

g. Силы и средства has been translated usually as "forces and weapons"; средства has also been translated as, "means", "resources", and "equipment", depending on the context.

h. Воиск has been rendered throughout as "troops" except in the phrase суходолюны воиск, which has been translated in the conventional manner as "ground forces".

In those cases where there was some question of the proper translation of a term, the original Russian is given in parentheses following the translation.
CHAPTER I

THE PRINCIPLES OF COMBINED ARMS COMBAT

1. THE CHARACTER OF MODERN COMBAT

1. Combat is the only way of achieving victory. Only combat can achieve the destruction of enemy forces and weapons and destroy his ability to resist.

All actions of every military leader ought to be inspired by the aspiration for victory. The decision to crush the enemy ought to be irrevocable and carried out to the end. A superior must instill this determination in all his subordinates.

2. Modern combat is combined-arms combat. It is characterized by the use of atomic weapons and other means of mass destruction, by the participation of large numbers of the ground forces with their varied combat equipment, missile weapons, aviation, and airborne troops, and by the increasing role of tanks. This permits inflicting surprise destructive blows on the enemy at great depth and attaining his defeat in a short period of time.

Atomic weapons, the great firepower and striking power of other means of combat, as well as great troop mobility, give modern combat the character of decisiveness and maneuverability. Combat operations develop irregularly along a broad front and in great depth with the formation of gaps between large units (units), creating conditions for initiative, independent, and swift actions, as well as the possibility of striking the flanks and rear of the enemy. The characteristics of modern combined-arms combat are sharp changes in the situation, rapidity of developments, continuity and intensity of combat operations, and a sharp struggle for the initiative and to win time.

3. Success in modern combat is achieved on the basis of close and continuous coordination by the combined strength of large units and units of the ground forces, the air forces, and, in coastal areas, the navy.

This coordination consists of the synchronization of atomic strikes, firing of all types, and the actions of troops in respect to target, place, and time, and in mutual support by the large units and units participating in a battle, to achieve the most successful accomplishment of the combat missions.

4. Modern battle demands of troops the skillful use of the full power of atomic weapons and other means of mass destruction, of combat and special equipment, a high degree of organization, straining of all moral and physical strength, combat solidarity, and the maintenance of constant combat readiness.
This is achieved by superior training, strict military discipline, conscientious fulfillment of military duties, steadfastness, bravery, courage, and the readiness of personnel to fight under any conditions for complete victory over the enemy in protection of the socialist Motherland, by the superiors' knowledge of their subordinates, attention to their daily combat life and needs, and by exacting a high degree of performance.

5. The offensive is the basic type of military operation. Only a decisive offensive carried out at high speed assures complete defeat of the enemy.

In those cases when an offensive is impossible or inadvisable, and also when it is necessary to support an offensive in other, more important directions, the troops go over to the defensive.

6. The constant threat of employment by the enemy of atomic weapons and other means of mass destruction, as well as his widespread employment of different air attack weapons, necessitate reliable protection of the troops from them. For this, the troops must carry out continuous reconnaissance and must quickly destroy the enemy's mass destruction weapons as soon as they are discovered; they must know how to disperse rapidly and stealthily, make maximum use of the protective features of the terrain, prepare cover in the shortest possible time, and engage enemy aircraft with all possible means in order to prevent their strikes.

7. Dispersal of troops does not alter the principle of concentration of the main forces and weapons in the most important directions. In modern battle, concentration is achieved first of all by the rapid concentration of the firepower of the troops, mainly the weapons of mass destruction. By the sudden and effective use of these weapons the balance of forces and weapons in a particular sector may change in one's own favor in the shortest period of time.

Troops must concentrate secretly and only at the time necessary to attain superiority while fulfilling their assigned missions. As soon as such a necessity passes, they must disperse rapidly so as not to give the enemy a suitable target for an atomic strike or for the employment of other weapons of mass destruction.

8. Stereotyped methods of conducting combat must not be used. Combat operations conducted according to a standard plan are detected quickly by the enemy and permit him to take appropriate measures.

As a rule, the most significant results are achieved by employing new and unexpected methods of conducting combat or attacks in directions where the enemy least expects them because of the conditions of a situation.
9. Success always comes to the side which is bold in battle, constantly shows initiative, seizes and holds it, and imposes its will on the enemy.

Initiative consists of trying to find the best methods of carrying out assigned missions, the utilization of a favorable turn of events, and the swiftest employment of expedient measures without waiting for orders from an immediate superior.

Blame is not deserved by the individual who, in endeavoring to destroy the enemy, did not achieve his goal, but by the one who, fearing responsibility, displayed inaction and failed to use all his forces and weapons at a favorable moment to attain success in combat.

10. Surprise is a factor of decisive significance in modern combat.

Surprise enables one to inflict great losses on the enemy and sharply reduce his combat efficiency, rapidly change the relation of forces, paralyzes his will, disorganizes troop control, and creates favorable conditions for the achievement of success in combat.

Surprise is achieved by deceiving the enemy concerning one's intentions, by keeping one's concept of an impending operation secret, by secrecy of preparation and rapidity of troop operations, by extensive use of the night for the conduct of combat operations, by the surprise employment of atomic weapons and other means of mass destruction, by concentrated air strikes and artillery fire, by striking swift blows where the enemy least expects them, and by using methods of conducting combat and new combat weapons which are unknown to the enemy.

The enemy will also strive to achieve surprise. Therefore, a high degree of vigilance, constant combat readiness and the ability to counter the enemy quickly, as well as timely and thorough support of the combat operations of the troops, are essential.

11. The proper and timely use of all available forces and weapons, particularly atomic weapons, requires commanders and staffs to study the enemy constantly and thoroughly. As first priority, they must discover the types of atomic weapons and where they are located, thereby calculating enemy intentions and forestalling his operations. This is achieved by good organization, constant conduct of reconnaissance, and by knowledge of the combat capabilities, organization, and tactics of the enemy.
12. Decisiveness, speed, and impetus of combat operations, combined with military cunning, are the most important conditions for achieving success in modern combat.

Decisiveness in combat operations is achieved by bold and energetic actions and initiative on the part of all troops, as well as by the unswerving will to destroy the enemy and fulfill assigned missions.

Speed and impetus of combat operations promote fuller exploitation of the results of the employment of atomic weapons and other means of destruction, the attainment of surprise, the seizure of the initiative, the forestalling of the enemy in the accomplishment of planned moves, and the fulfillment of combat missions with the least expenditure of manpower and weapons.

Hesitation and passivity in combat inevitably lead to defeat.

13. The conduct of uninterrupted, vigorous combat operations allows constant retention of the initiative and full exploitation of the results of surprise for the most rapid destruction of the enemy, while depriving him of time in which to organize resistance. This uninterrupted character of combat operations is achieved by constant strikes against the enemy with atomic weapons, missiles and aircraft, by fires of all weapons, by timely introduction of fresh forces into battle, and by the conduct of combat operations both by day and by night and in all kinds of weather.

14. Combat operations at night have particularly great significance under conditions of the use of atomic weapons and other means of mass destruction, when there is considerable air activity, and in the presence of technical means of reconnaissance. Night decreases the effectiveness of the enemy's use of reconnaissance, atomic weapons, aircraft, and combat equipment. It affords the opportunity to prepare secretly for combat operations, deliver surprise attacks, and accomplish missions with the smallest possible losses.

Combat operations at night demand particularly careful preparation and a thorough organization of the coordination of troops, skillful alternating of combat activity with rest periods, intelligence employment of the technical means of reconnaissance, observation, illumination, warning, and target identification, and the timely destruction and neutralization of the equivalent enemy equipment.

15. Maneuver on the battlefield is one of the most important factors in the achievement of success in combat.
Maneuver is employed to concentrate the efforts in a decisive sector, to shift them from one direction to another, to build up forces gradually for an attack against the enemy, and to withdraw friendly troops from under enemy attack.

Maneuver is executed by troops, weapons, and fires.

Maneuver of troops and weapons allows the creation of the most suitable grouping of troops, their placement in the best position in relation to the enemy in order to strike him a crushing blow or to counter his activities, and to disperse troops quickly to avoid losses from atomic weapons and other means of mass destruction.

Maneuver of fire consists of the distribution or successive massing (concentration) of fire against the most important enemy groupings and targets.

Maneuver must be simple in concept and must be well-timed, rapid, secretive, and unexpected by the enemy.

The basis of maneuver must be to seek to exploit promptly the results of the use of atomic weapons and other combat means and to avoid the destruction of friendly troops by these weapons when they are used by the enemy.

16. Rapid and decisive changes in the situation in modern combat and the great mobility of troops on the battlefield require of commanders and staffs high operational efficiency in their work. For this reason commanders (chiefs) must constantly know and properly evaluate the situation and foresee its changes, quickly influence the course of combat operations, make timely and bold decisions, and rapidly issue combat missions to subordinates by means of concise orders and instructions.

A commander's order must be executed precisely, on time, and with full exertion of strength.

17. The successful conduct of combat operations depends (to a large extent) on timely materiel, technical, and medical support for the troops under all conditions.

The frequent separation of troops by considerable distances from their supply bases in the course of combat, and the possibility that communications routes may be destroyed and supply and evacuation disrupted significantly increase the demands on the organization and work of the rear services.
2. MODERN WEAPONS OF COMBAT. THE ARMS OF TROOPS, THEIR CHARACTERISTICS, AND COMBAT FUNCTION

18. In modern combat the primary means of destruction is the atomic weapon. Other combat weapons and various types of combat equipment found in the armament of large units and units of the Armed Forces of the Union of SSR's also play an important role in the destruction and neutralization of the enemy.

In those cases where atomic weapons are not used or are used in limited quantities, the annihilation of the enemy is achieved by conventional means of destruction.

19. Atomic weapons, producing a powerful shock wave, a blinding flash, and penetrating radiation, as well as radioactive substances, are capable of inflicting heavy losses on men and combat equipment in a short time, of producing tremendous destruction of targets, of exerting a strong influence on the morale of troops, and of creating favorable conditions for achieving success in battle.

Atomic weapons can be used in all types of combat operations, both by day and night. For this purpose shells, mines, bombs, torpedoes, and missiles with atomic warheads are used. All other means of destruction used take into account the employment of atomic weapons.

20. Atomic weapons are used without warning and normally in the main direction simultaneously or successively in the entire depth of combat operations, in the first place against targets which are located in front of the troops and in the nearest depth, the destruction of which can have a decisive effect on the organization and nature of the troops' combat operations, as well as on the successful completion of their combat missions.

In the offense, atomic weapons afford the opportunity to destroy the enemy defense in its entire depth, to destroy or seriously damage his most important centers of resistance and his reserves, and to insure a rapid offensive of the troops at high speeds.

In the defense, atomic weapons afford the opportunity to disrupt the enemy offensive before he goes over to the attack or to weaken considerably the force of his blow, to inflict decisive destruction on an enemy which has penetrated in depth, and thus to raise the stability and vigor of the defense.

21. As a rule, atomic weapons are employed on the orders of superior commanders. In some cases, particularly in the course of combat, atomic weapons can be employed on orders of a division (corps) commander.
The choice of the method of employment of the atomic weapon, its yield, type, and height of burst depend on the importance of the target, its size, the nature of the operations and the degree of protection of the enemy troops intended for destruction and neutralization, the missions of one's own troops for whose benefit the atom weapon is to be employed, their safety, and characteristics of the terrain and weather.

Atomic air bursts are for delivering atomic strikes against enemy troops in the open, against targets without rigid structures, and in all cases when radioactive contamination of the terrain is inadvisable because of imminent operations in the area by friendly troops. The height of atomic bursts can be varied. A low air burst can cause dangerous radioactive contamination of the terrain in the vicinity of ground zero.

Surface atomic bursts are used against targets of strong construction and in those cases when, simultaneously with massive destruction of the enemy, it is necessary to cause heavy radioactive contamination of the terrain in the area of the explosion and along the path of movement of the radioactive cloud so that the enemy's presence and operations in these areas will be hindered for a considerable time.

When atomic weapons are used, it is essential to maintain a safe distance for friendly troops by taking into account the yield of the atomic weapon and the possible deviations of the ground zero of the bursts from the desired ground zero, and to organize troop notification and target designation and consider the meteorological conditions.

22. A chemical weapon is intended for the destruction and neutralization of enemy personnel and for the contamination of his equipment and terrain. As a rule it is employed at the order of a superior commander, suddenly, massively, and usually against objectives (targets) not destroyed by atomic weapons.

Choice of timing, methods of employment, and type of toxic agent depend on the assigned combat missions, the conditions of weather and terrain, and on the status of enemy troop protection.

23. Targets against which atomic and chemical weapons are used are selected at such distances that, at the moment of delivery of the attack, the safety of friendly troops is assured. In order for the troops to obtain the necessary protection, they must receive timely warning of the beginning of the delivery of strikes against the enemy. At the same time, signals must be prepared to call for a ceasefire or change of targets for these weapons, according to the changing conditions of a situation.

25. The ground forces are composed of the following arms of troops: infantry, tank troops, artillery and antiaircraft defense troops. Airborne troops are also included in the ground forces. For the support of the combat activity of the ground forces they also have organic special troops: engineer, chemical, signal, radiotechnical, motor transport, road, and others.

26. Infantry is the basis of motorized rifle and airborne large units and units, and is also organic to tank large units and units. With powerful weapons for the destruction of the men, firing means, and combat equipment of the enemy, and possessing rapid means of movement, the infantry can conduct prolonged and tenacious combat at any time of the day or year, in any weather and on any terrain, and also maneuver rapidly on the battlefield.

In cooperation with other arms of troops and aviation, the infantry is able to destroy a defending enemy, penetrate his defenses, seize territory, destroy an attacking enemy, and hold occupied positions firmly.

27. Tank troops are the basic striking force of the ground forces. They have great mobility, heavy firepower, and a greater ability than other arms of troops to withstand enemy atomic strikes.

The combat characteristics of tank troops allow them to exploit more quickly the results of the use of atomic weapons and other means of mass destruction, to penetrate prepared and hastily occupied defensive positions, to engage enemy tank groups, to exploit quickly successes already achieved, to execute broad maneuvers and in a short time establish a firm defense capable of resisting dependably the attacks of large enemy tank groups. The tank troops consist of tank large units, as well as tank units and sub-units which are organic to the motorized rifle large units and units and to airborne large units.

Tank large units and units are regarded as powerful mobile weapons and are employed intact for the most part.

The tank sub-units of motorized rifle units are normally attached to rifle sub-units for their close support and for reinforcing their antitank defense, but they can also operate independently.
28. Airborne troops are intended for combat operations in enemy rear areas. They are used in cooperation with other large units and units of the ground forces, aviation, and naval large units.

Airborne troops are capable of appearing unexpectedly and rapidly in enemy rear areas, of cooperating with their own troops in support of a high-speed offensive, and in encircling and destroying enemy groups, of disrupting enemy troop control and enemy rear area work, of destroying his weapons of mass destruction, and of providing aid and support to partisans.

29. Artillery is the main fire striking power of the ground forces. It possesses great firepower and firing range, and is also capable of extensive maneuver and sudden massing and concentration of fire in a short time throughout the depth of the enemy troop deployment. Using atomic and chemical charges, or ordinary loads, the artillery is able to inflict blows under any conditions, regardless of meteorological conditions, visibility, or the degree of antiaircraft defense of the target to be destroyed.

The artillery consists of large units, units, and sub-units of tube, rocket (reaktivnaya), and missile (raketnaya) artillery.

Tube artillery is divided into gun, howitzer, and tank-destroyer artillery and mortars, while rocket artillery is divided into light and heavy.

Tube and rocket artillery are used to destroy or neutralize enemy means of atomic attack, his manpower, tanks, artillery and other firepower means, radio-technical equipment, control centers, and other important targets, for the destruction of defensive works, and for disrupting enemy rear area work.

Missile artillery is a powerful means for destroying enemy troops throughout the depth of their deployment, as well as important objectives in the enemy rear area. It is used for the destruction and neutralization of the enemy's operational reserves, his means of atomic attack, aircraft on airfields, and for the destruction of railroad junctions, railheads (loading platforms), and other important targets, especially those with strong antiaircraft defense.

Artillery which is organizationally a component of armies, combined-arms large units, units, and sub-units comprises organic artillery (voyskovaya artilleriya).

Organic artillery is subdivided into battalion, regimental, divisional, corps, and army artillery.
Artillery which is not included in armies, combined-arms large units, units, and sub-units comprises separate artillery large units and units of the reserve of the Supreme High Command.

30. The troops of antiaircraft defense of the ground forces are used to protect the troops and important rear targets from enemy air strikes. They consist of large units, units, and sub-units of tube and missile antiaircraft artillery, radiotechnical, and other special units and sub-units.

The troops of antiaircraft defense, in cooperation with fighter aircraft or independently, are able to destroy aircraft and cruise missiles (krylataya raketa), neutralize the radiotechnical equipment of enemy aviation by jamming, perform radar reconnaissance, warn one's own forces, and combat enemy airborne landings.

On rare occasions tube antiaircraft artillery may be drawn into combat against enemy ground forces, particularly against tanks, and in coastal areas into engagements with enemy ships and amphibious landing craft.

31. Engineer troops are used to carry out the most complicated tasks of engineer support, which require special preparation and use of engineering equipment. Their tasks are: conducting engineer reconnaissance; making passages through obstacles and clearing terrain of mines; mechanizing work on field fortifications; erecting very complicated engineer structures; constructing obstacles and carrying out destruction of roads, bridges and other important objectives; building and maintaining routes for the movement of friendly troops; equipping and maintaining crossings during the forcing of water barriers; obtaining and purifying water and establishing water supply points; fulfilling the most complicated tasks in camouflaging troops and objectives; participating in clearing away the results of an enemy atomic strike. Engineer troops consist of engineer-sappers, engineer-road, engineer-site, ponton-bridge and other special large units, units, and sub-units which are an integral part of combined-arms and artillery units, large units and operational formations (operativnoye obyedineniye), and also of large units and units of engineer troops which constitute the reserve of the Supreme High Command.

32. Chemical troops are used for radiation and chemical reconnaissance, dosimetric checks, and sanitary treatment of personnel exposed to contamination by radioactive and toxic substances and bacteriological agents; degassing, decontaminating, and disinfecting weapons, combat equipment, transport, clothing, armaments, and other material items; degassing and disinfecting passages through contaminated areas; destroying the enemy with flame throwers; and providing smoke screens to cover troops and installations in the rear areas. They consist of units and sub-units of chemical defense, smoke, and flame-throwing units.
33. Signal troops are used for establishing and maintaining uninterrupted communications, which insures control of troops in all types of combat activity.

In addition, they can be called upon to jam the enemy's radio communications.

Signal troops consist of organic signal units and sub-units, signal units of operational formations, and also signal large units and units of the reserve of the Supreme High Command.

34. Radiotechnical troops are used to conduct radiotechnical reconnaissance of enemy air and ground targets and to report data about them to friendly troops, to jam the radiotechnical equipment of the enemy, and to ensure radio remote control (radioteleupravleniya). Radiotechnical troops consist of radiotechnical units and sub-units and are integral to the various arms of troops and special troops.

35. Motor transport troops are used for transporting troops, moving materiel, and for evacuation.

36. Road troops are used for repairing, rebuilding, and constructing military transport roads and bridges, for maintaining them in a passable state, and for performing traffic control duties on them.

37. The basic combined-arms tactical large units of the ground forces are the motorized rifle and tank divisions.

The motorized rifle division, in cooperation with other large units and units and with aviation, is capable of penetrating an enemy defense and of boldly developing an offensive in great depth, of rapidly executing maneuver on the battlefield, of conducting a pursuit and meeting engagement, of forcing a water barrier from the march, of conducting combat in an encirclement, of defending a section of terrain tenaciously, and of fulfilling other combat missions which arise in combat in various situations.

The tank division, possessing greater maneuverability and firepower, and less vulnerability to enemy atomic strikes than other large units, is capable of successfully fulfilling the same combat missions on terrain accessible to tanks as the motorized rifle division but at greater speeds, in great depth, separated from friendly troops, in cooperation with aircraft and airborne landings, of striking boldly at the enemy in a meeting engagement and in counterattacks (counterthrusts) in the defense of creating a strong defense in a short time, of seizing and holding advantageous lines, bases, and other important objectives, and of successfully
engaging in combat with enemy tank forces. It is employed primarily in the main directions to fulfill the most important missions connected with inflicting on the enemy powerful and deep strikes, particularly in the directions where atomic weapons are employed.

The heavy tank division is employed mainly for combat with enemy tank large units, but it may also be used for fulfilling other most important missions. With its great striking force and heavy firepower, it is capable of penetrating the march from lines occupied by the enemy in the depth of the defense, of repulsing counterattacks by enemy tank groups, of inflicting decisive destruction on his tank large units in a meeting engagement and in counterattacks in the defense, and of repelling an offensive by enemy tank groups. The heavy tank division is also capable, in cooperation with other large units, to break through the prepared defense of the enemy in the main direction. Depending on the tasks being fulfilled and the nature of the enemy's actions, especially of his tanks, tank and heavy tank divisions may be included in the first or second echelon of troops, or may be held in reserve.

38. The airborne division is the basic combined-arms operational-tactical large unit of the airborne troops. It is capable of seizing and holding important areas (objectives) in the enemy rear, of combatting enemy's reserves, and of cooperating in the encirclement of his operational groupings. It is capable of seizing mountain passes and beachheads on rivers and seacoasts, can disrupt enemy troop control and the work of the enemy rear area, seize airfields, support the landing of troops in the enemy rear area, and destroy his means of mass destruction.

39. The army corps is a combined-arms operational-tactical large unit. It is intended to carry out tasks in independent directions. The army corps consists of several motorized rifle divisions, corps artillery, and units (sub-units) of special troops. In certain cases, depending on the situation and feasible tasks, an army corps may include a tank division and other large units (units).

In cooperation with adjacent units, artillery and aviation, the army corps is capable of penetrating the enemy defense and of developing an offensive in great depth, or surrounding and destroying the enemy, of inflicting decisive destruction on him in a meeting engagement, of tenaciously defending an area, and of repulsing massed enemy attacks.

40. Depending on the assigned missions and on the situation, combined-arms large units may be reinforced with large units and units (sub-units) of different arms of troops and special troops which are attached to them or support them in carrying out assigned missions.
Attached large units and units are subordinate to the division (corps) commander and execute all of his orders.

Supporting large units and units, remaining subordinate to their own commander, execute the combat missions assigned by the commander of the division (corps) which they are supporting.

41. Air forces are capable of executing powerful and sudden strikes in great depth, of inflicting severe losses on enemy aviation and troops, of preventing the arrival of fresh forces and reserves on the battlefield, of destroying airborne landings by the enemy, and of protecting friendly troops from enemy air strikes.

One of the most important missions of the air forces is the discovery and destruction of the enemy's atomic weapons and other means of mass destruction.

The air forces include tactical, long-range, and military-transport aviation.

Tactical aviation (frontovaya aviatsiya) is used for joint combat operations with the ground forces and for fulfilling independent missions. It can also be used for joint operations with the navy.

Long-range aviation is used for independent operations to strike powerful blows against military and industrial objectives in the enemy rear. In certain instances, large units of long-range aviation may be employed for joint operations with the ground forces and with the navy.

Military transport aviation is used for dropping troops in the enemy rear, and for transporting troops and various cargo.

42. The air forces are divided according to function, performance data, and armament into the following arms of aviation: bomber, fighter, fighter-bomber, reconnaissance, and support. In addition, missile units of the air forces are organic to tactical aviation.

On behalf of the ground forces and according to the plan of the superior commander, aviation may carry out the following missions:

- Bomber — Destroy enemy atomic weapons and other means of mass destruction, destroy or neutralize his aviation, missile launchers, troops and radiotechnical equipment, destroy engineer field fortifications, disrupt maneuver of troops and various kinds of transport, destroy air and sea landings in the
landing zones and drop zones (debarkation areas), destroy various targets in the enemy rear, disrupt troop control and rear area work, and conduct aerial reconnaissance.

- **Fighter** -- Screen friendly troops and important installations from air strikes, destroying enemy aircraft and pilotless means of air attack, support combat operations of other arms of aviation, and in certain instances destroy unprotected targets located in depth which have not been destroyed by the ground forces; in addition, fighter aircraft of a front may be brought in for support of friendly troops on the battlefield and for conducting aerial reconnaissance.

- **Fighter-bomber** -- Destroy or neutralize enemy troops deployed in the open, combat equipment in strong points, and isolated centers of enemy resistance, his atomic artillery, missile launchers, means of air attack, radar stations, ammunition stations, and control centers. In addition, they intercept entry of enemy troops onto the battlefield, and may conduct aerial reconnaissance.

- **Reconnaissance** -- Conduct aerial reconnaissance of the enemy and terrain. As part of reconnaissance aviation, artillery-spotting aircraft conduct aerial reconnaissance of targets and adjust artillery fire.

- **Support** -- Maintain liaison, transport sick and wounded, and carry out other tasks.

- **Missile units** of the air forces fulfill the same missions on behalf of the ground forces as bomber and fighter-bomber aviation, striking at the most important, mainly fixed, enemy objectives which have strong antiaircraft defense.

43. The navy consists of submarines, aircraft, surface ships, and coastal artillery. Additionally, the navy has integral large units and units of antiaircraft defense and special troops.

The large units and units of the navy may execute the following missions on behalf of the ground forces and in cooperation with them and with aviation:

- Destroy enemy warships at sea in order to prevent them from striking against troops and other objectives deployed on the coast.

- Destroy enemy transports and landing craft together with their troops and combat equipment.
- Debark amphibious forces, and also reconnaissance groups, on the enemy coast.
- Carry out strikes against objectives situated on the enemy coast.
- Lay mine barriers in the approaches to a defended coast.
- Conduct reconnaissance of the naval enemy in the interest of troops operating on the coast.
- Carry out the transporting of troops and the supply and evacuation of materiel by sea.

44. The troops of antiaircraft defense of the country are used for the defense from enemy air strikes of the most important areas and installations on the territory of the country. They are capable of destroying enemy aircraft in the air, neutralizing his radiotechnical equipment by means of jamming, and destroying airborne forces. Large units and units of the antiaircraft defense of the country may be called upon for the defense of important installations of a front and a fleet.

The troops of antiaircraft defense of the country consist of large units and units of fighter aviation, missile and tube antiaircraft artillery, radiotechnical large units and units, and special units and sub-units.

3. ORGANIZATION OF TROOPS

45. Troops operate in combat, approach march, and march formations.

Combat formation -- a grouping of forces and weapons, formed for the conduct of a battle. It must be appropriate to the concept of the impending battle and must ensure: the infliction of decisive destruction on the enemy in the entire depth of his combat set-up; the rapid exploitation of the results of the use of atomic weapons and other means of destruction, as well as firepower of all kinds, on enemy troops; the best employment of friendly troops in accordance with their combat capabilities; the intensification of the force of strikes in the course of combat and in executing maneuvers; stability and aggressiveness in defense; the least vulnerability of troops to atomic weapons and other means of destruction; and the best utilization of terrain.
46. The combat formation of a division and a corps consists of one or two echelons, artillery groups, reserves, and a mobile obstacle-placing detachment; and in defense, besides these, antitank areas. The combat formation of a division also includes a forward detachment and an airborne force, if their employment is anticipated.

The number, strength, and composition of the echelons, of the artillery groups, and of the reserves are determined by the tasks and by the situation, and also by the method of employment of atomic weapons and other means of mass destruction.

47. Artillery, detached during combat to execute missions on behalf of units or large units and unified under centralized control, constitutes an artillery group.

Artillery groups are formed from organic and attached artillery. Regimental and battalion artillery are not included in the composition of an artillery group. A sub-unit of artillery spotting aircraft (helicopters) may be attached to artillery groups for reconnaissance of targets and adjustment of fire.

Artillery groups are intended for:

- **Regimental** — for the fulfillment of missions directly in the interests of a regiment and for combatting enemy mortars;

- **Divisional** — for reinforcing the firepower of divisional artillery, combating enemy artillery batteries, destroying enemy atomic artillery, neutralizing his reserves, disrupting control and the work of the enemy rear, supporting commitment of the second echelons (reserves) into combat, and for fulfilling other missions as they occur.

Regimental and divisional artillery groups are created by the decision of the division commander, and corps and army — correspondingly on the decision of the corps and army commanders.

Corps and army artillery groups may be divided into sub-groups according to the number of divisions (corps) of the first echelon of the corps (army), operating in the main direction.

Artillery units and sub-units, employing atomic ammunition, are combined within a corps (army) into a special artillery group. Sub-units of this artillery may be attached to divisions.

As a rule, for protection of troops and important installations from air attacks, both in offense and in defense, divisional, corps, and army antiaircraft artillery groups are formed.
These antiaircraft artillery groups are not divided into sub-groups.

A grouping of antiaircraft artillery is formed with due regard for the most reliable protection of the main groupings of troops and the most important targets.

A divisional antiaircraft artillery group is intended for protection of the main forces of the division.

A corps antiaircraft artillery group is intended for increasing the protection of the main grouping of troops of the corps, and also for the protection of reserves, control centers, and other important objectives within the corps.

Army antiaircraft artillery groups are intended for increasing the protection of the main groupings of troops of the army and for protecting the most important objectives of army significance.

48. Divisional (corps) reserves are created for executing missions which arise unexpectedly, for restoring decimated combat formations which have been subjected to enemy atomic strikes, and for reinforcing troops engaged in combat. Reserves may be combined-arms, antitank, and special (engineer, chemical, signal, and others).

The combined-arms reserve is usually formed from motorized rifle or tank sub-units (units) and may be reinforced by sub-units of the different arms of troops and special troops.

The antitank reserve is formed from units (sub-units) of tank-destroyer artillery, tank sub-units, and other antitank means. It may be reinforced by engineer sub-units and flame-thrower sub-units.

The special reserves are formed from engineer and chemical troop sub-units (small units), and from other special troops when required, and are provided with the necessary means.

Reserves which are expended are, as a rule, reconstituted.

49. The mobile obstacle-placing detachment is formed from engineer troop sub-units and is intended for the construction of obstacles in the directions of the attack (counterattack) of enemy tanks, and also is employed for protecting with obstacles the gaps and flanks of the troops, lines of deployment, and positions seized by the troops during the course of battle.
50. The approach march formation is a grouping of forces and weapons deployed along the front and in depth with the aim of rapid evolution into a combat formation with the least vulnerability to artillery fire and air strikes, and attainment of more rapid movement of troops.

In approach march formation, troops move in columns of sub-units together with their reinforcements. At the same time, the forward sub-units, or part of them, may be deployed in combat formation.

51. To execute a march troops adopt march formations.

The march formation consists of columns. It must ensure: rapid evolution into approach march and combat formation; conduct of maneuver for gaining the enemy flank and rear; protection of the troops from atomic weapons and other means of mass destruction, and the accomplishment of other combat security measures; conservation of personnel strength, combat equipment, and transport during the march; and maintenance of firm and uninterrupted control.

52. For the preparation of routes during the movement of troops, march security detachments are formed. They usually contain engineer-road sub-units, which may be reinforced by rifle (tank) sub-units and chemical troop sub-units with equipment for reconnaissance, degassing, and decontamination of terrain.
53. Troop control embraces all activities of commanders and staffs in directing the preparation and conduct of combat operations. It includes the maintenance of constant combat readiness and of a high political and morale level of troops, the timely assignment of missions to subordinates, the organization and maintenance of uninterrupted coordination and thorough support of troop operations, and control over the fulfillment of orders and instructions issued to them.

Troop control must ensure: the secrecy of preparations and the surprise of attacks against the enemy; the effective use of all modern means of destruction; the retention of the initiative; a high degree of troop maneuverability; and the timely accomplishment of measures to protect troops from enemy atomic weapons and other means of mass destruction.

A correct understanding of the situation, the anticipation of changes in it, and a high degree of efficiency in the work of commanders and staffs, are mandatory conditions for ensuring successful troop control.

54. Troop control must be uninterrupted, firm, and flexible.

Uninterrupted control is ensured by continuous communications with subordinates and with the senior commander; by dispersed distribution of the staff at several simultaneously operating control points; by their timely movement in the course of combat; by the speedy transfer of troop control from one control point to another when necessary; by timely reports from lower to higher levels, and by a constant flow of information from higher to lower levels and to adjacent units about the facts of the situation.

Firmness of control lies in the persistent implementation of decisions to assure an exact and complete fulfillment of combat missions.

Flexibility of control is evidenced by a constant knowledge of the situation and by timely reaction to changes; by defining more accurately a previously adopted decision; or by making new decisions in accordance with these changes.

In the event of an abrupt change in the situation, when there is no possibility of receiving orders in time, a commander must assume the responsibility himself and make a new decision on his own initiative. He must then report this decision to his immediate superior and inform the adjacent units.
At all times a commander must know where the troops under his command are, what they are doing, and what they require, and he must influence the course of the battle with the forces and resources at his disposal without waiting for requests from his subordinate commanders.

55. The commander of a division (corps) bears full responsibility for the successful fulfillment by the troops of combat missions. He directs the troops personally and through his staff, keeping his chief of staff informed about the orders which he has given directly to the troops and also about his plans and intentions.

Personal contact between the commander and his subordinates is of paramount importance. It is particularly necessary during the preparation of combat operations and in combat when abrupt changes in the situation occur. At decisive moments in the battle the commander must drive out to his subordinates who are operating in the most critical directions in order to assist them.

56. The staff of a division (corps) has the responsible role in organizing and maintaining troop control. It must continuously study and carefully analyze the situation and supply the commander with information necessary for a timely decision; quickly transmit combat tasks to the troops; devise and implement measures for coordinated troop action; and for combat security; organize control points, uninterrupted communications, and the commandant's service (komendantskaya služba); and verify in time that the troops are carrying out the assigned tasks and give them the necessary assistance.

The chief of staff of a division (corps) is the deputy to the commander. He alone has the right to issue orders in the commander’s name.

The chief of staff has the responsibility for the organization and maintenance of uninterrupted troop control. In order to achieve this he must coordinate and control the work of the staffs of the arms of troops, of the rear, and of the chiefs of special troops and services.

The chief of staff must always be ready to report on the situation to the commander as the latter requires, or, as the need arises, with his conclusions and recommendations regarding it.

57. The basis of troop control is the decision of the commander.

A decision is reached in determining:

- the plan of operations: which enemy to destroy and in what sequence, the direction of concentration of the
main forces of troops, the organization of large unit combat formations, and the nature of the maneuvering of the troops and weapons;

- the targets to be destroyed by atomic weapons and the order of their employment;

- the combat missions of subordinate and supporting units (large units);

- the order of troop coordination and control of them during the fulfillment of assigned missions.

In order to support troop combat operations the division (corps) commander plans measures for combat, engineer, materiel, technical, and medical support; measures for ensuring secrecy and surprise in troop combat operations; and measures for the organization of political work.

58. Before making a decision the commander must size-up the mission received, evaluate the situation, and anticipate its possible changes.

In sizing up an assigned mission a commander must understand the intention of his superior officer, the sequence of employment by him of atomic weapons and other means of mass destruction and what influence these weapons may have on the fulfillment of the division (corps) combat missions, and the place and role of his own large unit in the mission to be accomplished by the next higher large unit (formation).

After he has understood the mission, the commander determines the measures which must be carried out immediately, ascertains the time available, and, in order to give the troops as much time as possible to prepare for the forthcoming operations, he issues the necessary preliminary orders.

When evaluating the situation a commander studies:

- the composition, condition, dispositions, and the possible character of enemy operations, and, as top priority, the disposition and likely possibilities of employment of atomic weapons by the enemy; the most important targets and objectives in the enemy dispositions to be destroyed by atomic weapons and other means; and also that portion of his grouping which, if destroyed, would seriously reduce enemy combat capabilities;

- the location, condition, security, and capability of friendly troops to carry out assigned missions;

- the location, nature of operations, and missions of adjacent units;
- the characteristics of the terrain: relief, passability, conditions for observation, presence of obstacles and the defensive characteristics of the area; the effect of the terrain on the use of atomic weapons and other means of mass destruction; and also the possible changes in its characteristics as a result of atomic weapons employment.

Additionally, in evaluating the situation, a commander must take into consideration the economic conditions of the area of operations; the social-political composition of the population and its attitude; and also the weather conditions, the time of day and year, and their influence on troop operations.

In studying the situation, a commander establishes which measures must be put into effect to eliminate circumstances hampering the accomplishment of the mission, or to lessen their negative influences.

Incomplete information about the situation does not free a commander from the responsibility of making a prompt decision.

The commander of a large unit usually makes his decision on the basis of a map.

If time is available, reconnaissance is conducted for the purpose of determining more accurately on the spot the information on the situation or on the decision reached on the basis of the map.

All work of a commander and his staff in working out a decision, and the organization of combat operations, is carried out under conditions of strictest secrecy.

A commander familiarizes the following persons with the assigned mission and with his decision: his deputies, the chiefs of arms of troops and of special troops and services, and, on a need-to-know basis, the staff officers.

59. In accordance with the commander's decision and orders, the staff develops and effects measures concerning the coordination of troops, the organization of combat support, the commandant's service, control points, and communications points.

Chiefs of arms of troops and of special troops, the deputy commander for the rear, and chiefs of services, plan and organize the accomplishment, by large units (units, sub-units) of their own arms of troops (special troops, rear services), of missions assigned by the division (corps) commander, as well as measures related to their own services, and implemented by all troops of the division (corps).
Measures formulated by the chiefs of arms of troops, special troops, and services, and the deputy commander of a large unit for the rear area, to insure fulfillment of the commander's decision, are coordinated with the division (corps) chief of staff and are approved by the commander.

60. The commander of a division (corps) assigns combat missions to the commanders of subordinate, attached, and supporting units (large units) by means of combat orders and combat instructions.

The combat order is issued briefly and clearly and usually contains:

- a short evaluation of the enemy's groupings and activities;
- the combat mission of the division (corps) and the commander's plan;
- the missions adjacent units and the boundaries with them;
- the sequence of employing atomic weapons and other weapons of mass destruction in the interests of the division (corps);
- the combat missions for subordinate units (large units), with details of their reinforcements and support and of their boundaries;
- the missions of artillery and special troops;
- the missions of air defense troops;
- the missions of aviation, if it has been allocated for support of the division (corps) operations;
- the time of troop readiness;
- the locations of command posts, the time of their deployment and the direction of their movement.

In every case, the sequence in which the order is prepared depends on the situation.

A combat order is given in written form. In cases where an order is given verbally it should be noted down or plotted on a map with a legend and distributed to the units (large units). In either case there should be the barest minimum of time lost between the issuance of an order and its delivery to those who execute it.
During combat, depending on the situation, combat missions are assigned or made more exact by the commander personally by visits (flights) to his subordinates, and also by combat instructions transmitted by staff officers or via communications systems.

Combat instructions contain only the combat mission and information necessary for the commander to whom they are addressed. If necessary, to assure coordination, combat instructions may contain the sequence for fulfilling assigned missions as well as missions of neighboring units.

Missions concerning combat, engineer, materiel, technical, and medical support, the organization of communications, the secrecy of preparation and surprise in combat operations, as well as missions for political work, are transmitted to the troops by separate directives and instructions.

61. When assigning missions for artillery which employs atomic charges, the division (corps) commander indicates the targets to be destroyed, the yield of the atomic charges, the type and height of burst, the area of the firing positions, and the time to be ready to open fire.

In determining how much preparation time is required for artillery to open fire, it is necessary to take into consideration the time needed for preparing (arming) atomic charges for combat employment.

62. The most important responsibility of the commander and the staff in control of troops is the organization and maintenance of uninterrupted coordination. It is organized in the interests of large units (units) executing the main tasks in combat.

The commander organizes troop coordination immediately after the assignment of combat missions. Later on, depending on the availability of time and other conditions, coordination can be refined in greater detail on the ground, on relief plans, and on maps.

Coordination is achieved by:

- common understanding of the aims of combat operations and a knowledge of combat missions and the methods of accomplishing them;
- continuous knowledge of the situation;
- uninterrupted communications and continuous mutual information;
- a common system of orientation, knowledge and appropriate use of established signals, and also timely plotting of the lines occupied by the troops;
- a mutually advantageous deployment of troops and the rendering of mutual support and aid during combat;

- continuous leadership of the troops and supervision of their fulfillment of combat missions.

In organizing coordination, consideration must be given to: the organization of communications between the coordinated troops; the assignment of signals for target designation, requesting, shifting and cessation of fire, and identifying and indicating troop positions; and the method of requesting aviation allotted for support.

Coordination is maintained by all commanders and staffs throughout combat. Disrupted coordination must be reestablished immediately.

The method established for coordination is set forth on a coordination planning table or presented graphically on a map (chart).

63. Supervision of the preparation of troops for combat, and of all their actions during combat, must be timely; it must aim at anticipating and eliminating shortcomings in the actions of subordinate troops and at the accurate fulfillment of assigned missions.

Not one deviation from the fulfillment of a given order may be permitted to pass unheeded, if the deviation threatens to disrupt the fulfillment of the combat mission in the designated time; if it adversely affects the operations of adjacent units; or if it interferes with the supplying of troops with all the necessities for combat.

The best method of control is by personal visits (flights) directly to the troops by the commander, his deputies, and officers of the staff and services.

The exercising of control must not take the form of petty interference and must not create any nervousness among subordinates, particularly during combat.

64. For troop control purposes, in a division (corps) there are usually organized a command post, a forward command post, and a control point for the rear.

The command post (KP) (komandnyy punkt) is the basic center of control. It is set up in a place which assures uninterrupted troop control and which affords concealment for personnel and equipment.

The command post usually has the staff of the large unit, the staff of artillery, and the political section, without their sections (departments), and personnel concerned with records and replacements.
The chief of staff of the large unit is in charge of the command post.

The forward command post (PKP) (peredovoy komandnyy punkt) is set up to assure the commander of troop control during combat in the main direction. It should be situated in such a place or moved to such a distance from the troops of the first echelon as to enable the commander to be near his troops, to influence the course of combat quickly and, if possible, to see the actions of the troops.

The forward command post must be highly mobile and it must have a small complement which can be changed as the situation demands. With the division (corps) commander at the forward command post are the officers and communication equipment which he needs to organize combat operations and troop control.

The Rear Area Control Point (TPU) (tylovoy punkt upravleniya) is organized for the direction of the rear of a large unit in a place from which uninterrupted control over rear units and sub-units can be ensured, and where there are stable communications with the commander and the staff. At the rear area command point usually are located the deputy commander of the large unit for the rear together with officers directly subordinated to him, the technical service, the artillery supply service, and sections (departments) of division (corps) staff and control which are integral parts of other control points. The large unit newspaper editorial staff and printing press and an officer of the political department with Party and Komsomol records, are located in the area of the rear area control point.

The rear area control point is under the direction of the large-unit deputy commander for the rear.

65. Communications centers which ensure stable communications between control points, with subordinate and coordinated troops, and with the higher commander and his staff, are established at the control points.

Control points must be situated in concealed places and must be carefully camouflaged. In addition, both in defense and in departure areas for the offensive, as a rule reserve sites which could be used, if the situation warrants, for the transfer of control points, are prepared and equipped from the engineering standpoint.

66. The location, time, direction, and sequence of displacement of control points usually are determined by the large unit commander.

Movement of control points occurs, as a rule, successively, without waiting for the completion of engineer improvements of the new sites. Displacement of a command post is usually made on the decision of the next higher staff.
The next higher commander and staff are informed of the displacement of a forward command post and command post.

During the displacement of control points it is necessary to ensure uninterrupted control over subordinate troops and uninterrupted communications with the next higher commander and his staff. In such cases, when the division commander himself is on the move, he maintains troop control directly from the armored carrier (tank, car) equipped with communications equipment.

67. Communications -- the basic means of ensuring troop control in battle.

The timely organization and maintenance of uninterrupted communications with subordinate and coordinated troops, and also the transmission to them of warning signals concerning enemy aircraft, the danger of an enemy atomic attack, or chemical attack are major responsibilities of the commander and the staff.

68. To ensure troop control, radio, radio relay, wire, mobile and signaling means of communications, and television, are used.

Depending on the given conditions, those means of communications are used which have characteristics capable of ensuring troop control more completely. The multiple employment in each direction of the various means of communications is the best method of ensuring uninterrupted communications.

Radio and radio-relay means are the basic means of communications during combat. Particular attention should be given to the organization and protection of radio and radio-relay communications and to protecting them from enemy jamming. Radio sets must always be with the commander and the chief of staff. All commanders (chiefs) must know how to converse by radio.

Wire communications are usually used in defense, in departure positions for an offensive, in deploying troops at a halt, and also for internal communications at control points.

Television is used to assure observation of the battlefield in the most important directions, and to transmit pictures of military documents and maps.

Mobile and signaling means of communication are widely used in all types of troop combat operations. If necessary, according to the commander's decision, combat tanks, armored personnel carriers, and helicopters (airplanes) may be used as mobile communication means.
In order to ensure the timely delivery of battle orders, instructions, and official packages to their addresses, staff officers and message center personnel use vehicles with special identification markings which give them priority on all roads and the right to pass columns.

69. To establish communications, radio-radio-relay, and mobile means, are allocated both by the next higher staff, and by the staffs of subordinate and coordinated large units (units); wire lines are allocated by the next higher staff.

In all circumstances the possibility of maintaining communications with the next lower echelon of command must be provided for.

If communications with the next higher commander (chief) and staff are lost, the subordinate is responsible for taking measures to reestablish them.

Communications between control points of coordinated troops are established on the order of the commander (staff) in charge of organizing the coordination.

The responsibility for the establishment of communications between coordinated large units (units), as a rule, is entrusted:

--for communications along the front, to the unit adjacent on the right;

--for communications from the rear to the front, to the commander (staff) of the large unit (unit) in the second echelon (reserve) or in the rear area;

--for communications between the commander (staff) of a combined-arms large unit and the commanders (staffs) of large units (units) of the arms of troops and special troops coordinated with him, to the commanders (staffs) of the large units (units) of the arms of troops and special troops.

In the absence of instructions or in the event of loss of communications, the commanders (staffs) of coordinated large units (units) must immediately take measures to establish communications between themselves.

Communications of large units of the ground forces with aviation are established through operational groups of the air army, and also through the commanders of aviation large units (units) or their representatives and aviation control and target designation officers who are attached with their radio equipment to the control points of combined-arms large units of the ground forces.
Communications of large units of ground forces with large units (units) of the navy are established with the equipment of each of the coordinated large units (units), and also through naval representatives who are attached with their radio equipment to control points of the troops coordinated with them. Wire communications on shore are established with the equipment of the large units of the ground forces.

70. The method of utilizing the means of communications in combat is determined by the commander (chief of staff) depending on the situation and the orders of the next higher staff.

During preparation for combat operations the existing operating conditions of radio and radio-relay stations are maintained, and newly arrived troops are forbidden radio and radio-relay transmissions before their commitment into combat. The use of radio communications for fire control of anti-aircraft artillery and for communications with reconnaissance units is not restricted.

The transmission of warning signals about enemy aviation or the danger of an atomic or chemical attack is conducted on a priority basis with all available means of communications.

71. The observance of the rules of coded communications and the strict restriction of the number of people using technical means of communications are obligatory in all aspects of troop combat activity.

In the interests of achieving secrecy during preparation for combat operations and of achieving surprise in a strike against the enemy, it is forbidden to use communications facilities for conversations and transmissions by technical means of communications concerning the organization of troop combat operations and preparations for the use of atomic weapons and other means of mass destruction. Essential instructions on these subjects are transmitted, as a rule, at personal meetings or through staff officers, and in the event of extreme urgency -- by cypher or by the use of special equipment.

The transmission of messages in clear text over radio and radio-relay facilities is permitted:

--in units and sub-units of all arms of troops and of special troops for transmitting commands, instructions, and reports in combat;

--in the division, during the course of a battle, for the transmission of separate instructions on order of the division commander when the situation is such that the use of coded communications could cause a delay in the delivery of instructions or reports;

--for warnings of enemy aircraft and the danger of enemy atomic or chemical attack.
In all cases of clear text transmissions, it is mandatory to encode the number and designations of units, the positions and last names of commanders, and areas and terrain points.

72. The commandant’s service is organized in all types of troop combat activity to ensure the timely, organized, and concealed movement, concentration and displacement of troops and of combat equipment and transport, as well as to maintain the prescribed order and supervision over the observance of camouflage measures by the troops.

A major mission of the commandant’s service is traffic control.

Commandant’s service is organized on troop movement routes, in zones of operations, and deployment areas, at passages through mine and explosives obstacles and contaminated sectors, at water-crossing sites and mountain passes, in embarkation and debarkation areas during troop movements, and in the deployment areas of rear area units (sub-units).

Commandant’s service is organized by the staff on orders from the large unit commander and on instructions from the next higher staff.

Traffic control and commandant’s sub-units are used to carry out the commandant’s service; should there not be a sufficient number of these sub-units available, troop sub-units may be used. Those sub-units used to carry out commandant’s services are supplied with communications and other necessary equipment.
CHAPTER III

POLITICAL WORK IN A COMBAT SITUATION

73. Political work should be directed toward firmly and consistently implementing the policies of the Communist Party in the Armed Forces, toward raising the combat efficiency and combat readiness of the troops, toward strengthening the political-morale condition and military discipline of personnel and the successful accomplishment of combat missions in order to achieve total defeat of the enemy.

74. Political work in a combat situation is organized on the basis of decisions of the Central Committee of the Communist Party of the Soviet Union and the Soviet Government, orders and directives of the Supreme High Command, and directives and orders of the Chief Political Directorate of the Soviet Army and Navy.

The content of political work in various situations of combat activity is also determined on the basis of commanders' combat orders, the nature of combat, and the peculiarities of the situation.

The commanders, the political department of the large unit, and the Party and Komsomol organizations are further guided in their practical work by "The Statutes for the Political Organs of the Soviet Army and Navy" and by instructions validated by the Central Committee of the Communist Party of the Soviet Union.

75. The commander of a large unit is fully responsible for the political work in the large unit and for the political-morale and military discipline of the personnel.

The chief of the political department is deputy commander of the large unit for political affairs, directly organizes and conducts political work, and is responsible to the large unit commander and to the next higher political organ for the status of this work.

76. All commanders (chiefs) are daily obligated to engage personally in the political and military training of their subordinates, their activity being guided by the Party and Komsomol organizations, and fully utilizing the influence of both for the successful accomplishment of the missions which face the troops.

Contact with subordinates and the thorough study of their political, combat, and moral qualities, plus personal examples of courage and bravery are continuing responsibilities of all commanders (chiefs) and political workers.
77. The tasks of political work under combat conditions are:

-- the rallying of personnel around the Communist Party and the Soviet Government; the explanation to all servicemen of the leading and guiding role of the Communist Party;

-- the training of personnel in the spirit of Soviet patriotism; of unlimited love for and devotion to their Socialist Motherland, to the Communist Party, and to the Soviet Government; in the spirit of friendship of the peoples of our country and proletarian internationalism; in the spirit of loyalty to the military oath and of personal responsibility for the defense of their Motherland, the Union of Soviet Socialist Republics;

-- explanation to the servicemen of the reasons, nature, and political aims of war and the missions before the Armed Forces; of the international and internal situation of the USSR; of the superiority of the Soviet social and governmental system over the capitalistic system; and also, intensive propaganda about the combat successes of the Armed Forces at the front and labor achievements of the Soviet people on the home front;

-- the training of personnel in hatred toward the enemy; in the belief of the righteousness of our cause and in victory over the enemy; in a high offensive spirit; bravery; initiative; in the ability to overcome staunchly all the hardships and deprivations of a combat situation, and in the readiness, at all costs and under any circumstances, to defend the interests of the Soviet State;

-- the encouragement of all personnel to be ever ready to act courageously and decisively in conditions when atomic weapons and other means of mass destruction are used by the enemy, and also at the proper time to exploit promptly and skillfully, the results of employment of these weapons by our troops; and the preservation in strictest secrecy of all measures concerned with the use of atomic weapons and other means of mass destruction;

-- the exhorting of personnel to the successful accomplishment of assigned combat missions and the maintenance of uninterrupted troop coordination, and to the strengthening of military comrade-ship, mutual support, and assistance in combat;

-- the strengthening of unity of command, the training of personnel in the spirit of conscious obedience to, and respect for, commanders, of unquestioning and exact fulfillment of commanders' (chiefs) orders and of constant readiness to protect them in combat;

-- the training of personnel to believe in the strength and power of their weapons, to have a sense of responsibility for the preservation of their arms, equipment, and military property, and to strive constantly to improve their combat skill;
of the Armed Forces and of their own large unit, in the spirit of loyalty to the Standard of their unit (large unit), and in the determination to protect it as a most-valued possession;

--the training of personnel in the spirit of combat comradeship with troops of the armies of countries of the Socialist Camp, and the propagandizing of their combat successes;

--the popularization of the heroic achievements of servicemen, and concern for the prompt encouragement and recommendation of decorations for soldiers who have distinguished themselves in combat;

--the training of personnel in a high degree of vigilance, in an understanding of how to preserve military and State secrets, and in the guarding of their sub-unit and unit from infiltration by spies and diversionists;

--concern for the uninterrupted supplying of troops with all the necessities for living and for combat, particularly ammunition, fuel, and rations, and also, for rest and the satisfaction of the personal and cultural needs of soldiers, sergeants, and officers;

--the carrying out of study measures for reinforcements and the rendering of assistance to the staff in distributing them among the units;

--concern for timely medical aid and evacuation of the wounded and sick from the battlefield, and for the organization of burials for Soviet soldiers who have fallen in battle for the Motherland;

--the establishment and maintenance of proper relations of troops with the local population;

--concern for the preservation of historical monuments and cultural items of value located in the area of troop combat operations;

--the study of the content, form, and methods of enemy propaganda, the introduction of methods for suppressing and exposing this propaganda and possible enemy provocations.

78. Political work in various combat situations of troops has as its goal:

--in the offensive - to create a great offensive spirit in soldiers, sergeants, and officers, and an unswerving determination to achieve complete defeat of the enemy;
in the defense - to reinforce the firmness and tenacity of personnel, and also their readiness to carry out counter-attacks and to go over to a decisive offensive;

--during combat in an encirclement, breakout from an encirclement, and during a withdrawal - to arouse soldiers to show endurance, firmness, discipline, and vigilance, and not to permit panic feelings nor to allow a lack of faith in their ability to carry out the assigned combat missions;

--during troop movement - to mobilize personnel for timely and organized arrival at a designated area in full combat readiness.

79. Political work among the troops must be purposeful and ceaseless. This is achieved by:

--the timely assignment of tasks for political work and the instructing of commanders and political workers concerning the content, form, and method of this work with the personnel;

--the continuous awareness by the political apparatus of the decisions reached by the commander and the instructions he has issued; and the maintenance of uninterrupted contact between the staff and the political section, and their mutual information;

--the strengthening of Party and Komsomol organizations, their correct distribution, and the exemplary conduct of Communists and Komsomol members in combat;

--the daily personal influence of commanders (chiefs) and political workers on subordinates;

--timely political information from lower to higher and from higher to lower levels.

The political department works out a plan of political work for the periods of preparation for, and conduct of, the combat activity of troops, on the basis of the assigned mission and combat orders of the large unit.

Political work must be more active when the combat situation is tenser and more complex.

80. Political work among the enemy troops and the population near their front line has as its goal the undermining of the enemy's morale and combat capabilities and is carried out by means of:

--systematic study of the political-morale status of the enemy, the political interrogation of prisoners-of-war and deserters, the questioning of the local population, and the collection and study of captured documents and literature;
--the implementation among enemy troops and the population near their front line, of active written and verbal propaganda and agitation;

--the organization of work for disruption and suppression of hostile propaganda and also of possible enemy provocations;

--the conduct of political work among prisoners-of-war.
CHAPTER IV

COMBAT SECURITY OF TROOPS

81. Combat security is designed to prevent surprise attack by enemy ground and air forces, to give troops the opportunity for timely and organized commitment to combat and to conduct combat operations successfully under any conditions.

Combat security of troops includes: intelligence, security, antiaircraft defense, defense against atomic weapons and other means of mass destruction, camouflage, and radio countermeasures. It is organized by all commanders and is in continuous effect by troops in all situations.

The division (corps) commander must assign combat security missions early enough and allocate the necessary forces and equipment for it, with due regard for the measures taken by the senior commander.

1. INTELLIGENCE

82. Intelligence — one of the most important measures for troop combat security. To aid the commander in reaching a well-founded decision, intelligence must provide timely and reliable information about the enemy, terrain, weather, political sentiments of the local population, and also about the economic and sanitary-epidemic conditions of the area of combat operations.

Intelligence must establish the location of the enemy, his strength, composition, and dispositions, especially of tank forces; promptly and accurately determine the location of enemy atomic weapons and other means of mass destruction and the preparations for their employment; determine the nature of enemy activity, his intentions and combat readiness; establish the type and system of enemy defensive works and obstacles, the location of his weapons, control centers and radiotechnical equipment; and discover new enemy technical and other combat equipment, methods of their employment, and new ways of conducting combat.

In atomic strikes by our troops, intelligence must determine accurately the epicenters (centers) and the heights of burst, and moreover, in an enemy strike, also the yield and effects of atomic explosions.

Terrain reconnaissance is conducted in order to find out the nature and peculiarities of relief, natural obstacles and local features, condition of the soil, roads, and the degree of influence of the terrain on the disposition and actions of friendly troops and enemy troops, especially with reference to the employment of atomic weapons and other means of mass destruction, and to protection from them.
Information about weather conditions and its expected changes in the area of combat operations is provided by the meteorological service.

83. Intelligence is conducted actively and continuously forward of the front, in gaps and on the flanks of large units, in the enemy rear and in the rear of one's own troops. The main effort of intelligence in all situations concentrates first on prompt disclosure of enemy atomic weapons and other means of mass destruction, and on the most suitable of his installations (targets) on which to launch atomic strikes.

Continuous observation is conducted of detected enemy concentrations and of his most important installations.

Intelligence must know how to detect promptly, and to distinguish, genuine from dummy enemy installations.

84. Reconnaissance is conducted by all arms of troops, by special troops, and by services, with extensive employment of technical means.

Depending on the means and the type of armed force to which it belongs, reconnaissance is divided into ground, air, and sea reconnaissance.

Ground reconnaissance is conducted by the forces and equipment of large units and units of the ground forces. Organic reconnaissance sub-units, and also sub-units of all arms of troops, special troops, and services are utilized for its conduct.

Aerial reconnaissance is conducted by the forces and equipment of large units and units of the ground forces. Conduct of aerial reconnaissance may be assigned to the aviation supporting large units (units). As a rule, aerial reconnaissance missions are assigned verbally by the large unit commander, through aviation representatives or an appropriate aviation headquarters.

Information transmitted from aircraft by radio about the enemy is received by all staffs of large units.

Naval reconnaissance in support of ground forces is organized and conducted by large units and units of submarines, surface ships, coastal artillery, and naval aviation.

The forces and equipment allotted for reconnaissance are in every case determined by the assigned mission, by the locations and activities of the enemy, by the nature of the terrain, by the condition of the weather, and by the distance to the reconnaissance objectives.
Radiotechnical reconnaissance is conducted by ground, aircraft, and ship radar, by television, and by radio reconnaissance equipment. Radiotechnical reconnaissance permits the discovery of the groupings, composition, equipment, nature of activity, and intention of enemy troops. In addition, radiotechnical reconnaissance, with the aid of radio reconnaissance means, permits discovery of the enemy radiotechnical support system and the determination of the location and characteristics of his radiotechnical means with the purpose of organizing countermeasures against their deployment.

Intelligence information is obtained in combat by observation, raids, ambushes, activity of reconnaissance groups in the enemy rear, photography, monitoring, direction-finding and interception of enemy conversations, interrogation of prisoners and refugees, interrogation of local inhabitants and by the study of captured documents and materiel.

The most reliable information about the enemy is obtained by the combat activities of troops and of reconnaissance sub-units. Activities of reconnaissance sub-units must be bold, daring, decisive, show initiative and be conducted, as a rule, secretly and unexpectedly.

Reconnaissance in force (boyem) before the beginning of the offensive is conducted on the decision of the army commander (corps commander), and under other conditions — on the decision of the division commander. It is conducted with the purpose of verifying and clarifying information on the enemy or for obtaining it, when it is impossible to do so by other means.

Reconnaissance in force is conducted by specially designated motorized rifle (rifle) and tank sub-units, which, as a rule, are reinforced by artillery, tanks, sappers, and chemical personnel. Activities of the sub-units conducting reconnaissance in force, are supported by artillery and, in some instances, by aviation.

Observation is organized in all types of troop combat activity and is conducted continuously, with extensive employment of radar, television, and optical instruments. During night observation, night-seeing devices and means of illuminating the area are utilized. Observation is augmented by monitoring, especially at night and under other conditions of limited visibility.

Observation of the enemy is conducted from all forward command and observation posts. In addition, a net of observation posts with specially trained soliders, sergeants, and officers is established.

Aerial reconnaissance is accomplished from airplanes and helicopters. In the most important sectors the division (corps) commander is obligated personally to conduct observation of enemy activity and of the activities of his own troops.
89. Raids and ambushes are conducted on instructions of large unit and unit commanders for the purpose of capturing enemy prisoners, documents, and samples of weapons and combat equipment.

90. Photography is an important means of obtaining information about the enemy.

Aerial photography may be vertical or oblique. Photography of the main sectors of troop activity and of movement routes may be executed by oblique-panoramic shots.

Ground photography is conducted by the equipment of artillery and engineer troops.

91. Interception and direction-finding are basic methods of radio reconnaissance and are used for the purpose of obtaining information about enemy composition, groupings, equipment, and intentions, the location and equipment of his control points, and also about the characteristics and location of his radiotechnical facilities.

Interception and direction-finding are accomplished by utilization of the reconnaissance equipment of special units and sub-units.

92. For conducting reconnaissance the division (corps) dispatches reconnaissance detachments consisting of a reinforced company up to a reinforced battalion, separate reconnaissance patrols consisting of a squad up to a reinforced platoon, and reconnaissance groups. Moreover, when necessary, officer reconnaissance is organized.

Reconnaissance detachments and separate reconnaissance patrols are organized from organic reconnaissance units (sub-units) or from reinforced motorized rifle (rifle, tank) sub-units.

The reconnaissance detachment is assigned a zone or direction for reconnaissance, and a separate reconnaissance patrol -- a direction or objective. The width of the zone is determined by the missions, strength of the reconnaissance detachment, the presence of roads, and the nature of the terrain.

Reconnaissance groups are formed for conducting reconnaissance in the enemy rear, and sometimes for executing raids and ambushes.

Reconnaissance groups, at times, may be assigned missions to destroy enemy mass destruction weapons, or of requesting and adjusting artillery fire and air strikes on these targets, and of conducting supplementary reconnaissance of targets for atomic strikes. Reconnaissance groups are dispatched to the enemy rear area only on instructions of the large unit commander.
Helicopters (airplanes) are widely employed to dispatch reconnaissance groups to the enemy rear area and into gaps and breaches in his combat dispositions.

The radius of action of units and sub-units (reconnaissance groups), detailed to reconnaissance, is determined by the missions, the composition of the units and sub-units (reconnaissance groups), the means of movement, and by the possibility of maintaining communication with them.

Officer reconnaissance is organized for the purpose of clarifying information on the enemy, of establishing the positions of friendly troops and adjacent units, of checking contradictory information about the situation, and of clarifying data about the terrain in the area of combat operations. Officer reconnaissance is organized for a short duration during the initial engagement and during combat under rapidly changing conditions; it is conducted in tanks, armored personnel carriers, vehicles, and helicopters.

93. Missions for units and sub-units (reconnaissance groups), detailed to reconnaissance, are assigned, as a rule, by the commander personally or by the chief of staff. Always indicated are: zone (direction, area) and objectives to be reconnoitered, what information and by what time it is necessary to acquire it, and the schedule and sequence for submitting reports. When necessary the method for accomplishing the assigned mission may be indicated.

When accomplishing reconnaissance missions connected with crossing one's own front line, the sequence of passage, password, and countersign are indicated.

94. Large units and units of artillery and special troops conduct reconnaissance independently, and also include their reconnaissance personnel in the composition of reconnaissance sub-units (units), dispatched by combined-arms staffs.

All information on the enemy acquired by reconnaissance of the arms of troops and of special troops must be relayed promptly to the combined-arms staff.

95. Information about the enemy is rapidly and carefully studied and evaluated by means of comparison. Thorough analysis of reconnaissance data should give the commander the opportunity to learn the enemy plan and to determine his strong and weak points.
2. SECURITY

98. Security is organized for the purpose of warning troops of a surprise attack by enemy ground forces, of providing them time and advantageous conditions for commitment to combat, and of preventing penetration by enemy reconnaissance into the dispositions of the protected troops.

Troops organize local security under all circumstances. In addition, they organize: on the march -- march security, in combat -- combat security, during a halt -- halt security.

Forces and equipment allocated for security are determined by the commander, depending on the situation and the nature of impending actions.

3. ANTIAIRCRAFT DEFENSE

97. Antiaircraft defense is organized for the purpose of preventing enemy air strikes on troops and rear area installations and of denying him aerial reconnaissance.

Antiaircraft defense of troops includes:

- reconnaissance of enemy aircraft and warning the troops about them;
- protection of troops and important installations against fighter aircraft;
- protection of the troops with tube and missile antiaircraft artillery fire;
- jamming radiotechnical equipment of enemy aviation;
- firing of infantry weapons to destroy low-flying air targets.

The destruction of radar centers, centers (posts) of enemy aircraft control and guidance, his take-off areas, and airplanes on airfields by strikes of aviation, artillery, and other means of destruction contribute to a significant degree to the success of antiaircraft defense of troops.

In addition, in the interests of antiaircraft defense, troops must carry out extensive camouflage, dispersal, and engineer preparation of the terrain.

98. Reconnaissance of enemy aviation is conducted by reconnaissance sub-units of antiaircraft artillery, by antiaircraft defense radar posts, by air observers using optical and other observation equipment, and, when necessary, by aviation.
Information about enemy aviation is transmitted immediately to fighter aircraft, tube and missile antiaircraft artillery, units of radio-countermeasure troops of antiaircraft defense, and to the division (corps) commander, who, depending on the situation, issues instructions to warn troops of enemy aircraft.

99. Protection of troops and installations by fighter aircraft is accomplished on instructions of the senior commander.

The division (corps) commander is informed of the time, the areas (zones), altitude, number of planes, and the method by which fighter aircraft will protect the division (corps).

100. Protection of troops and installations by organic and attached tube and missile antiaircraft artillery is accomplished in coordination with fighter aircraft by destroying enemy aviation at the approaches to protected troops (installations) and directly over them.

Tube antiaircraft artillery is used for the destruction of enemy aviation in the near approaches to the protected troops and targets. Missile antiaircraft artillery is employed for the destruction of enemy aircraft at considerable distances from the protected troops and installations.

Coordination between antiaircraft artillery and fighter aircraft is organized by the senior commander, as a rule, in one zone and is accomplished by distributing the targets between them or the times of target engagement, depending on the location of the fighters being guided.

4. PROTECTION FROM ATOMIC WEAPONS AND OTHER MEANS OF MASS DESTRUCTION

101. Protection from atomic weapons and other means of mass destruction is organized to prevent or reduce as much as possible the destruction of troops and rear area installations by atomic weapons, toxic substances, and bacteriological agents, and to preserve their combat effectiveness. It is composed of antatomic, antichemical, and antibacteriological protection. First in importance is antatomic protection.

Protection of troops from atomic weapons and other means of mass destruction includes:

- detecting preparations for the employment by the enemy of mass destruction weapons;

- informing troops about the danger of atomic attack, of chemical attack, radioactive contamination, and employment by the enemy of bacteriological agents;
- conducting radiation, chemical, and bacteriological reconnaissance;

- dispersing and camouflaging troops and periodically changing their locations, utilizing protective features of the terrain, engineering preparation of it, and preparing antiaircraft and antichemical cover;

- executing of sanitary-hygiene and special prophylactic measures;

- providing troops the means of protection and accomplishing measures for the protection of troops from destruction by toxic and radioactive agents and by bacteriological agents;

- eliminating the after-effects of enemy weapons of mass destruction.

The division (corps) commander, having discovered that the enemy has mass destruction means, reports it to the senior commander and takes measures for their rapid destruction, utilizing for this purpose fire from field and antiaircraft artillery and, if necessary, calls on the aviation attached for support.

102. A common warning signal of the danger of atomic strike and a warning signal for chemical attack are established to notify the troops. The chemical attack warning signal also is the warning signal for radioactive contamination and for enemy employment of bacteriological agents.

Depending on the situation, warning signals may be sounded for the entire large unit or only for individual units (sub-units) which are immediately threatened by danger.

The warning signal for danger of atomic strike is sounded only on instruction of the large unit commander on the basis of the directives of the next higher headquarters or independently upon receipt of reconnaissance data which indicate an immediate threat of atomic attack.

103. Radiation, chemical, and bacteriological reconnaissance is organized to provide the commander promptly with the necessary data concerning contamination of the terrain and air by radioactive and toxic substances or bacteriological agents. It is conducted by observation posts (observers) and by reconnaissance sub-units of all arms of troops, special troops, and services.

A preliminary evaluation of radioactive contamination in areas of atomic bursts and in the zone of movement of the radioactive cloud is performed initially on a map with the aid of graphs (tables) and is refined, according to data from chemical observation posts (observers) and by radiation reconnaissance from helicopters (airplanes), tanks, armored personnel carriers, and vehicles.
104. Engineer preparation of terrain is the basic means of protection of troops from the destructive actions of atomic weapons. For protection of personnel and combat equipment this includes trenches, foxholes, covered installations for observation and conducting fire, specially equipped shelters, dugouts, and other cover.

For protection against destruction by atomic weapons, the troops first construct the simplest cover, utilizing extensively the materials at hand and later equip the structures to provide a greater degree of protection for personnel and equipment.

Cover, equipped for antichemical protection, also protects personnel from destruction by radioactive substances and bacteriological agents.

During occupation of populated areas, strongly-built basement rooms of buildings, local shelters, and underground structures are used for cover.

105. Protection of troops from destruction by radioactive and toxic substances and bacteriological agents is ensured by skillful and prompt employment of individual antichemical protective means, of cover equipped for antichemical protection, by control of exposure and contamination of personnel, and by limiting the time troops stay in a contaminated area.

During prolonged troop activity in contaminated terrain it is necessary to provide for rest periods for personnel by turns, for their receipt of food, and for periodic relief of units (sub-units).

106. Elimination of the effects of enemy employment of mass destruction weapons includes:

- reestablishment of disrupted troop control, of battle formation, and of combat readiness of units (sub-units);

- rescue work and medical evacuation after an atomic attack, first aid for those who have been contaminated by toxic substances, medical examination of all personnel who have been exposed to the action of bacteriological agents, or who have received doses of radiation above tolerance levels;

- the reconstruction of engineer structures and obstacles;

- isolating and restricting measures or the organization of quarantine if the enemy has used bacteriological agents;

- the clearing and reconstruction of routes of troop movement and the extinguishing of fires;
sanitary processing of personnel, including decontamination, degassing, and disinfecting of arms, combat and other materiel, engineer structures, clothing, equipment, and terrain;

- purification of water after contamination by radioactive and toxic substances or bacteriological agents, and neutralization of foodstuffs;

- dosimetric checks;

- combating insects and other carriers of infectious diseases.

The commander of a division (corps) allocates the forces and resources necessary for such rescue operations.

If the division (corps) contains animals, measures must be taken to protect them and to give them veterinary care to protect them from contamination and to neutralize their forage.

107. Sanitary processing of the troops, decontamination, degassing, and disinfection of weapons and combat and other materiel is divided into partial and complete categories. Partial sanitary processing, decontamination, degassing, and disinfection are provided on the spot in the battle formations of the troops, who continue to carry out their combat tasks. Complete processing is carried out after the troops have fulfilled the tasks laid down in the instructions of the commander of the division (corps), at special processing points, or directly in the sub-units, using the proper means or field expedients.

108. Units and sub-units which have lost their capacity to fight as a result of the enemy's use of weapons of mass destruction may be relieved and withdrawn from the battle for reorganization only by the decision of the commander of the division (corps).

5. CAMOUFLAGE

109. Camouflage is intended to hide the activity and disposition of friendly troops from all types of enemy reconnaissance and to confuse him about their true disposition and intentions. Camouflage of troops is achieved by:

- the use of camouflage features of the terrain, the hours of darkness, and other conditions of reduced visibility;

- the use of standard and expedient camouflage, pyrotechnical, antiradar and smoke resources;

- the use of radio, antiradar, visual, and aural deception;
- the construction of dummy positions, dummy field works and areas of deployment; the use of sham troop movements and demonstration activities in accordance with the instructions of the senior commander;

- the intelligent performance by personnel of all camouflage measures and observance by the troops of the requirements for camouflage and the guarding of military secrets.

In order to deceive the enemy and to make his detection of targets for weapons of mass destruction more difficult, areas of troop deployment, firing positions, and control points must be moved periodically, especially just prior to the initiation of combat actions;

Particular attention must be paid to the camouflage of areas where units using atomic and missile weapons are deployed, and to the secrecy of their movement.

The status of camouflage is checked by observation from the ground and from the air, by photographs from airplanes (helicopters) by radar, and by equipment for night visibility.

6. RADIO COUNTERMEASURES

110. Radio countermeasures are of special significance in modern combat under the conditions of wide use of radiotechnical means.

Radio countermeasures are intended to disrupt the enemy's radio control of his troops and combat equipment, by neutralizing his radiotechnical equipment through jamming.

Artillery, aviation, and intelligence groups are used to neutralize (destroy) the radiotechnical equipment of the enemy and to interrupt its work.

111. Radio jamming is carried out by special radio units (sub-units) in accordance with a plan set up by the higher headquarters, as well as by improvised organic radiotechnical resources of the large unit.

Antiradar deception is carried out by the troops in order to conceal from the enemy's radar reconnaissance their own combat equipment and installations in the zone of operations of the troops, and is achieved by the intelligent use of terrain and the employment of antiradar mats, angular reflectors, and other apparatus.
CHAPTER V

THE ORGANIZATION OF THE TROOP REAR SERVICES, MATERIEL, TECHNICAL AND MEDICAL SERVICES

1. GENERAL PRINCIPLES

112. Modern combat demands a great outlay of materiel resources, particularly ammunition and fuel, the rapid repair of all kinds of military equipment, and timely medical assistance to the sick and wounded.

The materiel, technical, and medical support of troops is one of the most important duties of all commanders and chiefs.

113. The troop rear consists of the rear units and sub-units which form an integral part of large units, units, and sub-units, and are intended to provide their materiel, technical, and medical support.

The organization of the troop rear is an integral part of the organization of combat operations of the troops and consists of preparation of the rear area of large units and units to provide timely and uninterrupted materiel, technical, and medical support to the troops, the disposition and movement of rear service units and sub-units, the designation and preparation of routes for supply and evacuation, and the provision of security, defense, and protection of the rear area, as well as the protection of supply and evacuation routes.

Success of troop combat operations depends in large measure on the careful organization of the troop rear and the smooth functioning of its work.

114. Rear units and sub-units are normally deployed in the zone of operations of the large unit.

If the situation requires the establishment of the rear of the large unit outside of the zone of operations, the areas for deployment of the rear units and sub-units are designated by the senior commander.

If necessary, the troop rear areas may be designated by the combined-arms large unit.

Rear units and sub-units are deployed dispersed, concealed, and well camouflaged in their assigned areas.

115. The movement of rear units and sub-units is organized in such a way as to maintain uninterrupted support of troops engaged in combat actions.
The medical points, combat vehicle technical support elements, and transport elements carrying ammunition and fuel normally follow immediately behind advancing units. If necessary, the rear sub-units of regiments may be included in the composition of the column of divisional rear units.

116. In order to ensure supply and evacuation in the large unit's zone of operations, supply and evacuation routes utilizing the network of troop roads are designated. The forces and equipment necessary for preparing and maintaining these routes in good condition are assigned by the commander of the large unit.

117. The commander of the large unit is responsible for the security and defense of the troop rear and of supply and evacuation routes. The immediate security and defense of deployment areas (sites) of the rear units and sub-units, and their protection from atomic weapons and other means of mass destruction, are organized by the large unit's deputy commander for the rear.

The security and defense of their area, and protection against atomic weapons and other means of mass destruction, are normally carried out by the forces and equipment of the rear unit and sub-units themselves. In the presence of a hostile population or enemy groups in the rear, it is necessary to reinforce the security and defense of rear units and sub-units. Vehicles must not be allowed to move singly, and measures must be taken to clear the area of remaining enemy groups and diversionary elements.

In cases where it is necessary for the security and defense of troop rear services installations and transport on the march, the division commander allocates the appropriate forces and equipment.

2. MATERIEL SUPPORT

118. The materiel support of the troops is accomplished according to the various categories of supply, each controlled by the appropriate chiefs of services.

The basic materiel items of troop supply are: ammunition, fuel, food, and combat equipment of all types.

Large units, units, and sub-units maintain mobile reserves of materiel supplies, established in accordance with norms and tables, and constantly replenished by deliveries from the rear.

Mobile reserves are divided into an expendable part and an emergency reserve, which is normally used by permission of the division commander, and, in special circumstances, of extreme urgency, by permission of the regimental commander.
Reserve materiel supplies are stored and transported under cover in order to protect them from contamination by radioactive and toxic substances or bacteriological agents.

Depending on the situation, additional reserves of materiel supplies may be established for the troops by order of the senior commander.

119. For materiel support of the troops, materiel supplies procured locally, as well as captured equipment, transport, and other items in good repair or restored can be used.

The organization of battlefield collection and timely evacuation to the rear of damaged weapons, combat equipment, transport, and captured materiel is the responsibility of the large unit's deputy commander for the rear, and also of all the chiefs of arms of troops and services.

Materiel supplies which have been procured locally, and captured materials, are used only after thorough examination and checking for contamination.

120. The delivery of materiel supplies to large units (units) is normally carried out by the transport of the higher formation (large unit). All types of transport are used, particularly motor vehicle and air. In certain circumstances, the delivery of materiel supplies from army (division) depots may be made directly to regiments (battalions) and to artillery firing positions.

By order of the senior commander, divisional (regimental) motor vehicle transport may be called upon to deliver loads from the depots of the higher formation (large unit).

In all circumstances the deputy commander (commanding officer) for the rear of the next higher formation (large unit) is responsible for the timely delivery of materiel supplies to the large units (units).

Water is delivered on the instructions, and with the equipment, of the deputy commander of the division for the rear. If necessary, and on the order of the division commander, unit transport may be called upon to carry water.

121. Transport returning to the rear is used, as first priority, for the evacuation of the sick and wounded. Empty motor transport which is not required for this purpose is loaded with weapons and equipment which are surplus or in need of repair and with other items slated for evacuation.

122. When supplies are delivered to troops by air transport, the commander of the large unit (unit) is required to prepare landing strips or drop zones for reception of dropped supplies, assuring that they are properly marked, and organize the unloading or collection of the dropped supplies and ensure their protection.
3. TECHNICAL SUPPORT

123. Technical support consists of the organization and implementation of technically correct utilization, technical maintenance, and preservation (conservation) of weapons, armored, motor-tractor, and other equipment, and of their timely repair and evacuation.

Technical support in large units is organized directly by the chiefs of the appropriate services.

124. The following are envisaged in the organization of technical support:

--- the preparation of all types of equipment for forthcoming operations, taking into account the combat missions of the troops and terrain and weather conditions;

--- the preparation of repair and evacuation units and sub-units for forthcoming operations;

--- the organization and execution of technically bringing up the rear of large units and units;

--- execute technical servicing of all kinds of equipment to the extent indicated by the commander of the large unit (unit), and the repair and evacuation of equipment which has become unserviceable or has been damaged in the course of battle.

125. The repair of weapons, armor, tractors and other equipment which has become unserviceable or damaged in battle is performed on the spot or under the nearest cover by the forces and resources of sub-units (units), using ready-made aggregates, assemblies, and parts. Priority is given to combat equipment which can be most quickly repaired and returned to duty.

Armor and tractor equipment which cannot be repaired on the spot is evacuated to regimental and divisional collection points for damaged vehicles or is handed over to army evacuation and repair units at the place where the damage occurred.

Divisional (regimental) collection points for damaged vehicles are organized by the chief of the tank-technical (technical) service of the large unit (unit) in areas where there is the greatest accumulation of damaged vehicles, near supply and evacuation routes, and in concealed locations suitable for performing repairs.

Weapons, combat, and other equipment which cannot be repaired on the spot is evacuated to regimental (divisional, army) repair workshops or depots.

The evacuation from the division (regiment) of equipment which has been damaged or become unserviceable is performed by the army (division) and by empty transport returning to the rear.
4. MEDICAL SUPPORT

126. Medical support is organized with the aim of maintaining combat effectiveness and of improving the health of the troops, to give warning of the onset and spread of disease among the troops, to render timely medical aid and evacuate the sick and wounded, and to cure them as quickly as possible and to return them to troop duty.

127. Rendering of medical assistance to the sick and wounded on the battlefield, and their evacuation, are carried out by battalion, regimental, and divisional medical points. Where necessary, army medical installations may be used to reinforce divisional medical points in the large units' zone of operations.

All medical points must accept sick and wounded, regardless of the unit to which they belong.

128. In cases where the enemy uses atomic weapons and other means of mass destruction, the medical service, together with other services, takes measures to deal with the consequences of the attack, and if bacteriological agents are used by the enemy, the medical service also identifies their type and establishes the limits of the contaminated sectors.

129. The timely evacuation of the sick and wounded from the battlefield and from areas of destruction is one of the most important duties of all commanders and chiefs.

The evacuation of the sick and wounded is carried out by the medical transport of the higher formation (large unit), and by empty transport returning to the rear.

Those who have contracted infectious diseases are evacuated separately from other sick and wounded to special isolation hospitals in vehicles set aside for that purpose.

5. VETERINARY SUPPORT

130. Veterinary support is organized for the purpose of supervising the supply of meat to the troops, protecting all troops from infectious diseases which are common to human beings and animals, and issuing warnings of and dealing with the diseases of horses and other animals belonging to the large units (units). The evacuation of wounded and sick horses and other animals is carried out on the instructions of the commanders of large units (units).

The veterinary service participates in measures to deal with the consequences of the use by the enemy of weapons of mass destruction.
6. THE EVACUATION OF PRISONERS-OF-WAR

131. Prisoners-of-war are immediately evacuated from the areas of combat operations and, on the instructions of the commanders of units, are conveyed to a divisional prisoner-of-war collection point, set up behind the divisional combat formation.

The further evacuation of prisoners-of-war from divisional collection points to reception points at army level is carried out on the instructions of army headquarters.

The responsibility for feeding and providing medical assistance to prisoners of war while they are at the divisional collection point falls on the division deputy commander for the rear.

7. CONTROL OF THE TROOP REAR

132. The control of the troop rear is an integral part of the control of the troops. The commander of the division (corps), when making his decision, takes the following into consideration:

-- the quantities of reserve supplies, the time required for their stockpiling, and the order in which they are echeloned;
-- the rates at which ammunition, fuel and other materiel supplies are expended;
-- the priorities for the delivery of materiel supplies to the units (large units);
-- the order and time allotted for carrying out the basic measures of technical support;
-- the areas of deployment of rear units and sub-units and the order of their movement in the course of battle;
-- the site of the rear control point.

On the basis of the commander's decision and the directions issued to the rear services by the senior commander, in the large unit, instructions, and, in special cases, an order is issued to the rear services.

133. The large unit deputy commander for the rear is the direct organizer of the rear and must always be ready to report to the commander of the division (corps) on all questions relating to materiel support and to the organization of the rear. He organizes the materiel support for the troops through his subordinate services; delivery of materiel of all kinds; reconnaissance of the areas where the rear units and sub-units are located; their disposition, movement, and work according to the combat missions; the study of the area of forthcoming operations; security and defense of the rear and its protection from weapons of mass destruction. He also directs the medical and veterinary services.
The large unit deputy commander for the rear must report any changes in the situation of the rear services to the chief of staff of the division (corps); he must coordinate with him all the most important instructions given to the rear services and receive from him information on all changes in the situation and composition of the troops; he must give directions to the unit deputy commanders for the rear on questions concerning the support of troops by subordinate services.

The directions of the deputy commander of the division (corps) for the rear regarding distribution and movement of rear units and sub-units, their security and defense, and also the organization of the delivery of materiel supplies, are binding on all the chiefs of services of the large unit.

134. The chief of arms of troops, special troops, and services personally direct the materiel and technical support for their own troops. They must report to the large unit deputy commander for the rear about the support given to the troops and requisition the delivery of the required materiel supplies; issue directions on the materiel and technical support given to the subordinate chiefs of the various arms, special troops, and services; check that the materiel resources are being correctly used and provide information on how they are being used; organize the dispersal, movement, security, and defense of subordinate units and sub-units.

135. During preparation for battle it is essential to stock up fully with mobile reserve supplies, and in case of need, to build up additional reserves of materiel supplies among the troops; to service all kinds of equipment, and to repair damaged weapons, armor, tractors and other equipment; to evacuate to army depots or workshops equipment and materiel which is not required or which cannot be repaired or made serviceable on the spot; to evacuate the sick and wounded from the sub-units and from medical points, and to carry out hygienic and prophylactic measures; to select and prepare for movement behind the forward units the necessary materiel, technical, and medical support; to prepare for the work and disperse the rear units and sub-units and to assure their careful concealment and reliable cover against air attack.

136. In the course of a battle, continuous replacement is carried out, and, if necessary, the movement of reserve materiel supplies in accordance with changes in the situation must be made; speedy repair and evacuation of damaged military equipment must be effected; timely assistance and first aid must be given to the sick and the wounded, and they must be evacuated from the battlefield; restoration of transport and evacuation routes behind the troops.
must be effected; timely dispersal of rear units and sub-units into new areas must be effected in such a way that they do not block the roads or interfere with the troops' movement or maneuver; dependable cover of transport supply vehicles must be sought; consequences of an attack by the enemy on the troop rear must be dealt with; and uninterrupted contact must be maintained with the rear service units and sub-units.

Particular attention is paid to timely materiel, technical, and medical support to the forward large units and units operating in the main direction.
CHAPTER VI
THE OFFENSIVE

3. THE PRINCIPLES OF AN OFFENSIVE ACTION

137. The main purpose of an offensive action is the complete destruction of the enemy. This is achieved by the destruction of the enemy by powerful surprise strikes with atomic weapons and other means of mass destruction, by artillery fire and air strikes, by decisive attack and a rapid development of the offensive into the depths of the enemy defenses, by successive blows against the flank and rear, and by encircling and annihilating the enemy.

138. The offensive is carried out by day and night without interruption, at high speed, and in close cooperation with all troop arms, special troops, aviation, and airborne assault.

The continuous development of an attack at high speed is achieved by:

--- the effective neutralization of enemy defenses throughout the entire depth assigned in the combat mission, and the destruction of his reserves or the impeding of their movement;

--- the build-up of superiority in forces and materiel in the most important directions and their skillful commitment during the battle;

--- the skillful use of all means of destruction, particularly atomic weapons, and the maximum exploitation of the results of their use;

--- a determined offensive by troops using openings and gaps in enemy battle dispositions in order to inflict strikes against his flanks and rear, breaking up his forces into isolated groups and annihilating them individually;

--- the maintenance of continuous coordination;

--- the rapid crossing of barriers, demolished areas, and natural obstacles;

--- the skillful combination of operations by the troops in combat and precombat formations, and the wide-scale use of means of transport on the battlefield;

--- the timely commitment to battle of second echelons and reserves, and their reconstitution during combat;

--- the seizure from the march of terrain and objectives deep in the enemy defense area;
--relentless pursuit of a retreating enemy;
--the consolidation of key tactical terrain and objectives when threatened by enemy counterattacks;
--all-around support of the troops and continuous control over them during combat actions.

139. The constant threat of enemy use of atomic weapons and other means of mass destruction demands that the troops on the offensive take measures to prevent any interruption of their offensive. The main measures employed for this purpose are:

--timely detection and immediate destruction of enemy means of mass destruction;
--rapid and secret preparation for the offensive;
--measures to break up enemy counter-preparations;
--the use of a variety of methods of changing troops over to the offensive;
--choice of the right time for the beginning of the offensive;
--dispersed disposition and movement of troops, with the use of protective characteristics and engineer preparation of the terrain;
--continuous maintenance of troop combat readiness and the rapid reestablishment of combat effectiveness after a strike by enemy atomic weapons and other means of mass destruction;
--reliable troop protection from enemy air strikes.

140. The offensive is organized and conducted under conditions where the enemy is on the defensive, is himself attacking, or is retreating.

An offensive against a defending enemy normally begins with a breakthrough of the most vulnerable point of his defense, and may occur when he has shifted to either a timely or hasty defense.

A breakthrough of the defense consists of making gaps in the enemy defense lines and developing a determined offensive in depth, while simultaneously widening the breakthrough toward the flanks. The breakthrough assures the creation of conditions for subsequent maneuvering.

141. A breakthrough of a prepared enemy defense, depending on its structure, on the presence of the means of destruction, primarily of atomic weapons, the nature of the terrain and other circumstances, is executed by a division from a departure position occupied in direct contact with the enemy, or from the march.
The division may effect a breakthrough in one or two sectors of its offensive zone, concentrating its main forces on the most important of them.

Usually the division effects a breakthrough along the whole of its offensive zone when it has been assigned a sector of limited width or when its forces and weapons allow it to carry out this task.

142. A breakthrough of the enemy defense by occupying departure positions in direct contact with the enemy is normally effected when favorable conditions for concealed deployment and disposition of troops in the immediate vicinity of the enemy are present.

In this case the division may go over to the offensive both from a defensive position, after the necessary regrouping, as well as after it has occupied the departure position with a relief of troops who are in direct contact with the enemy.

143. A breakthrough of the enemy defense from the march makes the troops less vulnerable to enemy blows and insures greater surprise of the offensive, but at the same time requires particularly careful organization of the forward movement of troops toward the enemy defensive lines, insuring their timely deployment for the attack.

The division which is intended to effect a breakthrough of the enemy defenses from the march is located in its concentration area before moving forward. The distance between this area and the enemy first line of defense must be such that the units of the division are hidden from ground observation means and secure from destruction by enemy long-range artillery and short-range missiles (rakety blizhnego deystviya).

The troops in these areas must be deployed in formations chosen for the offensive and facilitating their rapid movement toward the enemy defense.

144. If the enemy has unprotected flanks and gaps in his battle line, or if these are made in the course of the offensive, they are exploited for close envelopment or deep envelopment of the enemy.

Close envelopment (okhvat) is a maneuver executed to strike at the flank or the rear of the enemy. A close envelopment is effected by direct coordination of tactics and firepower with the troops attacking from the front.

A deep envelopment (obkhod) is a deeper maneuver carried out to strike at the enemy flank and rear. A deep envelopment is executed in tactical (operational) coordination with the troops attacking from the front.
The most decisive results in destroying the enemy are achieved by close or deep envelopments of both his flanks.

145. The combat mission of the large unit is determined by the senior commander in accordance with the degree of enemy suppression by atomic weapons and other means of mass destruction used in the offensive zone, enemy strength and the organization of the defense, the composition of the large unit, the terrain, and other circumstances.

The division operating in the main direction, during the breakthrough of a prepared defensive position, receives a combat mission for destruction of the enemy in a zone of 6-12 kms. During an offensive action deep in the enemy defense, the width of the offensive zone may be even greater.

146. The combat mission of a first echelon division is normally divided by depth into immediate, follow up, and subsequent, and normally covers military operations for 24 hours of combat.

During an offensive against a prepared enemy position, with the use of atomic weapons, the immediate task of a first echelon division may be a breakthrough of the first defensive zone. The follow up mission may be the development of an offensive in depth, aiming at a breakthrough of intermediate positions and the seizure of the second defense zone from the march. The subsequent mission may be the seizure of positions (objectives) insuring development of the offensive in depth or operations toward the flank, in order to widen the breakthrough.

A second echelon division is assigned a line of commitment to battle, an immediate mission, and the direction of its subsequent offensive action. Before entry into battle, the missions of the division are clarified.

The immediate mission of a second echelon division may be a breakthrough, from the march, of the enemy second defensive zone, destruction of his approaching reserves, or the seizure of an important position deep within his defense.

An army corps is given immediate and follow up missions, and also a mission for the subsequent 24-48 hours of the offensive.

The immediate mission of an army corps is confined to the destruction of all units of an enemy first echelon division, repulsing counterattacks by his main forces, and the development of an offensive aimed at breaking through his second defensive zone. The follow up mission is the destruction of the enemy corps reserves and the seizure of a position permitting the further development of the offensive.

Under more favorable circumstances, the depth of combat missions of the large unit may be increased.
If the breakthrough of a prepared defensive position of the enemy is accomplished without the use of atomic weapons, or if the large unit is operating in a secondary direction, the depth of combat missions may be decreased.

When a breakthrough is made in the enemy defense which has no defined zones and positions, the missions of the offensive forces are the rout of specific enemy groupings and the seizure of important positions (areas) of terrain.

147. Motorized-rifle and tank divisions on the offensive in the main direction, during the breakthrough of a prepared enemy defensive position, normally deploy in combat formation of two echelons, the first echelon having two or three regiments and the second echelon having one or two regiments. In this case, the motorized-rifle regiment of a tank division is normally used in the second echelon, but if the division's offensive zone contains terrain which is unsuitable for tanks, the regiment is used in the first echelon. As a rule, the heavy tank regiment is used as a complete unit. Its place in the combat formation is determined in accordance with the presence and the nature of operations of enemy tank forces.

If a large unit combat formation of only one echelon is used, gradual increase of the strength of the offensive is achieved by organizing the combat formation of units in greater depth.

2. THE ORGANIZATION OF THE OFFENSIVE

148. The character and sequence of the work of the commander of a large unit in organizing an offensive is determined, in each case, in accordance with the mission, the situation, and the amount of time available.

All measures concerning the organization of an offensive must be carried out secretly.

149. Secrecy of preparation and surprise in troop operations is achieved by carrying out measures of camouflage and deception of the enemy. They are achieved by the maintaining of normal military activity by the defending troops, by restricting the use of radiotechnical equipment, by forbidding conversations over technical communications means concerning the forthcoming offensive, by careful concealment of troop deployment, their regrouping and relief, by secretly preparing assembly areas and their occupation by the troops, by moving the troops up to the enemy defensive positions secretly, and by bringing up everything necessary for the offensive.

150. To allow the commander of a large unit to make a sound decision, all types of intelligence, prior to the start of the operation, must establish:
--the dispositions of enemy atomic weapons and other means of mass destruction, and his preparations to use them;

--the grouping, composition, and combat ability of the enemy troops and the nature of their activities, particularly of the tank troops;

--the enemy defensive organization, and the system and nature of its engineering preparation throughout the tactical depth;

--the strong and weak points in the enemy defenses and gaps and intervals in his combat formation;

--all fire systems at the enemy main line of resistance and in the depths of the defense. This applies particularly to antitank weapons, the firing positions of artillery and mortars, and to the location and nature of antitank and antipersonnel obstacles, as well as natural obstacles;

--the system of antiaircraft defense;

--the location of the enemy control points, his radiotechnical equipment, and his night vision equipment.

Immediately before the offensive, intelligence must discover the intentions of the enemy from changes in his grouping and his withdrawal of troops from the front line of the defense. For this purpose, reconnaissance in force may be carried out by sub-units detailed from the personnel of units (large units) which are occupying defensive positions in direct contact with the enemy.

Newly arrived large units receive intelligence information from the large units (units) which are in direct contact with the enemy, and from the higher staff. In addition, they organize observation in their designated offensive zone.

Systematic photography is of great importance in revealing the enemy defensive system.

Before an offensive begins, supplementary photography is carried out. Information provided by aerial photography is elaborated on by ground reconnaissance and is the basis for amplification of the decision and the choice of targets for attack by atomic weapons and other means of mass destruction, as well as for artillery fire planning. The information elaborated about the enemy is plotted on large-scale maps and delivered promptly to commanders, down to company (battery) level inclusively, who are operating in the main direction.

151. The decision for an offensive is based on the choice of the direction of the main attack, determination of the most expedient grouping of forces and equipment to accomplish the assigned mission, and the nature of their maneuver.
The direction of the main strike is determined by the commander of the large unit or is indicated by the senior commander.

The main strike is carried out in the direction which will secure the rapid defeat of that enemy grouping, the destruction of which would seriously lower the stability and aggressiveness of his defense, and would assist in the successful accomplishment of the assigned mission. If atomic strikes have been carried out on the orders of the senior commander, the main strike is normally carried out in the direction of areas against which atomic weapons have been used.

152. Reconnoitering by the large unit commander is carried out for the purpose of clarifying:

— the outline of the enemy main line of defense, the location of his defensive installations and obstacles, the nature of the terrain in front of the main line of defense, and in the depth of his defense;

— the targets that are part of the enemy defense, against which atomic and chemical weapons will be used;

— targets against which particularly strong artillery and air strikes will have to be made;

— the direction of the main strike and the sector of concentrating the main efforts of the troops, as well as dividing lines between units (large units);

— the departure areas for the offensive, as well as concealed areas for dismounting troops and the routes for their approach to the departure positions;

— the areas of troop concentration in depth, the routes by which the troops move from them to the enemy defenses, and also the lines of deployment during a breakthrough of the enemy defenses from the march;

— the nature of engineering preparation of the areas where troops are located prior to the offensive, and measures for engineer support during the offensive;

— artillery fire position areas;

— sites for control points.

153. When assigning combat missions the large unit commander reports the latest information about the enemy, the large unit mission, the plan of his own operations, the missions of adjacent units, and the targets and order of employment of atomic weapons and other means of mass destruction by the senior commander. He then indicates:
--to the regiments (divisions) of the first echelon, the means of reinforcement, the departure area and the time at which it will be occupied, on which directions and targets the basic efforts should be concentrated, and the combat missions. When there is a breakthrough in the enemy defense from the march, instead of from the departure area, the time and order of departure of the troops from their concentration area to the enemy defensive positions and the sequence of their deployment;

--to the regiments (divisions) of the second echelon, the assembly area and place of commitment to combat, combat missions, routes, and order of moving forward;

--to the forward detachment, if one is detached, its assembly area, the place of commitment to combat, the direction of its operations, and its combat mission;

--to the artillery, the targets for atomic strikes and the missions for the artillery during periods of combat action; the duration and organization of artillery preparation, the sequence of artillery support, the composition of artillery groups, and the time at which the artillery must be ready to open fire;

--to the units of antiaircraft defense, the installations to be provided antiaircraft artillery protection, the composition of the antiaircraft artillery group, and the time of readiness;

--to the aviation, detached for the support of the large unit, elaboration on the targets for strikes and, on occasion, also missions;

--to the reserves and to the mobile obstacle-placing detachment, the composition, the assembly, and the direction of movement;

--measures to secure limiting points and flanks;

--time of readiness for the offensive;

--the places and times of establishing command posts.

The time of the assault of the enemy main line of defense (H-hour) and the time of atomic strikes are given to subordinate commanders on a need-to-know basis by the large unit commander personally or in written form through staff officers. In the latter case the information is handed only to the person to whom it is addressed.

154. Coordination is effected with respect to missions, areas (objectives) and time, for the entire depth of the large unit's combat mission. Besides, detailed coordination in depth is organized for the immediate and follow up missions. The commander of the large unit concentrates his main attention on the coordination of combat
operations of the troops of the first echelon, the forward detachments and airborne landings with strikes by atomic weapons and other means of mass destruction, with artillery fire, and with air strikes. He must determine the sequence of troop action both in attacking the enemy main line of resistance and the most important objectives in the depths of the enemy defense, in the commitment of the second echelon into combat, and the further exploitation of success in depth. He must envisage measures for the eventuality that the enemy withdraws his troops into the depths of his defenses, the sequence for repelling enemy counterattacks, and also to establish common reference points and signals necessary for the achievement of coordination. During a breakthrough of the enemy defense from the march, the commander of the large unit, moreover, defines the order in which the units move out and deploy, and coordinates their operations with the troops who are in direct contact with the enemy.

155. The use of atomic weapons and other means of mass destruction is planned in accordance with the instructions of the senior commander against the most important targets in the enemy defense, with the object of destroying them and creating conditions in which the advancing troops can execute a swift forward movement into the depth of the defense.

Atomic weapons and other means of mass destruction may be used prior to the start of the artillery and air preparation, during its execution, or in the course of the offensive, with the aim of destroying enemy atomic weapons and missile weapons, destroying and neutralizing his main groupings of artillery, his most important defensive centers, and also the reserves and control points of the enemy.

In order to avoid atomic strikes and the use of other means of mass destruction against positions from which the enemy has withdrawn or which are only lightly held, the division (corps) commander organizes constant reconnaissance of the enemy objectives which are subject to destruction, and immediately reports all changes to the senior commander.

156. The planning of artillery combat operations is done in accordance with the missions to be accomplished by atomic weapons and the sequence of their use, and on the use of other means of mass destruction and aviation, in accordance with the combat missions of the forces on the offensive.

The combat operations of the artillery in an offensive are divided into two periods:

---artillery preparation for the offensive;

---artillery support of the offensive.
157. The artillery preparation for the offensive immediately precedes the attack of the tanks and the infantry.

In organizing artillery preparation, the destruction of the most important installations of the enemy defense by atomic strikes is planned first, and then the suppression and destruction of his other installations by artillery fire, using shells with conventional charges.

At the same time, the artillery must be ready to neutralize and destroy enemy targets which may emerge from the atomic strikes, only slightly neutralized.

Particular attention must be paid to the successful neutralization of the enemy defenses at the main line of resistance and in its immediate depth in order to support a swift attack by the advancing troops. Just before the beginning of the offensive the fire of tube artillery should attain its maximum concentration.

During the period of artillery preparation, the artillery neutralizes and destroys tanks, personnel, artillery (including rocket, missile, and antiaircraft), mortars, and other fire means of the enemy, destroys the enemy defensive installations, neutralizes enemy troop control points, reserves, and his radiotechnical equipment, prevents the enemy from maneuvering troops and weapons, and destroys airfields, large depots, railway junctions, and naval bases.

When airborne troops are landed (dropped) in the zone of the large unit, provisions are made for effectively neutralizing the enemy along the flight path, in areas adjacent to the flight path, and in the area of the landings.

When organizing artillery preparation, stereotyped methods must be avoided, and its pattern, duration, and the time when fire is initiated must be varied.

Artillery preparation for an offensive normally begins with a sudden and powerful atomic strike and a fire onslaught by the artillery and covers the whole depth of defense of the enemy first echelon division and against the most important objectives in its depth.

It is more advantageous to accomplish destruction of enemy weapons and his defensive structures at the main line of resistance by the fire of guns allocated for direct laying. For this purpose, regimental and battalion artillery are used, as well as guns and batteries from division artillery, and if necessary, guns of larger caliber.

The duration and pattern of artillery preparation is decided by the nature of the enemy defense, the scope of the missions to be accomplished by the artillery (primarily with atomic ammunition),
the availability of artillery and ammunition to the offensive forces, and, when a breakthrough from the march is made, by the time the sub-units of the first echelon need for deployment and movement up to the enemy main line of defense.

In individual cases, when there is not enough artillery to participate in artillery preparation, tank sub-units drawn from the second echelon and the reserve may be brought in to participate in the preparation by firing from concealed firing positions.

When a breakthrough of the enemy defense is made from the march, the artillery of troops who are in direct contact with the enemy, are called upon to participate in the artillery preparation.

The transition from artillery preparation to artillery support must take place without any pause and must pass unnoticed by the enemy.

The beginning of artillery support is determined on the basis of the set time of attack (H-hour), taking into consideration the time necessary for laying down fire on the first line of successive concentrations of fire (rolling barrage), and the time necessary for tanks and infantry to pass through the danger zone of bursts of friendly shells.

158. Artillery support of the offensive is carried out without interruption throughout the entire depth of the large unit's combat mission.

During this period the artillery neutralizes (destroys) revived and newly discovered artillery, mortar, and antiaircraft batteries of the enemy, particularly his atomic artillery weapons; prevents the enemy from making counter-attacks; prevents him from maneuvering, withdrawing, and consolidating on new lines; supports the flight and operations of tactical airborne landings; neutralizes (destroys) centers of resistance holding out in the depth of the enemy defense, control points, and radiotechnical equipment; and supports the commitment of the second echelons and forward detachments into combat and their operations in the depth of the enemy defense.

At the beginning of artillery support, successive concentrations of fire may be used, as well as massed and concentrated fire against centers of resistance and strong points, and on occasion a rolling barrage, or a combination of these types of fire.

The duration of firing on zones by successive concentrations of fire or on lines by a rolling barrage are determined by the speed of movement of the attacking troops.

In the follow up offensive, tanks and infantry may be supported by massed and concentrated fire against the most important targets, and by fire against individual targets.
159. Regimental and divisional artillery groups are formed in the divisions of the first echelon.

Artillery groups are normally formed in the divisions of the second echelon before their commitment into battle.

In the interests of the greatest possible coordination, the division commander allocates a part of the artillery of the divisional artillery group to support regiments.

The artillery groups of regiments of the second echelon and division artillery of second echelon divisions may be employed to reinforce the fire of the artillery of the divisions (regiments) of the first echelon. In this case it is essential to deploy the artillery of the second echelon in the directions of probable commitment to battle of the divisions (regiments) of the second echelon in order to ensure its timely changeover to the support of its division (regiment).

In order to fulfill the fire missions in support of the main grouping of troops in the corps (army), corps (army) and special artillery groups are formed.

160. Antiaircraft defense is carried out throughout the entire depth of the division (corps) combat mission.

The units and sub-units of the antiaircraft defense of the division (corps) accomplish their missions without interruption and in cooperation with fighter aircraft and adjacent units.

In preparing for an offensive, antiaircraft units and sub-units protect the troops in their assembly areas in depth, during movement into departure positions and in the departure positions for the offensive.

In the breakthrough of the enemy prepared defense from the march, the units and sub-units of antiaircraft defense, in addition, protect the troops during their move up to the main line of resistance and during their deployment for the attack.

The protection of divisions operating in the main direction is normally reinforced by the fire of army (corps) antiaircraft artillery group and by the fire of antiaircraft missile units.

In the interests of maintaining secrecy of preparations for an offensive, the fire of the antiaircraft artillery and the operation of radar equipment may be limited in accordance with the instructions of the senior commander. In areas where the fire of antiaircraft artillery is forbidden or restricted, combat against enemy aviation falls mainly to fighter aircraft. However, antiaircraft defense troops must be in a state of constant readiness to repel enemy air strikes.
161. The combat operations of aviation, allocated for the support of the offensive, are planned by the senior commander and are effected in accordance with the missions to be accomplished by the offensive troops. The commander of the large unit details the missions of the aircraft allocated for his support and assigns them supplementary missions as they arise in the course of combat.

The most important air mission is the immediate destruction of atomic weapons and other means of mass destruction of the enemy as soon as they are discovered.

Air operations in an offensive are divided into periods:

-- air preparation for the offensive;

-- air support for the offensive.

Air preparation for the offensive is carried out, as a rule, against enemy targets not destroyed by the artillery. The most important targets attacked by aircraft during air preparation are usually the following: atomic weapons and other means of mass destruction, launching sites (launchers) for missiles and artillery of the enemy; his closest reserves, control points, powerful radiotechnical stations, the most important strong points and centers of resistance in the first defensive zone, bridges, crossings, and other installations, which help the enemy carry out his combat maneuvers, ammunition dumps, fuel depots, and storage areas of other military equipment, and, when necessary, aircraft on airfields.

As a rule, air preparation is carried out at the same time as artillery preparation and in combination with it. Occasionally, particularly in an offensive from the march, air preparation may begin somewhat earlier than the artillery preparation.

Air support for the offensive begins when the troops have switched to the attack, and is carried on throughout the battle.

Air strikes must be close, in time and location, to the troop operations, particularly in the most decisive moments of combat, when the suppression and destruction of the enemy by the forces and equipment of the division (corps) does not appear to be possible.

162. When atomic ammunition is used, a system of carrying out atomic strikes is chosen which will ensure the greatest destruction of forces and equipment of the enemy, and also creates the most favorable circumstances for the exploitation of the results of atomic strikes by the troops on the offensive.
During the period of artillery and air preparation, atomic strikes against the first position of the enemy are normally made with small caliber atomic ammunition. Protection of the troops, in such circumstances, is achieved by reliable preparation of their positions and by choosing a ground zero for the atomic bursts no closer than the minimum safe distance.

Atomic strikes with warheads of larger yields may be carried out against targets situated in the depth of the enemy defenses.

When choosing the type of atomic burst, it is necessary to take into account not only its reliability in neutralizing the enemy defenses, but also the radioactive contamination of the terrain in the area of forthcoming operations of the advancing troops.

For targets situated in the first position, and also in areas where airborne landings are to take place, high air bursts are normally used.

For targets in the depth of the enemy defense and for centers of resistance in the first position, which have sturdy defensive structures, low air bursts may be used.

For the second defensive zone, when the wind direction is favorable, surface bursts may be used.

163. In the interests of the rapid exploitation by the attacking troops of the results of atomic weapons in the depth of the enemy defensive position, and in order to support a rapid advance by seizing and holding key terrain (objectives) before the arrival of the main forces, first echelon divisions may organize forward detachments before the beginning of the offensive or while it is in progress.

The place of the forward detachments in the combat formation of the division and the time of their forward movement are determined in accordance with the missions and the situation.

A forward detachment consists of a reinforced tank or motorized-rifle battalion (regiment) from the first or second echelon of the division.

The operations of the forward detachment are supported by artillery fire from the division's main forces and by air strikes.

164. To assist the attacking troops in the breakthrough of the enemy defense, and to assure a high speed of attack, tactical airborne landing forces may be used with the following missions:
preventing the enemy from closing gaps which have been formed as a result of atomic strikes; seizing and holding important objectives and areas in the depth of the enemy defense and to disrupt troop control and the work of his rear services.

In some cases, tactical airborne landing forces are used for the seizure and destruction of enemy weapons of mass destruction and his means of using them.

Tactical airborne landing forces are best landed (dropped) in the direction where tank large units and forward detachments are operating.

The makeup of the airborne landing forces usually includes reinforced motorized-rifle sub-units (units) from the second echelons of the large units and, in some cases, sub-units (units) of airborne troops. Besides, in the enemy forward defensive positions, the airborne landing force lands, as a rule, in the form of a reinforced motorized-rifle battalion.

165. Tactical airborne landings are normally undertaken at the decision of the senior commander, who allocates the necessary number of helicopters (airplanes) and organizes the flight and the landing. The direct preparation of the landing, for the departure, and the accomplishment of its assigned mission, is carried out by the commander of the large unit from which the landing force is detached.

Sometimes the organization and execution of the landing (drop) may be assigned to the commander of the large unit in whose zone and in whose interest the landing is to be made. In these cases, the commander of the large unit must determine: the composition, location, and time of landing (drop); the combat mission; the departure area for the landing; the time and order of concentration and the readiness of the assault troops and helicopters (aircraft) for the drop; security measures for the flight, the landing (drop), and support of the combat activities of the landing; the method of cooperation between the advancing troops and aviation; the method of materiel support, and the organization of control and communications.

The time of the landing (drop) depends on the reliability of neutralization and destruction of the enemy in the flight zone and in the area of the landing itself, the capability of the landing force to carry on combat operations independently until it is reunited with the troops advancing from the front, and also the weather conditions. It is advantageous to execute landings (drops), in an area where atomic weapons have been used, as soon as possible after the atomic strike.

The departure area for an airborne landing force is selected in places hidden from enemy observation, and at a distance which permits covering the distance to the area of the landing in the shortest possible time.
The flight route to the area of the landing must be chosen with consideration of the terrain, the nature of the enemy defense, and the expected degree of neutralization of the enemy defense.

166. When organizing the offensive, the commander of the large unit determines the engineer support measures to be undertaken. These must create favorable conditions for the secret and timely concentration of the troops and their dependable screening from all means of destruction, for a swift switch to the attack, and for the development of the offensive at high speeds.

The basic tasks of engineer support, which is carried out by all troops, are:

-- engineer reconnaissance of the enemy defense system, the nature of his defensive structures and obstacles, and also the terrain in the offensive zone;

-- the preparation of concealed routes for the movement of troops to the enemy defense and the organization of maneuver routes during the offensive;

-- the engineer preparation of areas occupied by the troops before the offensive and the implementation of engineering camouflage measures;

-- the making of passages through enemy engineer obstacles and also through areas which have been contaminated by radioactive substances, clearing up ruins, cave-ins and log obstacles, putting out fires, and eliminating other obstacles hindering the movement and maneuver of the offensive troops;

-- the construction of engineer obstacles during the offensive, when repelling the counterattacks of enemy tanks, the cover of flanks and gaps, and during the consolidation of lines;

-- preparation for the use of crossing equipment and equipping and maintaining of crossing sites for the rapid forcing of water obstacles by troops;

-- reconnaissance to find water sources, securing and purifying water, and building water supply points;

-- constructing installations for use as control points.

167. Passages through friendly obstacles covering the main line of defense are made ahead of time.
Passages through enemy obstacles in front of his main line of defense are usually made by the use of explosives during the artillery preparation. With the beginning of the attack, passages through minefields are, in addition, made by tanks equipped with mine-clearing devices.

Ensuring the movement of troops through passages is the responsibility of engineer troop sub-units.

168. Smoke, during the preparation of an offensive and during the attack, is used at the order of the large unit commander, in a centralized manner on a broad front.

During a battle in the depth of the enemy defense, regiments and battalions make use of smoke independently in accordance with the situation.

Smoke agents are used to screen with smoke enemy observation and strong points, to blind his means of fire and conceal the flanks of attacking troops, or target indication and the designators of lines reached in the course of the offensive; to conceal the regrouping of the troops on the offensive, the commitment of second echelons to combat; to cover crossings during the forcing of water obstacles; and also to blind the enemy during overflight by tactical airborne landing forces. In addition, during night operations, smoke agents are used to blind enemy night vision equipment and his searchlights.

Flame-throwing and incendiary equipment is used to destroy enemy personnel and military equipment during the seizure of strong points, during an assault on permanent fortifications, when repelling counterattacks, when consolidating captured lines and assembly areas, and also when protecting flanks and gaps of the troops on the offensive.

169. For the occupation by the troops of departure positions in direct contact with the enemy, a departure area is prepared.

A departure area for the offensive should, from the engineering standpoint, assure concealed disposition and reliable protection of personnel, combat equipment, and transport facilities from atomic weapons and other means of mass destruction, from artillery fire and from enemy air strikes. It should also provide stability of the troops in case the enemy goes over to the offensive. Infantry departure positions are usually organized in the divisional departure area, as are waiting areas and lines of deployment for attack or departure positions for tanks, firing positions for artillery, positions for sub-units and units of antiaircraft defense, and sites for control points. In addition, routes are prepared for the secret and rapid forward movement of the combat formations of the troops on the offensive.
Departure positions of the infantry are equipped with trenches, communication trenches, covered positions and positions for infantry means of fire.

Waiting areas for tanks are prepared at a distance which allows them timely departure to the main line of resistance.

Departure positions for tanks may be prepared when conditions are present which provide complete security from enemy observation and sound detection. They are organized as near as possible to the enemy main line of defense, taking into consideration the ease of movement of tanks into the attack.

Waiting areas and departure positions are equipped with shelters (trenches) for the tanks and their crews.

170. When choosing and preparing a concentration area for a division designated for the breakthrough of the enemy defense from the march, special attention is devoted to the division's concealed and dispersed disposition and to providing it with the necessary routes for moving up toward the enemy defense. For this purpose covered protection is provided for the personnel, control points, combat equipment, transport, and the reserves of material supplies. In addition, the protective and camouflage features of the terrain, and previously prepared defensive zones and disposition areas are used. For the movement of troops up toward the enemy defenses, roads (cross-country routes) and lines of deployment are prepared.

For the artillery participating in the artillery preparation, firing positions are set up in the disposition areas of the troops which are in direct contact with the enemy.

171. The preparation of departure areas in direct contact with the enemy is carried out, as a rule, by defending troops under the guise of strengthening their defense, primarily at night. If necessary, some of the troops designated for the offensive in a given direction may be used for the preparation of departure areas.

The preparation of troop disposition areas in depth is usually carried out by the troops occupying those areas.

172. The occupation of a departure area in direct contact with the enemy is carried out secretly in accordance with a carefully prepared plan over the period of several nights.

The newly arrived large units (units) occupy the departure position simultaneously with the relief of the units which operated there before.
The moving up and deployment of the artillery, which is intended to destroy the enemy means of atomic attack and to combat his artillery and radar stations, as well as some antitank weapons and antiaircraft artillery, is given first priority. Then the remaining artillery, which is participating in the artillery preparation, is deployed. At the same time, communications, observation points, and posts, and control points are established.

The movement of the remaining part of the antiaircraft artillery is carried out so that its main forces are in a position to provide reliable cover for the main grouping of the division (corps) as it moves up and assumes its departure position.

The infantry of units of the first echelon of the division, together with its means of fire, are usually moved into the departure position 24 hours before the attack or the night before the offensive. The second echelon of the division normally moves up during the night before the offensive and is located at a distance from the main line of defense which ensures its timely commitment to combat. The movement is carried out by sub-units along roads and prepared cross-country routes. When the line which is under enemy observation from ground observation posts is approached, the infantry dismounts in covered areas, and by concealed routes, communication trenches, and trenches occupies its departure positions.

Tank units on the offensive in the first echelon and infantry close-support tanks may occupy their waiting areas over a period of several nights or the night before the offensive. The tanks move up from their waiting areas to the line of deployment for the offensive, and the infantry close-support tanks sometimes move up to the offensive positions.

The infantry-close-support tanks normally occupy their departure positions the night before the offensive, and may move straight up to them, bypassing the waiting areas.

The troops in the departure area must be in a state of readiness to repel possible ground or air attacks by the enemy, and also to switch to an offensive action, on the instructions of the senior commander, if it is discovered that the enemy has withdrawn his units into the depth.

173. In a breakthrough of the enemy's prepared defense from the march, in order to ensure an organized move up to the main line of resistance and simultaneous initiation of the attack, the large units and units are assigned routes of movement, a line of departure, a phase line (rubezh regulirovaniya), a line for deployment from columns, and also the line for deployment for the attack.
In order to protect friendly troops from destruction by atomic strikes launched against enemy strong points in the first position, the troops are given a line which they must not cross before the atomic strikes are made.

The organization and sequence of troop movement is determined in accordance with the strategic concentration undertaken for the offensive, the distance from the concentration area to the enemy main line of defense, the nature of the terrain, and the presence of roads.

When in direct contact with the enemy, the following are deployed ahead of time: the reconnaissance elements, observation points and posts, antiaircraft sub-units and units intended to cover the troops which are moving up from air strikes, and the artillery which is taking part in the artillery preparation.

Units of the first echelon move out of the areas they occupy in regimental or battalion columns. As they approach the lines of deployment, they assume their approach march formation one after the other. As they reach their lines of deployment for the offensive, the tanks and infantry of the first echelon quickly deploy in combat formation and attack the enemy from the march. The infantry dismount for this.

If necessary, the sub-units of the first echelon may be given time for orientation and for checking their combat missions on arrival at the line of deployment for the attack.

Rear service units and sub-units follow in independent columns or as part of the march columns of the large units (units).

174. The control of the troops during the preparation for an offensive is effected as a rule, by personal contact of the commanders, through staff officers, by mobile means, and by the transmission of orders by means of wire communications.

When the troops have taken up their departure positions for the offensive, in direct contact with the enemy, a command post is organized, normally in the area of disposition of the second echelon and the reserves of the division (corps), and the forward command post is organized among the dispositions of regiments of the first echelon or beyond them.

When preparing a breakthrough from the march, a command post and a rear services control point are organized in the troop concentration area. A forward command post is set up ahead of time within the limits of the first zone of the defending troops in the direction of action of the main forces of the division (corps). As soon as the division (corps) begins to move out, control of the troops is effected from the forward command post.
175. Commanders of large units take measures against possible counter-preparations of the enemy when the troops have occupied a departure position in direct contact with the enemy and when the troops are moving up to break through the enemy defense from the march.

To foil enemy counter-preparations, artillery and air preparation may be started earlier than the time arranged, with the subsequent transition of the troops into the offensive, at the order of the senior commander.

Aircraft may also be used against enemy artillery, missile installations, and aircraft taking part in the counter-preparation, and in repelling any offensive action that he may make.

In the event that the enemy carries out counter-preparation, particularly with the use of atomic and chemical weapons, the commander of the large unit takes measures to eliminate its consequences, paying particular attention to the rapid re-establishment of the readiness of the friendly first echelon to go on the offensive.

In order to replace troops of the first echelon, who have suffered severe losses from enemy atomic strikes, a part, or all, of the second echelon may be used.

Attempts by the enemy to conduct a reconnaissance in force to ascertain the disposition of units of the division which have occupied a departure position are repelled by the fire of specially detached means of fire from the sub-units of the first echelon and the artillery.

3. THE CONDUCT OF THE OFFENSIVE

176. The beginning of the assault by tanks and infantry is preceded by artillery and air preparation, with or without the use of atomic weapons and other means of mass destruction.

At the designated time the large unit commander, with the permission of the senior commander, gives the order (signal) for beginning the artillery preparation.

Large unit commanders, from their forward command posts, observe the results of the atomic explosions and the progress of the artillery and air preparation, and direct the movements of the troops to the main line of resistance. They report to their immediate superiors the results of the use of atomic weapons and the accomplishment of the missions of the artillery and aviation. At the same time, ground zeroes (centers) and heights of atomic bursts are determined by intersection. When a burst is displaced or deviates in height, the targets not affected by atomic weapons are neutralized by artillery fire and air strikes during the
artillery and air preparation, or during the period of artillery support. If necessary the atomic strikes may be repeated.

If an atomic burst has occurred too low, additional protective measures must be taken against a possible increase in radioactive contamination.

During an atomic attack against the enemy, the troops who are in direct contact with the enemy must be under protective cover, and the troops moving out of their disposition areas, for a breakthrough from the march, must be at a safe distance.

177. The enemy main line of defense is attacked by tanks and infantry at the appointed time (H-hour). The order (signal) to start the movement of tanks and infantry to the attack is given by the division commander, taking into consideration the time designated for the attack and the distance of the tanks and the infantry from the enemy front line of defense.

The tanks and infantry, under the cover of artillery fire, air strikes, and their own fire, swiftly rush into the enemy front line of defense at the designated time (H-hour) and, following the exploding shells of friendly artillery, destroy enemy personnel, his means of fire and his combat equipment, and move ahead rapidly. Surviving groups of the enemy and their means of fire are destroyed by specially allocated sub-units from the second echelons and the reserves. In the course of the offensive, infantry-close-support tanks may move away from the infantry, without losing communications or fire coordination with it.

178. From the beginning of the offensive the artillery lays down uninterrupted and powerful fire against enemy targets which hinder the forward movement of the troops on the offensive or the overflight and operations of tactical airborne landings. The artillery fire is closely coordinated with the maneuvers and strikes of the troops on the offensive until they have accomplished their assigned mission.

Upon discovery of the enemy means of atomic or chemical attack, the main efforts of the artillery are concentrated on their immediate destruction.

The displacement of artillery groups is carried out in such a way that the greater part of the artillery can continuously support the tanks and the infantry with its fire.

179. Antiaircraft defense troops, in cooperation with fighter aircraft, concentrate their main efforts, during the offensive, on providing uninterrupted cover for the main grouping of the troops, particularly for units having the most success and also for the cover of the second echelons during their moving up and commitment to battle, for forward detachments, and troops repelling counterattacks and forcing water obstacles.
The displacement of antiaircraft artillery is carried out in such a way that its greatest part is always ready to engage enemy aviation.

180. Aviation carries out the following main tasks from the beginning of the offensive.

Bomber aviation inflicts strikes on enemy airfields, missile installations, pilotless weapons, the most important strong points and centers of resistance, artillery firing positions, reserves in the depth of the enemy defense, transport routes, headquarters, and rear area installations of the enemy.

Fighter-bomber aviation supports the tanks and infantry, operating against individual centers of resistance and strong points of the enemy which hinder the forward movement of the troops on the offensive, neutralizes and destroys artillery and tanks, carries out strikes at missile installations, radar stations, jamming stations and the approaching enemy reserves.

Fighter aviation, in cooperation with antiaircraft troops, covers the attacking troops, engages enemy aircraft and pilotless weapons, prevents the enemy from carrying out aerial reconnaissance, and supports the combat operations of bomber and fighter-bomber aviation.

Air strikes are shifted according to time or on the orders of the division (corps) commander as friendly troops move forward.

Reconnaissance aviation, and also aircraft of bomber, fighter-bomber, and fighter aviation carry out uninterrupted observation of the battlefield and reconnaissance of the enemy in the depth of his defense. All information gained from observation is immediately transmitted by radio in the clear and is received by the control points of the large units. Information obtained from reconnaissance about the situation in the depth of the enemy defense is normally transmitted through the appropriate headquarters.

181. In order to ensure the swift crossing of areas subjected to atomic strikes, and those areas where the enemy does not put up any organized resistance, sub-units assume an approach march formation. In such cases, the infantry moves behind the tanks in armored personnel carriers (vehicles) or rides on tanks, dismounting when necessary to overcome organized enemy resistance.

The forward detachment which has been sent out for the timely exploitation of the results of atomic strikes or the capture of an important line (objective) does not allow itself to become drawn into combat for individual strong points or with the enemy reserves as they move up; it presses on into the depth of the enemy position to accomplish its assigned mission.
182. In those instances when the enemy deliberately checks the attacking troops frontally with small forces and uses his main forces to launch a counterattack from previously prepared lines in the depth of the defense, the large unit commander directs the main efforts of the troops to the rapid destruction of the enemy main grouping.

Having swiftly overcome the resistance of the enemy covering troops, the division pins down the enemy main grouping frontally with part of its forces, and then strikes at the flank and rear with the main forces.

The enemy main grouping, while still in its disposition area, and especially when moving up to the counterattack, is attacked by atomic weapons, artillery fire, and air strikes. In order to forestall the enemy in seizing his previously prepared lines of deployment, forward detachments may be sent out.

183. During the offensive the division (corps) commander of the first echelon defines the missions to his troops in detail, and concentrates the main efforts in the directions where success has been achieved. He neutralizes strong points holding up the advance of the troops and the moving up of reserves with artillery fire and air strikes, not allowing the enemy to take defensive positions on new lines or to launch counterattacks.

The main forces of the division, particularly tank units and sub-units, boldly exploiting intervals and gaps in the enemy combat formations, develop the offensive with determination in order to break through the entire depth of the first zone of the enemy defense and to seize the second zone from the march.

The development of success is achieved through broad troop maneuver by close envelopment of enemy centers of resistance, inflicting coordinated strikes frontally and from the flanks, by envelopment of his centers of defense for a deep and rapid penetration in depth by the troops on the offensive, shifting efforts from one direction to another, or striking the enemy from the rear. During the course of the offensive all commanders must display a high degree of initiative and decisiveness in order to exploit all favorable situations for the destruction of the enemy and for the swift movement of troops into the depth. The troops who are executing the maneuver must be reliably protected from possible ground and air strikes by the enemy, and execute the maneuver itself promptly, rapidly, and secretly, without allowing congestion of combat formations.

184. During the offensive, intelligence must establish the lines or strong points where the enemy may put up resistance; the grouping of his forces preparing for a counterattack; the presence and strength of the enemy on the flanks; the deployment sites of new means for using weapons of mass destruction and the
movement of such weapons which have already been discovered; establish passability of the terrain and provide other information which is necessary to the commander for the successful development of the offensive.

185. During the development of an offensive in the depth of the enemy defense, particularly when the division is operating independently from other forces, and also during operations in separate directions, and when there are considerable gaps in the combat formation, the security of the flanks attains great importance. For this purpose reconnaissance on the flanks is increased and artillery fire is prepared. In sectors where there is a danger of tank attack, the antitank reserve and a mobile obstacle-places detachment are moved up to secure the flanks of the troops on the offensive and to consolidate flank positions which have been captured.

186. In the interests of the anti-atomic defense of the troops during an offensive, in addition to the usual measures, it is essential not to allow a gap to develop between friendly troops and the enemy. The troops must break into his dispositions, take measures for rapid dispersal after overcoming enemy resistance, and also to bypass or cross sectors which have been contaminated by radioactive substances along directions having the lowest level of radiation.

In the event the enemy carries out atomic strikes during the offensive, the large unit commander adopts measures to see that the offensive continues. For this purpose he must: reestablish disrupted control and communications; specify the troops' position and condition their combat missions, and sequence of coordination; where necessary, commit the second echelon into combat; take measures for rapid delineation of the boundaries of contaminated areas and safe directions for troop operations; move up the antitank reserve and the mobile obstacle-placing detachment to threatened sectors; organize rescue operations, clear obstructions, restore roads and crossings, and, if necessary, extinguish fires.

187. In the event of the threat of counterattack by strong enemy forces, lines and objectives of tactical importance which have been captured are consolidated by troops designated for that purpose.

When the enemy reserves are discovered on the move, their deployment must be delayed by artillery fire and air strikes, in order to inflict losses on them, and then they must be destroyed by a blow on the flank and the rear. When atomic strikes are used against an enemy grouping moving up, the troops on the offensive, exploiting their results, immediately attack the enemy and continue to develop the offensive in depth.

In the event of a breakthrough into the gaps of the troops on the offensive by a counterattacking enemy, the penetration is eliminated by the forces and weapons of the units and large units.
in whose lines the breach has been made, and also by the weapons of the senior commander.

In the interests of successfully accomplishing the assigned mission and, at the same time, repelling enemy counterattacks, the large unit commander regroups part of his combat forces on the threatened flank.

188. The second echelon of the division is normally committed to combat in order to increase the intensity of the attack and for the continued development of success which has been achieved by the first echelon. The second echelon is committed to combat, depending on the situation, to complete a breakthrough of the enemy main line of defense, to seize his second line of defense from the march, or to smash a counterattacking enemy.

The movement of the second echelon of the division from the area it occupies begins at the order (signal) of the division commander in such a way that it reaches the line of commitment to combat simultaneously with units of the first echelon.

The second echelon of the division is brought into the battle on the decision of the division commander, unless special instructions have been given on this point by the senior commander.

Commitment of the second echelon of the division to combat takes place through gaps in the line of the first echelon or from behind its flanks. Its commitment to combat through the first echelon by leapfrogging takes place in exceptional cases.

Before commitment of the second echelon to combat, the artillery and aviation inflict strikes against the enemy defense. Atomic strikes may be carried out against the most important targets.

The large unit commander insures timely transfer of the artillery fire to the support of the second echelon.

189. The second line of the enemy defense is normally penetrated from the march. All measures to effect this breakthrough are normally prepared during the organization of the offensive. In developing the offensive after the breakthrough of the main line of defense, the division (corps) commander directs the efforts of the attacking units (large units), particularly tank units, to the most rapid approach to the second line of defense and its capture from the march. The commander specifies, when necessary, the time and place for carrying out atomic and other strikes, depending on the forward movement of the troops.
190. Atomic strikes against newly discovered targets or targets which have not been sufficiently neutralized in the second line of defense are carried out, when the units (sub-units) of the troops on the offensive approach them, at a distance which will ensure their safety from atomic explosions and will allow rapid exploitation of their results. Atomic strikes against enemy reserves moving up are normally carried out during their deployment.

Aviation neutralizes (destroys) enemy reserves, particularly his tanks, prevents their approach and deployment, neutralizes the artillery, and supports tactical airborne forces fighting behind enemy lines.

The artillery supports the combat actions of tactical airborne forces and forward detachments, and supports the approach, deployment, and attack of the units of the first echelon, by its fire.

191. The units of the first echelon of the large unit, exploiting the results of atomic and air strikes and artillery fire and successes achieved by airborne assaults and by forward detachments, determinedly break through the main line of the enemy's second defensive zone, develop their success in depth and to the flanks, trying to seize the whole zone as quickly as possible.

The commander of the large unit takes the necessary measures to ensure the most rapid approach of the second echelon in order to intensify the strength of the blow during the battle for the second defensive zone, or for the seizure of important lines and objectives behind that zone.

192. If the enemy second defensive zone is not captured from the march, its breakthrough is achieved after a hasty preparation for the attack.

An attack by the troops is normally preceded by artillery and air preparation either with or without the use of atomic and chemical weapons.

An attack and offensive in depth is normally supported by successive concentration of fire, by concentrated and massed artillery fire and by air strikes.

193. The commitment of a second echelon division is normally effected from the march.

The order (signal) for the division to move is given by the senior commander so that its first echelon arrives at the line of commitment to combat at the same time as the first echelons of the divisions attacking in front come out on it.

For the movement of the division up to the line of commitment to combat, not less than two routes are placed at its disposal. As soon as the division begins to move, these routes
must be kept clear of troops of the first echelon. The routes allocated to the division are equipped by the forces and means of the senior commander.

The movement of the division to the line of commitment to combat is normally executed in march formation. The tank regiment of a motorized rifle division moves as a part of the first echelon of the division. The reconnaissance sub-units and the march support detachments of the division follow the combat formations of the first echelon regiments advancing in front of the divisions. During the approach to the line of commitment to combat, the units of the first echelon of the division adopt an approach march formation. At the line of commitment to combat, the division either adopts a combat formation or continues its movement in approach march formation, according to the situation.

In order to support the commitment of the division to combat, the senior commander gives orders for the employment of the necessary quantities of artillery and aircraft. Atomic weapons and other means of mass destruction may be used against the most important targets of the enemy defense and against his reserves.

The division artillery occupies firing positions primarily along the roads (routes of movement forward) before the units of the first echelon of the division have reached their line of commitment to combat.

194. The commander of a first echelon division, upon commitment of a second echelon division to combat in his zone of attack, specifies on the basis of directives of the army commander (corps commander) the following:

--when and which routes must be freed for the movement of a division (units) of the second echelon;

--the order in which a division (units) of the second echelon pass through the combat formations of friendly troops;

--the missions of the artillery in support of the commitment of a division (units) of the second echelon to combat;

--the missions of the antiaircraft defense troops called upon to cover the second echelon division;

--the sequence of cooperation between his own troops and the second echelon division (units) being committed to combat.

195. During the approach of a second echelon division to its line of commitment to combat, the commander of this division gives the unit commanders the latest information about the enemy
and the situation of the troops operating in front of them. He specifies the missions of the first echelon units, the order of their deployment and the coordination between them and the artillery, aviation, and adjacent units. The forward command post of the division is set up near the line of commitment to combat.

196. After the enemy second defensive zone has been captured, the efforts of the attacking troops, particularly the tank divisions, are directed toward the determined development of success in depth or toward the flank. In this the division (corps) may attack the enemy, who has assumed the defensive hastily or ahead of time, conduct a meeting engagement with the enemy reserves as they move up, pursue and destroy his retreating troops or, operating toward the flank, participate in the encirclement and destruction of the surrounded enemy. An important mission of the troops at this time is the seizure of airfields, missile launching pads (installations), and of the firing positions of atomic artillery and other enemy means of mass destruction.

197. During the development of a successful offensive in depth, the enemy will attempt to delay the forward movement of our troops by hurriedly occupying advantageous defensive lines.

A hasty occupation of the defense at the beginning of its organization is characterized by: incomplete preparation, and as a result of this, reduced stability, an insufficiently developed and organized system of fire, weak engineering preparation of positions, hurriedly organized coordination, unstable control, and insufficient knowledge of the terrain.

198. A breakthrough of a hastily occupied enemy defense normally is executed from the march. It is characterized by rapid deployment and attack by units of the first echelon independently in their approach to the line of defense.

The decision to break through the enemy’s hastily occupied defense from the march is made by the division commander during the approach, is based on intelligence information, and is normally made on a map. At the same time, troops are grouped, the units receive their missions, and coordination is organized. Information about the enemy, the missions of the troops, and coordination questions are further refined as new information on the situation is received.

The combat missions for the units are determined in accordance with the nature of the enemy defense and its degree of readiness. Depending on the situation, the division may carry out its breakthrough of the enemy defense in separate directions.
199. Reconnaissance of defensive positions is carried out while the troops are approaching them. For this purpose reconnaissance is organized and sent out by all arms of troops and special troops beforehand.

In order to prevent the enemy from consolidating a defensive position, air and artillery strikes are carried out against the troops occupying these positions or moving up toward them. Atomic and chemical weapons may be used against the most important targets of the defense and against large reserve forces moving up. Atomic strikes against strong points on the enemy main line of defense should be launched while friendly troops are approaching positions which will assure their safety from the bursts, and which will permit the rapid exploitation of the results of these strikes.

In order to forestall the enemy in the seizure of important targets in the defensive positions, the division commander sends out a forward detachment (detachments) and also may land (drop) airborne landing forces.

200. The approach of the main forces of the division to the enemy defensive position is normally carried out in approach march formation, under the cover of the forward detachments and advance guards.

The forward detachments and advance guards, operating boldly and actively on a broad front, detect weakly held and unoccupied sectors of the enemy defense and exploit every possibility for a rapid breakthrough of his defense.

As units of the first echelon approach the enemy position, they are deployed in combat formation and, without waiting, exploit the success of the forward detachments and advance guards, under the cover of artillery fire and air strikes. Having broken into the enemy defense, the units of the first echelon of the division boldly exploit gaps and intervals in the enemy combat formations and advance decisively, particularly in directions where atomic strikes have been executed, attempting to link up with airborne landing groups as soon as possible, and to break through the enemy defensive line.

The second echelon moves behind the first echelon, ready to exploit its successes, to widen the breakthrough toward the flanks, and to destroy pockets of enemy troops.

201. The attack by units of the first echelon is preceded by a powerful artillery and air onslaught. Artillery support is effected by massed and concentrated fire. Part of the artillery and aviation is used to prevent the approach of the enemy reserves.
202. In cases when it has not been possible to break through a hurriedly occupied enemy position from the march, a breakthrough is effected by means of a rapidly prepared attack. Such a breakthrough is made by a simultaneous blow by the bulk of the forces of the large unit.

For effective preparation of an attack when time is limited, the troops which are in direct contact with the enemy consolidate their lines on favorable terrain, carry out measures of anti-atomic protection and, if necessary, re-form under cover of fire from all types of weapons, using concealed sectors of the terrain for their movements. The division commander specifies the combat missions to his subordinates and organizes coordination, and also sees that all measures are carried out to prepare for a breakthrough in the shortest possible time, particularly as regards further reconnaissance of the enemy defense and the preparation of artillery fire.

If necessary for breaking through the enemy defense, the commitment of the second echelon to combat is organized.

The attack by the troops is carried out after artillery and air preparation, with or without the use of atomic and chemical weapons. Artillery support consists of successive concentrations of fire or massed and concentrated fire. The fire of tube artillery using atomic ammunition, of heavy rocket and long-range artillery is normally used for the destruction or neutralization of the enemy reserves.

A successful breakthrough, even on a narrow front, is exploited for the development of an attack in depth and toward the flanks.

203. A determined and deep breakthrough of the enemy defense by the advancing troops may create favorable conditions for an encirclement of the enemy, which is normally carried out by the division in cooperation with other large units and with airborne landings.

Success in a battle for the encirclement and destruction of the surrounded enemy is achieved by swift and coordinated actions of the attacking troops. These operations are intended to break up the enemy troops and destroy them by units during the course of the encirclement, in order to prevent his troops from going over to the defensive and offering organized resistance.

In an encirclement battle, it is essential to send out covering forces and to make wide use of engineering obstacles on all sectors from which the enemy might appear or counterattack, and it is also necessary to take measures to obstruct the enemy from the air. Helicopters may be used to land screening forces and to lay minefields in threatened directions.
204. Having received the mission of surrounding the enemy, a division commander must:

--- organize, in the large unit's direction of operations, a deep reconnaissance of the enemy to be surrounded and of his approaching reserves;

--- by aggressive and determined actions, capture important objectives on the enemy line of withdrawal and also forestall him in the seizure of advantageous areas for the deployment of his own troops;

--- effectively protect the endangered flank and, if necessary, the rear of the division;

--- coordinate the operations of his own troops with those of other large units and with airborne landings in order to carry out joint annihilation of the enemy.

205. The destruction of an encircled enemy must be completed as rapidly as possible. For this purpose the encircled enemy is attacked by artillery fire, by air strikes, and sometimes by atomic weapons. The areas (lines) where atomic weapons and other means of mass destruction will be used have to be known to the attacking troops.

Troops exploiting the results of atomic strikes, air strikes, and artillery fire must quickly break up the enemy formations and destroy them piecemeal. During this process, the area of encirclement must not be permitted to become congested by friendly troops.

During a battle for the destruction of an encircled enemy, the coordination among all large units (units) and adjacent units, aviation, and airborne landings must be organized very carefully.

Particular attention must be paid to coordinating with troop operations the time and place for carrying out atomic strikes, the employment of chemical weapons, and the establishing of signals prohibiting the use of these weapons.

Troops advancing to link up must know both the direction of operations, the missions, the lines where the link-up will take place, the direction and range limits of artillery fire, the prearranged signals and passwords when the link-up takes place, and the signals for the cessation of fire. They must carefully delineate the front line for their aviation.

206. Attempts by the enemy to break out of the encirclement must be countered by massed artillery fire, by air strikes, and by the use of atomic weapons against the enemy groupings preparing to break out. They must be countered by the construction of obstacles and by moving friendly reserves to the sector of breakout in order to block the path of enemy troops attempting to break out or to destroy them by striking at his flank and rear.
4. **PECULIARITIES OF A NIGHT OFFENSIVE**

207. A night offensive may open with a breakthrough of the enemy defense or may be a development of daylight combat operations.

Success of night combat operations depends on their careful organization, secrecy in preparation, the training of the troops in night operations and on the skillful use of illumination.

Sudden, bold, and audacious operations by sub-units, as well as the display of broad initiative by all commanders in order to make rapid use of favorable conditions to accomplish the assigned mission, take on special significance.

When atomic weapons are used at night, the more powerful blinding action of atomic explosions and their effect on the morale of the troops must be taken into consideration.

208. A breakthrough of a prepared enemy position at night is organized well in advance. The decision made by the large unit commander for a night offensive should be simple and should not require complicated troop movements.

The commander's decision should contain, apart from the usual matters, the following:

--- the sequence of illumination support;

--- measures to combat enemy radiotechnical equipment and to conceal the troops from observation by his night observation equipment, particularly during the occupation of the departure position and during moves from the depth up to the main line of defense;

--- measures to ensure that the offensive will continue uninterrupted despite daybreak.

209. When organizing the combat formation, the first echelon of the large unit should have sufficient forces and weapons allocated to it to ensure the accomplishment of the missions assigned for the night, without committing the second echelons to combat.

The second echelon of the large unit is normally committed to combat with the beginning of daylight, to develop the success achieved during the night. In circumstances when the night offensive is conducted in great depth, and requires an increase in the effort involved, the second echelons may be committed at night.

In order to increase the speed of a night offensive, tactical airborne landings (drops) may be executed. It is normally intended to have them link up with the offensive troops at dawn.
210. The depth of the combat missions of large units (units) during a breakthrough of the enemy defense at night may be the same as during a daylight offensive. The troops are assigned a line which they must capture during the night.

During night operations the direction of the attack should be generally straight ahead, with as few natural obstacles as possible, with clearly visible landmarks, with roads paralleling the direction of the offensive, and should lead to the assigned objectives by the shortest possible route.

211. Artillery and air preparation, with or without atomic and chemical weapons, is normally carried out before a night attack.

To achieve surprise, a night offensive, under favorable conditions, may begin without artillery or air preparation. In this case the artillery opens fire when the attack begins, or on a signal given by the attacking troops. The artillery which has been given the missions of counterbattery and countermortar fire must be ready to open immediate fire against batteries identified in advance and against newly discovered batteries.

212. When setting up illumination support for a night offensive, the following points are normally taken into consideration:

--illumination of targets for the artillery, tanks, aviation, and small arms;

--setting up of illuminated landmarks (beacons) to mark the direction of the offensive or boundary lines throughout the entire depth of the combat mission;

--illumination of the terrain and attack objectives by all troop arms and aviation;

--light signals for mutual recognition, information, target indication, for ensuring control of the troops and for maintenance of coordination between them;

--the sequence of blinding measures to be taken against enemy observation posts and firing means;

--measures for the destruction, neutralization, and blinding of the enemy night observation equipment and his means of illumination;

--marking of the front and flank lines of the units (sub-units) and the lines they have reached;

--mark passages through barriers and obstacles, routes of march for troops, and lines of deployment in the departure area, with signs visible at night during the course of combat;
--marking of areas which have been contaminated by radioactive and poisonous substances;

--countermeasures against enemy attempts to disrupt the illumination support of the troops;

--the order of dispersal and displacement of forces and equipment allocated for illumination support;

--reserve resources for illumination support and the order of their employment.

Measures for illumination support are planned for the entire depth of the combat mission and are further defined as required during the course of combat.

213. In order to maintain security and to achieve surprise, the existing system of illumination and employment of night vision instruments and signaling equipment must not be disrupted before the beginning of the offensive.

In certain circumstances an attack on the enemy main line of resistance and the development of the combat into the depth of his defense may be conducted without employing illumination.

214. With the breakthrough of the enemy main line of defense, illumination is coordinated with the advance of the troops and their operations. Illumination of the terrain, objectives, and targets must be carried out so that the combat formations of friendly troops are not illuminated.

Troops advancing swiftly with tanks ahead of the infantry employ their illumination in such a way that the most intensive lighting is employed during the seizure of the most important positions and objectives in the enemy defense.

Specially designated batteries fire flares and incendiary shells in order to create fires in the enemy lines, to light up the terrain, to create lighted beacons (markers), and to provide for adjustment of artillery fire. Designated guns fire tracer shells to mark the direction of the offensive.

In the depth of the enemy defense, aviation illuminates road junctions, the most important targets, particularly those subject to attack by atomic weapons, the enemy second echelon and reserves, and is employed to set up light markers in enemy dispositions.

The control of the means of illumination during combat is executed by those commanders at whose disposal the equipment has been placed. The control of the illumination carried out by aviation is in the hands of aviation control and target designation officers.
215. If the night offensive is a development of daytime combat operations, the change to the night offensive is carried out without a break, and is normally effected by the second echelons or by specially allocated units and sub-units. If necessary, the development of the night offensive may be carried out by the main forces of the division (corps). In these circumstances the offensive is normally conducted in separate directions, using gaps in the combat formations of the enemy.

The preparation of the troops for a night offensive is normally carried out during the hours of daylight.

216. During a switch from night combat operations to day operations, the large unit commander must not allow any slackening in the tempo of the offensive, and he must ensure the rapid advance of the troops at dawn. For this purpose it is necessary to organize additional reconnaissance, specify the missions of other types of combat support, take timely measures for the dispersion and concealment of the troops, secure the flanks effectively, and define the combat missions and questions of coordination of units (large units), particularly to ensure the timely commitment of the second echelons to combat. It is also necessary to move artillery and control points.

During the offensive, and particularly at dawn, the troops must be ready to repel enemy counterattacks and his air strikes. Where necessary, important lines (objectives) which have been captured are consolidated. In this connection the rapid erection of antitank and antipersonnel obstacles is of special importance, as is the organization of troop protection against atomic weapons and other means of mass destruction.

5. THE CONDUCT OF A MEETING ENGAGEMENT

217. The meeting engagement is a type of offensive combat in which both sides attempt to achieve their purpose by offensive operations.

A meeting engagement may take place in the course of all kinds of combat operations. Its characteristics are:

--an insufficiently clear situation at the moment that battle is joined;

--decisive and rapid changes in the situation and fluidity of combat operations;

--a tense struggle for the seizure and maintenance of the initiative throughout the battle;

--rapid change in combat formations of the troops and rapid buildup of the efforts from the rear;
--the development of combat operations on a broad front, freedom of maneuver, and, usually the presence of exposed flanks on both sides.

218. Success in a meeting engagement is achieved by the timely discovery of enemy movements, by making timely decisions and rapidly issuing missions to the troops, by forestalling the enemy in the delivery of atomic and air strikes, in opening artillery fire, in the seizure of favorable lines, and also by deploying rapidly into approach march and combat formation, by going over to the attack first, by decisive and coordinated troop operations, and through the broad display of initiative by all commanders.

Anticipating the enemy in deploying and in going over to the offensive may lead to the defeat of an enemy who is more powerful, but who has not yet succeeded in deploying his groupings.

In a meeting engagement one should strive for the rapid disorganization of enemy combat and march formations and splitting them into individual groups and destroying them one by one.

When creating troop groups for carrying out a strike, complicated movements leading to loss of time should be avoided. The organization of troops anticipating a meeting engagement must ensure their rapid deployment to carry out an immediate strike against the flank and rear of the main grouping of the enemy, while pinning him down from the front. Tank units and large units should be employed in the main direction for the purpose of using them for a thrust into the flank and rear of the enemy.

To assist in the deployment of the main forces of the division, a large part of the engineer troop sub-units are attached to the units of the first echelon.

In a meeting engagement it is essential to secure the flanks and rear of friendly troops by deep reconnaissance and by moving antitank weapons and reserves to the flanks.

219. Aerial and ground reconnaissance are carried out in order to determine the composition and grouping of enemy forces, to establish the direction of his movement, his flanks, and the time at which he crosses certain lines, and also his line of deployment. Continuous and careful observation of all enemy troops discovered, particularly tank troops, is conducted.

Commanders and staffs must ensure that information about the situation and enemy actions obtained by reconnaissance is received quickly and passed to the troops, particularly information about his atomic and other means of mass destruction, and about reserves moving up from the rear.
220. Atomic strikes before the joining of a meeting engagement are carried out against the columns of the enemy main grouping, and particularly against his tank troops. Atomic strikes are most effective against troops crossing water obstacles, in defiles, and during their deployment for battle.

In the course of a meeting engagement atomic strikes may be launched against the enemy's ground means of atomic attack, against the second echelons in the process of deployment, and against reserves moving up.

221. Chemical weapons may be used against enemy troops crossing water barriers and defiles, against troops moving up to lines of deployment, and during the deployment of the enemy main forces. They may also be used against artillery firing positions and against the enemy reserves moving up.

222. Commanders and staffs, when studying the terrain in the zone of operations, must determine all favorable and unfavorable positions for deployment and battle.

In order to forestall the enemy in the seizure of favorable lines (objectives) in the area of operations of the division, and to hold them up until the arrival of the main body, a forward detachment (detachments) is sent out on the division commander's order. For this same purpose, tactical airborne landings (drops) may be made.

Forward detachments may consist of reinforced tank or motorized rifle sub-units (units).

223. The decision to join in a meeting engagement is made by the large unit commander as early as possible on the basis of information obtained by ground and aerial reconnaissance. Any delay in reaching this decision leads to the loss of the initiative. The decision is defined in detail at the time the forward detachments and other advance units (sub-units) join in combat. In making his decision, the commander of the large unit determines:

-- the direction of the main strike, the type of maneuver, and the grouping of forces and equipment;

-- the lines of deployment and combat missions of the units (large units);

-- the targets against which atomic strikes must be made, and the tentative time of their delivery;

-- the missions of artillery and aviation detailed for support;

-- the missions of the antiaircraft defense units;
-- the plan of coordination of troops;
-- missions for the securing of flanks and for combat support;
-- the site of the forward command post.

The direction of the main strike is chosen in a zone of terrain suitable for tank operations. This direction must be convenient for the movement of the main forces into the flank and rear of the enemy, and must not pass through large populated points.

In cases when the enemy has already suffered large losses, and also when the troop maneuver to strike the flank or the rear is difficult, or will require a prolonged period of time, it may be more advantageous to carry out the main strike from the front.

Large units and units receive their immediate and follow-up missions along lines whose capture would create conditions advantageous for the further conduct of combat. At the same time as he assigns combat missions, the commander of the large unit issues basic instructions about troop coordination.

If airborne landings (drops) are made in the direction where the large unit is operating, to forestall enemy seizure of lines, the commander of the large unit coordinates the operations of the division units with the airborne landing in order to exploit its success rapidly and to link up with it.

224. Upon contact with the enemy, the reconnaissance sub-units penetrate boldly to his main forces and determine their composition, direction of movement, and lines of deployment.

When a meeting engagement has been joined, the forward detachments, supported by artillery fire, decisively destroy the forward enemy sub-units, seize and hold selected lines until the arrival of the main forces (advance guards) of the division, and hinder the deployment of the enemy main forces.

Enemy airborne forces which have landed, on routes of movement, are destroyed normally by forward detachments and advance guards, and in certain cases by a part of the main forces.

225. Air strikes against the enemy troops moving up are delivered as they are detected, and even before their deployment, in order to delay the movement of his main forces, to inflict damage, and to help friendly troops rout the enemy.

Air strikes are first delivered against the enemy operating in the direction of the large unit's main thrust, and also against enemy forces threatening the flank.
Particular attention must be paid to the destruction of enemy tank large units (units) and artillery, and to the support of friendly forward detachments and airborne landings.

Fighter aviation, in coordination with antiaircraft artillery, must protect friendly troops from enemy air strikes, particularly during their deployment, and also during the passage of defiles, bridges, water obstacles, and across open terrain.

226. When engaging the enemy, the division destroys his covering units by decisive operations of the forward detachments, advance guards and other forward units (sub-units), and uses the main forces of the division to carry out a thrust at the flank and rear of the enemy main grouping, splitting it into pieces and destroying them piecemeal.

The success attained must be exploited boldly and continuously, without allowing the enemy the opportunity to organize his defense and regroup his forces.

The combat operations of the division are supported by aviation and by massed artillery fire, in the course of which the large unit commander must quickly centralize the control of the deployed artillery.

During an engagement with superior enemy forces, it is expedient to meet the enemy, at a line favorable for combat, with the fire of tanks, artillery, and strikes by aviation in order to break up his combat formations, inflict losses, and destroy the enemy with a thrust delivered by the main forces against his flank and rear.

227. In the event of an enemy offensive or an Airborne landing directed against the flank of our troops, adequate forces, above all tanks and artillery, should be shifted quickly to attack him, but without diverting from fulfillment of the previously assigned mission.

When significant enemy forces operate on its flank, the division shifts its main strength to the threatened flank and continues the offensive, or, with the authorization of the senior commander, goes over to the defense.

If, as a result of a meeting engagement, the enemy goes over to the defense, our troops attack him immediately, and if he begins to withdraw, without delay, they switch to the pursuit.

228. When a meeting engagement occurs, control of troops is effected through short combat orders.

When the enemy has been engaged by the forward units (sub-units), the forward command post of the large unit commander is set up in the direction of the main thrust, in a location
from which he can observe the deployment and control the operations of the main forces.

229. When a meeting engagement starts, the rear service units (sub-units) move into their assigned areas, where they, first of all, set up medical aid posts and organize collection points for damaged vehicles.

6. PURSUIT

230. The rout of a retreating enemy is achieved by relentless and swift pursuit, by cutting the route of his withdrawal, by the dispersal and destruction by units.

Pursuit may arise as a result of the successful development of an offensive, after breaking through the enemy defenses, unfortunate outcome of a meeting engagement for the enemy, or in the event of a planned withdrawal by the enemy.

231. The large-unit commander, when organizing a pursuit, must:

-- determine the initiation and direction of withdrawal by the enemy main forces, and organize continuous observation of his actions during the retreat;

-- select the lines (areas) in the enemy rear which the troops must reach in order to cut the enemy line of retreat and the shortest routes to reach them;

-- determine the number and composition of the detailed forward detachments, and assign them their missions;

-- assign the troops missions for the pursuit and destruction of the enemy in the selected area.

In anticipation of an enemy withdrawal, measures for his pursuit are planned in advance.

232. In all cases, reconnaissance must establish enemy preparation for, initiation, and route of withdrawal, his grouping, movement of reserves, particularly tanks, the presence of obstacles, whether the roads and bridges along the division (corps) routes of march are passable, and enemy preparation and occupation of defensive positions.

In order to discover a planned enemy withdrawal in advance, observation and listening are intensified, the capture of prisoners is organized, and reconnaissance in force is conducted on a broad front. A planned withdrawal by the enemy is most probable at night and is normally covered by vigorous operations.
233. Large units and units engaged in pursuit are given missions of greater depth and broad zones are designated for their operations.

In order to ensure freedom of maneuver and to make it possible to intensify efforts in the main direction, it is essential to have reserves.

234. When the initiation of an enemy withdrawal has been determined, all commanders begin their pursuit independently, without waiting for orders from the senior commander, in order not to lose contact between our troops and the enemy and to prevent him from organizing resistance on a new line.

With the initiation of the enemy withdrawal, the large unit commander attacks with his main forces, supported by artillery and aviation, with the mission of overrunning the enemy covered units, penetrating swiftly into the depth, block the lines of withdrawal of his main forces, and destroy them. Subsequently, part of the forces, with the necessary reinforcement, are detailed for the frontal pursuit of the withdrawing enemy.

If the senior commander orders that frontal pursuit of the enemy is to be conducted by other troops, the large unit advances, with all its forces, along routes parallel to the direction of the enemy withdrawal, and pursues him at full intensity in order to get to the flank and rear of the retreating enemy and, together with the troops pursuing him frontally, surround and destroy him.

In order to ensure swift pursuit, the troops frequently move in march column and operate in approach march formation.

Tank large units and units are employed during a pursuit for swift and deep commitment on the enemy withdrawal route or for the dispersal and destruction of his main grouping.

235. When the enemy withdraws in several columns, the columns must be isolated from each other and destroyed piecemeal, striving to destroy the main column first.

If the enemy has set up a hasty defense on a subsequent line, the division (corps) attacks him from the march.

During a pursuit it is first necessary to capture crossings over water obstacles or their bridgeheads in the enemy rear, and also the other most important lines, in order to prevent the enemy from establishing a new line of defense.

236. Upon receipt of a pursuit mission, or on their own initiative, division commanders send out forward detachments which move around the covering units without engaging them in combat. They attempt to arrive at the withdrawal route of the enemy main forces as quickly as possible, and to seize important
lines and objectives. The operations of the forward detachments are supported by artillery and aviation.

237. In order to seize and hold defiles, bridges, crossing places, bridgeheads, road junctions and other key objectives on the enemy withdrawal routes, airborne landings (drops) may be used. The division commander establishes communication with the airborne landing group and coordinates its operations with those of the division troops.

238. During a pursuit, the regimental and division artillery groups follow closer to the head of the columns of the main forces of regiments and divisions. The corps artillery group normally moves in the columns of the first echelon divisions or in a separate column in the main direction.

The artillery remains ready to impede the enemy withdrawal or to rout him by firing at road junctions, defiles, bridges and crossings, and to prevent him from occupying and organizing a defense at intermediate lines, and from bringing up his reserves.

Atomic strikes, during a pursuit, may be employed against the main grouping of the withdrawing enemy, against his reserves that are moving out, and also against bridges, water crossing places and other key objectives on the enemy withdrawal route.

The antiaircraft defense troops cover the pursuing troops' main forces and also remain ready to operate against the enemy on the ground. Part of the antiaircraft artillery drawn from the division (corps) antiaircraft artillery group may be attached to regiments and forward detachments.

239. During the pursuit, aviation, in accordance with the senior commander's plan, carries out strikes at the enemy along his route of withdrawal, particularly at road junctions, bridges, water crossings and in defiles, and also against enemy strong points hindering the forward movement of our troops. At the same time, aviation carries out strikes against tank troops and other reserves moving up from the rear, preventing them from occupying and improving rear defensive positions.

Air strikes should be launched, first of all, against the enemy main groupings and also against groupings which threaten the flank of our pursuing troops with a thrust.

In order to assist aviation in the timely takeover of enemy airfields, the large unit commander assigns sub-units to seize these airfields.

240. The basic engineer support missions during the pursuit of the enemy are:
--reconnaissance, the removal of obstacles, and the restoration and repair of damaged roads and bridges along the routes of the pursuing troops;

--the erection of obstacles and employment of demolitions along the enemy withdrawal route and in the directions of possible enemy counterattacks;

--supporting the operations of forward detachments and airborne landing groups in the seizure and holding of key lines and objectives;

--supporting the forcing of water obstacles from the march.

241. The chemical troops are employed for chemical and radiation reconnaissance, for decontamination and disinfection of the routes used by the pursuing troops, and, in coordination with the engineers, for opening passages through enemy engineer and chemical obstacles, and also for securing the flanks of troops conducting a pursuit.

242. During the pursuit, and also in the event the main forces are deployed, the division (corps) commander controls his troops in the same way as during an offensive.

When the troops are moving in columns, the large unit commander and the group of officers necessary for control, move at the head of the main forces column, while the large unit staff moves in the main forces column.

243. Only the most essential rear service units and sub-units accompany the troops in pursuit. The remainder move as the situation demands.

The timely supply of fuel and ammunition to the troops is of particular significance during the pursuit. If necessary, air transport may be used for this purpose.

7. PECULIARITIES OF AN OFFENSIVE INVOLVING THE CROSSING OF WATER BARRIERS

244. The significance of a water barrier is determined by its breadth, depth, the speed of the current, the characteristics of the river valley, the banks, and the bottom, the existence of fords and hydrotechnical constructions, the type of enemy defense of the water barrier, and the weather conditions and time of year.

245. During an offensive which is developing successfully, water barriers are normally forced from the march.

If it is not possible to force a crossing from the march, it is effected after a short preparation.

Under conditions of direct contact with the enemy along a water line, the forcing is carried out after a planned preparation.
Employment of atomic weapons and modern crossing equipment, and the possibility of moving combat equipment and transport on self-propelled crossing equipment, and tanks crossing under water, allow the troops to force water barriers at high speed.

246. In all cases, success in forcing is achieved by:

--timely reconnaissance of the water barrier and of the enemy;

--rapid destruction and neutralization of enemy means of mass destruction, combat equipment, and firing means;

--thorough organization, secrecy of preparation, surprise, and rapidity of forcing on a broad front, and rapid development of an offensive on the opposite bank;

--provide the troops with self-propelled means of crossing, as well as make available equipment permitting tanks to cross under water;

--the timely opening of passages through obstacles on the banks and in the water;

--concealed and timely movement of the necessary amount of crossing equipment up to the sectors to be forced, and skillful use of this equipment during the forcing;

--reliable protection of friendly troops and the crossing against enemy air strikes, particularly during the forcing itself, and at the captured bridgeheads.

247. In order to force a water barrier, sectors should be selected where the banks and the valley are accessible, providing good concealment and rapidity of operation, and also where the enemy defense is weaker or where he does not expect a forcing.

Determination of the most convenient sectors for forcing is one of the most important missions of reconnaissance. Reconnaissance must establish:

--the type of enemy defense of the water barrier, in particular the most weakly held defensive sectors, and the assembly areas of his reserves;

--the breadth, depth, speed of current, condition of the bottom, and the nature of the banks and approaches leading to the water barrier;

--the existence and condition of fords and hydrotechnical structures, and also the possibility of altering the level of the water;
--the sectors which are most suitable for the underwater crossing of tanks;

--concealed routes of approach to the water barrier and areas which are most suitable for the troops to assume departure positions and for the disposition of crossing equipment;

--the existence of underwater obstacles, and of obstacles and contaminated areas on the enemy bank;

--the availability of timber and local means for crossing.

248. When a decision has been made to launch an attack involving the crossing of a water obstacle, the division (corps) commander, in addition to the normal questions, determines: the forcing sector for the regiments (divisions), the formation of the troops for the forcing; the departure position; the method and sequence of forcing; the distribution of crossing equipment among the units; and the organization of the crossing; measures for concealment and deception of the enemy, and measures for troop movement up to the water barrier.

During a forcing from the march, the division commander, in addition, must determine the composition and missions of the forward detachment.

249. In the sectors chosen for the forcing, assault, ferry, and bridge crossings, and underwater tank crossings are organized, as well as fording points when available. The number of crossings is decided by the large unit (unit) commander on the basis of the crossing equipment available, the nature of the water barrier and the established order for the troop crossing.

The commandant's service is organized to ensure an organized move up to the water barrier, to avoid troop congestion near the crossing site, to maintain the established order of crossing both in the departure position and on the routes leading up to the crossing sites.

In order to control the use of the crossing equipment and to maintain order at the crossing sites, crossing commandants are appointed from among the commanders of engineer (sub-units) units organizing these crossings.

250. Engineer support missions during the forcing of a water barrier, in addition to the normal ones, are:

--to conduct engineer reconnaissance of the water barrier;

--to set up and maintain the crossings and the routes leading to them;

--to open paths through obstacles in the water and on the bank;
--direct support of the crossing troops;
--to organize a rescue service, and to protect the crossing from floating mines and from enemy diversionary actions.

251. In order to achieve a successful forcing from the march, it is of primary importance to disrupt enemy attempts to defend a water barrier, and particularly to forestall him in reaching the obstacle. For this purpose, atomic and air strikes and rocket and missile fire are carried out against enemy troops in defensive positions along a water barrier or moving up to it. In addition, in order to assist the troops on the offensive, airborne landings (drops) may be made to seize crossing sites and bridgeheads, or to prevent the enemy from organizing his defense along a water barrier.

The division commander directs the efforts of his troops toward the most rapid approach of a water barrier and to a forcing from the march, and in order to do this he rapidly moves up his reconnaissance sub-units and forward detachments. He also takes measures for the timely preparation of combat equipment and transport for crossing by self-propelled means, and besides, prepares tanks for an underwater crossing.

The preparation of tanks for an underwater crossing is carried out during the approach to the water barrier, and is completed under cover, as close as possible to the barrier. Underwater crossings by tanks normally are conducted after the capture of the opposite bank and a careful reconnaissance of obstacles in the water.

The reconnaissance of sectors favorable for underwater tank crossings is conducted by forces and equipment allocated for that purpose and included in the composition of the reconnaissance sub-units, and also by special patrols.

252. Forward detachments, reinforced by crossing equipment, move rapidly up to the water barrier on a broad front and, independently or in coordination with airborne landings, with artillery support and air strikes, seize crossings and force the water barrier from the march over captured crossing sites or on their own crossing equipment; seize bridgeheads on the opposite bank, and support the crossing of the main forces of the division. In order to increase the buildup of troops in captured bridgeheads, helicopters are employed extensively to move in troops.

253. For the timely preparation of a crossing, the division commander takes measures for the most rapid movement of crossing equipment to the sectors to be forced. Helicopters may be used for this purpose.

Construction of bridges is begun immediately after the forward detachments have seized lines which shield bridge construction from small-arms fire.
254. The main forces of the division move up to the water obstacle rapidly. Exploiting the results of atomic strikes and using the existing crossing sites and also crossing equipment, they force the crossing from the march on a broad front under cover of artillery fire and air strikes, and develop the offensive on the opposite bank without interruption.

As the artillery comes up, it is deployed in firing positions as near as possible to the water barrier, and without delay supports the combat operations of the forward detachments, the tactical airborne landings, and the main forces. Particular attention must be paid to covering the flanks of the crossing troops. Part of the tanks and artillery, including the large caliber artillery, are detached to carry on fire by direct laying.

The tanks, using fords and crossing equipment, cross the water barrier without delay and, together with the infantry, develop a rapid offensive into the depth.

255. During the approach to a water barrier and the crossing itself, troop protection from enemy air attacks is of particular importance. For this purpose the sub-units and units of antiaircraft defense move up to the water obstacle in advance and cover the main body of the troops and the crossings. Part of the small-caliber antiaircraft artillery is sent across to the opposite bank with the sub-units of the first echelon. Fighter aviation reinforces the air cover of the troops, particularly when the antiaircraft artillery is displacing and occupying the firing positions.

In order to conceal troop operations during a forcing and deceive the enemy as to the sectors where the crossing is to take place, antiradar camouflage and smoke should be used on a broad front.

256. The forcing of a water barrier after a short preparation or after a planned preparation normally begins during the artillery and air preparation, conducted with or without atomic strikes and the use of other means of mass destruction.

The artillery and air preparation should continue until the beginning of the changeover to the offensive by the sub-units of the first echelon that have crossed over, after which artillery and air support begins.

In individual cases, during the forcing of a water barrier with planned preparations, particularly when visibility is low, the crossing may begin without artillery preparation in order to achieve surprise.

257. The immediate mission of a division on the offensive in the first echelon, having forced a water obstacle, is normally the seizure of a line to the depth of the enemy main artillery
positions. The follow up mission is to develop the offensive in order to break through the whole defense of the enemy first echelon division, and, in coordination with adjacent large units, to destroy his reserves moving up. The subsequent mission is assigned as the offensive develops.

258. Sub-units of the first echelon normally board self-propelled means of assault in concealed places. Their movement up to the water barrier is carried out during the artillery and air preparation under the cover of troops located on the bank. The time to begin the movement is determined according to the time set for the forcing and the time required to cover the distance from the boarding point to the edge of the water.

259. The beginning of the forcing is the moment when the sub-units of the first echelon leave their bank. H-hour is considered to be the beginning of the attack by the first echelon on the enemy main line of defense on the opposite bank.

Bridges are thrown across the barrier after the seizure by the first echelon of a line whose loss deprives the enemy of the ability to execute small-arms fire into the area where the bridge is being constructed.

260. Right behind the first echelon, the troops of the following echelons cross without delay and with their means of reinforcement.

The artillery is ferried across in such a way that its main element is able to give uninterrupted fire support to the crossing and to the operations of the troops on the opposite bank.

In the event of an unsuccessful forcing at one site, the crossing should be shifted to another sector where the forcing is successful, and the reserve of crossing equipment should be sent there.

During operations on the opposite bank, particular attention should be paid to securing the flanks of the units and large units which have completed the crossing. For this purpose, reserves and second echelons are moved up to the flanks ready to repel possible enemy counterattacks by vigorous operations, and also artillery fire is prepared.

261. A division of the second echelon normally crosses to the opposite bank of a water barrier over bridges, on ferries, and on assault crossing means. Tanks may also make the crossing under water. The time and method of the division's commitment to combat and its missions are determined by the situation on the opposite bank.
262. Rear service units and sub-units cross to the opposite bank by echelons. The first to cross are the regimental medical aid posts and the essential transport with ammunition.

263. If a flotilla of our naval forces is present on the water barrier, it may be employed to fulfill the following missions:

--joint action with the troops on the offensive by gun fire, and by landing amphibious forces to seize a bridgehead on the bank of the water barrier;

--the destruction of enemy river craft which are resisting the forcing;

--cover the crossing from attack by ships of the enemy river flotilla;

--cooperation in the ferrying of troops across the water barrier by the forces and means of the flotilla;

--minesweeping in the water barrier.

8. OVERCOMING THE ENEMY SECURITY ZONE

264. During an offensive a division may come up against a security (protection) zone covering the approaches to fortified zones and defensive lines of the enemy.

A security (protection) zone is overcome from the march by forward units (advance guards, forward detachments) with support from the artillery of the main forces and aviation. The large unit main forces move up behind them ready to exploit their success.

Thorough reconnaissance of the enemy defense is conducted while the security zone is being overcome and during the battle for the main line of the enemy first defense zone.

265. Forward units (advance guards, forward detachments), operating in separate directions and making wide use of close and deep envelopments, must not allow the defending enemy to make successive withdrawals into his security (protection) zone and should destroy him piecemeal.

As they approach the enemy defensive zone, the forward units, exploiting the results of atomic strikes, air strikes and artillery fire, should break into the defensive zone from the march, and continue the offensive without interruption.

266. If the enemy puts up heavy resistance, the forward units (sub-units) have to establish close contact with the enemy along his defensive positions, should seize the strong points in his main line of defense, and cover the deployment of the division main forces.
9. PECULIARITIES OF THE BREAKTHROUGH OF A FORTIFIED AREA

267. A breakthrough of a fortified area is normally undertaken in cases when it is impossible to bypass it, and when attempts to seize it from the march were unsuccessful.

The breakthrough of a fortified area from the march or with an attack prepared in a short time is undertaken after the massed employment of atomic weapons, or if the fortified area is not completely ready or is defended by weak forces.

Airborne landings may be utilized to assist troops carrying out a breakthrough of a fortified area.

268. The breakthrough of a fortified area prepared and defended by the enemy, requires powerful means of destruction and neutralization and also thorough preparation.

The most effective means for destroying permanent defensive structures are atomic weapons.

For the destruction of the strongest permanent defensive structures, surface atomic bursts may be used during the approach of the troops to the fortified area, during the battle for the security zone, and during the period of preparation for the breakthrough. They must be employed in such a way that in the areas of the atomic bursts and in the paths of the radioactive clouds, the radiation dose will fall below the danger level and the troops will be able to effect a breakthrough at high speed. Artillery fire and air strikes should be planned in advance against the areas of such surface atomic bursts in order to prevent the enemy from carrying out any reconstruction.

269. During preparation for a breakthrough of a fortified area, besides the normal measures, the following are carried out:

--systematic and thorough study of enemy permanent and field defensive structures and obstacles, accurate determination of their coordinates, plotting them on large-scale maps (charts), and the dissemination of these maps down to company (battery) level inclusively;

--the organization of assault groups (detachments) and the coordination of their operations with tank and infantry sub-units;

--the timely discovery and, if necessary, the preliminary destruction of permanent defensive structures by atomic weapons, by large caliber and especially powerful artillery, and by aviation.

The results of the destruction are confirmed by photography and observation.
270. The peculiarity of troop combat formations for a breakthrough of a fortified area is its formation in depth, the creation of assault groups at battalion level for blocking and destroying permanent and important field defensive structures, and at regimental level, of assault detachments, if there are powerful and complex defensive structures or strong points, in the path of their offensive, which cannot be destroyed by atomic weapons, artillery, or aviation.

The composition of assault groups and detachments is determined in accordance with the type of defensive structures and their position within the system of fortifications, and may be: An assault group -- normally a reinforced rifle platoon, and an assault detachment -- from a reinforced rifle company to a reinforced motorized rifle battalion. The composition of assault groups and detachments normally includes guns and mortars of various calibers, including large-caliber, tanks, and engineer and flame-throwing sub-units.

271. A particularly important task for the reconnaissance of a fortified area must be the discovery of the fire system of the permanent defensive structures, their number and type, favorable approaches to them, and also reconnaissance of the obstacles and their density.

In order to discover the enemy defense system, comparative vertical and oblique photography of the defense zone and of individual objectives is carried out.

272. The peculiarities of engineer support during a breakthrough of a fortified area are: The preparation of a large number of direct-laying fire positions for large-caliber guns and tanks; the creation and equipping of passages over antitank ditches, minefields, and posts in conditions where the obstacles are densely situated and are in many belts; the demolition of permanent defensive fortifications; laying buried mines, and their careful concealment.

273. The special tasks of the artillery are: The destruction of permanent defensive structures which have not been destroyed by atomic weapons, neutralization of their garrisons, and also the neutralization and destruction of the troops occupying defensive field structures; the blinding and neutralization of permanent defensive structures on the flanks of the attacking troops; the creation of passages through posts and ditches if this cannot be done by engineer troop forces.

The duration of the artillery preparation is determined in accordance with the nature of the defense of the fortified area, the number of atomic weapons and aircraft called upon for the destruction of particularly important and strong structures, and the possibilities of the artillery to destroy these permanent defensive structures.
Of particular significance is the fire of direct-laying large-caliber guns and tanks against embrasures, armored cupolas, and low-ground walls of permanent defensive structures.

If the system of defense of the fortified area cannot be broken during the artillery preparation, a preparatory period may be set aside for the destruction of permanent defensive structures.

274. Aviation concentrates its main effort on the destruction of enemy means of mass destruction, missiles and the neutralization of artillery and reserves, and also on the destruction of the most important permanent defensive structures in the depth of the enemy defense.

275. An attack against a fortified area is begun simultaneously by the direct-support tanks, infantry, and assault groups, with artillery and air support.

The assault groups block and destroy surviving and newly discovered permanent defensive structures. Tanks and infantry penetrate boldly through gaps made by atomic strikes, and also through openings between permanent defensive structures and, without delay, advance into the depth of the enemy defense. The success achieved is exploited immediately in order to prevent the enemy from consolidating positions on intermediate lines.

The accompanying guns fire at the permanent defensive structures and the enemy means of fire which hinder the forward movement of the tanks and infantry. Surviving and newly discovered permanent defensive structures in the depth of the enemy defense are destroyed by assault groups.

Antitank reserves and mobile obstacle-placing detachments should be brought up closer to the combat formations of the first echelon of the troops. Captured permanent defensive structures which cannot be used by the offensive troops should be demolished.

10. PECULIARITIES OF AN OFFENSIVE IN A TOWN

276. A town with strong stone buildings and branching underground structures may be quickly turned into a strong center of defense by the enemy. However, a town may be destroyed easily by atomic and air strikes, simultaneously causing large fires and total obstruction, and, if surface atomic bursts are employed, a high radiation level over large areas, which creates great danger of contamination of the troops occupying the town or carrying on a battle in it. Therefore, during the course of an offensive, towns, as a rule, are bypassed. When a town has great importance or it is impossible to bypass it, it is captured from the march.
An offensive in a town is characterized by limited field of vision and fire, slight opportunity for troop maneuver, the need to overcome many obstructions caused by the destruction of buildings, and also complexity of control of troops.

An offensive in a town is carried out along the most important directions and breaks up into a series of independent local battles. It is characterized by special intensity and surprises.

277. In order to capture a town from the march, the division sends out strong forward detachments which, using air strikes and other means of destruction, penetrate to the center of the town or to its key objectives and main arteries, and seize and hold them, coordinating with the main body in the capture of the town.

The division main forces, operating decisively along the main arteries, destroy the most important enemy groups, capture the town and, leaving behind small sub-units to mop up, move out of the town.

278. If attempts to capture the town from the march are unsuccessful, its seizure is effected by making a number of simultaneous thrusts in several sectors in order to split up the enemy defense into separate areas and to destroy their defending garrisons piecemeal.

An attack of individual objectives in a town is conducted by reinforced battalions, companies, and platoons, making extensive use of rocket weapons, mortars, flame-throwers, tanks, and smoke and incendiary weapons.

Atomic weapons are used against the most important objectives in the enemy defense. Atomic strikes are carried out mainly by the artillery and by mortars.

Of particular importance is chemical, radiation, and bacteriological reconnaissance, and also the clearing of obstructions, decontamination and disinfection of routes, and extinguishing fires.

279. During an attack in a large city, the combat missions are determined on the basis of the type of enemy defense, the town plan, its structures, and the degree of their destruction.

Normally, the division's immediate mission is the destruction of the defending enemy and advance to the main arteries or the center of the town; the follow up mission is to capture new objectives in the depth of the town or to reach its opposite edge.

280. In order to give the attacking sub-units a high degree of self-sufficiency, a significant part of the tanks and artillery, including large-caliber and light rocket are attached to them. The remaining artillery is used in the composition of the artillery groups.
The infantry close-support tanks are normally attached to companies and platoons. Particular attention must be paid to the timely location of enemy antitank weapons and their destruction.

281. In the course of the offensive, the large unit commander, in order to split up the enemy and deprive him of the chance to maneuver within the city, directs his troops toward the capture of key strong points and junctions on the main arteries of the city, the telephone and telegraph offices and radio stations, bridges, under/overpasses, railway stations, subway stations, important enterprises, and the installations which provide the city with a centralized supply of water.

It is advantageous to carry out the attack under cover of darkness or smoke. Underground structures are used to send out reconnaissance sub-units into the enemy rear area, and also for sending out sub-units to help in the capture of strong points. Sectors of the underground system which are not being used should be mined or obstructed.

Key objectives and intersections captured in directions where the enemy may counterattack are consolidated. In addition the troops must be ready to repel enemy counterattacks from underground structures.

282. Fighter aviation and antiaircraft artillery screen friendly troops from enemy air strikes and cut off the besieged garrison from the air. Before the beginning of the attack, bomber aviation, in coordination with the artillery, neutralizes and destroys particularly strong points and centers of enemy defense. During the offensive, it carries out strikes against enemy troops moving up to the town, neutralizes and destroys enemy artillery, and continues the destruction and neutralization of strong points and centers of resistance.

283. Features of engineer support are:

---reconnaissance of enemy fortifications and obstacles and also of the town underground structures;

---support attacks on individual buildings and strong points with engineering means;

---the creation of passages, the clearing of mines, including delayed-action types, from streets and houses for freedom of maneuver and safe deployment of the troops;

---support the forcing of rivers and canals in the town;

---the destruction of individual buildings and objectives, including use of buried mine attack;
--the adaptation of the underground structures, cellars and semi-basement floors of buildings to protect troops and control points from weapons of mass destruction;

--to set up water supply points.

284. If the division has received the mission of blockading a town, it captures the most important positions around the town in its suburbs and at its edges, and consolidates them in order to prevent the enemy from leaving the encircled town. The most probable routes that the enemy may use to get out of the encircled town are particularly well consolidated.

Strong reserves must be created for the destruction of an enemy who has broken out of a town.

In favorable circumstances, the blockading large units may seize key objectives in the town by surprise attack in order to hasten the capitulation of the enemy troops.

11. A DIVISION (CORPS) OFFENSIVE IN COORDINATION WITH LARGE UNITS OF THE NAVY

285. Offensive operations by large units of the ground forces in coordination with large units of the navy are executed by landing a division in the form of an amphibious landing on the enemy-held coast, by a division (corps) carrying out an offensive operation along a seacoast or the bank of a large river, and also during an offensive aimed at reaching the seacoast or a river bank.

286. In an amphibious landing operation, a division may seize important objectives or a bridgehead on the coast, and by striking at the enemy flank and rear, or by tenaciously holding on to a captured area, may help the troops advancing along the coast to achieve success. In addition, a division may be landed to capture an island, or a group of islands, to seize parts of the coast line of straits in order to assist in forcing a troop crossing, or to support the passage of ships of the fleet through them before the arrival of the attacking troops.

Tank units equipped with individual means of flotation may be used to strike at the enemy rear, maneuvering on the sea under their own power, and also operate as forward detachments during the capture of islands, bridgeheads, and objectives on the opposite banks of narrow straits. For these missions the forward detachments are reinforced by amphibious tanks and specially trained infantry on amphibious armored carriers. The operations of these units are conducted in close coordination with aviation and with ships of the navy.

287. An amphibious landing is normally carried out on an unimproved coast, and sometimes in a port.
The division first echelon is landed, as a rule, from special landing ships.

The remaining division units (sub-units) may be conveyed to the area of the landing on transports or, in some cases, in warships. The landing of these units (sub-units) on the coast is executed after they have been transferred to landing ships and means of debarkation.

Helicopters may be used to transfer landing sub-units to the shore.

If the water barrier is of negligible width and the weather is good, amphibious tanks and tanks equipped with individual means of flotation may cross the sea on their own or may be towed behind ships.

Either prior to or simultaneously with an amphibious landing, it is normal to execute an airborne landing (drop) in order to seize and hold sectors of the coast in the area of the amphibious landing, and also to capture key lines along the paths of approach of enemy reserves to the area of the landing.

288. In order to destroy and neutralize the enemy anti-landing defenses, artillery and air preparation is normally provided for debarkation and in support of the landing operations on shore, with or without the employment of atomic weapons and other means of mass destruction.

Atomic strikes are first made against the coastal sectors designated for the landing which have permanent defensive fortifications, against areas where missile launching installations and coastal batteries are located, and against the enemy reserves.

Artillery and air preparation is conducted by the ships providing artillery support and by aviation until the arrival of the landing craft carrying the first echelon battalions at the debarkation points. Artillery and air support are carried out by ships, aviation, and the artillery of the landing force until the division has accomplished its missions on the shore.

In some cases, the landing may be carried out without artillery and air preparation in order to achieve surprise.

289. A division is landed on a ten to fifteen kilometer front. A first echelon regiment is assigned a sector of up to six kilometers, and a battalion is assigned a landing point.

The distance between adjacent landing points must preclude the possibility that the troops in them can be simultaneously destroyed by one atomic explosion.
A division is reinforced normally by amphibious tank units (sub-units) and is provided with amphibious armored carriers.

290. Naval large units of ships and aviation have the following missions when a division is executing an amphibious landing:

--to transport the division by sea and land it on the coast;

--to protect the landing, including tanks crossing under their own power, from strikes by enemy ships and aircraft during the embarkation, the sea crossing, the disembarkation, and during the course of combat on the shore;

--the neutralization and destruction of coastal launching installations, artillery, strong points and reserves of the enemy located directly on the coast and deep in the coastal area;

--to clear passages through sea and anti-landing obstacles in the water;

--to support the division landing and its operations on shore by naval gunfire and air strikes;

--to ensure amphibious delivery of reinforcements in men and materiel, and to evacuate the sick and wounded.

291. In order to accomplish the missions of transporting and making a landing, a landing detachment is created, and one of the naval large unit commanders is appointed commander. All the warships and landing ships, as well as the transport and debarkation means taking part in the landing, are subordinated to him. The landing detachment commander is responsible for the embarkation, the sea crossing, and the landing of the troops in the selected area.

The division commander is normally appointed the landing commander. From the moment that he receives the order to embark the troops on the ships to the completion of the landing of the division main forces on the coast, he is directly subordinate to the landing detachment commander.

During the sea passage and the landing of the first echelon, the division commander and a representative of the aviation detailed to support the division are on the same ship as the landing detachment commander.

The deputy commander of the landing detachment and the deputy commander of the landing, together with the group of staff officers, are on another ship.
292. The preparation of the division, naval large units, and aviation for landing operations includes:

-- planning the actions of the landing, the ships of the landing detachment, and of aviation;

-- the preparation of naval debarkation-landing equipment, of the division weapons, military equipment, and various division cargoes for the landing, and also of tanks to cross water barriers under their own power;

-- the training of the troops in embarking and disembarking from debarkation-landing craft, and in carrying out combat operations to capture a coast, taking into consideration the type of enemy anti-landing defenses in the area of forthcoming operations;

-- the preparation of ships and aircraft for operations to support the landing during embarkation, the sea passage, disembarkation, and the course of combat on the shore;

-- the training of all commanders and staffs in the control and effecting of uninterrupted coordination during the joint operations of the division, large units of ships and aviation;

-- the preparation of measures for combat, navigational-hydrographic, and other types of support.

293. Planning the operations of the division and the ships of the landing detachment is conducted on the basis of the mission assigned by the senior commander.

The commander of the landing detachment works out the landing plan for the landing in collaboration with the division commander. The plan includes:

-- the general purpose of the operations, the front, the time of the landing, and the missions the landing is to accomplish on shore;

-- the missions to be carried out on orders of the senior commander by atomic weapons, the destruction and neutralization of targets within the enemy anti-landing defenses, and also measures to cover the landing from the sea and against strikes from the air;

-- the sectors, points, and sequence of debarkation of division units and their missions during operations ashore;

-- the composition, place, missions, and time of the airborne landing;

-- the time, place (areas) and sequence of concentrating the division and the ships of the landing detachment;
--the distribution of troops among the debarkation-landing craft, the points, time, and sequence of the embarkation (loading);

--the organization of the formation of the landing detachment and the sequence of its sea crossing;

--the organization of the battle formation of the landing detachment and the missions of the ships and aircraft in support of the division landing; the sequence for carrying out artillery and air preparation and the support of the landing operations on shore;

--measures for all kinds of support during the concentration and embarkation, the sea crossing, and the landing;

--the organization of control and communications during the landing operations;

--the method of organizing a landing base, and its defense.

In addition to the plan, a schedule for mutual coordination is worked out.

On the basis of the landing plan for the landing, confirmed by the senior commander, the landing detachment commander issues the combat order for the landing, and the division commander issues combat orders for embarkation and the route to be followed, for debarkation, and for carrying out combat operations on the shore, as well as giving coordination instructions.

294. In order to ensure speed in the landing and to give the sub-units a high degree of independence, they embark on the landing ships (transports and warships) together with attached sub-units of other combat arms in the sequence which corresponds to the landing plan. Combat equipment is loaded to facilitate speed of unloading for entry into battle. Cargoes of one type, including ammunition, are loaded on as many ships as possible. All the combat equipment for the landing must be prepared for unloading into water of permissible depths.

For the organized embarkation and maintenance of order at the embarkation points, commandants of embarkation points are appointed by order of the landing detachment commander. The necessary number of officers is detached from the landing troops to assist them.

For the disposition of troops immediately before the embarkation (loading), waiting areas are allotted and equipped; they provide for the dispersal and concealed disposition of the troops, and also for rapid embarkation (loading).
295. In order to achieve concealment of action and to provide protection for the landing against destruction by enemy atomic weapons, the embarkation of the troops and the loading of combat equipment and cargoes, as well as the sea crossing of the landing, should be conducted with dispersed manner and with due attention paid to camouflage. For this purpose the crossing of the landing detachment is normally carried out by several landing detachments consisting of groups of ships. Each group of ships must transport not more than one battalion. The sea crossing and disembarkation of the landing are normally executed at night and in other conditions of limited visibility.

In addition, in order to achieve surprise in the landing, measures should be taken to destroy the enemy radiotechnical and other means of observation, to distract his reconnaissance in false directions by demonstrative actions and also to take measures for radio and antiradar camouflage.

296. During the approach to the landing area, the landing detachment commander, together with the landing commander may, depending on the situation, alter the landing points in accordance with the mission given to the landing for its operations on the shore, and also taking into consideration the speeds and convenience of the debarkation of the landing.

The final decision as to the landing points is made by the landing detachment commander.

As the amphibious task force approaches the landing area, the naval gunfire support ships move to their designated areas and, on the signal of the landing detachment commander, together with aviation, begin their shelling and air preparation.

Special ships make paths through minefields and antilanding obstacles on the approaches to the landing points. Passages through anti-landing obstacles which have been made by explosives are cleared and widened by obstacle-clearing groups operating on fast patrol boats.

Amphibious tanks and amphibious armored carriers normally are unloaded into the water before the arrival of the landing ships at the landing points, and make for the shore under their own power. Amphibious tanks and tanks with their own means of floating, making for the landing area under their own power, are followed by the landing ships with the first echelon sub-units on board. In order to insure the rapid seizure of the landing points immediately before the approach of the landing ships to the shore, part of the first echelon sub-units may be landed on the shore by helicopter. The helicopters take off from the ships (transports) and, under favorable conditions, from coastal airfields (landing strips).
297. The first echelon sub-units which have landed deploy into combat formation from the march and, with the support of naval gunfire and air strikes, switch to the attack and destroy the enemy troops defending the shore. They exploit to the greatest possible degree the results of atomic strikes and airborne landing operations, and develop their offense in depth.

As soon as the landing force artillery has been unloaded, it immediately assumes combat formations and supports the combat operations of the units and sub-units which have landed.

The remaining division units land immediately after the units of the first echelon. For this purpose the landing detachment commander takes all measures to expedite the transfer of units (sub-units) from the transports and warships to the landing ships and landing craft.

The division commander goes ashore after the landing of the first echelon units.

298. In the course of combat by division units on shore, the division commander takes measures to expedite the link up of captured sectors of the coast into one common bridgehead, to join up his own troops with the airborne landing, and to prevent or delay the approach of enemy reserves into the area of combat operations.

299. During the landing combat operations on shore, the naval and aviation large units provide gunfire and air support for the division units, protect the landing area from enemy naval and air strikes, and also prevent the approach of his reserves into the landing area. Representatives of supporting naval gunfire large units and aviation units must be located with the division commander.

When the landing has been completed, the landing detachment ships are employed to provide naval gunfire support for landing operations on the shore, to protect the landing base from enemy attacks from the sea; and to support the transportation of stores and supplies, and evacuation of the sick and wounded.

300. The beach landing base is organized by the naval forces in order to ensure that the landing on the shore takes place, to bring in replacements, men and materiel, for the landing, to evacuate the sick and wounded, and to cover troop embarkation in case the landing force is evacuated. The landing base is equipped with everything necessary for its operation and its defense.

A naval officer is appointed base commander and is subordinate to the landing detachment commander. If necessary, ground force sub-units may be detailed for the defense of the base.
301. During an attack along the seacoast and from the depth of friendly territory to the seacoast, the division (corps) commander provides for the following, in addition to the normal considerations:

--organize coordination with the naval forces detailed to joint operations with the troops on the offensive;

--if necessary, the landing of division (corps) sub-units as an amphibious landing;

--measures to defend the coastline in the rear of the troops on the offensive, in order to prevent enemy amphibious landings;

--the forcing of water barriers during the offensive, at their widest point, and the crossing of marshy areas near the coast.

302. Naval and aviation large units may be called upon to accomplish the following missions during a division (corps) offensive on the seacoast:

--to support the troops on the offensive by destroying and neutralizing coastal objectives and enemy troops;

--to cover amphibious landings of division (corps) sub-units;

--to coordinate with the division (corps) in the forcing of water barriers during the offensive;

--to cover troops of the division (corps) from strikes by enemy warships and aviation;

--to prevent enemy landings in the division (corps) rear;

--to prevent the evacuation and supply of enemy troops by sea.

--to ensure the transport of materiel and the evacuation of the sick and wounded.

303. For the support of the division (corps), normally, large units of ships and units of coast artillery and aviation are assigned their missions by the division (corps) commander. Besides, the fire of the supporting ships and coast artillery is usually planned against targets in the enemy defense which cannot be neutralized by division (corps) means because of the situation.

For coordination between a division (corps) and large units and units of the navy, the coast artillery, and aviation, mutual landmarks, coordination signals, mutual recognition signals, signals for opening, shifting, and ceasing fire, and for methods
of target indication, are established.

304. Debarkation of sub-units drawn from the division (corps) may be carried out for an amphibious landing in order to seize and hold a key objective or area in the depth of the enemy defense, to disrupt troop control and the operation of his rear services, and also for the capture of islands located near the coast.

Debarkation of an amphibious landing is carried out from landing craft of the navy and self-propelled crossing means of the division (corps). All ships, landing craft, and also amphibious tanks are united into a landing detachment. A naval officer normally is appointed commander of the detachment, and he is subordinate to the division (corps) commander.

Support for the sea crossing, the debarkation, and the amphibious landing operations ashore is provided by the naval forces, and by the division (corps) and aviation means of neutralization.

12. PECULIARITIES OF AN OFFENSIVE IN WINTER

305. Snow cover and heavy frosts have a significant influence on troop operations.

Deep snow cover impedes the maneuver of troops, frozen ground hinders the rapid creation of cover for the troops, frost makes water barriers and marshes passable, but complicates the use of weapons and equipment and their maintenance in combat readiness. The short days also influence troop operations in winter.

Winter increases the importance of inhabited places and woods as protection against the cold. It also complicates the conduct of sanitary processing of personnel and decontamination, degassing, and disinfection of weapons, combat, and other equipment.

Proper consideration of these features and implementation of timely measures permit successful offensive operations to be conducted in winter, too.

306. The long winter nights, snowfalls, snowstorms, fogs, and heavy frosts assist surprise operations and the execution of close and deep envelopments of the enemy. In these conditions it is possible to defeat and destroy the enemy even with smaller forces.

Of particular importance for a successful offensive in winter are operations designed to harass the enemy by destroying inhabited places which he occupies with artillery fire and air strikes.
307. When organizing a breakthrough of a prepared defensive position in winter, in addition to the normal measures, it is essential to prepare in advance heated shelters in the troop deployment areas to warm the personnel, to carry out measures to maintain combat readiness of weapons, combat, and other equipment, to improve the cross-country mobility of wheeled and tracked vehicles and artillery, to organize assistance for them during displacement, to clear roads and prepare march routes, and to bring the rear units and sub-units closer to the troops.

308. A breakthrough of the enemy defense in winter in the presence of deep snow cover is best begun by troops located in direct contact with the enemy.

In the presence of deep snow cover shifting of fire attains great importance in artillery operations.

In the depth of the enemy defense, close and deep envelopments of strong points should be effected by sub-units on skis or mounted on vehicles with increased cross-country mobility.

The security of the flanks of the troops on the offensive and in pursuit of the enemy is achieved by detachments of ski troops or by sub-units (units) mounted on vehicles with increased cross-country mobility, reinforced by antitank weapons and engineer troop sub-units.

309. Peculiarities of engineer support for an attack in winter are: making passageways through snow and ice obstacles and through conventional obstacles covered by snow; the continuous maintenance of roads and march routes in passable condition and also the building of winter roads cross-country; the establishment and maintenance of crossings of water barriers over the ice; and the construction of heated supply points for water.

During engineer preparation of an area that has frozen ground, the troops use explosives and mechanical equipment.

310. Medical aid points are brought up near the combat troop formations. Measures are taken to evacuate the wounded from the battlefield as rapidly as possible. Along the evacuation routes points are set up where the sick and wounded can be warmed and fed.

311. When organizing the offensive during a thaw, the following are taken into consideration: measures to support troop movement through marshy areas and to improve the cross-country ability of vehicles and artillery; the timely creation in units and sub-units of additional reserves of ammunition, fuel, lubricants, rations, and forage; the use of animal-drawn and pack transport to bring up supplies; the organization of the receipt of materiel from aircraft (helicopters), and also the timely repair of difficult sections of the road or the building of march routes.
13. **PECULIARITIES OF AN OFFENSIVE IN A FOREST**

312. Forests make the preparation of a departure position for an offensive simpler, favor the troops in concealed approach and deployment, lessen the effect of light radiation and the destructive radius of an atomic burst shockwave.

At the same time, forests make observation more difficult and hinder orientation, target indication, adjustment of fire, and precision bombing. Forests allow the enemy to make wide use of timber obstacles in combination with mine-explosive and other barriers, increase the likelihood of forest fires, particularly as a result of atomic bursts, and of more prolonged contamination of the air and ground.

In forests the mass employment of tanks, cross-country use of armored personnel carriers (vehicles, prime movers) for moving troops, and maneuver by combat formations are made more difficult. Control, and particularly coordination, is complicated and the speed of the troop advance is reduced. For this reason the depth of the missions given to units and large units may be less.

313. In forests, particularly in marshy areas, the offensive is developed mainly in separate directions, primarily along roads, forest lanes, and clearings. At the same time, close and deep envelopments passing through poorly accessible areas are used extensively in forests, in order to capture road junctions and to strike at the flank and rear of the enemy. Accumulation of troops on roads and forest lanes should be avoided.

During an offensive against an enemy who is defending the edge of a forest, outlying parts of the forest are captured first.

314. An offensive in a forest demands a deeper troop formation and positively requires designation of a combined-arms reserve.

Reconnaissance and flank security must be given particular attention. Reserves are deployed nearer to road junctions and crossroads.

A high degree of independence should be given to units and sub-units operating in a forest.

315. Atomic strikes should be delivered to destroy important strong points and defensive structures, especially those situated at road junctions, and also to destroy the enemy troops in their deployment areas and on forest roads.
316. During an offensive in a forest, the bulk of the artillery is attached to units and sub-units, and is extensively used for direct-laying fire. Great significance is attained by mortar and howitzer artillery fire, from which artillery groups, for the most part, are formed.

Particular attention is given to antiaircraft defense of the troops attacking along roads, forest lanes, across clearings, and when entering or leaving the forest.

317. Tank units (large units) normally are employed in forest operations in the second echelons and are committed to combat to exploit success achieved in directions where they can be used.

Infantry direct-support tanks are normally attached to companies, and attack as part of their combat formation, mainly along roads and forest lanes.

318. Aircraft, operating according to the senior commander's plan, complements the limited possibilities of the artillery in neutralizing the enemy in the depth of his defense.

In air operations against troops deployed in large forest areas, the greatest results are obtained by employing means to create forest fires and tree obstacles.

319. Peculiarities of engineering support of an offensive in a forest are reconnaissance of forest passability in the zone of the offensive, of march routes prepared by the enemy, the construction, where necessary, in the offensive departure area of fire trenches, communication trenches, and trenches with parapets, the creation of paths through forest obstacles, the repair and restoration of forest roads, their concealment, and equipping them with signs and markers, and to screen important road crossings and sections of the road on the flanks of the attacking troops with obstacles.

320. During the organization of an offensive, particular attention should be paid to troop preparation to overcome various kinds of barriers quickly, to clear log obstacles, and to eliminate sources of fires. They should also prepare to carry out timely reconnaissance and degassing (disinfection) at road junctions, in areas of corduroy roads, and of bridges.

321. The conditions of limited visibility require that the command posts be closer to the troops and that their security be reinforced, that there be more frequent reports and information about the situation, and that special orientation measures be taken to establish troop location and maintain the correct direction of movement.
Clearly visible signs indicating the whereabouts of given points and directions to inhabited places are set up on roads, in clearings, and along forest lanes in accordance with the movement of the troops. Signals are also established to indicate the position of friendly sub-units (units) and, if necessary, guides are trained.

322. When the enemy main line of resistance has been penetrated, it is essential to exploit the attack rapidly in depth and, making wide use of close and deep envelopments, not to allow the enemy to withdraw and take up defensive positions on new terrain features.

In order to negotiate large forest areas rapidly and to deny the enemy seizure of important areas during the attack, airborne landings may be made.

When the enemy main line of resistance has been penetrated, it is essential to send out reconnaissances parties in the direction of the deployment areas of the enemy reserves in order to establish their composition and the direction of their operations.

Sectors of the forest which have been passed through are consolidated on the flanks; for this purpose the necessary forces and weapons are left on the most important routes and road junctions.

14. **PECULIARITIES OF AN OFFENSIVE IN MOUNTAINS**

323. The following factors influence troop combat operations in mountains:

--the limited number of roads and the difficulty of cross-country movement;

--the abundance of dead space and concealed approaches;

--orientation difficulties;

--the peculiarities of mountain climate;

--mountain rivers with their swift currents and sharp and frequent fluctuations in water level;

--the shielding effect of mountains on the operation of radio and radar sets and sound-ranging equipment;

--the difficulty of carrying out engineering works and limitation on the use of engineering equipment;

--rock falls, obstructions, and snow avalanches created by atomic bursts;
—the possibility that poisonous substances will persist for a long time in gorges and deep valleys.

In addition, fuel consumption increases during movement in mountainous terrain, and engine power decreases at high altitudes.

324. The uninterrupted development of the offensive at high speed in mountains requires, apart from the normal measures, the following:

— the extensive employment of airborne landings for the seizure of mountain passes (passages) and other points of tactical importance;

— the timely organization and systematic execution of countermeasures to prevent the enemy from setting up obstacles and carrying out demolitions;

— decisive and bold maneuvers against the enemy flank and rear;

— bold operations carried out with great initiative by sub-units and enveloping detachments, particularly at night and in conditions of limited visibility.

325. A breakthrough of the enemy defense in a mountainous area is normally carried out along valleys and mountain roads in coordination with a close or deep envelopment over the mountains. During close and deep envelopments, passes, mountain gaps, commanding heights, and road junctions on the flanks and in the rear of the enemy are seized. For operations in the gaps between the main axes, small detachments are sent out, reinforced by light guns and mortars, ready for rapid and bold operations under terrain conditions where access and movement are difficult.

In order to seize enemy-defended mountain passes (gaps), it is advantageous to capture the commanding heights surrounding them first, and then the pass is seized by striking at the enemy flank and rear.

In places where access to the commanding heights adjacent to the mountain passes (passages) is difficult, the capture of the mountain pass (passage) is carried out by a frontal attack, and the adjacent heights are then captured by a flank attack after the seizure of the mountain passes (passages).

326. When conducting combat operations in mountainous area, the initial grouping of forces and equipment is of great importance along those axes where it is difficult to alter groupings in the course of combat.
The combat formation of large units and units advancing along roads and narrow valleys is organized in greater depth.

Units and large units operating in separate directions must be granted a high degree of independence. Helicopters may be used to supply them with weapons, combat equipment, ammunition, and other materiel needs.

Flank security against enemy counterattacks and flanking fire is achieved by detailing forces to seize the heights or slopes located on the flanks of the attacking large units (units) by neutralizing the enemy on them, by deploying reserves behind the flanks, and also by organizing the proper artillery fire.

327. Tanks are used mainly along roads, valleys, river beds, and other directions accessible to them. They operate in close coordination with rifle sub-units. It may be expedient to bring part of the tanks on to the ridges to operate jointly with rifle sub-units along them and for the capture of passes.

The tank regiment of a motorized-rifle division normally is employed in the second echelon and is committed to combat after the first echelon has come out into a broad valley or plateau.

328. Tank-destroyer artillery and also separate platoons and batteries of division artillery are attached to the sub-units and operate within their combat formations.

The sub-units, operating independently in areas to which access is often difficult, normally have recoilless guns, mortars, and sub-units of engineer and chemical troops attached to them.

Particularly important meaning is attained by individual guns and batteries which have been brought up to commanding heights.

Regimental artillery groups of greater strength are formed and consist primarily of howitzer and mortar artillery. Division and corps artillery groups are formed if the terrain permits their employment.

In addition to their normal tasks, regimental artillery groups must conduct counterbattery and countermortar fire against the enemy.

When employing artillery in mountainous terrain, the shifting of fire takes on great importance.

329. It is advantageous to commit a division of the second echelon to combat in one direction after the first echelon division has come out into a broad valley or onto a plateau. In individual cases a division of the second echelon may be committed to combat in several unrelated directions which link up in a broad valley or plateau.
330. Aviation is used to destroy the enemy in areas not accessible to artillery, in gorges and ravines, and also to create obstacles in the depth of the enemy defense in order to restrict the maneuver of his reserves. The enemy reserves are normally neutralized when they pass through gorges and ravines.

The employment of aircraft attains great importance for adjusting artillery fire, for observation of the battlefield, and for the maintenance of communications.

Aircraft, particularly helicopters, are employed extensively to deliver various types of supplies to units operating in separate directions and in high mountain areas.

331. It is expedient to employ atomic and chemical weapons for the destruction and defeat of enemy troops when they are crossing mountain rivers and other difficult places. Atomic strikes may be delivered in order to destroy passes and to create obstacles in gorges and ravines. In these circumstances, it is essential to take into consideration the difficulties created by atomic bursts for an attack by friendly troops.

332. A mountain rifle division is normally used in the most important and inaccessible directions for the following purposes:

--deep and close envelopment of the flanks of separate enemy groupings;

--to appear on routes parallel to the enemy withdrawal route and to penetrate boldly into his rear in order to seize passes, passages, and road junctions, to surround and destroy separate enemy formations piecemeal in conjunction with airborne assaults and with troops attacking frontally;

--to combat enemy airborne landings;

--to secure the flanks of the friendly strike grouping.

333. Peculiarities of engineer support of an offensive in mountains are:

--the construction, in the departure area for the offensive, of trenches, communication trenches, and trenches of the parapet type;

--the adaptation of caves and other natural shelters to protect troops and control points against weapons of mass destruction, and also the construction of shelters in the steep slopes of mountains by the use of explosives and mechanical tools;

--the preparation of mountain routes with passing places in narrow sectors, and their maintenance at sharp corners, upgrades, and downgrades;
--the construction of waiting areas and points for combat equipment and transport before sections of the road which are difficult to transit;

--the construction of special bridges (crossings) and cable bridges across mountain rivers and ravines (canyons);

--the creation of routes through enemy demolitions and obstacles, and the clearing of rock and snow slides in the paths of movement of the troops, particularly after atomic bursts;

--the creation and maintenance of water supply points.

334. Because of the special importance of roads, a movement protection detachment is allotted for each independent march route.

Clearly visible signs marking the location of a given point and directions to inhabited places are set up on roads, footpaths, and mountain passes, and a commandant's service is organized.

In order to protect supply and evacuation routes, it is essential to allot small garrisons, reinforced by separate guns, tanks, mortars and engineer and chemical troop sub-units with the necessary resources, for road junctions, forks in valleys, and for key highway installations.

335. During an offensive in mountains, special attention is devoted to antiaircraft defense and combat with enemy airborne landings. Also significant is troop protection against weapons of mass destruction at passes, mountain passages, crossings over mountain rivers, in ravines, and at road junctions.

336. Observation difficulties and rapidly changing conditions in the mountains bring about the need to organize a dense network of observation points and posts. Of particular importance is the organization of reconnaissance of passes, ravines, gorges, commanding heights, valleys, and roads, and also the establishment of commandant's service at passes, road junctions and one-lane portions of the road.

Forward command posts of large units must be more restricted in their makeup and be highly mobile in these terrain conditions.

In order to increase the mobility of control points, helicopters equipped with special means of communication may be used.

337. The special features of materiel, technical, and medical support in a mountainous area are:
--the use of helicopters, suspension cable roads and suspension bridges, animal transport, and teams of porters for transport and evacuation;

--the equipment of technical servicing points on movement routes;

--supplying the troops with equipment and gear that will enable them to negotiate steep ascents, descents, cliffs, glaciers, and snow, and with the means of keeping them warm; preparing improvised mountaineering equipment and gear to the forces of the troops;

--moving rear service units (sub-units) nearer to the front line, and the setting up of additional points where the sick and wounded can be warmed and fed.

15. PECULIARITIES OF AN OFFENSIVE IN DESERT AND STEPPE AREAS

338. During an offensive in desert and steppe areas it is essential to take into consideration:

--because of the formation of dust, the possibility of stronger and more lasting contamination of the air and the ground by radioactive substances and their spread with the moving sand;

--the absence of water and fuel over great distances;

--the possibility of moving without roads;

--the almost complete absence of inhabited places and local resources;

--the difficulty of concealment and orientation;

--the great variation in temperature in a 24-hour period, and the wind, which forms sand haze. This impedes observation, conduct of fire, and the landing of aircraft (helicopters);

--the harmful effect which sand and dust have on the performance of motors and the running gear of vehicles, and also on weapons and other technical equipment;

--the presence of salt lakes and salt marshes.

339. During an offensive in desert and steppe areas, all troop arms may be used, but the most effective in operation are tank troops in coordination with aircraft, airborne landings, and troops transported by air. An offensive in deserts and steppe areas normally is carried out in separate directions.
Troop strengths and composition for operations in separate directions are determined by the combat mission and the possibility of supporting them materially and technically, primarily with water, fuel, and lubricants.

340. The possibility of cross-country movement in desert and steppe areas allows very wide maneuvers to be executed and permits the seizure of particularly important objectives in the depth of the defense (sources of water, bases, and inhabited places). As a rule, it allows the main strike to be made against the enemy flank and rear, primarily by tank forces. Tank forces, using their mobility, penetrate swiftly and deeply into the enemy rear in order to break him up and destroy him piecemeal.

When organizing the combat formation, it is essential to give particular attention to the security of open flanks. This is achieved by deploying strong second echelon and reserve forces behind them ready to repulse the enemy attack by vigorous operations.

The troops must carry out reconnaissance on a broad front and in great depth, and also organize all-round protection. Anti-aircraft defense and the protection of troops against destruction by atomic weapons and other means of mass destruction have great significance.

341. Aviation, in addition to fulfilling its normal missions, may be brought in to destroy troops massed at oases and at water sources, to destroy depots, oil pipelines, and enemy water supply points. It may be employed to deliver water, rations, and other supplies to friendly troops, and also to evacuate the sick and wounded. It is of particularly vital importance to conduct continuous aerial reconnaissance.

342. Atomic and chemical weapons are employed to destroy enemy troops, particularly when they are concentrated in inhabited places, oases, and at sources of water and reservoirs, his reserves when moving against the flanks of our troops, aircraft on airfields, and materiel.

343. The peculiarities of engineer support for an offensive in desert and steppe areas are:

--the setting up of routes for the cross-country movement of troops, marking them with stable and clearly visible signs, and the establishment of additional landmarks;

--the setting up and maintenance of water supply points for the troops and intermediate water distribution points;

--the execution of concealment measures for troops, military equipment, and transport, in accordance with the characteristics of the terrain and the steppe vegetation.
344. When organizing materiel and technical support, it is essential to consider the special importance of fuel and water transport, and to establish strict control over their consumption norms.

In connection with the lengthening of the ground transportation routes, the strain on motor transport and consumption of fuel increase. Particular attention must be paid to providing vehicle motors with reserve filters, and supplying the vehicles with equipment which will improve their cross-country ability.

During deep penetrations into the desert or the steppe, intermediate depots and water supply points are set up and their security and defense are organized.

Particular attention is paid to the discovery of water and fuel sources. Sources of water undergo careful inspection and purification.
CHAPTER VII
THE DEFENSE

1. THE PRINCIPLES OF DEFENSE

345. Defense is intended to repel an attack by superior enemy forces, to inflict significant losses on them, to hold positions which have been occupied, and in this way to create favorable conditions for going over to a decisive offensive.

Defense makes it possible to gain time, to economize in manpower and equipment in some directions, and create conditions for going over to the offensive in others.

The mass use of atomic weapons and other means of mass destruction by the defending troops allows them to break up the enemy offensive by inflicting destruction on his main groupings in their concentration and deployment areas for the offensive, and to go quickly from defense to offense.

The defensive may be assumed when in direct contact with the enemy or when contact does not exist, and may be adopted hastily or deliberately.

During an offensive, troops may assume the defensive in order to consolidate positions and objectives which have been captured, to repel counterattacks or counterthrusts by superior enemy forces, and to secure the flanks of attacking groupings. Defense is also used to cover a troop withdrawal.

346. Defense must be stubborn and aggressive, and able to withstand massed strikes by enemy atomic and chemical weapons, aviation, pilotless weapons and artillery, to repel enemy tank and infantry attacks, to prevent the landing and operations of airborne forces and, if the enemy has driven a wedge into the defensive position, to eliminate it. This is achieved by:

--deep and varied combat formations, positions and defense zones, skillful use of terrain, its engineer improvements, and careful concealment;

--firmness and tenacity on the part of the troops in defense, dispersed and concealed deployment of forces and equipment, their broad maneuver in decisive directions, and the execution of determined counterattacks (counterthrusts);

--the skillful organization of the fire system, primarily antitank fire, and the destruction of the enemy at the distant approaches to the defensive position, in front of the main line of resistance, and in the depth of the defense;

--effective and uninterrupted cover of troops and installations from enemy air strikes;
--the timely discovery of enemy preparations for an offensive and his plan of operations;

--the delivery of preemptive strikes against the enemy, using atomic and chemical weapons;

--the timely discovery and immediate destruction of enemy means of mass destruction;

--forcing one's own will on the enemy and creating unsuitable conditions of battle for him;

--skillful control of troops, the timely organization and uninterrupted maintenance of coordination, and all-round support for the combat operations of the troops.

The organization of the defense should ensure intensification of resistance and be capable of holding up the attacking enemy and of creating conditions for his destruction by all types of fire and by counterattacks.

The defending troops have no right to leave positions which they have occupied, and withdraw, without an order from the senior commander. They should be able to operate without tactical communications between them, and in encirclement.

347. Atomic and chemical weapons are used in defense against the most important enemy groupings and targets during his preparations for the offensive, during counter-preparations, and during the battle for the destruction of an enemy who has penetrated into the defensive positions, the destruction of his second echelons and reserves, and to support counterattacks (counterthrusts) of friendly troops.

348. The system of fire in defense is organized on the basis of coordination of fires of all types of weapons, and atomic and air strikes. It must ensure:

--the destruction of enemy atomic weapons and other means of mass destruction as they are discovered, the destruction of his troops in their assembly areas, on moving out, and in their areas of deployment for the offensive;

--support for forward detachments and combat security;

--repelling of massed attacks by enemy tanks and infantry and the annihilation of his airborne troops;

--the cover by fire of unoccupied gaps, open flanks, and limiting points;

--the cover by fire of engineer obstacles and areas that were subjected to enemy atomic strikes;
--the destruction of enemy aircraft on the approaches to the defense and overhead;

--support for the troops during counterattacks and counterthrusts;

--possibility for concentrating massed fire quickly on any threatened direction or sector of the defense.

In order to ensure substantial survival of firing means, they are deployed well concealed and dispersed laterally and in depth and some of them are emplaced on the reverse slopes of hills.

All firing means should be ready for broad maneuver, and to fire at night and in other conditions of limited visibility.

349. A division (corps) in defense is assigned a defense zone (polosa); a regiment is assigned a defense sector (uchastok); a battalion is assigned a defense area (rayon).

The width of a defense front and its depth are decided by the large unit mission, its composition, and the nature of the terrain.

In defense in the main direction, the width of a division defensive frontage may be up to 12 to 20 kilometers, and a regimental sector up to 6 to 10 kilometers.

When defending terrain which is not accessible throughout for troop operations, when there is a general shortage of forces and equipment, during a withdrawal, during the defense of a coastal area, and also during the defense of the first zone, when the main body of the defending troops is concentrated in the depth, a division defensive front may be as great as 30 kilometers or more, and a regimental sector up to 15 kilometers.

350. A motorized-rifle division in defense may be in the first or second echelon of an army (corps) or in reserve.

A tank (heavy tank) division is used as a rule in the second echelon (reserve) to execute counterattacks (counterthrusts). In individual cases a tank division may be used in the defense of the most important direction and in the first echelon.

A heavy tank division is mainly intended for the destruction of a main enemy tank grouping which has driven a wedge into the defensive position.

A division of the first echelon organizes its defense within the limits of the first defensive zone.
A division of the second echelon may take up a defensive position in the second defensive zone or may be deployed well dispersed in the second zone or behind it, in readiness to execute counterattacks (to take part in a counterthrust) or to take up a defensive position in a given zone.

A division in reserve is deployed in a dispersed manner in the depth of the army's defense, in one of its defensive zones or behind it, and prepares the area for the concealed deployment of its units.

A corps normally organizes its defense within the limits of two defensive zones.

351. A divisional defensive zone includes several positions, switch positions, areas of artillery firing positions, positions of sub-units and units of antiaircraft defense, positions of antitank areas, and disposition areas and lines of deployment for the second echelon and reserves of the division. The depth of the defensive zone may be up to 10 to 15 kilometers.

The basis of each position is a battalion, and in some cases, company, defense areas between which gaps are established to decrease losses from enemy atomic strikes. The defense areas are equipped with firing trenches, communication trenches, trenches, defensive structures for different purposes, covered positions and concealed firing points. They must be adapted for all-round defense, and must be linked together along the front by firing trenches and in depth by communication trenches, and their fire must be coordinated.

The gaps between the defense areas must be covered by effective fire of antitank weapons and machine guns, and also by artillery fire from the depth. They may be occupied by small sub-units and supplemented by fire means, dummy firing trenches and other structures, as well as obstacles.

The firing trenches and communication trenches must ensure the troops firing convenience, concealed deployment of personnel and fire means, rapid and concealed maneuver, and also hinder the enemy in his attempts to discover the disposition of the combat formation and system of fire.

The distance between positions is determined by terrain conditions and has to exclude simultaneous destruction of troops, deployed in two adjacent positions, by one atomic bomb (shell) of medium yield.

When defending on terrain not everywhere accessible for troop activities, and when there is a shortage of forces and equipment, the defense is normally based on the holding of separate areas of the terrain which are tactically valuable and which intersect the most important directions, coupled with counterattacks from the depth.
The distance between the defensive zones is determined by the characteristics of the area and other conditions.

In order to deceive the enemy, it is essential to avoid constructing stereotyped defenses and to create reserve and dummy troop deployment areas, firing positions, and defensive works for different purposes. Defensive zones and positions are chosen where possible behind natural antitank obstacles, in order to ensure good observation of the enemy, the conduct of fire in front of the entire main line of resistance, on the flanks and at limiting points; and to ensure the concealed deployment of the troops and their maneuver along the front and in depth.

The main line of resistance of the position may run along slopes facing the enemy, along ridges of heights, and along reverse slopes.

The terrain in front of the defensive zone and positions should make it more difficult for the enemy to observe, choose firing positions for his artillery, and secretly concentrate and deploy his troops for an offensive.

Between the defense zones and the positions, switch positions, the positions of antitank areas, lines for deployment of second echelons and reserves, and firing positions for the artillery, are prepared and obstacles are set up. In addition, intermediate positions are prepared between the defense zones.

Switch positions are intended to prevent an enemy who has broken in from spreading toward the flanks, and are used by the troops as deployment lines for counterattacks.

The forward edge of the defensive zones, the intermediate positions between them, and the antitank areas of the large units usually are designated by the army commander and defined in greater detail locally by the division (corps) commander.

The number of positions in a defensive zone, their trace, their limiting points with positions of adjacent units, and the regimental antitank areas are determined by the division commander.

352. A division of the first echelon may, depending on the situation, concentrate its main efforts on holding the first or successive positions located in the depth.

A corps may concentrate its efforts on holding the first or second defensive zone.

When concentrating the main efforts on holding the first zone, the latter is formed with the purpose of halting the enemy tanks and infantry attack, to defeat them, and to force him to abandon a further offensive. In this case, the second defensive zone is established in order to prevent deep penetration by the
enemy tanks and infantry which have broken through the first zone, to inflict the greatest possible losses on them, and to cover the deployment of troops for counterattacks (counterthrusts).

When the main effort is concentrated on holding the second zone, the function of the first defensive zone is to force the enemy to deploy his main forces for a breakthrough of the first zone, and to inflict the greatest possible losses on him. The second defensive zone in these circumstances is intended for the decisive defeat of an enemy who has broken into the defensive position and to break up his further offensive.

The concentration of the main efforts in defense is achieved by deploying troops in areas which ensure stability of defense in decisive directions, by maneuver of forces and equipment from the depth and from sectors which have not been attacked, and particularly by massing fire of all types of weapons on these directions.

353. The system of engineer obstacles is coupled with the fire plan so as to hinder vigorous operations by friendly troops.

Antitank obstacles are set up with the greatest possible density along directions subject to tank approach. In directions where maneuver and counterattack are anticipated, remote-controlled explosive mine barriers are set up, and in uncontrolled minefields passages are left which can be closed quickly.

354. In cases when the main efforts are concentrated on holding the first defensive zone, a security zone up to 25 kilometers in depth may be established in front of it.

A security zone is defended by forward detachments. The mission of forward detachments is to delay the enemy offensive, to force him to deploy and attack in a direction disadvantageous for him, to expose enemy groupings and intentions, and to cover friendly troops from enemy surprise thrusts. Forward detachments cover the most important approaches. They are composed of reinforced motorized-rifle and tank sub-units and units sent out from the second echelons of the divisions or from divisions of the second echelon of the army (corps).

The forward detachments are supported by artillery drawn from the main forces and by aviation. Engineer improvement in a security zone includes the extensive use of obstacles, whose density increases as they approach the forward edge of the first defensive zone.

The control of the forward detachments is the responsibility of the commanders of the first echelon divisions or is carried out directly by the senior commander.
When the main efforts of the division are concentrated on holding the first position of the defensive zone, a forward position may be set up in front of its main line of resistance on separate directions. Its purpose is to deceive the enemy concerning the trace of the main line of defense, and to force him to deploy his forces prematurely.

For the defense of a forward position, reinforced rifle (tank) sub-units are allocated from the composition of second echelons of regiments.

The operations of the sub-units defending a forward position are supported by artillery and mortar fire from the first defensive zone.

The forward position, is outfitted, from the engineering standpoint, in such a way that it does not differ from other positions of the defensive zone.

When there is a security zone, the forward position is its final position. Forward detachments which defend the security zone withdraw into the forward position and occupy sectors in it which are not held by the sub-units designated for its defense.

In order to protect the first position from a surprise enemy attack and to prevent the enemy from carrying out reconnaissance, a combat security force is sent out by the battalions of the first echelon. When the troops are in direct contact with the enemy, these missions fall on the sub-units deployed on the main line of resistance.

355. The combat formation of a division (corps) during the defense of the main direction normally forms in two echelons.

The tank regiment of a motorized-rifle division is usually used in the second echelon in order to execute counterattacks or to take up defensive positions in important directions.

The motorized-rifle regiment of a tank division, upon assuming the defensive, is normally used at full strength in the first echelon. If necessary, part of the sub-units of the motorized-rifle regiment may be attached to tank regiments on the defensive in the first echelon. In defense, a heavy tank regiment is employed, as a rule, in the second echelon to execute counterattacks or to repel enemy tank attacks by firing in place from prepared lines. Occasionally it may be used for defense in the first echelon.

When there is a general shortage of forces, the combat formation of the division (corps) may consist of one echelon and reserves.
356. The following types of artillery groups are formed in defense: regimental, division (corps), and army.

Regimental artillery groups in divisions of the first echelon are formed in regiments of the first echelon, on the defensive in the main direction. When these divisions have been sufficiently reinforced with artillery, regimental groups are formed in the remaining regiments, including the regiments of the second echelon.

Division artillery groups are formed in divisions of the first echelon.

In divisions of the second echelon, division and regimental artillery groups are normally formed before the divisions are committed to combat.

In cases when the main efforts are concentrated on the second defensive zone, divisional artillery groups are formed in the divisions which are defending this zone. Regimental artillery groups are formed in the first echelon regiments of these divisions.

Where necessary, part of the artillery of a second echelon division may be employed in battle for the first defensive zone, firing from temporary positions.

A corps (army) artillery group is formed when sufficient artillery is available, and is employed in the main direction.

In an army (corps), in addition, a special artillery group may be formed, and the divisions of the first echelon may be reinforced by artillery sub-units using atomic ammunition.

357. The antiaircraft defense of the division (corps) is conducted for the entire depth of the defensive formation, employing the main forces of the antiaircraft troops to cover its main groupings.

When the main efforts are concentrated on the defense of the first zone, antiaircraft artillery is usually attached to the divisions defending this zone.

When the main efforts of the troops are concentrated on defending the second defensive zone, the divisions defending the first zone are protected by their organic antiaircraft artillery.

358. In order to deceive the enemy and to reduce the effectiveness of his atomic strikes in the defense, the areas of deployment of the second echelons, reserves, artillery, and command posts are changed periodically.

Changes in deployment areas and changes in combat formations should be carried out, as a rule, during the hours of darkness or when visibility is poor, paying the strictest attention to
concealment in accordance with the intended plan of battle and with the permission of the senior commander.

2. THE ORGANIZATION OF DEFENSE

359. When organizing a defense, it is essential to give the troops as much time as possible, to ensure their timely occupation of the defensive positions, and their constant readiness to repel the enemy offensive.

When going over to the defensive under enemy influence, the commander of a division (corps) must first take measures to consolidate the occupied positions, to organize the fire plan, particularly antitank, and the protection of troops from atomic weapons.

After that, on the basis of decisions already taken, the necessary changes in combat formations are made and the defense is organized on general foundations.

360. The basis of the decision of the division (corps) commander for defense is his selection of those areas of terrain whose retention is essential to the stability of the whole defense, the proper grouping of forces and equipment, and the characteristics of their maneuver in the course of combat.

361. Reconnaissance by the division (corps) commander is carried out in order to gain more exact information locally about:

--possible departure areas which the enemy may use for the offensive, and the most likely directions for the offensive by his main forces, particularly his tank troops;

--the areas whose retention is vital to the stability of the defensive as a whole, and the protective features of the terrain as far as atomic weapons are concerned;

--the most expedient organization of the combat formation;

--the trace of the forward edge of the defensive zone and positions, the antitank areas, the lines for deploying the antitank reserves, the lines for mine-laying by the mobile obstacle-placing detachment, and the deployment areas of the second echelons and reserves;

--the type and order of engineer work to improve the defensive zone (zones) and the setting up of a system of obstacles;

--the fire system and the main areas for artillery firing positions;

--the missions of aviation and the targets against which it is to operate if it is supporting the division (corps);
--the areas and targets for destroying the enemy with atomic
and chemical weapons;

--measures to cover gaps, limiting points, and flanks, and
for combating enemy airborne landings;

--the direction of counterattacks and the maneuver of the
second echelons and reserves, and also their deployment areas,
and movement routes up to them;

--measures to assist troop operations at night and in
conditions of limited visibility;

--control point sites.

362. When assigning combat missions, the division (corps)
commander reports the latest information about the enemy, the
division (corps) mission, his plan, the trace of the forward edge
of the defensive zone and positions, the missions of adjacent units,
the way atomic weapons are to be employed, and then indicates:

--to the regiments (divisions) of the first echelon, their
means of reinforcement, their missions, the defense sectors (zones),
the areas or in what directions they must concentrate their main
efforts;

--to the regiments (divisions) of the second echelon, the
means of reinforcement, the missions, the defense sectors (zones)
or disposition areas, the direction for counterattacks, lines of
deployment and movement routes up to them, and also the order in
which counterattacks should be supported by first echelon troops;

--to the artillery, their missions, the composition of
artillery groups, the time at which they should be ready to open
fire, and the order of bringing it in to carry out counterprepara-
tions;

--to the antitank areas: positions, composition, and missions;

--to the reserves and the mobile obstacle-placing detachment-
the composition, missions, disposition areas and lines of deployment
(areas to be mined);

--to antiaircraft defense units: objectives to be defended
by antiaircraft artillery, the composition of the antiaircraft
artillery group, and the time at which they have to be ready;

--the forces and equipment designated to counter enemy airborne
landings, and their missions;

--the type and order of engineer preparation of positions and
of the defense zones;
the responsible commanders and missions to secure flanks, limiting points, and gaps;

--the time limits for assuming the defensive and the readiness of the fire system;

--the sites of command posts and the time at which they should be deployed;

--the main line of resistance of the security zone and the forward position (if they are being set up), the forces and equipment assigned for their defense, and engineer preparation.

Coordination in defense is organized for the entire depth of the defense by directions and for the following missions:

--to prevent the approach of the enemy and to break up the offensive that he is preparing;

--to retain the security zone and forward position (if they are established);

--to repel the enemy offensive in front of the main line of resistance;

--to destroy an enemy who has penetrated into the defense;

Coordination is achieved by the joint efforts of:

--units and sub-units using atomic and chemical ammunition, with the troops, in whose interest they are used;

--the forward detachments and the sub-units defending the forward position, and the artillery and aviation which are supporting them;

--the artillery and aviation whose task is the destruction of the enemy while his troops are concentrating and assuming a departure position for an offensive, and also during counterpreparations;

--units (large units) of the first echelon, artillery and aviation when repelling enemy offensives;

--troops intended to close gaps in the combat formations caused by enemy atomic strikes;

--units of the division (corps) and aviation intended for the destruction of enemy airborne landings;

--troops of the first and second echelons, reserves, artillery, and aviation during the battle deep in the defense and during counterattacks;
--antisnircraft defense troops with fighter aircraft operations in defending the troops against enemy air strikes.

When planning coordination, particular attention is paid to the maneuver of forces and equipment for timely reinforcement of the defense in threatened directions, to the liquidating of the consequences of enemy use of atomic weapons and other means of mass destruction, to the greatest possible exploitation of the result of friendly atomic strikes, and to executing decisive counterattacks.

Operations with adjacent units are coordinated in accordance with the nature of the joint missions to be accomplished.

364. Reconnaissance of the enemy is conducted continuously, and must establish the direction of enemy moves from the depth and his concentration areas, his assumption of a departure position, the composition and deployment areas of the main grouping of his troops, the direction of the main thrust, and the time when he will go over to the offensive.

The most important reconnaissance mission is the timely discovery of enemy means of atomic attack, his preparations to use atomic weapons and other means of mass destruction, and also his preparations to land airborne forces.

When organizing reconnaissance, particular attention is paid to aerial and radiotechnical reconnaissance, to the organization of an extensive system of observation, particularly on the flanks and in gaps, to the operations of reconnaissance groups in the enemy rear, and to carrying out reconnaissance raids and ambushes. When necessary, reconnaissance in force may be conducted.

365. For defensive operations at night the division commander takes into consideration:

--the order of transition from day to night operations and the necessary changes in troop dispositions;

--intensification of reconnaissance, combat security, and observation of the enemy by the use of night vision equipment, and also security and defense of flanks, limiting points, and gaps;

--changing artillery firing positions and the deployment areas of the reserves;

--the preparation of directions for counterattacks, and the preparation of routes for carrying out rapid maneuvers at night;

--the order of illuminating the area, and countermeasures against enemy means of illumination and night vision equipment;

--the order in which smoke screens will be used to conceal the operations of friendly troops and to blind the enemy.
--to insure orientation, mutual recognition, and target indication, and also identification of the front line for friendly aircraft;

--measures to ensure the troop transition from night to day operations.

366. The artillery in defense is assigned the following basic missions:

--the destruction of enemy atomic weapons and other means of mass destruction; carrying out destruction of his troops on approach marches, in concentration areas, and in the departure position for the offensive;

--executing counterpreparation in coordination with aviation;

--combating enemy artillery, including his antiaircraft artillery; the neutralization (destruction) of his radiotechnical means and his control points;

--covering engineer obstacles with fire;

--repelling enemy tank and infantry attacks, and providing fire cover for gaps which have been formed as a result of his atomic strikes;

--the destruction of enemy troops who have broken into the defense, and the neutralization of enemy reserves moving up, particularly in directions of atomic strikes;

--support for counterattacks (counterthrusts) of the second echelons and reserves.

In addition, the artillery is employed to support the combat of forward detachments, sub-units defending a forward position, combat security forces; to secure flanks, limiting points, and gaps; to destroy enemy airborne landings; to illuminate or provide smoke screens for the area; and to combat enemy means of illumination and his night vision equipment.

367. Artillery, using atomic ammunition, and missile artillery are placed in the defense in such a way that they are able to carry out strikes against the enemy on distant approaches, and in areas of concentration and deployment for the offensive. The remaining artillery is positioned so that, in the event of a breakthrough by enemy tanks, the greater portion of it can take part in their destruction.

In order to shift artillery to threatened directions or sectors, it is essential to prepare routes and alternate firing positions in advance.
Roving guns (combat vehicles, self-propelled mounts) and batteries are employed to deceive the enemy about the artillery grouping and artillery fire system.

Artillery detached for the support of forward detachments, sub-units defending a forward position, and combat security forces, normally fires from temporary firing positions.

368. Aircraft, detached for the support of a division (corps) in defense, are employed on the orders of the senior commander. Their missions are:

--the destruction of atomic weapons and other means of mass destruction, the launching mounts of offensive pilotless weapons and missiles, and also enemy radiotechnical equipment;

--the destruction of the enemy during his approach march, in his concentration areas, and in his departure position for the offensive;

--execute counterpreparations in coordination with the artillery;

--the destruction of enemy reserves as they move up;

--the destruction of enemy troops who have broken into the depth of the defense;

--support counterattacks and counterthrusts of friendly troops;

--screen friendly troops against enemy air strikes;

--the destruction of enemy airborne landings in their emplaning areas, in the air, in their drop (landing) zones, and in combat operations;

--the disruption of enemy troop control and the work of his rear services;

--carrying out aerial reconnaissance;

--adjusting fire for friendly artillery;

--mine-laying in the enemy disposition areas and along his movement routes.

During a defensive operation at night, aviation must, in addition, illuminate the battlefield, destroy enemy searchlights, and create fires in his areas of disposition.
369. Counterpreparation is organized and executed according to the plan of the senior commander in order to disrupt an enemy offensive.

Counterpreparation is conducted against enemy troop accumulations and the control points of his main grouping while it is in its areas of concentration and deployment for the offensive. It is also conducted against missile-launching sites, radiotechnical equipment, airfields, and ammunition and fuel dumps. It should forestall commencement of enemy air and artillery preparation.

Counterpreparation is accomplished by powerful air and artillery strikes, including heavy rocket and missile artillery using atomic and chemical ammunition. All the artillery located in sectors and in directions where the counterpreparation is being executed is employed to carry out the counterpreparation. In addition, on order of the senior commander, the corps and division artillery from the corps (army) second echelon, and also a portion of the tanks from the second echelons, and antitank reserves, may be called upon to participate in the counterpreparation.

Atomic ammunition of large and medium caliber is normally used against the enemy main grouping in the areas of his concentration and deployment.

The yield of atomic ammunition used against the enemy in his departure position is determined on the basis of ensuring the safety of the defending troops.

When delivering atomic strikes, particularly against targets equipped with engineer-type improvements, it is more effective to employ surface atomic bursts, providing the direction the wind, of average velocity, is away from friendly troops.

During counterpreparation, reconnaissance in force may be conducted in order to clarify information about enemy groupings and to cause confusion among his troops prepared for the offensive.

All preparatory measures for carrying out a counterpreparation must be taken in strict secrecy.

In individual cases, in accordance with a special plan of the senior commander, a strike may be executed in front of the main line of defense immediately after the counterpreparation.

This strike is normally executed by troops of up to regimental strength in order to disorganize and defeat the troops of the enemy first echelon which was subjected to the greatest effects during the counterpreparation.
370. The basic missions of engineer support in defense are:

-- engineer reconnaissance of the enemy and the terrain;

-- engineer preparation of the defensive positions and zones, antitank areas, and also the disposition areas and lines of troop deployment;

-- the construction of engineer obstacles;

-- the preparation of routes, and the setting up and maintenance of crossings over water barriers;

-- the construction of structures for control points;

-- the clearing of passages through obstacles, and preparation of routes to support counterattacks by the second echelons and reserves;

-- the construction of obstacles and defensive structures during the consolidation of positions captured during counterattacks against the lines;

-- engineer measures for the camouflage of troops and installations;

-- the reconnaissance of sources of water, its extraction, water purification, and the construction of water supply points.

Engineer support measures are accomplished by troops of all troop arms and by special troops.

371. Engineer work on defense positions and zones normally is conducted simultaneously throughout the entire depth and in such a sequence as to ensure constant troop readiness to repel enemy attacks and to protect troops from atomic weapons and other means of destruction.

The order in which the work is carried out and the time allotted for its completion are determined by the division (corps) commander, depending on the situation, the time, and the forces and equipment available.

First, trenches, firing trenches, shelters, and communication trenches are prepared for rifle and tank sub-units, firing positions for the artillery and mortars are prepared, the positions of antitank areas and the positions of units and sub-units of antiaircraft defense are also prepared. Obstacles are set up in front of the main line of resistance and preparations are made for their installation in the main directions in the depth of the defense. Structures are made for control points and basic structures for medical aid points. Routes are prepared for troop movement, and water supply points are set up.
Secondly, the system of firing trenches and communication trenches is developed and improved, and the construction of shelters for personnel, combat equipment, transport, and materiel supplies is completed. Reserve and switch positions are prepared, deployment lines for counterattacks are laid out, structures for control points are prepared in reserve positions, and the equipping of medical aid points is completed. The system of obstacles is developed, the network of routes for troop movement is expanded, and concealed structures for conduct of fire are constructed.

Finally, the defense positions and zones are developed and perfected as regards their engineer requirements, and reserve troop disposition areas receive engineer-type improvements.

Concealment measures are put into effect as soon as the troops go over to the defensive, and are carried on without interruption during the accomplishment of all engineering work.

372. The protection of troops from atomic weapons and other means of mass destruction is organized, taking into consideration their mass employment by the enemy and the prolonged contamination of the terrain over large areas. Special attention is paid to the speedy construction of dependable shelters, to the periodic shifting of deployment areas for forces and equipment, the rapid discovery of contaminated areas, and the organization of a rotating rest period schedule for the troops during lengthy operations in contaminated areas.

373. Antitank defense is the foundation of the defense of large units and units, and therefore its organization is one of the most important duties of all commanders. The antitank defense of a division (corps) is organized for the entire depth of the defense.

The bases of antitank defense are: artillery fire, tank fire, and air strikes against enemy tanks on the approaches to the defense, antitank fire in front of the main line of resistance and deep in the defense, in combination with antitank and natural obstacles, shifting of fire, antitank reserves, and obstacles in the course of combat.

The antitank defense system includes: company antitank strong points, organized into battalion antitank centers; antitank areas; antitank reserves; tank reserves of units; mobile obstacle-placing detachments; artillery positioned on critical avenues of tank approach; the tanks of the second echelons and reserves; antitank obstacles, and flamethrowing equipment.

Antitank areas are set up on the most important avenues of tank approach. They may consist of units (sub-units) of tank-destroyer artillery, and tank sub-units and other antitank means, reinforced by flamethrowing sub-units and sub-units of engineer troops with obstacle-placing means.
For the movement of forces and equipment assigned to an antitank area, reserve areas may be prepared on other critical avenues of tank approach.

Deployment areas are prepared for the antitank reserves on critical avenues of tank approach, and mine-laying lines, movement routes up to them, and also main and reserve disposition areas are made ready for the mobile obstacle-placing detachment.

374. Flamethrowing and incendiary means are employed while repelling attacks by enemy tanks and infantry and to secure flanks and gaps, in coordination with tank-destroyer artillery and in combination with the obstacles.

Smoke screens may be used for defense to conceal work on defensive positions, and the regrouping of troops, to cover friendly units and large units during deployment and counterattacks, and also to blind enemy observation posts.

375. Combat with the enemy airborne landings carried out within the division defensive position is the responsibility of the troops defending these positions. Part of the forces of the second echelon, the reserves, units, and sub-units of the artillery and aircraft allotted for the support and cover of the troops in defense, are called upon to combat airborne landings.

In no circumstances should the dispatch of troops to combat airborne landings weaken the stability of the defense in the directions of the main enemy thrust.

Part of the antiaircraft artillery is detached to cover troops detailed for the destruction of enemy airborne landings.

376. Control points of a division (corps) in defense are normally located in areas difficult of access to tanks.

The forward command post of a division (corps) is situated where it can best effect control of the troops in the direction of the main enemy thrust.

The command post of a division (corps) is normally situated in the area of the second echelon.

In order to provide for periodic changes in control point areas of location, before the beginning of the enemy offensive attack, and their displacement during combat, reserve sites are prepared in advance.

Before the enemy offensive begins, the control of troops is effected primarily by means of wire and mobile means of communication. Radio is employed for communication with reconnaissance, security forces, forward detachments, to control artillery fire, and to transmit warning signals.
3. THE CONDUCT OF THE DEFENSE

377. As the concentration and deployment of the enemy offensive formation is exposed, it is destroyed and neutralized by mass air strikes and artillery fire, using both atomic and chemical as well as conventional ammunition.

If a security zone is established, troops defending it contain the attacking enemy by stubborn combat from prepared positions, and making extensive use of obstacles, they contain the enemy on the offensive, wear down his forces and inflict as many casualties as possible.

378. The division (corps) commander, having established that the main enemy forces have entered their concentration areas, have begun to move out towards the main line of resistance, or have deployed for the offensive, reports this to the army commander (corps commander) and details the missions to his artillery participating in the counterpreparation, as well as targets against which atomic and air strikes are to be executed and chemical weapons are to be employed. At the same time, secretly, the necessary changes in the defending troops are made and control points are changed.

If reconnaissance in force was envisaged, the commander of a first echelon division specifies the missions to the sub-units detached for this purpose, and when the counterpreparation begins, controls their operations.

When part of the division forces carries out a thrust in front of the main line of defense, the division commander, if necessary, gives additional missions to the troops participating in this thrust and elaborates on the coordination with the artillery and with units located on the main line of defense.

379. Enemy attempts to conduct reconnaissance in force of the first line of defense are repelled by the sub-units defending these sectors and by the fire of specially detached artillery. Observation of enemy operations during this period must be particularly vigilant in order to detect the beginning of his attack in good time. Passages cleared by the enemy through obstacles are immediately closed.

380. On receipt of a warning signal concerning the danger of an atomic attack or with the beginning of enemy artillery and air preparation, the personnel takes cover in prepared shelters and other protected places. Observers throughout the whole defense zone and the crews of firing means on duty at the first position remain at their posts.

After the atomic strikes have been made or when enemy artillery and air preparation has begun, the artillery, in coordination with aviation, destroys the enemy artillery and mortar batteries, and also his tanks and infantry moving up or prepared
for the offensive. Units of antiaircraft artillery, in coordination with fighter aircraft, prevent enemy air strikes against the defending troops and other targets.

When enemy artillery and air preparation has been completed, the division (corps) commander checks the condition of the defending units (large units) and takes measures to repel the enemy offensive.

In areas subjected to enemy atomic strikes, reserves and mobile obstacle-placing detachments are moved up to close gaps in the combat formations of the troops. Helicopters may be used to speed up the shifting of troops. The artillery covers these areas with fire, preventing an enemy offensive through the gaps which have been formed. In addition, the existing obstacles in these directions are strengthened and new ones are set up.

Radiation and chemical reconnaissance is sent to areas which have suffered atomic and chemical strikes. Units which have suffered serious losses are either reinforced or replaced from the reserves (second echelons), and measures are taken to clear up the consequences of this attack. Warning signals of chemical attack are given to units threatened with contamination by radioactive or poisonous substances.

Enemy airborne landing forces are destroyed by the troops located near the landing and also by specially designated units and sub-units. Troop operations to destroy an enemy landing force must be rapid and decisive.

In the event of a large-scale airborne landing, atomic strikes may be delivered against it.

In cases where it is impossible to use atomic weapons, and when sufficient forces and equipment are not available for the destruction of an airborne landing force, the division (corps) commander takes measures to block it and deny its link-up with troops advancing from the front.

381. When the enemy assault begins, the fire of the defending troops reaches its highest intensity. The main mass of fire is concentrated on repelling enemy tank attack.

An enemy tank attack is repulsed by the fire of all artillery and tanks, those deployed in the sectors which have been attacked and those in adjacent sectors.

Aviation strikes are carried out against combat formations of an attacking enemy, his second echelons, and reserves.

The infantry destroys enemy tanks with all available means, cuts his infantry off from the tanks, and destroys it by firepower.
Atomic strikes may be delivered against enemy second echelons and reserves, and in some circumstances against the troops of the first echelon.

When repelling night attacks, the artillery and aviation illuminate the area, create sources of fires within the enemy disposition, and combat his means of illumination. The artillery, in addition, destroys enemy night vision equipment.

382. If the enemy has driven a wedge into the defensive position, a division (corps) commander takes measures to stop further movement in depth and towards gaps created to break up the combat formations of the attacking enemy, and to inflict the greatest possible losses on him by massed fire of all types of guns and by air strikes.

Reserves and mobile obstacle-placing detachments are moved up to the most threatened directions.

To strengthen the defense in critical directions, forces and weapons are moved from sectors which have not been attacked and, if necessary, a regrouping of the troops is carried out. Units which happen to be in the enemy rear area continue to hold the positions they occupy and try to draw as much of the enemy forces as possible against themselves. The division commander must support their operations with all the forces and weapons at his disposal.

383. During the battle the commanders and staffs must obtain precise information on the composition, grouping, and numbering of the attacking large units (units), particularly tank formations, the direction of the enemy main strike, and the location of his atomic and chemical means of attack. They must constantly watch the movement of the enemy second echelons (reserves), and determine the time of their commitment to combat and the direction of their operations. They must determine the approach of troops from the rear, their strength, composition, direction of movement, areas of concentration and lines of deployment, and also determine areas where enemy airborne landings (drops) were made, their combat composition, and the nature of their operations.

384. In order to destroy the enemy grouping which has driven a wedge into the defense, and to restore the position, counterattacks are carried out by the division (corps) second echelons and reserves in coordination with first echelon troops, adjacent units, and troops shifted from sectors that were not attacked. Tanks constitute the main element of first echelon troops in the counterattack. Counterattacks are supported by massed artillery fire and air strikes.

Counterattacks are carried out swiftly and normally are launched from the march against the flank and rear of the enemy that has broken through, at the moment when he has not had time to consolidate on the captured terrain. Counterattacking troops should be anchored to sectors where enemy attacks have been successfully repulsed.
Before passing to a counterattack it is essential to hit the enemy with fire by artillery, tanks, and air strikes. In addition, atomic and chemical weapons may be employed against an enemy grouping against which the counterattack will be executed, calculated so that the contamination of the area will not hinder the maneuver of friendly troops.

During a counterattack at night, particular attention must be paid to supporting the approach of the counterattacking troops to the lines of deployment and the timely preparation of observation, artillery fire, air strikes, and illumination of the enemy. A night counterattack must be simple in concept, and be executed rapidly and unexpectedly.

If the enemy makes penetrations of the defense in several directions, the first counterattack is conducted against his grouping posing the greatest threat.

385. After a counterattack has been executed and the position has been restored, the defending troops prepare to repel repeat attacks by the enemy. For this purpose all commanders and staffs, without waiting for special instructions, take measures for the rapid reestablishment of disrupted coordination, the fire system, and the expended reserves and second echelons. Measures are also taken to restore the more important defensive structures and engineer obstacles.

386. In the directions where the enemy is making mass use of atomic weapons and enjoys significant superiority in forces and weapons, counterattacks normally are not carried out. In this case, a first echelon division stubbornly defends its prepared positions and inflicts casualties on enemy troops and equipment with all types of firepower and obstacles, attempts to break up the enemy main attack force, and to create conditions to carry out a counterattack (counterthrust) by troops of the second echelon of the corps (army). Sub-units and units fighting on the flanks of the enemy group that has broken through, hold switch positions and prevent the expansion of the breakthrough in the direction of the flanks.

387. When a counterthrust is executed, the commander of a first echelon division deployed in the zone where it is being conducted must assist in the deployment of the second echelon (reserve) divisions, must support their operations with all types of fire, and must be ready to participate in the counterthrust with part of his own forces.

388. The commander of a second echelon (reserve) division, having received an order to execute a counterattack (counterthrust), indicates to his subordinate commanders the direction of the enemy operations and the lines which he has attained, the situation and missions of the units of the first echelon divisions, the method in which atomic and chemical weapons will be used, and the artillery and aviation missions in support of division combat operations.
He specifies the missions of units of the division, the order in which they move up and deploy, coordination measures, organization of antiaircraft defense, and the protection of troops from weapons of mass destruction.

The combat formation of a division during a counterattack (counterthrust) consists of one or two echelons. The tank regiment of a motorized-rifle division and the heavy tank regiment of a tank division normally are employed in the first echelon in the direction of the main effort.

389. If a counterthrust (counterattack) is not conducted by forces of the second echelon of the army (corps), a second echelon division is employed for the stubborn defense of prepared positions and zones in order to prevent a breakthrough by the enemy and to halt his further advance.

4. PECULIARITIES OF THE DEFENSE OF WATER BARRIERS

390. A water barrier is a natural obstacle which permits the organization of a firm defense with the least forces.

The organization of the defense of a water barrier depends on its characteristics, the operations of the enemy, and the impending combat missions on a given sector of the front.

The defense of a water barrier normally is organized only on the friendly bank. When there are bridgeheads in the division (corps) defense zone, the defense of the water barrier may be organized on both banks.

391. When organizing the defense on the friendly bank, the main line of defense of the first defense zone is picked out as near as possible to the water's edge, depending on the width of the water barrier and the nature of its valley. The forward line, however, may be set up at an advantageous position in depth with reinforced combat security forces moved out to the bank and with obstacles set up in the flood lands.

When organizing the fire system, particular attention is paid to creating interlocking fire for the effective destruction of the enemy on the water in front of the entire main line of resistance of the first defensive zone. If there are islands in the water barrier they are occupied by specially detached sub-units in order to forestall a surprise attack and enemy seizure of the islands, and also to carry on fire along the water barrier.

In sectors which are convenient for crossings by enemy tanks and self-propelled crossing means, the density of antitank fire is increased and various types of engineer obstacles are set up.
The second echelons and reserves are deployed in areas from which they can quickly and secretly move up to any sector where the enemy is crossing.

Sometimes during the defense of large water barriers, the prepared positions on the bank may be occupied by only part of the forces. In this event, the main forces of the first echelon large unit are deployed in a dispersed manner in depth, ready to occupy prepared positions.

Local crossing equipment is concentrated on the friendly bank, and if necessary it is destroyed.

392. When defending a water barrier, strikes with atomic and chemical weapons normally are executed against the enemy main grouping that has prepared for the forcing, against his crossing equipment, his most important crossings which have been set up, against troops who have seized a bridgehead, and reserves moving up to the sectors of forcing.

393. The artillery prepares to fire against possible enemy concentration areas, his crossing equipment, and against the most likely crossing sectors and the approaches to them. The artillery also combats the enemy artillery. The densest fire is prepared for sectors convenient for enemy forcing of the water barrier.

In order to destroy an enemy attempt to force a water barrier by direct-laying fire, the necessary amounts of tank-destroyer artillery and tanks are moved up closer to the bank.

394. Aviation makes timely discovery of enemy preparations for a forcing, carries out strikes against the enemy main grouping, his artillery, and his crossing equipment, and prevents enemy approach to the water barrier and the crossing of his infantry and combat equipment.

395. When the forcing begins the enemy is destroyed by all types of fire and by air strikes.

If an enemy crossing of a water barrier has taken place, the division (corps) commander must prevent a crossing of his subsequent echelons and reserves by artillery and tank fire, and must destroy the units which have crossed by decisive counterattacks, primarily by using tank units (sub-units). The counterattacks are supported by massed artillery fire and air strikes. They must be carried out before the enemy succeeds in consolidating positions on the friendly bank and in widening his bridgehead.

396. Bridgeheads are established and held firmly in order to enable friendly troops to go over to the offensive.

When defending a bridgehead, a division (corps) may deploy its entire forces therein, or may defend the bridgehead with only part of its forces.
The defense of a bridgehead must be characterized by special tenacity and stubbornness.

In order to ensure the greatest possible stability in the bridgehead defense, the troops defending it are reinforced by artillery, sub-units of engineer and chemical troops, by fire from guns and tanks on the friendly bank, and by air operations.

The bridgehead must have a well developed network of firing trenches, communication trenches, slit trenches, a system of obstacles, a strong system of antitank fire, and antiaircraft defense. In addition, a sufficient number of bridge crossings should be established with bridgehead positions for their immediate cover. Troops defending bridgeheads should have additional reserves of ammunition, fuel, equipment for anti-chemical protection, and rations.

During the defense of a bridgehead, great importance is given to the protection of the troops from weapons of mass destruction, screening the troops and the crossing from enemy air attacks, the defense and strengthening of the flanks, and also covering of the crossing areas and bridges by smoke.

Counterattacks, the shifting of artillery, particularly tank-destroyer artillery, and maneuver by reserves and mobile obstacle-placing detachments are employed extensively to repel enemy attacks.

397. The artillery is emplaced in a bridgehead in such a way that it can mass its fire in front of any sector of the defensive front. For the most effective flank security, it is advisable to deploy part of the artillery on the friendly bank opposite the flanks of the bridgehead.

398. When defending a water barrier, particular attention must be paid to combating enemy airborne landings. For this purpose, surveillance of probable landing (drop) zones is increased, preparations for the maneuver of second echelons and reserves into these areas are made, and, in necessary cases, obstacles are set up.

399. Special features of engineer support in defense of a water barrier are making the banks steeper, installing underwater and floating obstacles, the installing and maintaining of crossings, and also their rapid destruction under threat of enemy capture.

Hydrotechnical structures in the division (corps) defense zone which can be used for flooding the area are placed under reinforced guard, and if they cannot be used, are demolished on order of the senior commander.

400. If one of our naval flotillas is present on the water barrier, it can be employed to destroy river craft and enemy crossings and also to give gunfire support to the troops defending the water barrier.
5. PECULIARITIES OF THE DEFENSE OF A LARGE TOWN

401. A large town, with solid buildings and underground structures, may be turned into a strong defensive area.

When organizing the defense in a large town, it is essential to take into consideration the possibility that widespread destruction, rubble in the streets, intense radioactive contamination, and ignition of fires may be caused as a result of enemy atomic strikes.

402. The defense of a town must be of the all-around type, and may comprise outer and inner defense zones.

The outer defense zones are set up at the approaches to the town. Their number depends on the terrain and on the availability of forces and weapons intended for their defense.

The inner defense zones are set up throughout the entire depth of the town. Their number and trace are determined by the general plan and the size of the town. The main elements of each inner defense zone are defense centers, consisting of several strong points.

The forward edge of the first inner defense zone is prepared along the suburbs of the town or is moved forward if the town has adjacent commanding heights.

403. A corps may defend a town or part of it (a sector).

A division receives a zone or sector of the defense, and in individual cases may defend a whole town.

A regiment receives a defense sector (area).

The main efforts of the troops in defending a town are concentrated on holding areas (objectives) which have decisive significance for the entire defense system.

404. Combat in a town is normally broken down into a series of individual local battles for the retention of strong points.

Strong points and defense centers must be prepared for all-around defense and their fire must be coordinated with that of adjacent strong points and defense centers.

Reserves of ammunition, rations, medical stores, and drinking water are established in strong points.

Barricades and other obstacles are set up in the streets of the town and access routes to them must be covered by flank and cross fire.
The fire system is organized by combining the flank and cross fire of tanks, direct-destroying guns, and also mortars and artillery located in covered firing positions.

The tanks of motorized-rifle regiments are employed in small sub-units and individually as part of the troops defending strong points and defense centers. The tank regiment of a motorized-rifle division normally is employed in the second echelon in order to carry out counterattacks or to retain the most important centers and strong points in the depth of the defense.

In order to recapture strong points captured by the enemy, counterattacks may be carried out with small forces.

Flamethrowers are first employed against enemy tanks and infantry, and for support of counterattacking units (sub-units), and also to set fire to structures occupied by the enemy.

Aviation is employed to screen the town against enemy air strikes, to neutralize the artillery, particularly large-caliber guns, to destroy atomic weapons and other enemy means of mass destruction, and also to support counterattacks (counterthrusts) by friendly troops.

To allow the troops to maneuver in the town, passages and roadways are prepared within the city blocks, and underground structures are adapted.

405. The special features of engineer support in the defense of a town are the defensive adaptation of individual buildings, city blocks and the town as a whole, the construction of permanent defensive structures, barricades, bridges, and other crossings over rivers (canals) in the town, the preparation of concealed routes to assist in the maneuver of troops, the carrying out of buried mine combat, and rescue operations.

406. During the defense of a town a tank division is employed for counterattacks (counterthrusts) in the battle for retention of the outer defense zones. During the battle inside the town, the tank division normally comprises the second echelon or is placed in reserve and is employed to carry out strikes at the enemy in less built-up areas of the town.

407. During the defense in a large town, the troops should normally be reinforced by medium-caliber conventional antiaircraft artillery, antiaircraft missile artillery, and the radio countermeasures means. The troops and the most important targets should also be screened by fighter aircraft.

Antiaircraft defense weapons are used in such a way that enemy aircraft are destroyed on the approaches to the town.

Control of antiaircraft artillery fire intended to cover the troops defending the town is centralized.
408. The town's underground cable network is used extensively in the organization of wire communications. For reliable communications, a main and several auxiliary signal centers are organized. When using the local means of communication, it is essential to organize their protection and control so that it will exclude line-tapping by the enemy.

6. PECULIARITIES OF THE DEFENSE OF A SEACOAST

409. The mission of defending a seacoast consists of preventing seaborne and airborne landings on the shore. In the event of an enemy landing, the defending troops must destroy him on the shore or throw him back into the sea.

Success in defeating an enemy landing is achieved by: setting up anti-landing obstacles in the water and on the shore in advance; preparing the artillery fire system; the broad movement of tank units and other forces and equipment to the probable landing sectors; the timely discovery of the direction of movement of the landing force and determination of its strength and composition; constant readiness on the part of all forces and equipment for decisive actions to destroy the enemy in his landing and operations on the shore, and also the establishment of precise coordination between the defending troops and aviation and navy large units.

410. Atomic and chemical weapons may be used against an enemy amphibious landing, at his embarkation points, during the sea passage, during the approach to the landing areas, during the actual landing on the shore, and also in the course of combat on the shore. Atomic strikes against enemy ships equipped with the means of using atomic weapons are delivered as soon as they have been discovered.

411. A division (corps) carries out the defense of a seacoast either independently or in coordination with large units of the navy.

Large units of the navy designated by order of the senior commander are employed as a rule to support a division (corps).

The coast artillery of the navy is called upon to support the defending troops in the most threatened directions. In individual cases, coast artillery units situated in the division (corps) defense zone are turned over to and are directly subordinated to the division (corps) commander.

When defending areas where the fleet is based and islands, the division (corps) may be subordinated to the commander of the naval base (commander of the fleet).
412. The main efforts of the troops during the defense of a seacoast are concentrated on the firm retention of areas where the fleet is based, of ports, and of coastal sectors convenient for enemy landings.

For the defense of a coast in accessible directions, defense zones, positions and separate strong points are prepared, as well as main and reserve disposition areas for the second echelons and reserves, and routes for the maneuver of troops.

On sectors of the coast which are difficult of access, separate strong points, lines for deployment of reserves, and routes up to them are prepared for the defense of the most important areas, and security and reconnaissance are organized.

The main line of resistance is selected as near to the water's edge as possible, but where the shore line is flat, it is withdrawn in depth to advantageous lines, taking into consideration the situation and the employment of atomic weapons.

When selecting positions for the infantry and artillery it should be remembered that an enemy landing can best be repulsed when his troops are still in their landing craft.

The fire system is organized with the aim of destroying the enemy both in the water and on the shore, using flank and interlocking fire.

413. Until the intention of the enemy has become apparent, part of the forces of a first echelon division may take up prepared positions on the shore itself. The main forces of the division, in this case, are deployed in the depths in readiness to take up prepared positions or to carry out counterattacks against enemy landing forces.

Artillery and tanks allocated for direct-laying fire support must be ready to move up to the shore into previously prepared positions to destroy the enemy landing craft and amphibious tanks as they approach the shore.

414. A division of the second echelon is deployed in one or in several areas, near the roads leading to the most threatened sectors. The distance of a division from the shore should enable it to maneuver in any direction and to prevent it from being drawn into combat prematurely.

415. The operations of the artillery during the defense of a seacoast are based on its extensive maneuverability. Division (corps) artillery, in coordination with coastal artillery, ships of the navy, and aviation, is employed to destroy enemy ships and landing craft as they approach the shore and to wipe out the troops while landing and in the course of combat on the shore.
All the artillery must be ready to lay down rolling and standing barrage fire at the approach of the enemy to the shore and on the shore.

On sectors accessible for amphibious tank landings, tank traps are set up and the system of antitank fire and antitank obstacles is reinforced.

416. During the defense of a seacoast, aviation, in addition to fulfilling its normal tasks, observes enemy ship operations, destroys his ships, his landing craft and his transports carrying troops during their sea passage, lays minefields, and cooperates with the defending troops in the destruction of sea and air landings during the landing and in operations on shore.

417. During the defense of a seacoast, ships of the fleet conduct reconnaissance and patrol duties at sea, destroy landing craft and transports with enemy troops, carry out strikes against enemy naval gunfire support ships and ships which are covering the landing, lay mines along the most probable direction of movement of the landing force and at the approaches to his possible landing points, cooperate with defending troops in the destruction of the force that has landed, blockade the enemy from the sea in coordination with aviation, and also pursue the withdrawing enemy landing force.

418. When organizing engineer support, the following are taken into consideration: the construction of anti-landing obstacles on the most likely sectors for an enemy landing; the preparation of tunnels and caves in high banks for the locating of firing means and combat equipment in them; and minelaying at the approaches to points where the enemy might land.

419. Having made a decision to defend a seacoast, the division (corps) commander must take into consideration the possible type of enemy landing and of its operations ashore, the sectors of the coastline which are most accessible for a landing, the system of observation, identification, and communication present on the coast, and also the missions of large naval and air units within the limits of the defended zone. At the same time, the possibility of an enemy amphibious landing on coastal sectors difficult of access must be taken into consideration, and the possibility of an enemy airborne landing (drop) either deep within the defense or directly on the coast in the area of the amphibious landing.

420. Reconnaissance is organized on a broad front and in great depth, in order to discover in advance enemy preparations to effect a landing.

Reconnaissance by naval and air means must establish the areas where enemy troops embark on the means of transport, determine the strength, composition, and direction of movement of the landing force, and the likely sectors for the assumed landing. Particular attention is paid to the discovery of enemy ships armed with the means to employ atomic weapons.
Observation in the division is organized along the entire defense zone, with extensive use of technical means of reconnaissance.

421. When information has been received that an enemy landing force is approaching, reconnaissance of all types is intensified, and the main forces prepare to move up and occupy positions on the shore.

The order (signal) for the movement of the main forces is given by the commander in sufficient time to permit them to reach the shore and occupy defensive positions before the beginning of the enemy debarkation.

As the enemy landing force approaches the shore, the division commander concentrates fire, of all types, against the enemy landing craft and amphibious tanks in order to destroy the landing force during its approach and landing on the shore. This is carried out in coordination with aviation and large units (ships) of the navy.

Enemy airborne landings made on the shore itself are destroyed without delay by the units and sub-units of the first echelon of the division in whose area the landing took place, in coordination with adjacent units and with artillery support.

When repulsing an enemy landing it is necessary to recognize that an amphibious landing force can change its debarkation sectors and points, and therefore troops should not be moved from adjacent sectors prematurely.

The antiaircraft defense troops and fighter aircraft should not allow enemy aircraft to adjust the fire of his ships' guns.

If the enemy captures the shore with his landing, the units of the division first echelon should deny him further movement inland by putting up a stubborn defense of the areas and sectors which they occupy. They should prevent the enemy from consolidating and linking up the bridgeheads he has captured, and from landing further echelons. Enemy units which have effected a landing are destroyed by massed artillery fire, by air strikes, and by decisive counterattacks, including counterattacks by small sub-units before the enemy has had time to consolidate on shore.

If a first echelon division is unable to destroy the landing force, it tenaciously holds on to its positions, prevents the enemy from moving inland and towards the flanks, and creates conditions for his subsequent destruction by the forces of the corps (army).

422. Control of the troops defending a seacoast is effected from control points set up during the organization of the defense by the troops, or from previously prepared and equipped control posts of the navy coast artillery.
7. PECULIARITIES OF DEFENSE IN WINTER

423. Defense in winter is organized on general bases. A defense zone should be selected in an area where there are woods, inhabited places, and other cover from the cold. Besides, attention should first be paid to the organization of the defense of road junctions, inhabited places, and wooded sectors.

The main line of resistance of the defense zones and positions should be chosen, where possible, behind obstacles which are difficult to overcome in winter (ravines, water barriers with steep banks).

All covered positions in front of the main line of resistance which can be used by the enemy are destroyed or mined, and should be covered by the artillery.

In connection with the possibility of close and deep envelopments by enemy ski troops, it is essential to reinforce friendly flanks, limiting points, and gaps.

424. When there is deep snow cover, movement route protection against enemy air strikes is organized and, in addition, particular attention is paid to the protection of road junctions.

The artillery and aviation, in addition to fulfilling their normal tasks, prevent the enemy from deploying in inhabited places and woods, and also from moving along the roads.

Aerial and ground reconnaissance of roads and ski trails in the enemy disposition area are carried out systematically.

425. The special features of engineer support for defense in winter are: the construction of heated shelters where the troops can warm themselves, the construction of snow and ice obstacles, and the creation of holes in the ice of water barriers, and of additional obstacles on sectors of the terrain and directions which are passable for enemy tanks and infantry; the construction of heated water supply points; the clearing of snow from roads and march routes, protection from snowdrifts and combating the icing of roads, and also the laying out of winter cross-country roads.

426. All defensive structures and obstacles are constructed with consideration for the depth of the snow cover. During a lengthy defensive operation, measures are taken to ensure that obstacles are always ready for operations, and that roads are passable (particularly when there are snowdrifts); winter camouflage is carried out and maintained.

To ensure the mobility of reserves, second echelons, and artillery, measures are taken to increase vehicle cross-country ability and skis are also used.
Reconnaissance of snow cover is carried out along routes where the troops will probably maneuver, and march routes are prepared.

427. Particular attention should be paid to the prevention of frostbite among the personnel, to the construction of warming points, and to the more frequent relief of units (sub-units) located in the first echelon, to the timely provision of the personnel with warm clothing, winter camouflage suits, hot food, and tea, and also to the maintenance of weapons, combat equipment, and transport in constant battle readiness.

428. When setting up a defense in conditions of thaw and mud, in addition to the usual measures, the following should be considered:

---the construction of drainage ditches and water-collection pits in trenches and communication trenches;

---strengthening the steep sides of structures to prevent landslides and washouts;

---providing armored and motor-tractor equipment with means of improving their cross-country ability;

---setting up additional reserves of materiel supplies and the supplying of troops by air.

8. PECULIARITIES OF DEFENSE IN FOREST AREAS

429. Large forest tracts, particularly those with marshy sectors, make enemy offensive operations more difficult. At the same time, forest tracts assist in the concealed deployment of troops in defense, in the widespread establishment of various obstacles, in carrying out concealed maneuvers, and in carrying out surprise counterattacks.

430. Defense in a forest is based on the fire system of battalion and company defense areas prepared for all-around defense, coupled with counterattacks and the employment of obstacles. Outlying projections of the forest should be used for organizing flank and interlocking fire.

The second echelons and reserves are deployed in areas prepared for all-around defense near roads, clearings, and forest lanes.

In forests located in terrain where the level of the ground water is high, trenches with parapets are constructed.

When organizing defense in a forest, it is essential to consider the possibility of forming a large number of timber obstructions that fires can be caused by atomic bursts and...
incendiary means, and also that contaminated air will remain stagnant for a long time.

431. It is advantageous to have the main line of resistance of the first defensive zone set back a little in depth, or it should be in front of the edge of the forest. The main line of resistance of the second defensive zone is set up along forest lanes and clearings.

Part of the division artillery is attached to the sub-units of the first echelon regiments, and is employed primarily for direct-laying fire. The remaining artillery is distributed among the artillery groups.

Antitank weapons in defense are deployed along critical directions of tank approach (roads, forest lanes, and clearings).

The tanks of the motorized-rifle regiments are employed in small sub-units to reinforce the first echelon sub-units and for operations from ambushes.

The tank regiment of a motorized-rifle division is employed in the second echelon for carrying out counterattacks either as a complete unit or by sub-units in directions suitable for the movement of tanks. It is also employed to defend key lines and to close gaps in the combat formations of the first echelon troops.

432. Special features of engineer support for defense in a forest are: to clear fields of observation and fire, to set up timber obstacles, to establish defensive structures at road junctions and forest lane crossings, to prepare additional roads, to take measures to combat forest fires, and to clear routes of obstructions caused by atomic bursts.

433. Combat in a forest is conducted at close quarters because of limited visibility. Surprise and speed in executing counterattacks are of great significance. Counterattacks by small forces are employed extensively to destroy an enemy who has driven a wedge into the defense.

To ensure secrecy of maneuver and effective orientation, the directions of counterattacks must be studied, prepared, and clearly marked on the terrain.

9. PECULIARITIES OF DEFENSE IN MOUNTAINS

434. The organization of defense in mountains depends on the characteristics of the mountainous areas and the importance of the direction to be defended.

The defense should be strongest in directions accessible to tanks.
Particular attention is paid to the defense of mountain passes, passages, commanding heights, road junctions, and to the security of gaps and flanks.

435. The fire system should ensure tier, flank, and interlocking fire at the approaches and over the dead space in front of the main line of resistance, particularly on the flanks, and also in gaps between defense areas.

When organizing the defense of a narrow mountain valley, firing means should be sited so that the valley is swept by interlocking fire throughout the depth of the defense. Approaches to commanding heights are covered by artillery and mortar barrages.

On approaches accessible to tanks, strong antitank and anti-infantry obstacles should be set up, covered by fire from antitank guns and machineguns.

Inhabited places lend themselves to all-around defense. Mountain passes in the depth of the defense should be prepared for all-around defense in advance and be occupied by troops.

When organizing defense in mountains the possibility of sudden changes in the meteorological conditions should be taken into account, as well as mountain landslides and avalanches, particularly after the use of atomic weapons by the enemy, and also the possibility of flooding of mountain riverbeds, gullies, and ravines during heavy rain and the melting of snow.

436. The disposition of division (corps) second echelons and reserves should ensure their maneuver and timely commitment to combat during counterattacks and also the defeat of possible enemy close and deep envelopments. The directions for counterattacks are carefully reconnoitered and prepared. Helicopters can be employed to shift reserves and second echelon sub-units to threatened directions.

Division and corps artillery groups are created in large units defending the most critical directions. Regimental artillery groups should be stronger than under normal conditions of defense.

437. A division of the second echelon is employed in the main direction and is located in the depth of the defense in one or several areas close to road junctions, prepared to carry out counterattacks or to occupy the defense.

438. Mountain rifle large units (units) are employed to defend the most critical directions, mountain passes (passages), and ridges in areas which are difficult of access, and in high-mountain terrain.
In the absence of mountain rifle large units (units) - the defense of high-mountain terrain is undertaken by specially trained sub-units.

439. Atomic and chemical weapons are employed for defense in mountainous areas against enemy troop concentrations in valleys, mountain passes, ravines, and against his troops that are prepared to attack. They are also used to support counterattacks in the main direction. In addition, atomic weapons may be employed to destroy roads and to create landslides in order to break up the regrouping of enemy troops.

440. When organizing antiaircraft defense in mountains, the main attention should be given to the screening of troops during their operations in areas of passes, mountain gaps, ravines, at road junctions, bridges, and crossing places over mountain rivers; the protection of troops defending valley entrances accessible to tanks; of artillery groupings on mountain plateaus; and of artillery, tanks, and columns of vehicles moving along mountain roads.

Antiaircraft artillery is attached to large units and units operating in separate directions.

441. The tanks of motorized-rifle regiments are employed to reinforce the antitank defense of units (sub-units) defending on roads, in ravines, at the edges of forest tracts, at bridges and crossings over mountain rivers, and also for counterattacks along valleys and the beds of shallow rivers. The tank regiment of a motorized-rifle division and a tank division normally are employed in the second echelon for executing counterattacks, or for the defense of key lines in critical directions of tank approach during defense in mountains. They may be deployed in one or in several areas.

442. Aviation carries out strikes at the enemy attacking in defiles, ravines, on passes, and roads, and also destroys the enemy, particularly his artillery and mortars, on the reverse slopes, in concealed approaches, and in dead spaces. Particular attention must be paid to the marking of the friendly main line of resistance and to target indication.

Airplanes and helicopters are also employed for transporting of troops and delivery of cargoes to areas without roads.

443. The special features of engineer support of defense in mountains are: to adapt caves and other natural shelters for the location of firing means in them and for the protection of troops from weapons of mass destruction; the preparation and maintenance of roads with passing places in narrow sectors, on steep upgrades and downgrades, and at sharp turns; to prepare landing strips for helicopters and for receiving supplies dropped from aircraft; the
construction of special bridges (crossing places) over mountain rivers and ravines; the construction of cable roads, the clearing from maneuver routes of rockslides and snow avalanches, particularly after atomic bursts; the preparation of landslides, demolition of roads and crossings, and also the preparation of obstacles in passes.

444. If the enemy has penetrated the defense in depth, it is of great importance to retain individual heights stubbornly even when completely surrounded.

The division (corps) second echelons and reserves, using concealed approaches, destroy an enemy who has broken into the defense by decisive counterattacks into his flank and rear.

As a rule, counterattacks should be carried out from above downward, along ridges and valleys.

445. Rear service units and sub-units are deployed near junctions of roads and paths.

Reserves of all types of materiel are normally increased; their quantity must ensure that the troops will be able to fight on when encircled and in the absence of regular delivery of supplies.

Where necessary the troops are supplied with items of special equipment and clothing.

Particular attention should be paid to the security and defense of rear service units (sub-units) against enemy ground forces, screening them from air strikes, and also to the control of traffic.

10. PECULIARITIES OF DEFENSE IN DESERT AND STEPPE AREAS

446. In desert and steppe areas, when the forces are limited, the defense normally is set up in independent key directions, with the allocation of strong second echelons and reserves deployed in greater depth than in normal circumstances. Reconnaissance and security detachments are sent out into the gaps which are not occupied by troops.

The basis of the defense is well-prepared fire of all types and extensive maneuver by strong reserves composed of tank large units and units.

The possibility of moving cross-country in deserts and steppes allows great freedom of maneuver. Therefore, particular attention should be paid in defense to the security of flanks, limiting points, and gaps.
In deserts and steppes, antiaircraft defense and protection of troops against weapons of mass destruction, as well as combat with tanks and airborne landings, take on great importance.

Reconnaissance is organized on a broad front and in great depth during both day and night.

447. Atomic and chemical weapons may be used in defense in deserts and steppes to deliver strikes against enemy troops prepared for the offensive, to support counterattacks in the main direction, to carry out strikes on concentrations of enemy troops in inhabited places, in oases, and at sources of water. In addition, atomic weapons are used to destroy hydrotechnical structures and reservoirs.

448. Special features of engineer support in defense in desert and steppe areas are: the strengthening of the slopes of trenches, communication trenches, and other defensive structures, and their protection against drifting sand; to carry out reconnaissance for and to obtain deep-lying water and to construct intermediate water-distribution points; to lay out routes for cross-country troop movement and to mark them clearly with permanent and easily visible signs; to set up additional landmarks; to take measures for the camouflaging of troops and objectives, taking into consideration desert and steppe background.

449. Rear area units and sub-units are echeloned in depth.

In cases of necessity, increased materiel supplies are created for the troops.

In addition to motor transport, aircraft are employed for supply and evacuation.

In addition to the normal types of supplies, water and fuel must be supplied to the troops in deserts and steppes.

In order to supply troops with fuel and water, field pipelines may be employed in addition to motor and air transport.

Rear area units and sub-units, as well as sources of water, are protected by specially detached sub-units.
CHAPTER VIII

RETREAT

450. Retreat is a necessary type of combat operation. It is executed in those cases where a decisive change in an unfavorable situation can be effected only through temporary abandonment of ground, to save friendly troops from an attack by superior enemy forces, and to establish them in a more favorable situation.

When in close contact with the enemy, a retreat normally begins by disengagement.

Troop retreat must be executed in a well-organized manner, secretly, and only on the order of the senior commander.

451. The disengagement and retreat of the division (corps) main body should be carried out suddenly at night or in other conditions of limited visibility. Until nightfall the troops should make every effort to hold the positions they occupy.

However, the situation may compel troops to disengage and carry out a daylight retreat under conditions of good visibility. The success of the operation to disengage in these circumstances will depend on speed and surprise, on skillful use of the terrain, and the extensive use of engineer obstacles and smoke screens. During a daylight retreat particular attention must be paid to antiaircraft defense and to defense against atomic weapons and other means of mass destruction.

Disengagement by the division (corps) main body is in all circumstances executed under the cover of specially designated reinforced motorized-rifle and tank sub-units. These sub-units remain in place for a period of time specified by the large unit commander in order to deceive the enemy about the nature of the operations by conducting activities of the type executed prior to retreat. The sub-units covering the operation of disengagement by the division (corps) main body begin to disengage themselves after the main body has passed through the line occupied by the rear guards.

452. If the enemy is conducting active operations, disengagement takes place after air and artillery strikes against the most threatening forces of the enemy, and after short counterattacks have been made on a broad front or a powerful counterattack on one axis. These actions disorganize the enemy and allow the main body to disengage undetected.

Atomic and chemical weapons may be employed to support disengagement by the division (corps) main body and to crush powerful enemy forces carrying out an encirclement.
453. Retreat of the division (corps) main forces is executed under the cover of rear guards.

The composition of the forces and weapons of rear guards depends on the situation. Reinforced tank units and sub-units normally are included in rear guards.

Rear guard operations are supported by specially allocated artillery. Rear guards must be capable of accomplishing their assigned missions independently, without relying on the support of the main body.

In a division, retreat of the main forces may be carried out under the cover of rear guards drawn from regiments, or under cover of a general rear guard for the division. Retreat of a division along several routes may be covered simultaneously by a general divisional rear guard, and by regimental rear guards on individual routes.

454. The primary mission of rear guards is to protect the main forces when breaking off contact with the enemy and during their withdrawal to the designated area or line.

In order to protect the retreat of the disengaged division (corps) main forces, the rear guards occupy the designated line in advance and retain it for the period ordered by the division (corps) commander.

Next, the rear guards, acting with the permission of the division (corps) commander, withdraw from line to line, making extensive use of obstacles and demolitions in the zone of their withdrawal. They must delay the enemy attack, and gain the time necessary for the retreat of the main forces. The operations of the rear guards on each line must be decisive and aggressive.

455. After they have passed the first line occupied by the rear guards, the division (corps) main forces close up into march columns and withdraw to the areas or lines indicated for them.

Depending on the situation, the retreat of the main forces may be executed either with or without combat deployment on intermediate lines. The intermediate lines are specified by the senior commander.

The combat deployment of the main forces, or a part of them, on intermediate lines is expedient when it is necessary to delay the enemy, to gain time for executing countermoves, and for organizing rear area defense, or when the situation on an adjacent front requires it.

The type and duration of combat for the main forces, or part of the division forces, depend on the situation and on what the senior commander is trying to achieve by fighting on this line.
In some circumstances, the division (corps) main forces may be deployed to attack an enemy force moving or attempting to move across withdrawal routes of our troops.

456. During a retreat, reconnaissance must collect timely information on the strength, composition, type of operations and intentions of the enemy, particularly when he is moving on flanks of the division (corps). Reconnaissance should keep continuous track of the situation on adjacent sectors, and also determine if there are any obstacles and demolitions along the withdrawal routes.

Reconnaissance groups are left in the zone of retreat and in the rear of the enemy in order to reconnoiter the enemy's most important formations.

457. During a retreat, flank detachments or flank guards (bokovyye pokhodnyye zastavy) are moved out to take counter-measures against enemy close and deep envelopments. They cut the probable movement routes of the enemy, set up obstacles, and delay the enemy until the division (corps) main forces and the rear guards have passed through.

During the combat deployment of rear guards and the main forces on intermediate lines, the time of withdrawal from line to line, as well as the sequence of the flank detachments' and flank guards' operations must be coordinated with the operations of adjacent units.

458. Defiles, bridges, and other crossing places and road junctions on the withdrawal route, as well as key terrain features, must be occupied in advance and held by helicopterborne advance detachments or units and sub-units in order to prevent their seizure by the enemy. These detachments hold the positions until the main forces have passed through and until the approach of the forward sub-units of the rear guards.

459. As the retreat of the troops in the divisional (corps) zone of operations proceeds, bridges, roads, signal lines and centers, and other field installations are destroyed, and various types of obstacles are set up concurrently.

The division (corps) commander establishes which installations are to be destroyed on his order alone, and appoints commanders and engineer sub-units to be responsible for this. The remaining installations are destroyed on the order of the commanders of the retreating units.

When there is a clear threat that installations will be seized by the enemy, they are destroyed on order of the commanders of units and sub-units defending these installations.
Bridges and other crossing places on the retreat routes are destroyed after friendly troops have crossed them, and only on the order of the division (corps) commander or the rear guard commander.

460. The artillery operating as part of the rear guard destroys the enemy attacking frontally and enveloping from the flanks, particularly his tank troops; it supports the counter-attacks of its own troops and covers their withdrawal to the next line.

The artillery which is retreating as part of the division (corps) main forces receives instructions on the sequence of possible deployment to support the rear guards, the main force, and for countering enemy close and deep envelopment.

461. The antiaircraft defense troops cover the operations of the rear guard and the retreat of the main forces. Medium caliber tube antiaircraft artillery and missile antiaircraft artillery are employed to cover the troops retreating on the main axis.

462. The tank regiment of a motorized-rifle division may comprise the division rear guard, or may be included in the main forces in order to operate against enemy close and deep envelopments.

The tanks of motorized-rifle regiments are normally employed for joint operations with the covering sub-units and in the rear guard.

463. Aviation accomplishes the following missions in support of a retreat:

--conducts reconnaissance of the enemy, particularly the enemy threatening the flanks of the retreating troops;

--strikes at the enemy main body and prevents him from carrying out close and deep envelopment;

--destroys enemy airborne forces which are dropping on the retreat routes;

--destroys bridges captured by the enemy, sections of roads, and other installations after the withdrawal of our troops;

--adjusts the fire of long-range artillery;

--covers the division (corps) main forces and their rear guards from enemy air strikes as the main forces break from combat formations to march formations, during the march, and particularly during the passage of defiles, bridges, and other crossing places and large inhabited places, as well as in their concentration areas.
464. Engineer support for a retreat is of particular importance. When it is being organized, the following are taken into consideration: the construction of obstacles and demolitions on the most probable axis of enemy attack, particularly on roads and on the flanks of the retreating troops; the preparation of roads; the construction and maintenance of crossings; and the organization of combat deployment lines for the rear guards and the division (corps) main forces.

465. A division (corps) commander who has received an order to retreat makes his decisions and issues a battle order in which he normally indicates the following:

--- the latest information about the enemy;

--- the purpose of the division (corps) retreat, the sequence of disengagement and retreat;

--- the missions to be accomplished by adjacent units;

--- the missions of the units (large units), the zones of the withdrawal, the movement routes, the final line of the retreat (concentration area), the sequence and time for disengaging, the sequence of closing into march columns, the phase lines, the times at which they will be crossed, possible intermediate lines at which the troops will deploy for combat, and the missions at each line;

--- the composition of the rear guards, and of the forward and flank detachments, the lines which they must occupy, and the time period for which they must hold these lines;

--- the composition and missions of the troops covering the disengagement of the division (corps) main forces, the time period these troops must hold their positions, and the method of their operations;

--- the missions utilizing atomic and chemical weapons and artillery missions, during the disengagement and the retreat;

--- the missions of antiaircraft defense units;

--- the organization of troop control and of communications and the method of traffic control.

When the withdrawing troops are supported by aviation, the division (corps) commander specifies its missions, the targets to be attacked, and the schedule of operations.

The large unit commander, in addition, indicates:

--- the method of coordination during disengagement and retreat;
--measures to counteract enemy close and deep envelopments, and also to destroy the enemy airborne forces landed on the withdrawal route;

--measures to hold defiles, bridges, and other crossing places until the division (corps) has passed;

--the order in which various targets will be destroyed, the establishment of obstacles during the retreat, and other measures of engineer support and concealment;

--the combat security tasks, the sequence of retreat of rear service units and sub-units, and the method of organizing materiel, technical, and medical support.

466. Troop control during disengagement is effected from the forward command post. The command post moves with the main forces.

After the retreating troops have closed up into columns, the forward command post moves to a place from which the division (corps) commander can maintain constant control of the main force and the rear guard.

The rear services control point is moved concurrently with the withdrawal of the rear service units.

During a retreat, special attention must be paid to support of communications with the rear guards, flank detachments (flank guards), reconnaissance sub-units, and adjacent units.

In order to assist troop retreat, measures are taken to clear the roads, and particular attention is paid to traffic control in the zone of the retreating troops.

467. All rear service units and sub-units not required for the immediate support of the troops are withdrawn in proper time to the areas designated for them. The sick and wounded are evacuated beforehand. Only essential mobile reserves of materiel resources and part of the repair-evacuation and medical resources remain with the units and large units. Medical sub-units supporting the rear guards are provided with motor transport, if necessary, for the timely evacuation of the sick and wounded.
CHAPTER IX

COMBAT IN ENCIRCLEMENT

AND

THE BREAKOUT FROM ENCIRCLEMENT

468. Encirclement may occur in defense and during a retreat as a result of an attack by superior enemy forces, their appearance on the flanks and in the rear of our troops, and the formation of a continuous front around our troops.

A large unit which, as a result of a swift offensive, finds itself deep within the enemy disposition, with enemy troops on its flanks and in its rear, must not consider itself surrounded, and must continue to accomplish its assigned missions decisively.

469. Troops can avoid encirclement by skillful operations, but if it should occur they must fight on stubbornly, supporting the accomplishment of the over-all combat mission by their aggressive operations.

Great stability, initiative, and decisiveness on the part of all commanders, stamina and tenacity on the part of the troops, surprise and aggressiveness in operations, and the skillful maneuvering of forces and weapons are the decisive factors of successful combat when surrounded and when breaking out of encirclement.

470. A commander must take every precaution not to allow his large unit to be surrounded. For this purpose he must:

--reinforce reconnaissance and the security of flanks, gaps, and of the rear of his own troops;

--shift his own troops, particularly tanks and artillery, to threatened sectors, and reinforce the defense of critical axes of tank approach;

--in coordination with adjacent units, rout enemy envelop-ment, and destroy his airborne and seaborne landings by massive and concentrated artillery fire, by decisive attacks by the second echelons and reserves, and by taking maximum advantage of the effects of atomic and air strikes;

--take measures to maintain uninterrupted contact with the senior commander and adjacent units;

--redistribute and, where possible, replenish the reserves of ammunition, fuel, and rations, and prescribe their consumption rate;

--take measures to expedite the evacuation of sick and wounded, and of excess equipment and other material resources.
471. If a division (corps) is encircled, the commander acts independently to break out of the encirclement in order to restore the situation. At the same time he reports this to the senior commander and, according to his instructions, continues fighting within the encirclement or organizes a breakout.

472. When a division (corps) is surrounded, it is essential to retain the area which is occupied, to avoid concentrating one's troops in a small area where they could be easily destroyed by atomic strikes, and to prepare conditions for a breakout from encirclement.

This is achieved by: setting up all-round defense; detailing of strong reserves; reinforcing troops on critical axes of tank approach with more antitank weapons; the destruction of enemy forces, attempting to compress the ring of encirclement or to break up the surrounded troops, by employing atomic weapons, air strikes, and artillery fire; counterattacks aimed at destroying enemy penetration of the defense; planning and executing the shift of forces and weapons to reinforce threatened sectors; the dispersal of reserve, artillery, and control point locations, and the creation of forces to break out of the encirclement.

If units (sub-units) of other large units are within the encircled area, the division (corps) commander must take them under his command and integrate the efforts of all troops in the encircled area.

473. A large part of the artillery of encircled troops is employed under central control, and is prepared to shift and repel attacks from any direction.

In order to assist the operations of a surrounded large unit and its breakout from encirclement, heavy rocket and missile artillery belonging to troops outside the encircled area are employed.

Aviation, in addition to accomplishing the normal missions, and in coordination with the antiaircraft artillery, takes action against the air blockade of the encircled troops, supplies them with ammunition, weapons, fuel, rations, and other materiel requirements, evacuates the sick and wounded, and sometimes the encircled troops, and assists the senior commander outside the encirclement in maintaining communications with the encircled troops.

474. In the encircled area, strict rationing of the consumption of all types of material resources is established; the reception of aircraft and helicopters bringing ammunition, fuel, rations, and other supplies is organized, as are the reception and collection of supplies dropped by parachute.
Landing strips for aircraft and helicopters are constructed in areas beyond the range of enemy ground observation.

475. During combat in encirclement on a seacoast, large units of the navy may be drawn in to accomplish the following missions:

--to strike at enemy troops combating the encircled grouping;

--to cover the encircled troops from strikes by enemy vessels and aviation;

--to bring reinforcements of men and materiel to the encircled troops;

--to evacuate the encircled troops by sea.

476. If a part of a division (corps) is encircled, the division (corps) commander must support the operations of the encircled troops by fire of all kinds, and must form a task force to assist the escape of the encircled troops, coordinating their operations in breaking through the encirclement with the troops within the encirclement.

477. The breakout of a division (corps) from encirclement must be well organized and includes the defeat of enemy units blocking the breakout of encircled troops and their linking up with friendly troops. A breakout from encirclement by small groups and without combat equipment is not permissible.

478. It is essential to execute the breakout from encirclement in the most suitable direction which can ensure the rapid and concealed concentration of troops, the best employment of forces and weapons, a swift breakout from encirclement, and a link-up with friendly troops. During a breakout from encirclement, a tank division breaks through the encirclement generally in that direction where the enemy antitank defense is weakest and the terrain is favorable for tank operations.

The attack by the encircled troops to break through the enemy front should be coordinated with the attack of troops from outside the encirclement and is normally designed for linking up with the latter.

In order to divert part of the enemy forces from the breakout sector and to deceive them, troops supporting the breakout also launch attacks in other directions. These attacks are carried out earlier or at the same time as the attack in the breakout sector.

It is expedient to break out at night or in other conditions of bad visibility. However, the situation may demand a breakout by the troops during daylight.
479. In order to break out, a shock group is formed in the division (corps) in which not less than half the total strength of the forces and the main mass of tanks and artillery are included; this group is supported by aviation. On the remaining front of the encirclement the necessary number of covering troops are deployed with the mission of holding their positions and preventing the enemy from compressing the area of the encirclement. Strong blocking forces are detailed to counteract enemy attempts to close the encirclement which has been forced open during the breakout.

Troops assigned to blocking and covering are reinforced by tanks and artillery, primarily tank-destroying artillery, and by sub-units of engineer and chemical troops with the necessary equipment.

Reserves are positioned in areas from which they can move most conveniently in any direction, ready to support the troops detailed for covering operations, and to exploit the success of the breakout.

480. In organizing a breakout from encirclement, the large unit commander, in assigning the combat missions, indicates the following:

--the sector (sectors) and direction of the breakout;

--the grouping of force and weapons for executing the breakout and for holding the remainder of the front, and their missions;

--the composition and missions of the troops assigned as blocking forces;

--the sectors where feints are to be made and the forces and weapons allocated for this purpose;

--the targets and timing of atomic strikes, and also the sequence in which other means of mass destruction, artillery, and aviation, will be employed;

--the timing and method of the breakout;

--measures to achieve secrecy and surprise in the breakout;

--the order in which combat equipment will be brought out of encirclement;

--the order and priority in which the units which are covering the breakout will be brought out;

--the method of coordination within the large unit and with the troops operating outside the encirclement;
--the missions of engineer chemical troop units (sub-units) in support of the breakout;

--the organization of control and communications during the breakout, and the arrangements for linking up with and for identifying friendly troops operating from outside the encirclement;

--the method of materiel and technical support of the troops, measures for evacuation of the sick and wounded, and for bringing rear service units and sub-units out of the encirclement.

In addition, the large unit commander indicates what should be demolished or destroyed and when, and appoints the commanders and engineer troop sub-units responsible for this.

481. A breakout from encirclement normally is executed after artillery and air preparation. During a breakout at night it is sometimes advantageous to make a surprise attack without artillery and air preparation.

By a swift attack, the main strike grouping breaks through the front of encirclement and links up with the troops advancing to meet it.

After the breakout and linking up with friendly troops, the main forces of the strike grouping of troops allocated for the breakout are employed immediately to widen the breach or to prevent the enemy from closing the gap and to ensure the escape of all encircled troops.

482. The rear service units and sub-units are collected into one or two columns and escape from the encirclement by moving behind the troops which have created the breach. As first priority, transport is used for the evacuation of the sick and wounded.

Part of the combined-arms reserve may be detailed to cover the rear service units and sub-units.

483. The troops assigned to covering operations begin their withdrawal on order of the commander who is organizing the breakout from encirclement. They withdraw from line to line, making extensive use of obstacles. Their withdrawal must be supported by artillery fire and air operations. Part of the division (corps) reserve may be brought up to an intermediate line in order to support the withdrawal of the troops allocated to covering operations.

The units (sub-units) protecting the flanks withdraw last.
If the enemy succeeds in closing the breach, the troops which have broken out of the encirclement must turn back toward those units which have remained in the encirclement and immediately attack the enemy in order to effect a second breakthrough of his front.

484. During a breakout from encirclement, the large unit commander normally moves with the striking force.

A group of staff officers, normally headed by the deputy division (corps) commander, is appointed to control the troops allocated as blocking and covering forces.

Communications during encirclement must ensure control of the surrounded troops and their coordination with the troops attacking from outside.
CHAPTER X

REGROUPING AND RELIEF OF TROOPS

485. The regrouping of division (corps) troops is conducted in order to create a new troop grouping during their switch to another type of combat; when shifting the effort to a new direction during the course of combat; and also for the restoration or reinforcement of existing groupings.

486. Regrouping of troops may be carried out from rear to front, along the front, and also from front to rear.

Regrouping from the rear to the front is executed by moving the second echelons and the reserves forward.

Along the front, regrouping is conducted by shifting the second echelons, the reserves, or parts of the first echelon forces from one sector of the front to another in accordance with the missions and demands of the situation.

Regrouping from the front to the rear is executed by removing part of the forces from the first echelon or by shifting the reserves and second echelons, and also by changing the width of the zone.

Regrouping of first echelon units (large units) normally precedes their relief.

487. Regrouping of troops must be simple in concept and accomplishment and be conducted rapidly and secretly, normally at night or in other conditions of limited visibility. In cases of extreme necessity it may be carried out at any time of the day.

During a regrouping, routes of troop movement are designated which expedite their speediest arrival on the new axis (in the new area). Separate routes may be assigned for the rear units.

488. In making a decision to regroup, the division (corps) commander takes into consideration:

--the purpose of the regrouping, what formation of troops to have on the new axis (in the new area) and the timing;

--the order in which the units (large units) are regrouped: the sequence and times of relief, the time of arrival of the troops in the new axis (in the new area) and their missions, routes, movement zones, method of movement, and the time that they pass their departure points and phase lines;

--the organization of control and communications during the regrouping.
In addition, the large unit commander plans engineer and combat support measures, particularly antiaircraft defense, commandant's service, the organization of materiel, technical and medical support for the troops, and supervision of the course of the regrouping.

489. If regrouping of a large unit in a new direction is executed in order to seize and hold suitable terrain features in the sector of forthcoming operations, the division commander sends out a forward detachment, or conducts a tactical airborne landing operation.

When the large unit has arrived in its designated area, it operates in accordance with its assigned mission.

490. The relief of troops is normally conducted at night. Preparations for relieving troops normally are carried out during the hours of daylight.

For the organized movement of relieving troops to the sectors where the relief is to take place, departure areas are designated and assembly areas are designated for the relieved units after they have been replaced.

When selecting the departure areas (assembly areas) it is essential to take into consideration the existence of concealed approaches leading to relief sectors (assembly areas) and the possibilities of dispersed and concealed deployment of units there.

The relief should be carried out in such a way that the relieved units are able to reach their assembly areas before dawn.

During a troop relief the first to move forward are the artillery and those units whose preparation for combat requires a longer time.

The sub-units defending the forward position are relieved last.

If the enemy threatens to undertake aggressive operations, the main body of the troops being relieved moves to concentration areas, and part of them, on order of the senior commander, may be left temporarily as a reserve or a second echelon, in readiness to repel enemy attacks.

In order to keep the combat formations intact during the relief, the artillery of the troops to be relieved displaces from its firing positions after the newly arrived infantry and tanks have effected their relief, and have taken up their positions.
491. Having received an order to relieve, the commander of the relieving large unit, in company with the commander of the large unit (unit) to be relieved, conducts a reconnaissance during which he studies and checks the information about the enemy, the sectors (zones) in which relief will take place, the combat formation, the disposition of firing means and obstacles of the troops being relieved, the departure areas before the relief, and the routes for the movement of troops to the relief sectors.

At the same time the commanders of the relieving large unit (unit) and the large unit to be relieved agree on the following:

--the time and sequence of the relief;

--the distribution of routes of movement and of lines of communication;

--the locations of departure areas and assembly areas, the sequence of troop concentration in these areas, and also the move out of the departure areas;

--the control of the movement of troops and the allocation of guides to them;

--the organization of control and communications during the relief;

--the transfer of rear units and sub-units;

--combat support measures and the maintenance of secrecy of the relief;

--the periods and sequence of joint efforts by subordinate commanders in arranging the relief;

--the organization of transfer of responsibility for the zones (sectors) and of obstacles (primarily minefields and other explosive obstacles);

--the sequence of turnover of communications lines of reserves of materiel equipment, and of weapons.

492. In order to prevent a surprise attack by the enemy during the relief, reconnaissance, security, and other measures of combat support are intensified.

During the relief, strict measures are taken to maintain the existing status of troop activity in the sector to be relieved, and to maintain secrecy of movement to the front by the relieving troops and by the relieved troops to their assembly areas.
If the enemy goes over to the offensive during a relief, the commander of the large unit (unit) being relieved takes command of both his own troops and of the relieving troops. If the commander of the relieving large unit (unit) is senior, then he commands both his own troops and those to be relieved.

493. The relief is considered accomplished when the commander of the relieving large unit (unit) reports its completion to his immediate commanding officer.

When relief occurs, the necessary documents are handed over to the troops taking over the defenses.
CHAPTER XI

TROOP MOVEMENTS

1. GENERAL SITUATION

494. Troops execute march movements by vehicle, railroad, water, and air transport, or by a combination of these means. When necessary motorized-rifle units and sub-units can move on foot.

Regardless of the means of movement, troops must arrive in the designated area on time and completely combat ready.

Troop movement should be performed rapidly and secretly.

The need for movement can arise suddenly. Therefore, troops must always be prepared for it.

Irrespective of the time and means of movement, particular attention must be given to the organization of combat security, especially camouflage and the defense of the troops against atomic weapons and other means of mass destruction, as well as to antiaircraft defense.

2. MARCHES

495. As a rule, marches must be executed at night or under other conditions of limited visibility.

When executing a daytime march, troops disperse as much as possible in width and in depth.

496. Depending on the missions and the situation, marches can be executed toward the front, along the front (flank march) and from front to rear. Marches are classified as normal or forced, according to the degree of their intensity and speed.

The speed of movement of troops on the march and the length of a day's march depend on the mission, the length of the column, the training of the drivers, the condition of the roads, means of transport, weather, and the time of year and day; on the average, normal march may be as follows:
### Large Units (Units) and Average Speed of Means of Movement in Km/Hr Day’s March in Kms.

<table>
<thead>
<tr>
<th>Means of Movement</th>
<th>Nighttime</th>
<th>Daytime</th>
<th>Length of a Day’s March</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motorized Rifle, Tank and Tank-Destroyer Artillery</td>
<td>15-20</td>
<td>20-25</td>
<td>180-250</td>
</tr>
<tr>
<td>Army Artillery, Heavy and Special Artillery</td>
<td>Up to 15</td>
<td>15-20</td>
<td>150-200</td>
</tr>
<tr>
<td>Motorized Rifle Units and Sub-Units:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) On Foot</td>
<td>4-5</td>
<td>4-5</td>
<td>25-30</td>
</tr>
<tr>
<td>b) On Skis</td>
<td>5</td>
<td>5</td>
<td>35-40</td>
</tr>
</tbody>
</table>

When required, the length of a day’s march for army artillery, heavy, and special artillery can be increased by increasing the number of hours of movement.

497. As a rule, forced marches must be executed in anticipation of making contact with the enemy, upon commitment of a division (corps) into a battle (engagement), during pursuit of the enemy, while regrouping in a complex situation, during a retreat, and in all cases where a clear threat of enemy atomic attack exists.

Forced marches are achieved by the greatest possible speed under given conditions and by expenditure of the greater part of a 24-hour period. A day’s forced march by vehicle can cover 300-350 km, and up to 45 km on foot.

498. Zones of movement or march routes are assigned to a division (corps) for execution of a march. As a rule, the distance between march routes must preclude the possibility of destruction of two parallel moving columns by a single burst of an atomic bomb (shell) of medium yield.

As far as possible, march routes must not pass through densely populated areas, road junctions, or defiles.

499. The organization of the march and the grouping of troops on the march, in anticipation of contact with the enemy, must conform to the intended plan of action of the troops in the impending battle.

If contact with the enemy is not anticipated on the march, columns should be made up of units having the same march speed.

When the situation permits, it is expedient for tanks and large-caliber artillery executing a long-distance march to be carried by rail (water) transport; in addition to this, tanks can be carried on special transport.
500. In making a decision to march, the division (corps) commander considers the distance from the enemy and the probability of contact with him, the possibility of attack on the troops by enemy air or other means; he determines the distance and time required to execute the move; he analyzes the zone of movement and march route and organizes their reconnaissance; he determines the main direction and areas of possible contact with the enemy; he designates the march formation of the large unit, the order of movement and security of troops on the march, the possible grouping and sequence of troop action when the enemy is met, and he issues preliminary orders regarding preparation of troops for the march.

501. In assigning missions for the march, the division (corps) commander indicates:

---information on the enemy and areas of possible contact with him;

---the division (corps) mission and his plan of operations upon meeting the enemy;

---composition and missions of the reconnaissance detachment (detachments), advance detachments, and security detachments;

---composition and missions of march security detachments;

---missions of units (large units), routes (zones) of movement, departure lines (points), phase lines and the time schedule for reaching them; places for long halts and their duration, areas and time of rest breaks, concentration areas, and time of arrival;

---measures for antiaircraft defense and protection of troops against enemy weapons of mass destruction.

Besides this, the commander indicates the sequence of coordinated action of troops in the event of deployment and the conduct of battle during a clash with the enemy. He also issues directives for all-round security of the march, for organization of commandant's service, control, and communications.

502. A division (corps) march formation consists of several march columns. In isolated cases the division can execute a march in a single march column. The composition and number of march columns are determined by the division (corps) mission, the situation, the availability of roads and cross-country routes in the zone of movement, and the type of impending combat, when encounter with the enemy is anticipated.

In order to facilitate control, lessen vulnerability to enemy atomic weapons and air strikes, and speed deployment into combat formation, the division march columns break up in depth into unit columns, and then into battalion (division) columns.
The situation and ease of movement determine the intervals between battalion (division) columns. However, in all instances, the intervals must be such as to preclude the possibility that two columns, one following behind the other, can be destroyed by a single atomic bomb (shell) burst. At the same time, the over-all column length of large units and units should be as short as possible.

503. When a motorized-rifle division executes a march in anticipation of contact with the enemy, the division tank regiment normally moves in the main direction, either at the head of the main forces column or independently by a separate route. If required, the tank regiment can constitute the advance detachment.

In a tank division, the motorized-rifle regiment normally follows the tank regiments.

504. On a march intended for making contact with the enemy, artillery is distributed throughout the columns of troops in order to facilitate its timely deployment and commitment to battle. Part of the artillery can be moved independently in columns or by separate routes.

Small-caliber antiaircraft artillery on the march is distributed throughout the columns to provide reliable cover for troops on the march. Medium-caliber antiaircraft artillery can follow independently by column and by groups of batteries at the head of the main forces column, prepared to deploy or move forward in advance to cover troop passage through defiles, over bridges and other crossing points, and across road junctions. All antiaircraft artillery must be prepared to cover troops during their deployment and commitment to combat.

In addition, a division (corps) can be covered by fighter aircraft and antiaircraft missile artillery, according to the plan of the senior commander.

505. Basic intelligence missions during a march when anticipating contact with the enemy are: detection of the enemy, determination of his strength, composition, groupings, the nature of his operations and intentions, with emphasis on locating, in the zone of movement, airborne forces, atomic weapons, and other means of mass destruction; the collection of necessary information about the terrain along the routes and in areas of probable contact with the enemy; and location of sectors of terrain contaminated by radioactive and poisonous substances or bacteriological agents.

506. Troops on a march anticipating contact with the enemy are protected by march security. The strength and composition of the security depend on the situation, above all on the position and nature of enemy activities, the assigned mission, the march formation, and terrain conditions.
Security to the front (along the movement route) is accomplished by advance guards or the leading march security detachments. If a division executes a march on several routes, each leading regiment sends out either an advance guard in the strength of a reinforced battalion or advance march security detachments each of reinforced company (platoon) size. The advance guards can be detailed on the march routes of the division main forces by the division commander's order. When movement is in one column, the division front is secured by one general advance guard, normally a reinforced regiment in strength.

The interval between the advance guard and the main body must be sufficient to ensure the latter's organized entry into combat. Normally this interval constitutes the distance which the main body can cross in 30 to 60 minutes.

Security on the flanks is accomplished by mobile and stationary flank detachments, usually of reinforced battalion size, or flank detachments of reinforced company (platoon) size, sent toward the threatened flanks.

Stationary flank security is sent along the more important axes to occupy and hold designated areas (objectives) for a prescribed period of time.

Security to the rear (along the movement route) is accomplished by rear guards and rear march security detachments. If the division is executing a march from front to rear along several march routes, each regiment bringing up the rear sends out a rear guard, normally of reinforced battalion size, or a rear march security detachment of reinforced company (platoon) size. When the division moves in a single column, the division secures its rear by one general rearguard, normally a reinforced regiment in size.

The distance of the rear guard from the tail of the main forces column must be sufficient to ensure them unhindered movement. The rear guard requires from 30 to 60 minutes to close this distance.

In troop movement to the front and on flank marches, rear security normally is accomplished by rear march security detachments of reinforced company (platoon) size.

Units and sub-units assigned to march security are reinforced by artillery, tanks, engineer and chemical troop sub-units, and by antiaircraft artillery.

Divisions and regiments which follow behind the forward-moving divisions (regiments) send out only local security detachments. In addition, under threat of enemy ground attack from flank and rear, they can send out flank and rear security detachments.
507. Protection of troops against atomic weapons and other means of mass destruction is organized most carefully when moving through densely populated points, defiles, river crossings, and in rest areas.

When the warning signal indicating danger from atomic or chemical attack sounds, troops take the necessary protective measures and, in the absence of special orders, continue the movement.

Contaminated areas along the march route are bypassed. When it is not possible to bypass, anti-chemical protective means are used to cross the area.

Complete sanitary processing of personnel and degassing (decontamination, disinfection) of weapons, combat, and other materiel, is accomplished generally when troops arrive in areas for long halts, rest, or in concentration areas.

508. Troops on the march must strictly observe the prescribed order. Columns move only along the right side of the road. The left side of the road is used for oncoming traffic and for passing. As a rule, the passing of one column by another on the move is prohibited. When it is necessary, it is done only with the corps commander's consent, and in a division executing an independent march on a separate march route, is done only with the division commander's permission. Passing requires observation of the following rule: when passing occurs on the move, the overtaken column pulls over to the shoulder of the road and stops, and on occasion may even pull off the road.

Troops traverse defiles and bridges without stopping and in the order established by the large unit (unit) commander. In bridge-crossing, measures are taken to assure the security of the troops. Engineer troop sub-units and repair-evacuation equipment are dispatched for stream crossings and for sectors of the route that are difficult to negotiate.

509. Movement of a column is regulated by phase lines or by checkpoints. Every unit is given a departure point or line, phase lines, and schedules for crossing them. Phase lines are usually assigned as follows: for a division - every 3-4 hours of movement, for regiments - every 2-3 hours of movement.

Troops cross the departure line and the phase lines according to the schedules established for them by the heads of columns.

Departure points and phase lines should not be assigned along rivers or defiles.

Prior to the start of the march, concentrations larger than battalion size in one place are not allowed.
510. In order to preserve troop strength, to check the technical condition of vehicles, and perform necessary maintenance, short and long halts, day (night), and 24-hour rest periods are prescribed.

Short halts are prescribed: for motorized rifle large units (units) moving on armored (vehicular) transport, tank large units (units), and for towed artillery, of 20-30 minutes duration, the first halt 1-2 hours after beginning movement, the following ones after every 2-3 hours of movement; for infantry moving on foot - 10 minute duration, the first halt 30 minutes after the march starts, the following ones after every 50 minutes of movement.

Long halts for all arms of troops are usually prescribed at the beginning of the second half of the 24-hour period of march, and are 2-4 hours long; for night movement and on a march lasting less than 24 hours, long halts usually are not prescribed.

Daytime (nighttime)rest is prescribed after a nighttime (daytime) march.

A 24-hour rest is prescribed for all arms of troops after 3-4 twenty-four-hour periods of march.

On short halts, columns stop, while maintaining the intervals established for the march. Personnel dismount from vehicles and disperse to the right of the road.

On long halts, daytime (nighttime), and 24-hour rest periods, it is necessary to assign areas which are suitable for protection against atomic weapons and other means of mass destruction and for camouflage of the troops, and which also have sufficient natural cover and water sources. On halts, troops are disposed by battalion (by division), dispersed, and in an order which ensures the least loss of time in re-forming the column.

511. When the column stops for a long halt, the march security detachments halt on advantageous terrain and continue to maintain security.

During a daytime (nighttime) or 24-hour rest period halt, march security detachments become bivouac security detachments or are relieved by newly-assigned bivouac security detachments.

512. Engineer support of the march includes the following: engineer reconnaissance of roads, defiles, bridges, and other water crossings, of halt and rest areas, and of water supply sources; obstacle removal, preparation, and camouflage of movement routes, crossing sites, halt, and rest areas, and equipping them with cover and points of water supply; and ensuring troop passage across difficult stretches of roads.
Units and sub-units of engineer troops are distributed on the march among large units and units, and within these among security units (sub-units) and the main forces.

A movement support detachment is assigned to each march route. Depending on the situation, it either moves out in advance or follows with the organs of march security.

513. Communications on the march are ensured mainly by mobile means. The dispatch of staff officers to the troops by helicopter is also widely used.

Radio sets maintain listening alert and are in readiness to transmit.

Circumstances under which radio and radio-relay sets may transmit are established by higher headquarters and stem from the situation and protection of march secrecy.

March wire communications are provided on the authority of the headquarters which organizes the march.

The division (corps) commander, with his officer group, normally moves at the head of the division (corps) main forces column; the staff - with the main forces column.

514. When the march is organized, all troop mobile reserves are replenished to the established norms.

During the march, as a rule, mobile reserves replenishment is effected in rest areas by vehicle, or, when necessary, by air transport. Places and time of dispatch of freight from army transport to division transport are established by the army deputy commander for the rear.

Rear service units and sub-units move with their own divisions (regiments) on the march in independent columns. Separate regimental rear service sub-units can move with division rear service units.

515. When executing a night march, troops move at closer intervals, noise and light discipline are tightened, and the march routes are marked by route indicators visible in the darkness. Tanks and other vehicles move with blackout lights or using night-vision instruments. The distance of march security detachments is decreased and close security is increased.

In order to expedite the march, the following are done before midnight whenever possible: movement routes are reconnoitered, control of troop movement is organized, roads and bridges are repaired, stream crossings are set up, and cross-country routes are laid out.
The column movement must be timed to end so that the troops succeed in taking up positions in the assigned area and in camouflaging before dawn.

516. A winter march through deep snow and in low temperatures requires the preparation and maintenance of roads in passable condition, measures to prevent frostbite among the troops, and measures to increase the roadability of tracked and wheeled vehicles by use of special equipment.

Flank march security units are sent out on vehicles with increased roadability, or stationary flank security is organized.

Long halts are not normally prescribed in extreme cold, but measures are taken to provide the troops with hot food. Short halts are arranged more frequently.

It is essential to complete the march in places sheltered from the wind and supplied with fuel.

517. When organizing a march during a thaw, it is essential to take into consideration the formation of stronger march support detachments, the detailing of tow vehicles to difficult sectors of the route, and other measures to improve the roadability of wheeled and tracked vehicles and technical maintenance in these conditions.

In order to assist vehicles which have bogged down, and to ensure uninterrupted movement, vehicles with increased roadability in these conditions should be distributed throughout the columns.

518. A march through mountainous country is organized according to the profile of the route. Particular attention must be paid to the preparation of routes at ascents and descents and to cover for the troops during the passage of ravines, mountain passes, and crossings of mountain rivers.

The rate of march of the troops decreases when negotiating passes, descents, and ascents, and the interval between vehicles is increased.

Over mountain passes and along narrow roads traffic is one-way only; barriers and visible markers are set up at dangerous places. Additional tow equipment and control posts equipped with radio or wire communications are set up at narrow places, at sharp corners, and in passes.

Forward detachments are sent out or tactical airborne drops are made at exits from ravines and at road junctions in order to forestall the enemy in the seizure of mountain passes.
Security of the flanks has particular importance during a march through mountainous country. For this purpose, stationary flank security units are sent out which occupy positions on commanding heights and in mountain passes.

519. When organizing a march in desert or steppe areas the distance to be covered normally depends on the existence of sources of water and reserves of fuel along the movement route, or on the possibilities of transporting water and fuel. Before the march it is essential to supply the troops, combat vehicles, trucks, and other vehicles with sufficient reserves of water to last them to the nearest source of water or water supply point.

3. TRANSPORTATION OF TROOPS

520. For loading (unloading) troops for transportation by rail (water), loading (unloading) stations or areas (ports, piers) are established. Every area includes several stations (ports, piers).

Normally a regiment loads (unloads) at one station, or (port, pier).

Before loading the troops are deployed in a staging area, and after unloading - in an assembly area.

The distance of staging areas and assembly areas from the stations (port, pier) is determined by the conditions of the terrain, and by considerations involving the organization of troop protection against atomic weapons and other means of mass destruction; normally they are not closer together than 5 kilometers.

Loading and unloading must be carried out within the allotted time, secretly, with a speedy clearing of the area of the station area (port, pier) of freight, and with the speedy removal of troops to their assembly area.

521. From the time of arrival at the station (port, pier, airfield) for loading (unloading), the troops to be transported obey the orders of the military transport authorities with respect to the order of loading (unloading), as well as during transport and with respect to the observance of the rules of conduct during the journey. When traveling by air-transport, they obey the orders of the responsible aviation commander.

522. The division (corps) commander who has received orders to transport his troops, decides on the distribution of the units (large units) to the loading stations (ports, piers), the order in which loading will take place, the staging areas for the troops before loading, and the movement routes to them.
In order to support the troop movement, the large unit commander, in addition, indicates:

-- engineer support measures for preparing the staging areas and the approach routes to them and to the loading stations (ports, piers);

-- arrangements for setting up combat support for the troops, particularly antiaircraft defense and troop defense against weapons of mass destruction;

-- arrangements for materiel, technical, and medical support, and the feeding of the troops during the journey;

-- measures for preserving military secrecy.

During the troop movement particular attention must be paid to preserving the organizational integrity of units and sub-units.

523. Transportation planning for a division (corps) movement by water is conducted under the direction of the chief of harbor transportation, at the request of the division (corps) staff.

The number of piers assigned for troop loading (unloading) depends on the degree to which the piers are equipped with loading (unloading) equipment, and on their size.

524. If necessary a division (corps) may be transported by the combined use of rail, water, and air transport, with the concurrent move of separate units (sub-units) by vehicle. In this case, tanks, heavy-caliber artillery with tracked prime movers, tractors, and heavy loads are normally transported by rail or water.

525. When organizing and planning troop transportation by air, the division (corps) commander must: in conjunction with the large unit air commander concerned, determine the sequence of troop transportation and make the necessary calculations for it; he must designate the staging areas (assembly areas), and the sequence and timing of the concentration of the troops there before take-off (after landing); he must indicate the measures of combat support.

526. If time permits, a large unit (unit) scheduled for air transportation conducts preliminary training in embarking in aircraft (helicopters) and in debarking, as well as in loading and unloading weapons, armored, motor-tractor vehicles and other equipment, and freight; instruction is given in the conduct of personnel during the flight.
527. Defense of the transported troops against enemy air
strikes in the staging areas, boarding areas (loading), in
flight, and in the deplaning areas (unloading areas) is carried
out by the commander (chief) who organizes the transportation
of troops by air.

528. Troops transported by rail and water are supplied, as
a rule, with completely mobile reserves of all types of materiel,
and, in addition, rations for the journey and debarkation in the
quantity determined by the senior commander.

When transporting troops by air, only such mobile
reserves are carried as are specified by the senior commander
organizing the move.
CHAPTER XII

DISPOSITION OF TROOPS AT A HALT

529. As a rule, troops at a halt are disposed in natural features, in woods, and in bushes. Disposition of troops in populated areas or in places previously mined should be avoided.

In some cases troops can have combined dispositions, both outside and within populated localities.

Troops build slit trenches for defense against atomic weapons, and for protection against inclement weather, use tents, build huts and dugouts, and adapt the slit trenches. During an extended stay in a position, troops prepare bunkers and shelters, constructed for anti-atomic and anti-chemical environment.

Cover is set up for weapons, armor, auto-tractors and other materiel, and for materiel reserves.

530. Areas in which troops are disposed must ensure the following:

-- dispersion and concealed dispositions;
-- the possibility of rapid assembly on signal, deployment for battle, and commitment to combat;
-- comfortable billeting and rest for the troops;
-- favorable sanitary-epidemic and veterinary-epizootic conditions;
-- availability of sufficient sources of water, of roads, and of access routes suitable for movement of transport.

Reconnaissance groups are sent out in advance to select areas for the disposition of troops. They include officers of the arms of troops, special troops, and services, and representatives from units (senior members of the billeting party).

In addition to the main disposition areas, units of the division (corps) are assigned reserve areas. Entry into these is authorized only by the senior commander. Reserve areas are set up as soon as possible and to the same extent as the main areas.

531. In order to ensure the best conditions for disposition of troops for a halt, it is necessary to show them the area of disposition in advance and place them so that from the beginning of the march there is no unnecessary movement, and also to avoid the shifting of troops already disposed for a halt.
Troops disposed for a halt must take strict measures to camouflage themselves from enemy air and ground observation, to preserve military secrecy, and retain constant combat readiness.

532. In disposing troops in an area liberated from the enemy, thorough preliminary reconnaissance is carried out with these objectives:

--clearing the area of troop disposition of individual soldiers and small enemy groups;

--detection and disarming of mines, particularly of the delayed-action type;

--determination of contaminated sectors of the terrain and of ground features;

--isolation of infectious diseases;

--determination of the suitability for use of water and of food abandoned after the enemy withdrawal, and the possibility of use of other material resources.

533. When troops are disposed for a halt, it is necessary to set up security units at once, designate a duty sub-unit in each unit, and organize antiaircraft defense, protection against atomic weapons and other means of mass destruction, commandant’s service and reconnaissance sent out in all directions, and when the disposition is near the front, to establish contact with the troops operating up front.

When troops are disposed for a halt, they organize antiaircraft defense, as far as possible, prior to occupation of their areas.

534. Troops disposed for a halt set up immediate security units, and under threat of enemy ground troop or airborne attack, bivouac security.

Bivouac security must provide all-around security and cover all roads and avenues of approach along which the enemy can approach into the disposition area of the protected troops. Special attention is given to the organization of combat against enemy troops and tanks.

535. A division disposed for a halt sends out the following security units - on the primary axes - security detachments up to reinforced battalion size each; on the secondary axes - separate outpost detachments - varying in strength from a reinforced platoon to a reinforced company each.
The strength and composition of the security detachments and separate outpost detachments sent out are determined by the distance from the enemy, the time necessary for deployment of the division, the criticality of the guarded axis, the type of terrain, and observation conditions.

536. The distance of the outpost from the protected troops must be such as to allow timely warning of the troops of the appearance of enemy paratroops and tanks and to ensure by their own actions the deployment of the protected troops in combat formation on an advantageous line.

The outpost line must occupy an area favorable for defense, covered by antitank obstacles, and assuring good field of view toward the enemy.

The security detachments remain in place during the resumption of movement by the protected troops, until the march security units pass the line of the outpost; after this the security detachments pack up and either join the tail of the main forces column or rejoin their own units.

537. Areas are assigned to units and large units where they organize for combat against enemy airborne attack.

In areas most suitable for enemy airborne assault, continuous observation is carried out and preparations are made for movement of sub-units and units into these areas.

538. When the combat alert is called, units move into the formation ordered by the division commander. On signal the troops take up the necessary grouping required by the situation and their mission.

539. In the mountains troops should be disposed in areas where the type of terrain and the road net provide covered and dispersed troop disposition, rapid movement in the required direction, or deployment to repel an enemy attack. There must be a sufficient supply of water and fuel in the areas where the troops are disposed.

Troops should never be disposed in places where the possibility of landslide, avalanche, or flood exists.

Security detachments are dispatched to occupy road junctions, bridges, commanding heights, mountain gaps, and passes.

540. When troops are disposed in forests, one should avoid placing personnel, combat materiel, and transport on the immediate fringe of the woods, on roads, or forest lanes.
Firebreaks are built for the prevention of forest fires, and in the most dangerous areas underbrush is removed.

In the event a forest fire breaks out, as many exit routes as possible should be prepared and several plans for their use by troops to move out of the disposition should be determined.

Specially detailed sub-units are formed for rescue work and extinguishing fires, but if necessary, all personnel participate.

541. In deserts and steppes troops deploy in the immediate vicinity of water sources and oases.

Reconnaissance and security elements are sent out in all directions to a greater distance than under normal conditions.

Special attention is given to camouflage, antiaircraft defense, protection against atomic weapons and other means of mass destruction, measures to prevent infectious disease, economy in expenditure of water and fuel, and security of the water-supply points. Distribution of water by sub-units is carried out according to established quotas.

542. Making a decision on the disposition of troops, the division (corps) commander specifies:

--the areas of disposition of units (large units);

--missions to units of antiaircraft defense for coverage of the troops in the area of disposition;

--composition and missions of security detachments and from which unit (large unit) they will come;

--nature of troop operations in the event of surprise enemy attack;

--reconnaissance missions;

--measures for protection from enemy weapons of mass destruction;

--reserve areas for disposition of units (large units) and the order of withdrawal to them;

--the duty unit and its missions;

--organization of troop control and communications;

--system of warning troops of enemy air, atomic, and chemical attack;

--special measures to ensure combat readiness and to maintain order and security in the areas of disposition.