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RED ARMY FIELD REGULATIONS

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17 January 1985

USSR REPORT
MILITARY AFFAIRS

RED ARMY FIELD REGULATIONS

Moscow POLEVOY USTAV KRASNOY ARMIИ in Russian 1944 Vol 1 pp 1-400

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Introduction

In accordance with the accepted forms of the Red Army's higher troop units [soyedineniye] and Patriotic War experience, the *Polevoy Ustav* provides directions on the tactical employment of the army (rifle corps) and rifle division (brigade), as well as cavalry, tank and mechanized unit [soyedineniye] and combat aviation.

Patriotic War practice indicates that certain provisions of the 1936 *Polevoy Ustav* already have become obsolete and require thorough revision.

This *Ustav* examines modern combat primarily as the combat of combined combat arms in which diverse combat equipment participates en masse: artillery of all kinds, mortars, tanks and aircraft. This requires the strictly adjusted tactical coordination of all combat arms, since success can be achieved only by the united efforts of all combat arms.

Command personnel at all levels and of all combat arms must be imbued with the thought of the absolute need for continuous coordination in combat and must practically master the techniques of organizing it, which are provided in the *Ustav*.

Combat conditions are diverse and the *Ustav* cannot give exhaustive directions for all instances of combat practice. It establishes only basic principles for conducting combat actions and the techniques of troop leadership.

In addition to firm knowledge, war demands that commanders at all levels also have the art of and abilities for clear judgement, a broad outlook, and creative initiative.

1. The *Polevoy Ustav* introduces new combat formations.

The alignment of combat formations in troop elements below army (corps) by echelon does not meet the demands of modern warfare, since it leads to unnecessary losses as a result of an oversaturation of the battlefield with personnel to its entire depth, it dooms a significant portion of the troops to inaction in combat, and it deprives troops of an opportunity to bring down the entire force of their subunit and unit weapons on the enemy.

A mandatory requirement for the maximum and simultaneous participation of division infantry and weapons in combat from its beginning to its end has been made the basis for alignment of new combat formations below army (corps). Small reserves are formed to repulse surprise enemy attacks, especially on flanks and boundaries; to support the units which are fighting; and to exploit and consolidate success.

The depth of a combat formation alignment is formed within the limits of the army (corps).

The continuity of a powerful attack up to the total defeat of the enemy grouping being attacked, a build-up of the force of the attack from the depth, and the exploitation and consolidation of success are accomplished by the second echelon assigned by an army on the axis of main attack and consisting of several divisions. At the necessary moment second echelon divisions must replace and not reinforce the first echelon divisions which already have lost the necessary force of the attack, or they must expand a breach by actions on the flanks which have formed on the combat formation of first echelon divisions.

The concepts of "striking and holding forces" as part of a combat formation which existed in the previous *Polevoy Ustav* confused command personnel and led to the inaction of the so-called "holding forces" in combat. This *Polevoy Ustav* abolishes the division of a combat formation into a striking and a holding force, but it requires the concentration of main efforts on the axis of main attack and a determined attack by lesser forces on the axis of secondary attack.

2. Patriotic War practice showed that commanders desire to lead their units personally into the attack, often giving up overall leadership of offensive combat. Because of this we suffer unnecessary losses of commanders, which often leads to the disruption of combat formations. This is a result of an underestimation of the commander's role as an organizer of combat and a lack of understanding that the commander is the central figure in combat formations, that preservation of the commander is a guarantee of success in combat and, conversely, when a commander is put out of action it leads to a reduction in the possibility of our success.

This *Polevoy Ustav* requires that regimental and division commanders be behind the combat formations of their units at points from which they can see their combat formation on the axis of main attack and observe the course of combat and enemy actions.

3. Offensive combat is the Red Army's primary form of combat actions. In addition to this, the *Ustav* recognizes that not only defense, but also withdrawal as an independent maneuver when the situation requires troops to be moved out from under an attack by superior enemy forces in order to allow units to summon their strength and reassume the attack, are possible in modern warfare.

The *Ustav* examines the most likely instances of an attack under various conditions. They do not, of course, exhaust all the diversity of combat practice, but they provide the commander with starting propositions in order to find the correct path in accomplishing an offensive mission in cases not envisaged by the *Ustav*.

With regard for the specific conditions of the Patriotic War, the *Ustav* considers the frontal attack for a penetration, organized from a position of immediate contact with the enemy, to be the most typical case.

4. The *Ustav* introduces new concepts: an artillery offensive and an air offensive.

The artillery offensive includes continuous support of infantry and tanks by the massed, effective fire of artillery and mortars throughout the entire attack.

The artillery offensive is subdivided into three periods: preparation of the attack, support of the attack, and support of infantry and tank actions in the enemy's depth of defense.

The air offensive consists of two periods: preparation of the attack and support of the attack and of infantry and tank actions in the enemy's depth of defense.

Preparation of the attack can be of two forms: brief, measured by a few hours; and lengthy, measured in days; the latter is called an artillery and air softening-up. Brief preparation is used in an attack on field positions and it meets the conditions of surprise of an attack to the greatest extent; lengthy preparation is used in attacking heavily fortified positions and fortified areas.

5. The *Ustav* categorically demands that during joint actions with large rifle units tanks do not break off from the infantry, do not lose coordination with the infantry, and are not thrown against an enemy defense without proper artillery and air support.

The primary mission of tanks is to destroy enemy infantry. The *Ustav* considers it improper to counter enemy tank attacks with our tanks and to engage in tank combat to the detriment of one's primary mission.

When enemy tanks appear on the battlefield the artillery and other antitank weapons conduct the fight against them. Our tanks fight enemy tanks only in case of a clear superiority in forces and a favorable position.

The *Ustav* views the actions of tanks as of infantry (cavalry) close support groups and as an echelon for exploitation of success in the operational depth with powerful air support.

The *Ustav* cautions against the splitting and dissipation of tank and mechanized units [soyedineniye and chast'] when they are employed.

6. Contemporary combat actions primarily have a maneuverable nature. This requires commanders at all levels to have the ability to make rapid regroupings before and during combat, to organize and conduct outflankings, to encircle, to capture, or to destroy enemy groupings. The *Ustav* provides practical directions to commanders on these difficult forms of combat actions.

The guiding idea of combat for destroying an encircled enemy is the successive splitting of his units to compress small encircled groups in a cramped space and bring them under withering machinegun and mortar cross fire.

7. The defense must be stubborn and active. It must withstand a massed attack of tanks supported by powerful artillery fire and strong air strikes. Therefore the defense must be antitank, antiartillery, anti-air and deep. The depth of the contemporary defense is achieved by multiple zones. The troops' fortification measures must provide for survivability and stability of the defense. Troops must use their own resources to turn every populated point and individual building into a sturdy strongpoint and a genuine fortress with a perimeter defense which allows it to be held a long while even in enemy encirclement. Unit [soyedineniye and chast'] and subunit commanders organize defensive work, direct it, and bear full responsibility for it.

Such a defense must derail the enemy offensive, but only a subsequent assumption of a decisive attack can lead to the enemy's defeat.

8. The *Ustav* requires that special attention be given to firm support of boundaries and flanks and it gives necessary directions for this in various forms of combat.

9. A withdrawal is not authorized without an order from a higher commander even under threat of total encirclement.

The glorious past of our great country provides many examples, however, where the enemy was drawn out and exhausted, and then was given a crushing blow. That was the case during the Patriotic War of 1812, and that was the case many times in the Civil War as well. A withdrawal is used under appropriate conditions by authorization of the higher commander in order to create favorable conditions for continuing a stubborn struggle against the enemy and even for his defeat (Kutuzov in 1805 in the war against Napoleon and in 1811 in the war against Turkey).

The exceptional difficulty of conducting a withdrawal maneuver in an organized manner under present-day conditions places special demands on the force of resistance by rear guards, which must be large on the most important axes,

which assume armywide importance, and which at times must conduct the most stubborn fighting in screening the main body. The personal selection of commanders for such rear guards--as occurred in 1805 at Shöngraben during Kutuzov's withdrawal toward Austerlitz, when Bagration's rear guard fought enemy forces which were superior many times over, and in the war of 1812 when a number of talented Russian generals (Konovnitsyn, Miloradovich, Rayevskiy) set examples of skilled rear guard actions--acquires exceptional importance in modern warfare.

10. Contemporary combat actions may lead at times to the need to fight in encirclement. But true encirclement (the enemy's solid blockade of our combat dispositions) must be distinguished from a move by a portion of enemy forces, chiefly tank and motorized infantry, into our rear. In the latter case there is no encirclement; the enemy himself is in a difficult situation and is forced to fight with an inverted front, placing his rear under the blows of our deep reserves.

Troops must not fear encirclement; they must be able to fight in encirclement and break out of it in an organized manner. There is no rear for good units--the front is everywhere, and an enemy who has moved into our rear and who is attacked vigorously can himself get into the position of the one encircled.

Breaking out of encirclement is done only on order of the senior commander, it is done in an organized manner, and it is not done by small, splintered groups at all.

The personal example and heroism of commanders and fighting men, mutual support and comradely assistance must be displayed to the full extent in this difficult form of combat.

11. The hatred shown by popular masses toward the insolent foreign tyrants and invaders in the rear of enemy armies developed into acute forms of popular struggle--the partisan movement.

The *Ustav* includes a special chapter about partisan actions which sums up the experience gained in the Great Patriotic War.

Chapter 1 - General Provisions

1. Contemporary combat actions are characterized by the mass participation of artillery, mortars, tanks, aviation and motorized infantry working together with rifle troops and cavalry. For this reason contemporary combat actions are distinguished by the rapidity of their development and by their decisive character.

This requires commanders of all levels and the troops to have outstanding schooling, careful preparation for combat, an outstanding ability to use their combat equipment, mobility, and a great exertion of moral and physical forces.

2. *Combat is the only means for winning victory.*

Combat is used to achieve the destruction of enemy forces and weapons and to neutralize his ability to resist.

Contemporary weapons possess great power, long range, and mobility.

They create the opportunity:

--On the attack, of delivering a blow against the entire depth of the enemy combat formation, and surrounding, capturing or destroying him;

--On the defense, of disrupting enemy combat formations and derailing his attack by blocking his path.

3. The primary forms of combat are the attack and the defense.

Any combat has the purpose of inflicting damage on the enemy, but only a resolute attack or counterblow ending in encirclement or relentless pursuit lead to the capture or destruction of the resisting enemy.

4. *Offensive combat is the primary form of Red Army actions*, since only a resolute attack can achieve the enemy's defeat.

But there cannot be a continuous offensive in war. Troops are attacking in one sector of the front while in another sector they may be defending at this same time. The defense will be necessary each time an attack is impossible or inexpedient. The defense is employed to accomplish missions with limited objectives and it usually is conducted against superior enemy forces.

5. Combat conditions are diverse. Therefore in combat it is always necessary to choose methods of action in conformity with the situation and avoid stereotypes.

6. It is impossible to be identically strong everywhere. A decisive superiority over the enemy in forces and weapons must be formed on the main axis.

7. Victory in combat is assured:

- By a correct decision and thorough preparation for combat;
- By an unbending will to win on the part of all commanders and fighting men;
- By well organized reconnaissance operating vigorously and continuously;
- By surprise of actions;
- By a decisive attack of superior forces and weapons on the main axis;
- By the vigorous, bold actions of initiative on the part of commanders and fighting men;
- By the continuous interworking of all combat arms in combat;
- By the capable use and organization of terrain;
- By well adjusted command and control;
- By the uninterrupted supply of troops in the field.

8. Contemporary combat is conducted through the joint efforts of all combat arms.

The *interworking* of all combat arms is of decisive importance in contemporary combat and is organized in the interests of the infantry, which performs the main role in combat.

9. *Maneuver* is one of the most important conditions for achieving success.

Maneuver consists of the organized movement of troops to create the most advantageous grouping and to place it in a favorable position for delivering a crushing blow on the enemy or for winning time and space. Maneuver must be simple in concept and must be carried out stealthily, swiftly and unexpectedly for the enemy.

10. *A maneuver of fire* is conducted during combat, [one line missing] mass of fire of ground weapons and aircraft on the most important sectors for the purpose of achieving superiority over the enemy and for his successive destruction in detail even in the absence of overall superiority in means for neutralization.

11. *Surprise* dumbfounds the enemy, paralyzes his will, and deprives him of an opportunity of offering organized resistance.

Surprise is achieved:

--By leading the enemy astray and by keeping the plan of upcoming actions in strictest secrecy;

--By the concealment and swift regrouping of troops and of the concentration of overwhelming forces and weapons in the decisive location;

--By the surprise attack of aircraft, cavalry, and motorized and tank units;

--By surprise opening of annihilating fire and the beginning of a swift attack.

Surprise also is achieved by employing methods of fighting that are new for the enemy and weapons unknown to him.

The enemy also will strive for surprise. For this reason high vigilance, constant combat readiness, and well organized troop combat support is necessary.

12. Success always is on the side of the one who is bold in combat, who constantly holds the initiative in his hands and who dictates his will on the enemy.

Intelligent initiative is based on an understanding of the mission and situation. It consists of the following: the desire to find the best methods for accomplishing the assigned [several words missing], the use of all favorable opportunities which suddenly present themselves, and the taking of immediate steps against a threat which has arisen.

A display of initiative must not be in conflict with the higher commander's overall concept and must contribute to the best performance of the assigned mission.

In case of an abrupt change of the situation, a commander must make a new decision on his own initiative and immediately report it to his superior and inform adjacent units.

A readiness to assume responsibility for a bold decision and persistently execute it fully is the basis of all commanders' actions in combat.

A bold and sensible daring must always guide the superior and subordinate. It is not the person who has not achieved his goal in an attempt to destroy the enemy who merits reproach, but the person who, fearing responsibility, remained inactive and did not take advantage of all forces and weapons at the necessary moment for winning victory.

Subordinates' initiative must be encouraged in every way and be used to achieve overall success.

13. The diversity of contemporary weapons and methods of warfare place high demands on control of combat.

The purposefulness of a decision and clarity of missions are the basis of control.

A decision made must be implemented firmly and persistently.

An order must be executed with an all-out effort.

Every commander and fighting man must know and understand his combat mission.

14. The complexity of today's combat demands an enormous exertion of all a fighting man's efforts. Therefore the commander must show concern for the fighting man under all conditions.

A knowledge of one's subordinates, constant personal contact with them, and attention to their combat life, exploits and needs will assure the commander tactical cohesion of the unit [chast' or soyedineniye] and success in combat.

15. Today's combat requires a great expenditure of supplies.

Not only the main body, but also the bulk of means for logistical support must be concentrated on the decisive axis (at the expense of secondary axes).

Successful troop combat actions depend considerably on the uninterrupted operation of the rear. The rear has to support troops under any conditions. Organization of the rear and the logistical support of troops is a very important duty of all commanders and staffs.

16. It must be remembered in all instances of a combat situation that the enemy is attempting to obtain information through espionage, by monitoring telephone conversations, and by intercepting radio messages. For this reason constant vigilance and preserving military secrecy are of special importance.

Chapter 2 - Combat Arms and Their Combat Function

17. Each combat arm is employed on the basis of a skillful use of all its features and capabilities. Not one combat arm is a substitute for another.

18. The *infantry* is capable of performing combat missions under the most varied conditions of terrain and weather and at any time of year and time of day.

The basis for infantry's actions in combat is a combination of powerful fire of all its weapons with the movement and attack by personnel. The infantry's combat actions are carried out in continuous and close coordination with artillery, tanks and aviation.

The infantry's resolute advance in an attack and stubborn resistance in a defense decide the outcome of combat.

In its organization and missions, infantry is divided into rifle, mountain rifle, motorized, ski, and airborne infantry.

19. *Artillery and mortars* are the most powerful of the ground weapons for affecting the enemy. They have the greatest fire power and range.

In annihilating and neutralizing the enemy, artillery and mortars clear the way for all ground combat arms in the attack and block the enemy's path in the defense.

All troop actions on the battlefield must be supported by artillery and mortars. The most decisive and rapid results are achieved in combat by the massed, surprise, precision, and flexibly controlled fire of artillery and mortars.

Artillery is subdivided by fire power and mission into light, heavy [in weight], heavy [in power], and special (antitank and antiaircraft); and organizationally into organic (battalion, regimental, division), army (corps), and high command reserve artillery.

Mortars are subdivided organizationally into organic, army (corps), and high command reserve mortars.

20. *Tanks* are a decisive means of attack and a powerful means for a counter-blow in the defense.

They combine high mobility and crosscountry capability with powerful fire, a great force of the blow and armor protection.

Tanks are divided by tactical features into light, medium and heavy tanks. According to their organization and mission, tanks form separate regiments and brigades, tank corps, mechanized brigades and mechanized corps.

21. *Separate tank brigades and separate tank regiments* are an asset of the army commander and are attached to rifle divisions on his orders.

In reinforcing infantry (cavalry) on the main axis, they operate in close coordination with it as close infantry (cavalry) support tanks.

Tank brigades and regiments have the primary mission of annihilating enemy infantry.

Separate regiments of breakthrough tanks which are outfitted with heavy tanks are attached to troops as a means of reinforcement for breaking through an enemy defense in close coordination with infantry, artillery and combat engineers, and they are employed as part of assault groups and for repulsing enemy counterattacks.

As a rule, the splitting of separate tank brigades and regiments through the resubordination of individual units (or subunits) to rifle units is not permitted.

22. Being an operational-tactical unit, the *tank corps* is subordinate to a front (army) commander and is employed on the main axis for performing the following missions:

- Actions as the echelon for exploitation of success for the purpose of separating and encircling the main grouping of enemy troops and defeating it in coordination with aviation and the front's ground troops;
- Actions against the enemy's exposed flank and his rear areas;
- Pursuit of a retreating enemy for the purpose of his total annihilation;
- Delivery of counterblows from the defensive depth against mobile enemy units which have penetrated.

The primary mission of a tank corps is the annihilation of enemy infantry.

In special instances and by authorization of the front commander, a tank corps can operate by brigade to reinforce rifle divisions on the main axis. In this instance the corps tank brigade performs close infantry support missions.

23. The *mechanized corps* is an operational-tactical unit which has considerable numbers of motorized infantry, tank units, artillery, and other means of reinforcement and support.

The mechanized corps is subordinate to the front (army) commander and is employed on the main axis for performing the following missions:

- Actions as an echelon for exploitation of success in the operational depth;

- Actions against the enemy's exposed flank and his rear areas;
- Pursuit of a retreating enemy;
- Holding a captured line in the operational depth until the arrival of the army main body;
- Delivery of a counterblow from the defensive depth against mobile enemy units which have penetrated.

In exploiting success in an offensive operation, a mechanized corps which has broken out ahead can accomplish offensive missions on its own against an enemy who has not yet managed to consolidate.

Splitting a mechanized corps for the purpose of reinforcing other combat arms is not permitted.

24. In special instances, when the enemy defense is weakly organized, a tank and mechanized corps reinforced by howitzer and antiaircraft artillery, aviation, and engineer units, by breakthrough tanks where possible, and at times also by infantry, can independently accomplish missions of penetrating a front and routing the enemy to the entire depth of his defense.

Tank and mechanized corps are not employed for the independent penetration of a fortified enemy zone.

25. The *separate mechanized brigade* is a tactical unit and is subordinate to the army commander; it is employed as a mobile reserve.

Composed of various combat arms, the mechanized brigade can exert strong fire effect on the enemy and, with great maneuverability, it is intended for accomplishing the following missions:

- Short-range actions to seize and hold important objectives until the arrival of the main body operating on the given axis;
- Exploitation of success in a local offensive operation;
- Reliable support to the flank of attacking units;
- Pursuit of the enemy and cooperation with attacking units in encircling and routing him;
- Delivery of counterblows in the defense and elimination of success by an enemy who has penetrated;
- Support to army regrouping by a mobile defense across a broad front.

26. *Armored cars and armored personnel carriers* are a mobile resource and are employed chiefly for reconnaissance.

Armored trains have powerful artillery and machinegun weapons and armored protection. They are employed as mobile artillery for supporting friendly troops, combating enemy tanks and airborne assault forces operating in the zone of railroads, and for guarding important rail junctions, open lines, stations and facilities.

27. The *cavalry* is a decisive means for exploiting success in the attack and a powerful means for a counterblow in the defense.

It has high operational and tactical mobility.

The cavalry is capable of executing a broad operational maneuver and delivering swift surprise attacks in mounted and dismounted formations.

Large cavalry units are an operational asset of the front and high command and are employed en masse on the axis of main attack. Splitting them through resubordination to the army command and to commanders of combined-arms units is not permitted.

Large cavalry units must receive the attachment of tanks, motorized infantry, ski units, high command reserve artillery and mortars, and combat engineer and special units. The actions of large cavalry units always must be screened from the air and supported by combat aviation.

28. Large cavalry units are employed for performing the following missions:

In an offensive operation:

--Actions as the echelon for exploitation of success for the purpose of separating and encircling the primary grouping of enemy troops, splitting it up piecemeal and routing it in coordination with aviation and with tank, mechanized and rifle units [soyedineniye];

--Actions against an exposed flank of the primary grouping of enemy troops and against its rear areas;

--Operational pursuit of a retreating enemy for the purpose of his total annihilation.

In a defensive operation:

--Delivery of counterblows from the operational depth primarily against the flank of the primary grouping of enemy troops who have penetrated;

--Support of exposed flanks and boundaries of fronts and armies against enemy attacks against the flank and rear of our forces;

--Screening of the concentration and regrouping of the front main body;

--Support for the withdrawal of combined-arms units to new defensive lines;

--Mobile defense on operationally important axes and lines until the arrival of combined-arms units [soyedineniye].

29. Large cavalry units should be employed on axes leading to an exposed enemy flank and allowing freedom of operational maneuver, avoiding axes where the cavalry may encounter heavily fortified enemy positions or difficult natural obstacles.

Cavalry units usually are given an objective, a direction of actions, and the time periods for performance of missions.

30. The combat of cavalry units is characterized by great mobility, flexibility of maneuver, rapidity of deployment, and short duration.

The cavalry achieves greatest success by a swift attack supported by all weapons and technical assets.

Taking advantage of its tactical mobility, the cavalry must quickly concentrate superior forces and weapons on the axis of main attack and defeat even a stronger enemy in detail by surprise attacks.

A combination of actions in dismounted and mounted formations and a rapid transition from dismounted combat to mounted combat and vice versa is the primary form of cavalry actions, and the interaction of all forces and weapons of the combat formation is the deciding condition for success.

31. *Aviation* has powerful bomb and machinegun-cannon weapons and can accomplish the following missions:

- Give ground troops the most effective support in their combat actions;
- Screen friendly troops and important objectives against air strikes and combat enemy aviation at airfields and in the air;
- Destroy enemy personnel and weapons in the immediate enemy rear;
- Destroy military objectives and inflict damage on enemy troops in the deep enemy rear;
- Disrupt the transport of enemy personnel and supplies.

32. The most important mission of aviation is to provide combat cooperation to ground troops. To this end aviation hits the enemy in the depth of his positions, and neutralizes and destroys his weapons and personnel on the battlefield.

Aviation also is a means of reconnaissance, battlefield surveillance, and communications. In addition, aviation is employed for landing airborne forces, moving troops, supplying troops and evacuating the wounded.

33. Aviation is divided according to its missions, armament and performance data into fighter, attack, bomber (long-range, short-range, divebomber), reconnaissance, artillery observation, liaison, transport and medical aviation.

Fighter, attack, bomber, reconnaissance and artillery observation aviation comprise *combat aviation* and the other kinds comprise *auxiliary aviation*.

Fighter aviation is the primary means for destroying enemy aircraft in aerial combat. It is intended for securing troops and military objectives against air strikes and for accompanying other kinds of aviation when they fly in the depth of enemy positions; fighter aviation also is employed for bombing and ground attack actions against enemy troops and airfields and for destroying his rear routes.

Attack aviation, which is the best form of short-range bombers, is intended for close support of friendly troops on the battlefield and for the destruction of enemy reserves, tanks, aircraft at airfields, and all forms of transportation and communications on lines of communication. Attack aircraft operate by hedgehopping and from low altitude, employing all their weapons from bombs to and including machineguns.

Divebomber aviation is intended for the destruction of targets of small size on the battlefield and in the enemy rear.

Short-range bomber aviation performs the very same missions as attack aviation, but during the day it operates from medium altitude outside the range of antiaircraft machinegun fire, and at night it harasses enemy troops on the battlefield and in the immediate enemy rear from low altitude.

Long-range bomber aviation primarily is intended for delivering strikes against the deep enemy rear in order to destroy major headquarters and troop concentrations and to demolish important military objectives (plants, factories, railroad junctions, communications centers, and large railroad and highway bridges) but it is also employed if necessary to hit enemy troops on the battlefield. Long-range bomber aviation operates primarily at night; its use is permitted during the day only when there is reliable fighter cover and neutralization of enemy air defense weapons, as well as in bad weather conditions.

Reconnaissance aviation is intended for reconnoitering enemy positions in depth, for surveillance, and for photographing the battlefield and military objectives in the enemy rear.

Artillery observation aviation is intended for reconnoitering targets not observed from ground artillery observation posts and for adjusting fire on these targets.

Liaison, transport and medical aviation each is intended for performing its own special missions.

34. The *airborne troops* are an asset of the high command.

They are distinguished by high mobility, powerful automatic weapons, and the ability to appear quickly and suddenly and fight in the enemy rear.

The airborne troops can accomplish the following missions:

--Cooperate with ground troops together with partisan detachments in encircling and routing the enemy by actions in his rear; combating his approaching reserves;

--Seize important lines and crossings in the enemy rear in support of friendly troop actions;

--Seize and destroy enemy airfields and air bases;

- Disrupt control and operation of the enemy rear;
- Support an amphibious landing by seizing a coastal area.

The successful employment of airborne troops requires thorough preparation and their reliable coordination with aviation, partisan detachments, and mobile troops.

35. The *engineer troops* perform the following missions:

- Clear and lay the path for attacking ground troops;
- Seal off and destroy enemy weapon emplacements and strongpoints in coordination with the infantry, artillery, tanks and aviation;
- Form obstacle zones on the flanks and boundaries of attacking troop units [soyedineniye];
- Mine and demolish important installations in the enemy rear;
- Build and maintain crossings;
- Participate in setting up defensive lines and obstacle zones in the unit and army rear;
- Organize command posts, auxiliary control posts, and covered positions for communications centers;
- Conduct operational camouflage;
- Reconnoiter water sources and obtain water.

36. *Special troops*--air defense, chemical defense, signal, railroad and other troops--support troop combat activities in their specialty.

Chapter 3 - Combat and March Formations

37. Troops operate in combat and march formations.

38. A *combat formation* is a grouping of forces and weapons for conducting combat.

The alignment of the combat formation must correspond to the concept and plan for upcoming combat and assure:

- Delivery of decisive damage to the enemy on the chosen axis by a concentration of the main mass of troops and weapons;
- The possibility of a rapid transfer of troop efforts during combat to another axis for exploiting success which has been reached and for parrying enemy blows;
- Best employment of troops in conformity with their features and the coordination of combat arms in combat;
- Best utilization of terrain;
- The possibility of repulsing a ground enemy attack on the flanks and boundaries, especially an attack by his tanks;
- Troop air defense.

39. The combat formation of the army (corps) consists of two echelons, artillery groups, and a tank and antitank reserve.

The strength and composition of echelons in the army (corps) are determined by the nature of combat, the mission, and the situation.

The army (corps) first echelon consists of combat formations of divisions (brigades) operating side by side.

The lateral distribution of forces and weapons in an echelon is determined by the plan of battle.

The army (corps) second echelon is intended for building up the force of an attack from the depth, for exploiting or widening a breakthrough, and for consolidating success in order to achieve continuity of a powerful attack until the total rout of the enemy grouping being attacked.

As a rule there should be several divisions in the second echelon on the axis of main attack in addition to mechanized troops, depending on the composition of the army, with approximately three of them in the second echelon when the army has seven divisions and two or three in the second echelon when the army has five or six divisions.

At the necessary moment second echelon divisions do not reinforce, but replace first echelon divisions which already have lost the necessary force of attack, or they widen the breakthrough by actions on flanks which have formed in the combat formation of first echelon divisions.

40. An army (corps) grouping on the main axis has a large amount of reinforcing personnel and weapons and has a deeper alignment, and its divisions receive a narrower frontage.

The echelonment of combat formations will be shallower on a secondary axis.

Depending on the situation, the number of echelons and their composition may change during combat.

41. The division (brigade) combat formation consists of combat formations of rifle regiments (separate battalions) operating side by side, artillery groups, a tank group (if tanks have been attached), and a general and antitank reserve.

The lateral distribution of forces and weapons in the division (brigade) combat formation is determined by the tactical plan.

Battalions deploy as follows in the brigade combat formation: all battalions on line, in a wedge or inverted wedge, or in an echelon right or left.

42. *Artillery groups* are formed from artillery subunits (or units) which are associated by common control.

Artillery groups for *close support of infantry (cavalry)* are formed from division artillery and attached reinforcing artillery and mortar units according to the number of the division's rifle regiments.

Artillery groups for *close support of tanks* are formed for combat in the depth from army artillery and from mortars attached to the tank unit.

The commanders of artillery groups for close support of infantry (cavalry) and tanks execute fire missions assigned by commanders of the supported units and by senior artillery commanders.

As a rule the permanent organization of battalions included in the direct support group must not be disrupted.

In some cases some of the close support artillery is attached to infantry, cavalry and tanks and is employed by them for accompaniment on wheels.

Attached artillery executes combat missions assigned by commanders of the units [soyedineniye orchast'] to which it is attached. These commanders bear responsibility for proper combat employment of the attached artillery.

The army (corps) artillery group is formed from army (corps) artillery and high command reserve artillery for actions against enemy artillery, reserves and rear areas.

One army (corps) artillery group usually is formed and subdivided into subgroups according to the number of divisions (brigades) operating on the main axis.

In some instances, when heavy [in power] artillery is attached to the army or corps it is included in the army or corps artillery group and forms:

- A *long range subgroup* for accomplishing special missions to a great depth;
- A *subgroup of artillery for destruction* from heavy [in power] howitzer and gun artillery, intended for the destruction of enemy permanent fortifications.

The number of subgroups is determined by the capability for centralized control of them by the army's artillery commander.

Depending on the number of targets to be destroyed, subgroups of artillery for destruction can be attached to the divisions in whose zone they are operating during the softening-up period. In this case they receive missions directly from the divisions' artillery commanders.

Artillery *antitank groups* are formed in the army (corps) and divisions (brigades) when they are reinforced by antitank artillery. They are intended for organizing an antitank defense in depth on the most important axes.

Antiaircraft groups are formed from army PVO [air defense] regiments and by removing antiaircraft weapons of army units operating on an auxiliary axis for screening the army main grouping against enemy aircraft in the initial position and during the attack.

From half to two-thirds of all unit antiaircraft weapons of the front (army) is assigned to an antiaircraft group.

Antiaircraft artillery and heavy-caliber antiaircraft machineguns also can be employed for combating tanks.

Mortar units (guards mortar units and reinforcing mortar units) attached to divisions (brigades) and armies (corps) reinforce artillery groups for direct support of infantry.

43. Separate tank brigades (regiments) attached to an army (corps) or division form *tank groups for direct support of infantry (cavalry)* in an attack.

The basis for alinement of combat formations of the direct support tank groups is the mandatory requirement for maximum and simultaneous participation of all their weapons in combat.

The combat formation of direct support tank groups consists of combat formations of the tank subunits attacking in one echelon, with heavy and medium tanks in front and behind them light tanks and reserve tanks (up to a tank company).

The division (brigade) commander must assign the combat missions to the tank brigade (regiment) commander and arrange coordination on the terrain with the commanders of regiments or separate battalions in whose zone the tanks are operating.

In a defense the bulk of the tanks comprises the army (corps) tank reserve.

44. The division (brigade) *general reserve* is intended for repulsing surprise enemy attacks, especially on flanks and boundaries, for supporting the units conducting combat, and for exploiting and consolidating success which has been achieved.

The strength and composition of a reserve depend on the plan for impending combat and on the place held by the unit [soyedineniye or 'chast'] in the combat formation.

A rifle battalion (or separate rifle battalion) reinforced by several regimental pieces and antitank rifles may be assigned to the division (brigade) reserve during an attack under normal conditions (with secured flanks).

A *tank reserve* is employed only on order of the combined-arms commander to exploit success and to repulse infantry counterattacks.

The tank reserve moves into an attack against counterattacking enemy tanks only when it has a clear superiority in strength.

When enemy tanks have a numerical superiority the tank reserve is employed for conducting fire from a halt and from ambushes, in close coordination with the antitank reserve and artillery.

A *mobile antitank reserve* is formed in troop units out of motorized subunits of artillery, antitank rifles and combat engineers with supplies for building antitank obstacles; it is intended for combating tanks which have penetrated.

Special antitank units [soyedineniye or chast'] attached to the army (corps) also can be used as a mobile antitank reserve.

45. In all instances combat formations must be supported by reconnaissance, observation, security, communications, and measures of antiair and antitank defense, antichemical protection, and camouflage.

46. Special attention must be given to firmly securing boundaries and flanks of a combat formation by placing reserves and antitank weapons behind them and screening them with artillery and mortar fire.

47. The *march formation* of the division (brigade) and army (corps) consists of march columns.

A march formation must ensure:

--Rapid deployment into combat formation and commitment in the grouping which corresponds to the tactical plan;

--A rapid change of the grouping assumed for the march;

--Rapid dispersal of columns in an air raid and under artillery fire;

--Repulse of an attack by enemy aviation and enemy tank and motorized troops;

--Greatest convenience in making and supporting the march, and its concealment.

A division (brigade) may make a march in one or two and at times in three march columns depending on the missions and terrain conditions.

The army (corps) march formation always consists of several columns.

March columns consist of serials.

Tank units [soyedineniye], army (corps) artillery, high command reserve artillery, ponton units [chast'], and rear units and establishments comprise separate echelons which are part of march columns or they comprise separate columns.

Each column has its own security and reconnaissance.

Chapter 4 - Command and Control

1. Fundamentals of Control

48. The army military council and the unit [soyedineniye or chast'] commander bear full responsibility for the status and combat readiness of subordinate troops.

In addition, the army commander and unit [soyedineniye or chast'] commander are fully answerable for the organization of command and control and for troop actions in combat.

49. *Command and control* requires:

- Prompt decisionmaking by the commander;
- A determination of the forces, weapons and time needed for executing the decision;
- The assignment of combat missions to the troops in accordance with their strength and weapons;
- Continuous coordination of the units [chast' or soyedineniye] and combat arms accomplishing common combat missions;
- Control over troop actions;
- Changes and updates to missions of subordinate troops during combat.

50. The basis of control is the *commander's decision*.

The decision requires:

- A determination of the concept of impending actions in conformity with the mission assigned by the senior commander;
- Precise clarification of one's objective of actions (what the commander wishes to achieve in combat);
- A splitting of one's overall mission into immediate and subsequent missions;
- A choice of axes of main and secondary attacks;
- A determination of the primary missions facing the groupings on the axes of main and secondary attacks (what the commander wishes to achieve on each of these axes);
- A determination of the combat formation and missions for the military units [soyedineniye or chast'];
- Support for impending actions.

51. A substantiated decision is possible only on the condition of proper clarification of the mission assigned by the senior commander and a thorough situation estimate.

Having estimated the situation as a whole, it is especially important to decide what is primary and what is secondary at the given moment.

Incomplete data on the situation does not relieve a commander of the obligation to make a specific and firm decision promptly.

52. *Combat requires continuous control*, which is achieved:

- By constant leadership of troops during combat actions;

--By monitoring the execution of orders and instructions and all troop actions;

--By a continuously functioning signal service;

--By information provided upward from below, downward from above, and to adjacent units about all situation data.

53. The choice of the axis of main attack comprises the basis of the decision in offensive combat.

In choosing the axis of main attack a commander must:

--Clarify the enemy forces, weapons and status on the given axis and take account of the possibility of an appearance by his reserves and what opposition the enemy can offer;

--Evaluate terrain conditions and the condition of the soil and weather from the standpoint of convenience in delivering the main attack and the most advantageous employment of troops;

--Determine that part of the enemy grouping whose defeat assures success in accomplishing the assigned overall mission.

54. In making a decision for the defense one must determine the main areas (axes) where the stability of the entire defense is dependent on their retention. These areas (axes) must be defended by the main portion of forces and weapons.

The decision for the defense must provide for the use of advantageous terrain conditions, its engineer reinforcement, the skillful organization of all kinds of fire (and antitank fire above all) in combination with engineer obstacles, and the preparation of counterattacks for annihilating an enemy who has penetrated.

55. The interworking of all combat arms and the tie-in of one's own actions with those of adjacent units is organized on the basis of the decision reached.

Interworking consists of the coordination of combat actions of the troops performing a common mission by objective, time and place. Of special importance is the thorough coordination on the terrain of the combat efforts of the infantry with the artillery, tanks, aviation and engineer troops.

The interworking of troops during combat must be continuous and must be supported by reliable communications.

2. Organization of Tactical Control

56. The commander exercises tactical control through his staff.

57. The *chief of staff* is the commander's deputy. He alone has the right to issue instructions on behalf of the commander.

The commander lets the chief of staff in on all his assumptions and intentions. The chief of staff constantly must be ready to brief the commander on the situation and on suggestions stemming therefrom.

58. The staff has a responsible role to play in tactical control,

The staff's duties include:

- Organizing reconnaissance, security and observation and taking all other steps for troop combat support;
- Collecting, studying and processing information about the enemy, friendly forces, the terrain, condition of the soil, the weather and the area of operations and briefing them to the commander;
- Issuing warning orders;
- Drawing up a tactical plan and orders, passing them on to the troops, and monitoring their precise and timely execution and all troop actions;
- Assuring the interworking of troops in combat, achieved by giving prompt information to all appropriate chiefs of combat arms and including them in drawing up the tactical plan;
- Organizing command posts and communications;
- Submitting situation reports to higher headquarters and giving information to subordinate staffs and adjacent units;
- Keeping constantly informed about the state of supply of the troops and the status of one's own rear, and monitoring its operation;
- Directing subordinate staffs;
- Studying and generalizing the experience of combat actions and making it known to the troops.

59. The *tactical plan* includes:

- The combat objective;
- The commander's concept;
- A definition of the combat phases depending on the immediate and subsequent missions;
- Combat missions of units [soyedineniye or chast'] and the combat arms and their interworking;
- Combat support (reconnaissance, security, air defense, antitank defense and antichemical protection);
- Organization of control;
- Logistical support and organization of the rear.

A tactical plan is not formulated as a special document in the division (brigade).

60. The chiefs of combat arms, who are deputy commanders, the chief of the rear (deputy commander for rear) and chiefs of services exercise direction over special units and services based on instructions of the commander issued personally or through the chief of staff.

The chiefs of combat arms, chief of the rear and chiefs of services must coordinate with the chief of staff all basic instructions and measures planned by them in support of the commander's decision.

The staffs of chiefs of combat arms and chief of the rear in an army operate in full coordination with the combined-arms staff. They are obligated to keep the combined-arms staff constantly in the picture concerning measures they are taking and instructions being prepared for supporting the commander's decision.

61. The commander usually exercises tactical control from the command post.

The *command post* (primary, alternate) is set up at that distance from units of the combat formation which provides the commander convenient tactical control and from where he can observe the battlefield and the actions of his troops at least on the axis of main attack.

A division commander moves up to an observation post and the army commander travels to an *auxiliary command post* organized by the staff for the purpose of personal observation of the actions of his main troop groupings.

Personal contact between the senior commander and subordinate commanders and troops is of primary importance. It gives the commander an opportunity to directly pass on his will and give directions to the troops.

Personal contact is especially necessary before the beginning of combat and with an abrupt change in the situation requiring assignment of a new mission.

62. The army commander personally directs combat on the axis of main attack. The units [soyedineniye] operating on an army's secondary axis may be unified in an operations group for convenience of control.

The *operations group* is a temporary formation for performing a specific combat mission. Command of it usually is given to the deputy army commander. An operations group staff with communications equipment is formed from the army field headquarters.

63. Command communications and coordination communications are organized in each unit [soyedineniye] for tactical control.

Command communications serves for the transmission of combat orders and other orders from the senior commander to subordinates and for receiving reports. It is set up from the superior to the subordinate on the instruction of and with the assets of the senior commander. This does not, however, relieve subordinate commanders of the obligation to use all available means to find contact with the senior commander.

Coordination communications ensures the coordination of combat actions of the combat arms and adjacent units as they execute the overall combat mission.

Communications from the artillery and cavalry usually is established to the infantry and from the artillery to the cavalry. The infantry (cavalry) also is not relieved of concern for maintaining these communications.

Communications of tank units and aviation with combined-arms units, with artillery, or among themselves is established according to directions of the army (corps) staff which organizes the interworking.

Coordination communications among adjacent units is organized using assets of the unit on the right to the unit on the left.

64. Continuity of communications is provided by using different means of communication on each axis (by redundancy of communications).

Radio communications and the liaison officers service is of especially great importance.

Staffs always must have a reserve of communications personnel and equipment.

65. Radio communications is the primary means for control in all combat arms and in all forms of combat, and in aviation and tank units it usually will be the only form of communications.

Radio communications ensures reliability of control under the most difficult conditions and especially during the interworking of troops in combat.

The staffs' skillful use of radio equipment is of decisive importance for tactical control. For this reason the organization and use of radio communications must be thoroughly thought out to the entire depth of combat.

The staffs must draw up radio brevity codes for each action and sometimes even for individual periods of an action.

Every commander must show every concern that both he and the staff have a radio under any conditions.

The chief of staff and senior signal officer are personally responsible for the organization of continuous radio communications.

The loss of radio communications is inadmissible.

66. Control is exercised over radio with the help of codes and ciphers. Radio conversations must be conducted using procedure charts, a coded map and a commander's map board. A common coded map and code table are drawn up by the army staff for all units having radios and which are a part of the army.

When it is impossible to use other means of communication during combat actions, operation orders and reports on decisions reached are transmitted by radio in cipher over the army (corps) and higher net, and by code over the net of the division and below.

The right to authorize or prohibit the use of radio equipment rests with the chiefs of staff no lower than division (brigade).

67. The use of radio communications for transmission is prohibited in periods of regroupings, the concentration of troops, and preparation of an attack, as well as on the defense when there is serviceable wire communications. In these instances reports and other information are transmitted by other means.

Reconnaissance units (subunits) use radio communications for transmission without restriction.

68. Radio transmission in the clear is authorized:

--In the artillery: when transmitting fire control commands;

--In aviation: in directing aerial combat; in transmitting combat commands in flight and during emergencies or forced landings; in transmitting reports from aircraft about observed targets and enemy troop movements on the battlefield and when adjusting artillery fire from the air;

--In tank and motorized units to and including brigade: in transmitting all commands in combat;

--In units of all combat arms from division and lower: during combat, when there is no opportunity to use other means of communication or when their use or encoding will cause a delay in taking urgent steps based on the situation;

--In PVO units: when transmitting reports about the flights of enemy aircraft and when vectoring friendly fighter aviation to enemy aircraft;

--In all units: under exceptional circumstances (a surprise attack by enemy tank and motorized units); an authentication signal is used in these transmissions to identify the transmitting radio.

69. In addition, in the army (corps) and division (brigade) during combat, transmission in the clear is authorized:

--Of reports about the receipt of orders, the beginning of actions, or the reaching of areas and lines designated by an order;

--For calling in artillery fire, aviation and tank units.

The numbers and designations of units, positions of commanders and terrain points are encoded in a plain-language transmission.

70. The following is necessary for maintaining stable wire communications (telegraph, telephone): camouflage and engineer organization of communications facilities; the presence of alternate and auxiliary communications centers dispersed in depth; line security and technical inspection on lines and in centers.

71. Communications by mobile resources must have widespread use in all units, supplementing and often even replacing wire and radio means of communication.

The following are used to provide communications by mobile resources: aircraft, vehicles, motorcycles, tanks, armored vehicles, aerosleds, skiers, mounted and dismounted messengers, launches, boats, handcars and dogsleds.

72. Conventional signals are used chiefly for identification in coordination communications. They are established by the front (army, corps) headquarters or the division (brigade) headquarters.

Conventional signals for denoting the line of contact of friendly and enemy troops are used constantly and are laid out by the troops at the request of aviation. The signals are common to all combat arms and are established by the Red Army General Staff.

73. The execution of any combat order must be checked. Supervision over the prompt and precise execution of orders is an obligation of commanders and staffs, but the staffs' work must not be disrupted in the process. The readiness of communications equipment for the swift transmission of operation orders also must be checked constantly.

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The overall mission is not divided into an immediate and subsequent mission on the defense.

76. An order must express the commander's decision and the missions of subordinate units briefly, successively and categorically.

The order must be presented in the following sequence:

First paragraph: a concise estimate of the actions and overall grouping of enemy troops which can have an effect on the course of combat;

Second paragraph: the immediate mission assigned to the unit;

Third paragraph: immediate missions of the immediate adjacent units and an indication of boundary lines with them;

Fourth paragraph: brief formulation of the decision of the commander issuing the order;

Fifth and subsequent paragraphs: combat missions (immediate and subsequent) for subordinate units with a listing of their supporting or attached means of reinforcement; indications for each unit of the boundary line with the unit on the left; the missions and responsibility of commanders for securing boundaries and flanks.

Separate paragraphs indicate in further succession:

--Missions to be performed by the artillery, aviation, tank and other special units [chast'] in the interests of the entire large unit [soyedineniye];

- Missions of antiaircraft and antitank defense; instructions for reserves;
- Time of troop readiness to execute a mission;
- Command post location (primary and alternate) and the direction of its movement; this direction simultaneously defines the axis of communications;
- Procedure, times (lines) and methods for submitting reports.

All copies of orders are signed by the commander and chief of staff, and in the army by the military council as well.

Missions for the organization of reconnaissance, communications, engineer support to troop actions and antichemical protection are given in separate instructions.

77. An operational timetable may be drawn up in the army (corps) and division (brigade) staff during advance preparation of offensive combat, with an extract therefrom provided to each performer.

The operational timetable indicates:

- Procedure for interworking of combat arms by tactical phases, established on the terrain without fail;
- Resubordination of artillery and tanks to units with the development of combat;
- Procedure for artillery to change firing positions;
- Signals for coordination among tanks, infantry, artillery and aviation.

The operational timetable may be drawn up as a coordination plan with an explanation in the margins.

A sketch map is drawn up by the division (corps) staff for purposes of facilitating coordination; it encodes the terrain and serves for unified target designation.

78. Advance notification of subordinate commanders and staffs about impending actions requires the issuance of warning orders, which must contain directions as to the nature of impending actions and the time of troop readiness for these actions. Secrecy of the action or operation being prepared must not be broken in the warning orders.

79. Reports to the commander and notifications to adjacent units and subordinates represent the most important documents. They provide an opportunity for correctly estimating the situation and making an expedient decision.

For this reason the constant and timely dispatch of reports and notifications comprises a very important duty for all commanders and staffs.

The primary demand placed on every report and notification is validity, veracity, timeliness and preciseness of presentation.

80. Reports submitted by a certain time are called *periodic reports and summaries*. The procedure for their submission is established from above; for this the staff organizing combat establishes for each period of actions who must report what and at what time.

81. In addition to periodic reports, there are special reports submitted at the initiative of a subordinate commander or staff which are called *action reports*.

The following must be reported without delay:

- Receipt of an operation order, decisions reached, and a surprise enemy attack;
- Execution of an assigned mission;
- Appearance of the enemy where he has not been, or his absence where he previously was;
- A change in enemy actions (a sudden withdrawal, assumption of an attack or defense, counterattack, and so on) and an abrupt change in the situation in general;
- Each decision made on one's own initiative in connection with a change in the situation.

82. Action reports must provide:

- A complete picture of events occurring on the ground and in the air; the precise situation and status of friendly troops; the degree of intensity and result of combat;
- New data on the enemy, his strength, weapons and actions;
- A commander's decision in connection with the situation.

An action report must briefly respond to the questions: in what position, composition and grouping our units and the enemy units are in, when, and where; and what the person reporting is doing or proposes to do. The reports are signed by the commander and chief of staff.

Chapter 5 - Political Work in a Combat Situation

83. Political work has the purpose of rallying Red Army personnel about the party of Lenin-Stalin and the Soviet government; instilling in Red Army men, commanders and supervisory personnel a spirit of dedication to the Motherland, allegiance to the military oath and staunch observance of military discipline; strengthening the combat might and political-moral status of the Red Army; and instilling in the personnel an understanding of the objective and nature of the war and a firm, unbending will to win over the enemy.

84. Political work in the Red Army is organized on the basis of resolutions of the VKP(b) [All-Union Communist Party (Bolshevik)] Central Committee and the Soviet government, and orders and directives of the People's Commissar of

Defense and the Red Army Main Political Directorate, and it is performed by commanders, deputy commanders for political affairs, political workers, and the party and Komsomol organizations.

Unit [soyedineniye and chast'] commanders bear direct responsibility for the status of political work in Red Army units. Political indoctrination of fighting men, commanders and supervisory personnel is the primary task of the deputy commanders for political affairs.

85. All work of Red Army political entities and of the party and Komsomol organizations must be directed toward successful execution of combat missions assigned to each unit and subunit, toward a comprehensive strengthening of one-man command and an elevation of the commander's role and authority, and toward instilling in the personnel a love for the Motherland, courage, staunchness and boldness.

Political workers must persistently master military knowledge, perfect such knowledge and become experts in military affairs so that they can assume a command position at any moment.

86. The tasks of political work in the Red Army are:

--Strengthening the troops' political-moral state and military discipline in Red Army units [chast']; conducting a merciless struggle against cowards, panic-mongers, deserters and everyone who leaves combat positions without a commander's order;

--Instilling in the personnel a hatred for the enemy and a desire for his merciless annihilation, and an unshakable readiness to fight courageously and staunchly under all conditions, scorning death for the sake of victory over the Motherland's enemies, and to honorably defend every inch of Soviet soil;

--Instilling in fighting men and commanders a spirit of high political vigilance and a need to protect the Red Army against the infiltration of spies and saboteurs into its ranks;

--Instilling in fighting men and commanders the desire to become experts of their work, to master combat equipment to perfection, to love it, to safeguard it carefully and not leave it for the enemy under any conditions;

--Familiarizing personnel with Red Army combat actions and the heroic exploits of its fighting men, commanders and political workers;

--Strengthening unit combat traditions;

--Organizing mass political agitation and propaganda, political studies, mass cultural work and reasonable rest for fighting men and commanders, and providing units with newspapers and journals;

--Organizing agitprop work among the local populace;

--Studying the political-moral state

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--Informing command and supervisory personnel about the political state of their troops; about the enemy's status and his weak and strong points which must be considered in combat; and about the political state of the combat zone and sentiments of the local populace.

90. Prompt and truthful information about the state of a unit and about the situation at the front is of great importance in political work. All commanders and political workers must organize political information both upward from below and downward from above.

91. Deputy commanders for political affairs, political entities and political workers must:

--Perform political work daily in rear units [chast'] and subunits, remedy the deficiencies which are discovered and take steps to ensure that the rear functions precisely and continuously in all tactical phases;

--Show special concern for feeding fighting men and commanders;

--Take steps for prompt manual evacuation of wounded from the battlefield and for giving them aid, see that they are evacuated to the rear, and take steps for prompt arrangements for the burial of those who fell in battle and for an accurate accounting of losses;

--Perform political work among the populace in close contact with local partisans and soviet organizations;

--Conduct agitprop work among the enemy troops and populace;

--Study the content and methods of enemy propaganda and take all steps to organize counterpropaganda among friendly troops and the local populace.

Agitation and propaganda must be intelligible, specific, persuasive, active and timely.

92. Political work with prisoners of war is performed by political entities separately with enlisted men and separately with officers until they are evacuated from the front.

Chapter 6 - Troop Combat Support

93. Troop combat support is tasked to warn troops against the ground and air enemy, and to give them freedom of actions and an opportunity to be committed in an organized manner and in the most advantageous grouping.

Troop combat support consists of reconnoitering the enemy and terrain, providing security for the troops, organizing antiaircraft and antitank defense and antichemical protection, and camouflaging troops, headquarters, and communications and logistical facilities.

Troop combat support is carried out continuously.

1. Reconnaissance

94. Reconnaissance is a very important duty of commanders and staffs in all instances of troop combat activity.

Information on the enemy, terrain and populace comprises the necessary data for decisionmaking and for the most expedient employment of troops in combat.

Reconnaissance is performed continuously day and night.

The operations of reconnaissance units [chast'] or subunits must be bold and active. The enemy can be forced to show his strength only by combat.

95. The purpose of reconnaissance:

--Of the *enemy* is to establish his location, strength, composition, grouping, nature of fortifications, intentions and combat effectiveness;

--Of the *terrain* is to determine its features, condition of soil and routes, and the extent to which the terrain affects the disposition and actions of troops, especially tank units [chast' and soyedineniye], as well as the use of technical means of warfare;

--Of the *area of impending combat actions* is to clarify the political sentiments of the local populace; the economic, sanitary and veterinary status of the area; and water supply conditions.

96. Reconnaissance is conducted across a broad front, but its main forces and assets always must be employed on the main axis and against specific objectives.

97. Reconnaissance must promptly provide the fullest and most reliable information about the enemy.

Reconnaissance information is delivered immediately to the commander who organized reconnaissance.

98. Information about the enemy must be carefully studied and checked as it comes in by a comparison of data received from different sources.

Even insignificant information often provides an opportunity to draw important conclusions when it is correlated with other information.

The correctness of reconnaissance conclusions depends largely on a knowledge of the enemy and conditions of the theater of military operations.

99. Contact with the enemy once established must not be broken. It is important to determine a change in the composition of a given enemy grouping in a timely manner, since this provides an opportunity for judging his intentions.

Systematic aerial surveillance is established over the most important enemy groupings detected.

100. Information about the enemy is collected by aerial and ground reconnaissance; by troop combat actions; by observation and listening; from prisoners, deserters and the local populace; by partisans' combat actions in the enemy rear; by communications intelligence; and by a study of captured documents, correspondence and new weapons.

Reconnaissance data also are received from higher headquarters and adjacent units.

101. *Aerial reconnaissance* is conducted by observation and photography. Aerial photoreconnaissance, which permits studying reconnoitered objectives with great reliability and completeness, is of greatest value.

102. Aerial reconnaissance is conducted by reconnaissance aviation in the interests of the ground command, but it is also performed by other kinds of aviation incidentally with the performance of their own missions.

Reconnaissance missions are assigned to fighter aviation when there is strong opposition from the air enemy.

Reconnaissance data obtained by aviation are passed on immediately to all interested combined-arms staffs and to the higher aviation staff.

Army aviation chiefly conducts battlefield reconnaissance. The overall depth of reconnaissance is up to 100 km. Front reconnaissance aviation conducts deeper reconnaissance--up to 500 km.

Reconnaissance aircraft pass observation data by radio in the clear, encoding only the designations of points; reports are received from the aircraft simultaneously by the radios of combined-arms and air staffs which sent the aircraft on reconnaissance.

103. *Ground reconnaissance* provides an opportunity of determining with greatest reliability the location, grouping, composition, numbering and combat effectiveness of enemy units [chast'] and the system and nature of his fortifications; maintaining constant contact with the enemy; keeping continuous track of actions and changes in his grouping as well as the development of engineer work; obtaining the necessary information about the terrain and the area of impending combat actions.

104. Reconnaissance is divided by kinds into operational, tactical, combat and special reconnaissance.

Operational reconnaissance is organized by the army and front command element and provides for obtaining the necessary information for decisionmaking. It is conducted by aircraft, mobile troops, and radio facilities and supplemented by data obtained from tactical reconnaissance and the combat actions of partisans.

Tactical reconnaissance is organized by unit [soyedineniye and chast'] commanders. It is conducted by aircraft and ground troops. Tactical reconnaissance provides for obtaining the necessary data for troop use in impending combat.

Combat reconnaissance is conducted by all combat arms in areas of immediate contact with the enemy and in combat.

Combat reconnaissance provides an opportunity for establishing the flanks, boundaries and deployment of enemy combat formations, the grouping of his artillery, tanks and other mobile units [chast'], the nature of enemy actions, and the presence of defensive works, obstacles and minefields.

Special reconnaissance is organized by the chiefs of combat arms and services and carried on to obtain data necessary for the combat employment of their own combat arm. Special reconnaissance can be conducted as part of combined-arms reconnaissance or independently.

The results of special reconnaissance are passed immediately to the combined-arms staffs.

105. Units [soyedineniye and chast'] conduct ground reconnaissance with reconnaissance detachments, separate reconnaissance groups, separate reconnaissance patrols, separate mounted patrols and dismounted reconnaissance subunits.

106. A *reconnaissance detachment* is formed from reconnaissance, rifle (motorized rifle), ski and cavalry subunits from company (troop) to battalion (cavalry regiment) in strength, reinforced by artillery, tanks (armored cars), engineer subunits and chemical defense subunits.

The *separate reconnaissance group* is up to a company of tanks (armored cars) reinforced by motorized infantry subunits, motorcycles and other assets.

The *separate reconnaissance patrol* is from a squad to a platoon of infantry or, in the tanks troops, a platoon of tanks (armored cars), reinforced by motorized infantry and motorcycles.

The *separate mounted patrol* is from a cavalry platoon to a troop.

Dismounted reconnaissance subunits are dispatched when there is immediate contact with the enemy, primarily for raids, with a strength of from a squad to a company (one or two reinforced troops).

107. A reconnaissance detachment receives a zone for reconnaissance and conducts reconnaissance by sending out reconnaissance patrols (mounted patrols), with the strength of the patrol (mounted patrol) being from a squad (section) to a platoon. The width of a reconnaissance zone is determined by the mission, strength and composition of the detachment, the road network and nature of the terrain; it averages from 3 to 8 km.

A separate reconnaissance group, patrols and mounted patrols receive axes and objectives for reconnaissance.

108. The distance of reconnaissance subunits from the unit [soyedineniye] main body is determined by the reconnaissance mission and by the strength and

composition of the subunits being dispatched, and it can reach:

--Up to 8-10 km for a reconnaissance detachment and up to 25-30 km for a motorized detachment;

--Up to 10-15 km for a separate reconnaissance group, separate mounted patrol and separate reconnaissance patrol (motorized);

--Up to 1-3 km for mounted reconnaissance patrols and reconnaissance patrols sent out from a reconnaissance detachment.

109. Reconnaissance subunits penetrate the enemy reconnaissance and security zone and gather information about his forces. They attempt to capture small enemy groups while avoiding combat with his large forces.

110. *Observation*, being one of the most important methods of reconnaissance, is organized by all combat arms under all conditions of their combat activity.

Observation is conducted both by specially assigned observers and by specially assigned commanders. It must be continuous. Observation must be most vigilant in an area of immediate contact with the enemy and at night.

Observation is supplemented by listening.

Observation results of the combat arms are reported immediately to the combined-arms headquarters.

111. *Signal intelligence* provides an opportunity for determining the location of headquarters and the probable enemy grouping; intercepting radio messages; and monitoring individual conversations, instructions and reports being passed over wire facilities.

112. A systematic capture of prisoners must be arranged for purposes of reconnaissance and checking data about the enemy grouping. All documents are taken from prisoners and deserters. A brief interrogation of prisoners is conducted immediately after their capture.

113. *Commander's reconnaissance* is conducted by commanders' personal observation from observation posts. It is performed without fail prior to making a decision for combat.

During combat a commander must conduct personal observation of enemy and friendly troop actions on the axis of main attack, personally interrogate certain prisoners, and inspect the most important captured enemy documents.

114. A unit [soyedineniye or chast'] commander must indicate to his staff what he wants to know and by what time.

The staff draws up and organizes a reconnaissance plan based on the commander's decision and directions.

Missions of political entities and special combat arms and services are considered in drawing up the reconnaissance plan.

A reconnaissance plan is updated and elaborated in the course of combat actions.

115. The chief of staff personally assigns missions to the reconnaissance subunits.

The following is indicated when the mission is assigned:

--Information about the enemy;

--Information about one's own and adjacent reconnaissance subunits;

--The mission of the given reconnaissance subunit: what to determine where and by what time;

--When to go on reconnaissance; the zone, route or most important axis of reconnaissance; end point or line; when to conclude reconnaissance and when to return;

--To whom and to where reports are to be submitted when and by what means of communication; locations of message centers;

--Prearranged signals for communicating with aircraft;

--Password, reply and procedure for crossing the line of security units [chast'].

The mission of the military unit [soyedineniye] is announced to the reconnaissance subunit commander only verbally and to that extent necessary for performing the reconnaissance mission.

It is categorically prohibited to take combat documents and maps with notes about the disposition of friendly forces along on reconnaissance.

2. Security

116. The missions of security are to prevent a surprise attack by the ground or air enemy; to prevent enemy reconnaissance of troops being protected; to give friendly forces time and favorable conditions for deployment and commitment.

In all cases security must safeguard the troops against a surprise attack by tanks and aviation.

117. Troops are provided security on the march by *march* security, when disposed at a halt by *security at the halt*, and in combat by *battle outposts*.

Artillery and tanks are provided security by subunits assigned by instructions of the senior commander.

In addition, all combat arms organize local security under all conditions of the tactical situation.

118. The forces and weapons assigned for security are determined by data on the enemy, by the distance from the enemy, by the nature of impending actions, by the composition and strength of the troops to be protected, and by terrain and visibility conditions.

The number of troops strictly necessary is assigned to security.

119. In organizing security a staff is obligated to provide for the following based on the commander's directions: strength, composition and special missions for the security units; time and procedure for them to move out and shift from one form of security to another; methods of communicating with the security units and procedure for notifying them about the situation.

3. Air Defense

120. Troop air defense is organized by commanders at all levels and has the mission of combating enemy aircraft operating over the battlefield, along troop movement and transportation routes, and in the unit, army and front rear.

121. Troop air defense includes:

--The air warning service;

--A fire plan for special antiaircraft weapons (medium and small caliber antiaircraft artillery, antiaircraft machineguns) and the operation of antiaircraft searchlights in their support;

--Combat actions of fighter aviation;

--A fire plan for small arms and ground artillery, employed in a number of instances for firing on low-flying enemy aircraft;

--Measures for protection of troops and the rear reducing the effectiveness of raids and contributing to the most rapid mop-up of the aftermath of air raids.

122. Regardless of the presence of special air defense weapons, military units [chast'] must use their own resources to fight the air enemy. Continuous observation of the air, constant readiness of weapons to repel the air enemy, and timely measures of troop protection (splitting up, dispersing, camouflaging, building shelters, and organizing fire protection as well as medical and veterinary assistance) are mandatory for troops and the rear in any situation.

123. The *troop air warning service* has the mission of timely detection and identification of aircraft; notification of units [chast'] and subunits of air defense of the troops and the army rear as well as national air defense units about the air danger; and vectoring fighter aircraft to the enemy. In addition, the troop warning service performs surveillance of the terrain and reports the appearance of enemy tank, motorized and airborne units or detachments.

The troop air warning service must be performed in a 360 degree sector and it consists of posts set up with unit [soyedineniye or chast'] headquarters as well as in the unit, army and front rear.

Common numbering is established for all air observation posts of a division (brigade).

In all combat situations army (unit [soyedineniye]) staffs establish communications with national air observation posts.

An air observation service is set up on the march and when disposed at a halt with reconnaissance and security subunits and with the main body.

124. Radios of air observation posts and air defense units [chast'] and radios especially assigned for receiving alert signals in unit [soyedineniye or chast'] headquarters make up one common radio warning net and stand continuous watch.

125. The *fire of antiaircraft weapons* has the purpose of destroying enemy aircraft and parachute forces being landed.

Antiaircraft artillery and heavy-caliber antiaircraft machineguns can be employed in special instances for reinforcing an antitank defense and repulsing enemy infantry and cavalry which has penetrated to the vicinity of firing positions.

126. The combat distribution of antiaircraft artillery is done with consideration of most reliable support to the main grouping of tanks, artillery, infantry or cavalry, and army second echelons. It is especially important to cover defiles, crossings and corduroy roads on a troop movement route.

Antiaircraft artillery and antiaircraft machineguns in the unit and army rear secure bridges, crossings, railheads, army bases and railroad junctions.

127. Antiaircraft groups of the armies cover an army's main grouping in the initial position and in the attack.

The observation and warning service must be organized especially thoroughly at a halt and in movement in order for the antiaircraft group to manage to prepare promptly for opening fire against enemy aircraft and for troops to manage to take necessary steps to reduce losses.

128. *Fighter aviation* covers the disposition, movement and combat actions of friendly troops.

Choice of the method of fighter aviation actions depends on the assigned mission, conditions of the ground and air situation, and the strength of fighter aviation.

Sorties by fighter units are flown by decision of their commanders.

129. The mission assigned to a unit [soyedineniye] and the air and ground situation are taken into account in drawing up the air defense plan.

The air defense plan establishes:

- What to screen when, where and for what time;
- The air warning system;
- The distribution of air defense resources, their missions, procedure of displacement by tactical (march) phases, and their control;
- Organization of interworking of air defense resources;
- Measures for protection of the troops and the rear using one's own resources;
- Interworking with the air defense system of adjacent units [chast'] and the national air defense system.

Radio receivers tuned to the adjacent units' frequency are assigned in unit [soyedineniye and chast'] headquarters for receiving radio signals from adjacent units. Signals received are immediately transmitted to the troops being served, on one's own frequency.

130. The *air alarm signal* is given by an air observation post on detecting a group of enemy aircraft (at least three).

It is categorically prohibited to use the "Air Alarm" signal for other purposes.

The entire operating network of wire and radio communications is used for transmitting signals from air observation posts.

Warning signals are transmitted above all precedence. All kinds of conversations (traffic) cease regardless of their precedence. The cessation of conversations occurs in response to the password "Air" (by telephone) or "VZD" (by telegraph).

A warning signal received by a station (radio station, communications center) is transmitted immediately to the nearest fighter aviation airfield, anti-aircraft weapons, subordinate units [chast'], adjacent units, the rear, higher headquarters, the deputy commander of army artillery for PVO, and the nearest national air observation post.

A radio signal from air observation posts is transmitted continuously for no more than 30 seconds.

131. All anti-aircraft weapons make ready for action in response to an air alarm signal. Troops take the following steps while continuing to perform their missions: subunits and machineguns specially assigned in each company (battery, troop) make ready to conduct fire against airborne targets; air observation is reinforced; medical aid stations prepare to give immediate assistance.

4. Antitank Defense

132. Antitank defense is organized by the senior unit commander and consists of an observation and warning system; the organization of antitank fire echeloned in depth and creation of all kinds of obstacles; a countermanceuver of friendly antitank weapons; and measures to shelter the personnel.

Commanders at all levels also must organize antitank defense in all instances.

133. Antitank observation and warning is assigned to aircraft in the air, to all security and reconnaissance subunits, and to air warning posts. They give the signal "Tanks" on detecting the movement of enemy tank units.

134. The primary weapons for destroying tanks and repulsing a tank attack are artillery fire, minefields, friendly tanks and combat aviation and, in addition, antitank rifles at close ranges.

Antitank hand grenades, antitank mines and incendiary weapons are effective infantry close combat weapons against tanks.

Natural and manmade antitank obstacles serve as a reliable protection against tanks only in combination with fire.

Troops on the most important axes are reinforced by antitank regiments and special antitank units [soyedineniye].

135. *Troops always must be ready to repulse a tank attack.* To do this they must conduct continuous observation and keep all antitank weapons in constant readiness for action.

Artillery firing positions should be selected on avenues of probable tank attacks so that the bulk of artillery can participate in repulsing the tanks. Firing positions are organized with antitank obstacles.

Staffs and command posts should be located in areas inaccessible to tanks.

136. In offensive combat and especially in a meeting engagement antitank guns should be drawn up behind the attacking infantry and tanks in every way possible and there must be strong means of antitank defense on exposed flanks.

137. Troops in the defense take advantage of natural and manmade antitank areas (the forest, settlements with stone structures, areas protected by marshy and flooded sectors, deep ditches and so on); and they organize a fire plan with available regimental and antitank guns and antitank rifles in combination with minefields and with engineer organization of the terrain.

138. If resources are available a *mobile antitank reserve* is assigned. It consists of motorized subunits of antitank artillery, antitank rifles, and combat engineers with mines and it is located on an avenue of probable enemy tank actions.

In the defense axes of possible actions by the mobile antitank reserve are reconnoitered and prepared in the engineer sense in advance (roads, bridges, zones of fire).

Combat engineers are employed for laying mines and building engineer obstacles on the avenues most accessible to tanks.

5. Antichemical Protection

139. The antichemical protection of troops is organized by commanders at all levels and consists of measures for warning, for disrupting an enemy chemical attack, for protection during the attack and for mopping up its aftermath.

140. The following is necessary for warning troops about an enemy chemical attack:

- Collection of information about chemical offensive weapons and methods of their employment and concentration by the enemy;
- Terrain reconnaissance to establish contaminated sectors, to determine chemically dangerous areas and to identify local features for organizing antichemical protection.
- Organization of chemical observation and warning;
- Weather reconnaissance.

141. Measures of troop protection against chemical attack:

- Disruption of the enemy's preparation or an attack which has begun by artillery and mortar fire and by vigorous actions of ground troops and aviation;
- Relief of units and subunits in case of prolonged chemical effects on the troops;
- Bypassing or crossing contaminated sectors;
- Use of individual and collective means of protection.

142. The following is necessary for mopping up the aftermath of a chemical attack:

- Assistance to victims of toxic agents;
- Chemical decontamination of weapons, combat equipment, clothing, transport, rations and forage, and water;
- Determining the boundaries of contaminated sectors, denoting them with clearly visible signs and markers, and warning troops about them;
- Organization of passages on contaminated terrain or chemical decontamination of contaminated sectors.

143. The antichemical protection plan is drawn up by the unit [soyedineniye or chast'] staff. It includes:

- Organization of chemical reconnaissance, chemical and meteorological observation and warning;
- Measures to disrupt an enemy chemical attack;
- Instructions on troop actions in case of chemical attack;
- Procedure for supplying troops with means of antichemical protection and for use of local means;
- Distribution of antichemical protection subunits and their missions;
- Organization of medical and veterinary assistance;
- Organization of chemical decontamination of the terrain, weapons, hardware, clothing and gear.

6. Camouflage

144. Camouflage is a mandatory form of combat support to each action and operation.

The missions of camouflage are to assure concealment of the maneuver and concentration of troops for the purpose of delivering a surprise attack; to mislead the enemy relative to our forces, weapons, actions and intentions and thus force him to make an incorrect decision.

145. Misleading the enemy is achieved:

- By concealing real objects from enemy reconnaissance and observation;
- By changing the external appearance of objects;
- By setting up dummy objects and by feints;
- By spreading false rumors;
- By sound discipline and by artificial noises;
- By camouflaging the operation of radios, by setting up dummy radio nets and by radio deception.

Camouflage is based on principles of naturalness, diversity, continuousness and activeness of camouflage measures.

146. The overall plan for camouflage measures is drawn up by the military unit [soyedineniye] staff based on the concept of its commander. The plan must indicate camouflage missions by separate phases of preparation and in separate periods of combat, the nature of camouflage measures, the location and time of their execution, and superiors responsible for execution of these measures.

147. All camouflage measures are executed by the troops themselves, who must be able to camouflage themselves to perfection. Commanders at all levels must take all steps to conceal their units and subunits in all instances of combat activity without awaiting special instructions.

The Engineer Troops have the responsibility for installation of large-area screens and the work of concealing especially important installations requiring special preparation.

Successful concealment of troops requires their strictest observance of camouflage discipline.

A check of the status of troop camouflage is made by ground and air observation for verification and by aerial photography.

148. Dummy installations of operational importance are set up by engineer troops reinforced by other combat arms.

Separate dummy facilities of a tactical nature are erected by the troops themselves by direction of the unit or subunit commanders.

Feints and the spreading of false rumors are accomplished only under the overall army and front plan of camouflage measures.

Chapter 7 - Offensive Combat

1. Fundamentals of Offensive Combat

149. A decision to defeat the enemy must be irrevocable and taken to completion. A desire for victory must be in the head and heart of every superior: they must instil this resolve in all their subordinates.

The one who is bolder and more determined wins in combat.

150. The main objective of offensive combat is a total rout of the enemy.

This is achieved by hitting the enemy with powerful fire of all weapons and an attack to the entire depth of his defense, as well as by the resolute forward movement of the entire combat formation.

151. The nature of offensive combat depends on the mission being accomplished, the attacker's forces and weapons, the form of the enemy's defense and strength of the enemy's resistance.

An attack requires the concentration of superior forces and weapons on the axis of main attack.

152. Offensive combat can develop under various conditions:

--Attack on an enemy who has prepared a defense in advance under field conditions.

In this instance the attack will have the nature of a simultaneous neutralization of the entire defense zone with a subsequent penetration, encirclement, capture or annihilation of the enemy. Such an attack requires preliminary preparation.

--Attack on a fortified area or heavily fortified enemy positions.

In this instance the attack is conducted by the successive seizure of strong-points and penetration of fortified zones. It requires powerful means of destruction and a more lengthy preparation.

--Attack on an enemy who assumed a hasty defense or who is employing a mobile defense, and on an enemy who is disorganized by previous fighting or has not succeeded in occupying and setting up in a previously prepared fortified position.

In this situation an immediate assumption of the offensive or a surprise attack with a penetration of the enemy position is most expedient. This mission can be executed not only by rifle units [soyedineniye], but also by tank, mechanized or cavalry units reinforced by artillery and supported by a powerful air strike.

In all instances the attack can begin either from a position of immediate contact with the enemy or it can be preceded by an approach to the enemy's defense zone.

153. An attack can have different forms: a frontal blow for the purpose of penetration, close or deep envelopment, and a combination of them.

154. The *frontal blow* for the purpose of penetration is employed when the enemy lacks exposed flanks. It is the most frequent form of offensive combat.

In penetrating a front the troops delivering the frontal blow have as their primary mission annihilation of the enemy in the zone of penetration and the formation of exposed flanks in the enemy disposition.

This is achieved:

--By a superiority in forces and weapons, and above all in artillery, mortars, tanks and aircraft on the main axis;

--By hitting the entire depth of the enemy defense with the fire of mortars, artillery and aircraft;

--By the incursion of tanks, tank-mounted assault forces and infantry into the enemy disposition;

--By penetration of tank, mechanized and cavalry units [soyedineniye] into the enemy rear;

--By splitting up the enemy combat formation into separate scattered sectors with the annihilation or capture of their garrisons piecemeal;

--By resolute actions by airborne assault forces conducted in the enemy rear.

The frontal blow for the purpose of penetration usually is organized and conducted at the army (corps) level. In organizing the penetration, the army

(corps) commander provides for its development in the depth or toward the flanks for the purpose of defeating the enemy's main body.

155. The frontal blow for the purpose of penetration can be accomplished:

--In the form of an attack in one sector of the front with its subsequent development in depth or toward one or both flanks; this form of the offensive provides an opportunity of splitting the enemy front into two parts and annihilating the enemy in detail by means of a deep or close envelopment of the flanks which are formed;

--In the form of simultaneous attacks by concentrated forces in two sectors of the front with a subsequent development of these attacks along converging axes; this form of the offensive provides an opportunity of splitting the enemy front into several parts with the subsequent encirclement and defeat of their central grouping, and it is employed when the unit [soyedineniye] has a considerable superiority in strength.

156. Depending on the situation, the frontal blow for the purpose of penetrating the enemy front can be accomplished:

--By rifle units [soyedineniye] reinforced by mortars, artillery, tanks and aircraft, with subsequent exploitation of the penetration by reinforced tank, mechanized and cavalry units;

--By tank and mechanized corps reinforced by howitzer and antiaircraft artillery, aircraft, and heavy tanks where possible.

A penetration by tank or mechanized corps can be executed only when the enemy has a weak antitank defense or if the enemy has not managed to prepare for defense on the position he holds.

157. The *close envelopment* is accomplished in fire coordination with units [chast'] attacking from the front for the purpose of striking the enemy flank and rear. One should strive for a close envelopment in any encounter with the enemy and when a penetration of his front has formed.

158. The *deep envelopment* provides an opportunity of delivering an attack directly against the rear of the enemy combat formation and requires speed, surprise and boldness of actions. It must be accomplished by rather large forces with both their flanks secured without fail.

Tanks with tank-mounted assault forces, aviation, motorized infantry and cavalry contribute to speed in executing a deep envelopment.

The deep envelopment should be employed every time an enemy flank is discovered or when a flank has formed during combat.

159. The most decisive results can be achieved in an attack from a close or deep envelopment of both enemy flanks.

Commanders and troops always must execute a close or deep envelopment of enemy flanks daringly and persistently.

160. The preparedness of units [chast'] for combat, thorough organization of the attack itself and precise, firm command and control are of greatest importance for success of an attack.

This requires:

- Knowledge of the enemy and his defensive system;
- Proper choice of the axis of main attack and the concentration of superior forces and weapons on it;
- Proper choice of time for beginning the attack with consideration of weather conditions;
- Strict secrecy concerning the impending attack, a stealthy concentration and movement of troops to the initial position, and surprise of the attack;
- Continuous coordination of the combat arms assuring neutralization of enemy personnel and destruction of enemy weapons and defensive works;
- Engineer organization of the initial position (roads, bridges, field works, camouflage);
- Organization of continuous communications;
- Organization of troop logistical support.

161. The attack frontage and width of the sector of main attack are determined by the assigned mission, by the available forces and means of neutralization, by terrain conditions and by the nature of the enemy defense. The terrain must facilitate the interworking of combat arms and fullest employment of artillery and tanks.

The main attack is delivered on an axis of decisive importance for routing the main enemy grouping.

A secondary attack is delivered on an axis which threatens stability of the enemy defense, for the purpose of diverting his reserves.

A division of average strength operating as part of an army's main grouping receives a zone of advance of around 4 km and at least 3 km wide.

162. An army (corps) on the axis of main attack usually will have two echelons.

Divisions (brigades) of the army (corps) first echelon and regiments (separate battalions) in divisions (brigades) are given zones of advance and assigned missions--immediate and subsequent--according to depth.

163. The army (corps) second echelon is employed for achieving continuity of a powerful attack until total defeat of the enemy grouping under attack, for

building up the force of the blow from the depth, for relieving first echelon divisions which have suffered heavy losses, for exploiting and consolidating success, and for repulsing an enemy counterblow.

The mission usually is assigned to units [soyedineniye] of the army (corps) second echelon during combat. The division artillery of these units is used for operations with the first echelon for the period of artillery preparation and support of the attack on the axes of their probable employment.

The distance of the army (corps) second echelon from the first echelon must assure the second echelon's prompt commitment. Depending on terrain, divisions of the army second echelon are disposed 7-12 km from the front line of first echelon divisions.

The interworking of the second echelon with artillery, tanks and aircraft is prepared before the second echelon's commitment and is updated on receipt of a mission.

2. Troop Movement to Initial Position for the Attack and Organization of Reconnaissance

164. Newly arriving troops earmarked for an offensive are disposed in concentration areas providing a concealed location 25-30 km from the breakthrough sector.

In order to preserve concealment troops arriving by railroad detrain far from concentration areas and across a broad front.

All movements to concentration areas take place only at night.

165. The movement of attacking troops to the enemy defensive zone can take place:

- By the troops' stealthy occupation of an initial position for the attack during the night, when opposing sides already are in immediate combat contact;
- During combat actions of the main body when it is pursuing an enemy withdrawing his troops for occupation of a new defensive line;
- By an approach march of the main body and combat of advance guards, when the enemy has succeeded in breaking off contact and taking up a defense at a considerable distance from the attacking troops.

166. In organizing ground and aerial reconnaissance, first study the data on the enemy already available to the troops and assign missions to reconnaissance for clarifying his grouping of forces, weapons and defense system to its entire depth.

All forms of reconnaissance must be used to establish the strong and weak places in the defense (strongpoints, intervals, boundaries, flanks); where weapons, reserves, tanks, and command and observation posts are located; what kind of antitank and antipersonnel obstacles there are and where.

Special importance is assumed by reconnaissance of the enemy forward edge of defense for the purpose of uncovering the fire plan, antitank and antipersonnel obstacles, and mined sectors and determining the presence of permanent installations.

167. Aerial reconnaissance is employed for uncovering the entire enemy defense system.

Systematic and repeated, continuous photography of the enemy defense zone is mandatory in all instances.

By the moment the decision is made for an attack, commanders of all units [chast'] operating on the main axis down to the commanders of [combined-arms] and artillery battalions inclusive are provided with large-scale maps or mosaics augmented by data from all forms of reconnaissance. Such charts and mosaics must be sent out no later than 2-3 days before the beginning of an offensive.

168. Reconnaissance of enemy defense is conducted continuously. It must detect possible enemy regroupings, clarify approaches and obstacles ahead of the forward edge of the defense zone and capture prisoners (night raids).

Artillery, tank, chemical, engineer and signal reconnaissance is conducted simultaneously with combined-arms (infantry) reconnaissance; all its data must be used immediately by the combined-arms staff.

169. Commander's (senior commanders') reconnaissance is organized without fail prior to making a decision for combat. It is conducted stealthily and must not reveal our intentions to the enemy.

Previously organized observation of the enemy is reinforced.

Command personnel are assigned as observers on the axis of main attack.

170. An attack from an area of immediate contact with the enemy usually is preceded by a regrouping of forces executed under a plan approved by the army commander.

Troop regroupings must be as simple as possible, carried out in short periods of time and executed in secrecy from the enemy, primarily at night.

The plan for a regrouping of troops must provide for:

--Concentration areas and initial areas prior to a relief of units [chast'] holding the positions;

--Movement routes and areas for day halts;

--Beginning and end of regrouping for each unit [soyedineniye] separately;

--Sequence of regrouping and traffic control on movement routes;

--Organization of continuous communications (by wire, by mobile means and by radio signals);

--Measures for ground and air cover.

Screening units [chast'] move above all to support a concentration of troops in case the enemy moves into the offensive, then the artillery and other units of the main grouping move. Tanks move last of all.

171. Units [soyedineniye and chast'] which have regrouped for delivering the main attack receive all necessary data on the enemy before arriving in the areas of the initial position, from the units previously located there.

172. The disposition of an attacker in an area of immediate contact with the enemy provides great opportunities for thorough reconnaissance, for a study of the defense and for advance preparation of the attack. Steps must be taken to keep one's intentions from being revealed to the enemy prematurely. To this end it is prohibited to assign subunits to reconnaissance and battle outposts from the troops being newly assembled or to increase the number of aircraft sorties for reconnaissance. Reconnaissance and battle outposts must be accomplished by troops who previously occupied this sector of the front.

Under the given conditions preparatory measures may occur in the following sequence:

--Preparation and organization of terrain as a springboard for the attack (the building of roads and bridges, development of fire trenches, connecting passages, troop shelters and firing positions, and camouflage);

--Organization of communications and control; organization of command and observation posts;

--Delivery of the ammunition, fuel and equipment necessary for the attack; organization of field depots;

--Arrival of troops from the depth and occupation of an initial position for the attack.

All these measures must be carried out while strictly observing camouflage.

173. Units [soyedineniye or chast'] advancing from the depth to initial areas are disposed in concealment outside of effective enemy artillery fire in the last march so as to have the opportunity of occupying the initial position for the attack after a short night march. The artillery's deployment at new firing positions must be completed no later than 24 hours before the beginning of an attack.

Artillery must screen the troops in occupying an initial position for the attack and secure them against an enemy counterblow.

To this end the artillery advances in echelons; after organizing a fire plan the first echelons screen the deployment of the subsequent echelons of combined-arms units [soyedineniye] and artillery units [chast'].

The units [soyedineniye or chast'] occupy the initial position 24 hours before the beginning of an attack under the plan approved by the army commander so as to give attacking troops time to study the terrain, the enemy and the attack objectives.

174. *Relief of troops* must be especially concealed, thoroughly organized and, as a rule, conducted at night.

Commanders of the divisions (brigades) being relieved must:

- Pass on to the relief units all data on the enemy, his fortifications, weapons, minefields, and antipersonnel and antitank obstacles;
- Pass on their own diagrams of fortifications and minefields;
- Draw up, together with the commander of the relief division (brigade), a plan for relief of units [chast'] indicating the relief sequence, initial areas, routes, and distribution of connecting passages;
- Prepare guides;
- Secure the units being relieved against a surprise enemy attack;
- Transfer primary lines of wire communications;
- Report the relief to the senior commander.

Commanders of the relief divisions (brigades) must:

- Thoroughly study all situation data;
- Draw up a plan for relief of units together with the commander of the division (brigade) being relieved;
- Organize the concealed approach of units for relief;
- Follow the prescribed sequence and routes;
- Report acceptance of the sector to the senior commander.

In case of an enemy attack during a relief the commander of the division (brigade) being relieved controls combat.

175. The movement of attacking troops to a defense zone, during combat against an enemy screening the withdrawal of his forces to a new defense line, is accomplished in combat formations. The movement consists of a rapid surmounting of enemy resistance on lines, inflicting local defeats on him, and preventing him from occupying and organizing a defense on a planned basis, so as to burst into the defense zone on the heels of retreating troops.

In case the enemy nevertheless has succeeded in halting attacking troops ahead of a defense zone, further attack is conducted as from an area of immediate contact with the enemy.

176. If the enemy occupies a defense zone a considerable distance from the attacking troops, the approach to it consists of crossing obstacles, routing

the forward enemy units [chast'] and battle outposts and moving troops to concentration areas for subsequent deployment.

In this case the approach to the enemy defense zone is accomplished under cover of advance guards and air defense weapons and accompanied by all means of ground and aerial reconnaissance.

177. The mission of advance guards in approaching the enemy defense zone is:

- To cross obstacles and rout the units [chast'] defending them;
- To rout battle outposts and establish contact with the main defense zone;
- To reconnoiter its forward edge;
- To seize a favorable line for supporting the main body's deployment.

178. The actions of advance guards in approaching the enemy defense zone must be bold and resolute.

Advance guards receive the attachment of strong artillery, mortars, tanks, combat engineers and means of antichemical protection.

Advance guards must be supported by aviation.

Advance guards assign special breaching teams to support their advance.

Advance guards must strive to occupy a line for the main body's deployment as close as possible to the forward edge of the defense zone and to seize points providing for observation in the enemy's direction.

If the defense has been caught unawares, is not ready or is weakly occupied the advance guard must burst into the enemy's defense zone on the heels of his retreating security forces.

The division (brigade) commander must follow the development of advance guards' combat attentively, and promptly determine the ultimate mission of their attack.

179. The speed with which the main body crosses an obstacle zone depends on the speed of the advance guard's forward movement, of clearing the terrain and of restoring roads and bridges.

Special breaching teams from infantry, combat engineer and antichemical subunits, supplied with all necessary means, are dispatched for clearing the terrain behind the advance guards. Their missions are to organize passages in obstacles for the main body's unhindered movement and to clear the areas of the main body's deployment and initial lines for the attack.

The successful crossing of obstacles demands thorough reconnaissance. All objects, facilities or structures left by the enemy must be inspected and rendered harmless.

Special subunits of combat engineers and infantry are assigned for restoring roads and bridges.

180. The main body concentrates in sheltered places while advance guards are fighting enemy security forces. A portion of the main body's artillery, including long-range artillery, deploys for supporting advance guard actions.

The main body must be ready to repulse enemy counterattacks, especially tank counterattacks and attacks from the air. It is necessary to rout an enemy who has moved into a counterattack and to burst into the defense zone on his heels.

181. When a decision for an attack has been made the troops immediately begin preparing initial positions for the attack as close to the enemy as possible. Firing positions, command posts and observation posts are organized, communications is set up, and slit trenches, covered positions and connecting passages are dug for this purpose.

3. Organization of Frontal Blow for Penetration

182. The decision by an army (corps) or division (brigade) commander for a penetration specifies:

- Immediate and subsequent missions for the army (corps) and division (brigade);
- Axis and sector of main and secondary attacks;
- Grouping and missions of the troops;
- Organization of the artillery and air offensive;
- Measures for troop combat support and for repulsing enemy counterattacks;
- Directions for the rear: where to have what kind of supplies, rates of expenditure and delivery sequence;
- Organization of control;
- Time for beginning of attack.

183. The army (corps) commander exercises immediate control over combat of military units [soyedineniye] on the main axis. Divisions (brigades) operating on a secondary axis (or sector of the front) remain in immediate subordination to the army (corps) commander or are placed together in an operations group.

All instructions for the penetration must be issued so that at least 24 hours remain for arranging coordination on the ground between the infantry and the artillery, tanks and aircraft before the beginning of the attack.

184. Seizure of the second defense zone must be included in the tactical plan when penetrating a deliberate defense.

185. The army (corps) commander sets the day and hour for beginning of the attack, which is made known to subordinate commanders by a special instruction.

186. Artillery and mortars prepare and support the offensive and attack to the entire depth of the defense zone penetration.

An *artillery offensive* consists of the continuous support of infantry by massed effective artillery and mortar fire throughout the period of an attack. Artillery and mortar fire must lead the infantry and tanks into the attack from one defense objective to another.

An artillery offensive is subdivided into periods:

- Preparation of the attack,
- Support of the attack,
- Support of infantry and tank actions in the depth of the enemy defense.

Artillery preparation has the purpose of disorganizing enemy control and observation, disrupting the defensive fire plan and making passages in obstacles even before the attack begins. It usually is conducted on the day of the attack and is a very important means of its support.

Artillery support [podderzhka] has the mission of preventing the enemy from re-establishing the disrupted fire plan and neutralizing weapon emplacements which come alive with the beginning of an attack, and supporting the rush of the infantry and tanks into the attack and capture of strongpoints on the enemy's first line of defense.

Artillery support [obespecheniye] to development of combat in the depth has the purpose of providing the attacking troops with effective and continuous assistance in overcoming enemy resistance in the depth of the defense and, maneuvering by fire and movement, accompanying the infantry and tanks from one objective to another to the entire depth of the attack.

187. Artillery and mortars perform the following missions in the period of artillery preparation:

- Destroy detected antitank guns and neutralize areas of their probable location;
- Destroy flanking weapon emplacements and neutralize weapon emplacements firing to the front and enemy personnel in trenches;
- Demolish the most important fortifications and make passages in antipersonnel and antitank obstacles if the tanks themselves have no opportunity to make them;
- Neutralize tactical reserves and observation and command posts and demolish communications centers;
- Destroy or neutralize enemy artillery.

Artillery and mortars are employed with the maximum rate of fire in accomplishing these missions. It is prohibited to employ a more powerful piece or rounds if a given target can be destroyed by a mortar or a piece of lesser power.

Artillery preparation can vary depending on development of the defense.

In the absence of permanent installations in the enemy defense plan, the primary form of artillery preparation is a massed fire strike against decisive defense sectors on the forward edge and in the depth.

Artillery preparation can begin as a surprise, brief but powerful fire assault (10-15 minutes) against the entire depth of defense to disorganize control (break up communications, smash headquarters) and observation and to inflict damage on enemy artillery and personnel caught unawares. Individual detected weapon emplacements are destroyed by deliberate fire in the interval between fire assaults.

The direct fire of individual 45-mm to 152-mm pieces, drawn up secretly in advance to a distance of 500-1,000 m from the forward edge of enemy defense, is used to demolish reinforced-concrete pillboxes and earth-and-timber pillboxes on the forward edge of enemy defense. These pieces are located in covered emplacements prepared for them.

With considerable development of enemy fortifications, their destruction will comprise a special period of artillery preparation. Destroying fortifications, making passages in obstacles and neutralizing enemy artillery and mortars also can be partially accomplished during preparation of the offensive on the eve of the attack.

In a number of instances there will be an opportunity to employ a night artillery preparation and to complete it at dawn prior to the attack.

To lead the enemy astray with respect to the moment of the beginning of an attack, it is advisable to conduct dummy transfers of fire in the period of artillery preparation, combining them at times with feints by strong reconnaissance units [chast'].

188. In all instances artillery preparation of the attack concludes with a fire assault against the forward edge and sectors of the immediate depth of defense.

The transfer of artillery fire from the forward edge into the depth of defense must preclude any possibility of a separation between the end of artillery preparation and beginning of the attack. Therefore a transfer of artillery fire is done only after a check to see that the infantry has moved into the initial position and is ready for the attack.

When artillery fire is transferred into the depth the direct fire of mortars and pieces against the forward edge is stepped up and conducted to the last opportunity.

Duration of artillery preparation is determined by the amount of concentrated guns, mortars and ammunition and the nature of enemy fortifications.

Artillery preparation is reinforced by the actions of combat aircraft.

The conduct of artillery preparation must not be stereotyped either with respect to the time of its beginning and end or with regard to the methods of conducting fire.

189. Artillery and mortars perform the following missions in the period of support to the attack of infantry and tanks:

--Infantry close-support artillery and some mortars transfer fire into the depth and to the flanks to give fire cover to the infantry and tanks attacking the forward edge and strongpoints of the first line of defense;

--Regimental and antitank artillery and individual pieces of division artillery use direct fire to destroy newly detected weapons and weapons which have come to life;

--Long-range artillery together with aircraft conducts counterbattery fire, blinds distant observation posts, and destroys reserves, communications centers and headquarters.

Depending on the nature of enemy defense, completeness of information about the disposition of defense weapons and the amount of friendly artillery, artillery support [podderzhka] can have different forms:

--Rolling barrage;

--Successive fire concentration against the most important defense installations;

--Use of these two forms of fire together.

In all instances artillery and mortars must be ready for a rapid and powerful concentration of fire against defense sectors offering the most stubborn resistance.

190. As a rule, artillery preparation and support [podderzhka] of the attack before the artillery begins to move forward must be conducted using the ammunition stacked on the ground.

191. Artillery and mortars perform the following missions in the period of the development of combat in the depth:

--Infantry close-support artillery and some mortars successively neutralize enemy resistance ahead of the attacking troops' frontage as well as those sectors on the flanks and in the depth of defense from which enemy fire pressure and observation is being conducted or is possible; they prevent his counterattacks and cut off the enemy's withdrawal routes;

--Long-range artillery continues counterbattery fire, neutralizes strongpoints in the depth of defense, and prevents the maneuver of reserves;

--Regimental artillery, antitank artillery and individual pieces of division artillery, moving in the infantry combat formations, use direct fire to destroy weapons hindering the infantry's advance and repulse enemy tank counterattacks.

When the infantry has taken strongpoints of the first line of enemy defense infantry close-support artillery changes positions, moving forward by echelon so that the greater part of the artillery can support the infantry and tanks continuously with its fire and so that no more than one-third of the artillery is moving to new firing positions.

Detachments for accompaniment of artillery can be assigned to each artillery group from rifle and combat engineer subunits by instructions of the army (corps) commander and division (brigade) commanders to support the artillery's rapid movement in combat and to cover it.

Infantry (cavalry) always must assist and help out in combat the artillery attached to or supporting them.

With the development of combat in the depth a portion of the infantry close-support artillery is resubordinated to the commanders of rifle regiments (separate battalions). The division (brigade) commander keeps the necessary number of batteries in his hands for direct pressure on the enemy by means of concentrated fire.

Regardless of the subordination of artillery, senior artillery commanders must be ready to unite in their hands the actions of supporting and reinforcing artillery against the most important defensive points in the period of combat in the depth of enemy defense.

192. Special *tank support guns* for the purpose of combating enemy antitank guns and tanks and accompanying friendly tanks by movement are assigned to support a tank penetration through the forward edge of defense and combat in the depth.

193. The army (corps) commander distributes attached artillery among divisions (brigades); determines the make-up of the army (corps) artillery group and its division into subgroups; establishes the procedure for deployment and artillery's readiness time for opening fire; determines the beginning of an artillery offensive, duration of artillery preparation, procedure for support [podderzhka] of an attack and support [obespechniye] of combat in the depth, and ammunition expenditure; approves the firing position areas for the army (corps) artillery group; and establishes the procedure for resubordination of subgroups to division (brigade) commanders as combat progresses.

In addition the army (corps) commander assigns missions to the army (corps) artillery group for countering enemy artillery, for neutralizing deep reserves, for disrupting the work of the rear, for preparing a fire concentration on the most important axes, for isolating penetration sectors, and for demolishing especially strong enemy defensive works.

194. The division (brigade) commander determines the make-up of infantry close-support artillery groups and approves their firing position areas, establishes the procedure for resubordinating artillery to regimental (separate battalion) commanders as combat progresses, and determines the procedure for mutual orientation of artillery, tanks and infantry.

The division (brigade) commander assigns missions on the ground for destruction of the most important fortifications; for destruction and neutralization of the antitank and antipersonnel defensive fire plan in sectors which are of great importance for the entire unit [soyedineniye]; for supporting the attack on the forward edge and for supporting infantry and tank actions as combat in the depth progresses.

195. Tanks attached to divisions (brigades) on the axis of the army (corps) main attack are employed in close coordination with the infantry as its close-support tanks. Tank actions must be bold and daring.

The primary mission of tanks is to destroy enemy infantry and gun and mortar crews and support the advance of attacking friendly infantry to the entire depth of the enemy defense.

Tanks are committed only after sufficient fire preparation.

Separate breakthrough tank regiments armed with heavy tanks operate in close coordination with the infantry and artillery as a means of reinforcement for penetrating a defense. After accomplishing the penetration mission these regiments assemble in concentration areas to repel possible enemy counterattacks.

One combat engineer company is attached to each tank brigade and an engineer battalion is attached to larger tank units [soyedineniye] for clearing mines from the terrain in the zone of tank attack and for making passages across obstacles.

A tank attack must be sudden, massive and continuous. It is prepared, supported and accompanied by artillery and mortar fire and by aircraft to the entire depth of penetration.

196. When a forward edge of defense is located behind natural barriers or behind powerful antitank obstacles, tanks attack after the infantry breaks the forward edge of defense in coordination with artillery, mortars and aircraft and supports the tanks in crossing antitank obstacles.

197. Air actions in offensive combat develop in the form of an air offensive, which consists of two periods:

--Preparation of the attack;

--Support of the attack and actions by infantry and tanks in the depth of the enemy defense.

Air preparation has the purpose of exhausting enemy troops by continuous day and night attacks from the air; neutralizing identified enemy weapons before the beginning of an attack; breaking up communications and disrupting control; and demoralizing enemy troops.

It begins long before the beginning of the offensive with night operations by lone aircraft across a broad front and with day attacks by groups of aircraft against concentrations of enemy troops and their strongpoints; it concludes immediately before the attack of ground troops with a mass attack by major air forces in the sector selected for delivery of the main attack.

Air support of the attack and actions of infantry and tanks in the depth of the enemy defense consists of the periodic neutralization by attack and bomber aircraft of enemy weapons hindering our troops' advance at the call of combined-arms and tank commanders or at the initiative of the air unit [soyedineniye] commander. The appearance of attack aircraft and bombers should be timed for the moments friendly artillery fire weakens. In addition, by attacking the enemy's tactical reserves aircraft secure the friendly troops' offensive against enemy counterattacks.

198. Aircraft perform the following missions in the period of air preparation of an attack:

- Destruction of enemy artillery at firing positions;
- Neutralization, demoralization and exhaustion of enemy troops located in the defense zone;
- Neutralization of identified antitank guns and operations against their supposed locations;
- Disruption of control by strikes against communications centers;
- Disorganization of supply on lines of communication;
- Screening the main grouping of friendly troops, in the initial position for an attack, against air strikes.

199. Aircraft perform the following missions in the period of attack and combat in the depth of the defense zone:

- Neutralization of enemy artillery and antitank guns identified in the course of combat;
- Vectoring of tanks against attack objectives;
- Prevention of enemy counterattacks by inflicting damage on his tactical reserves and prevention of an approach to the battlefield by operational reserves;
- Disorganization of movement in the enemy rear along routes leading to the battlefield;
- Screening the main grouping of friendly troops against air strikes.

200. Missions are assigned to aviation for air preparation of an attack by the army commander, and in some cases by the front commander when all aircraft are being employed in one narrow sector of the front.

201. *Airborne assault forces* perform the following missions:

- Disorganizing control and the enemy rear;
- Preventing an approach by his reserves;
- Occupying important points and lines on enemy withdrawal routes and capturing or annihilating him together with the pursuing units.

202. *Engineer support* to offensive combat increases the rates of advance by tanks, infantry and cavalry and the forward movement of artillery.

This is achieved by:

- Continuous engineer reconnaissance of the enemy defensive system and terrain;
- Removal of obstacles and preparation of the troops' initial position for the attack;
- Camouflage of the troop concentration and initial positions;
- Preparation of means for artillery, tanks and the attacking infantry to cross obstacles and assistance to them in so doing;
- Laying crosscountry routes and building roads, bridges and crossings;
- Consolidation of captured lines;
- Screening boundaries and exposed flanks with obstacles;
- Preparation of landing strips for aircraft;
- Reconnoitering and obtaining water.

203. Engineer units [chast'] from other sectors of the front must be included by the front and army command element in work in the sector of an upcoming penetration when preparing for an offensive.

204. An *antitank defense* ensures constant troop readiness to repulse a tank attack. It is organized by commanders at all levels. The guns of antitank and regimental artillery advance in the infantry combat formations with the beginning of an offensive.

205. A mobile antitank reserve accomplishes the following missions in an offensive:

- Secures the main grouping of attacking troops against enemy tank counterattacks on the most likely axes;
- Destroys counterattacking enemy tanks and above all tank groups threatening the flanks and rear of attacking troops;
- Consolidates in the antitank sense the points and lines occupied by our units;
- Accompanies tanks pursuing the retreating enemy;
- Supports a tank advance by eliminating centers of antitank resistance in the attack zone on secondary enemy defense lines.

206. *Air defense* is organized so as to screen the main army grouping by the concentrated fire of air defense weapons.

Antiaircraft artillery deployment areas are moved as close as possible to the forward edge of enemy defense in order to avoid an immediate change of firing positions with a move into the attack.

Small-caliber antiaircraft artillery and antiaircraft machineguns advance in the combat formations of attacking units [chast'].

Air defense weapons advance by echelon.

207. *Antichemical protection* is accomplished by:

- Constant reconnaissance of axes most dangerous in the chemical sense;
- Moving up the bulk of chemical decontamination resources with the troops on these axes;
- Providing the attacking troops with means of individual antichemical protection and means for crossing contaminated sectors.

208. *Organization of communications* in offensive combat must assure continuity of tactical control to the entire depth.

This is achieved by:

- Extensive use of radio communications, mobile equipment and liaison officers;
- Timely deployment of wire lines as the battle progresses for the prompt provision of communications from new command posts;
- Moving up necessary resources from the reserve for reinforcing the axes;
- Availability of a general reserve of signal forces and resources.

209. *Topographic preparation* in offensive combat consists of updating maps of the operating area, primarily on the axis of main attack, supplying coordinates of geodetic control points to new artillery firing position areas, and supplying troops with graphic documents necessary for combat.

210. The staff of each unit [soyedineniye or chast'] organizes commandant's service and traffic control for maintaining general order in the area of troop deployment and in the rear and for seeing that the troops follow measures for camouflage and concealment.

211. If time is available, the staffs of armies (corps) and divisions (brigades) preparing for an attack must arrange classes in advance with command personnel and staffs on the terrain for a detailed run-through of the tactical theme of a penetration.

To maintain secrecy, such classes also must be conducted in sectors where no attack is planned.

4. Organization of Coordination of the Combat Arms

212. The primary mission of combat arms' coordination in an attack is for the artillery, aviation and combat engineers to support tanks and infantry in rushing into the attack, seizing strongpoints of the first defense line and attacking in the depth.

When the main defense line has been penetrated, the primary efforts of artillery, tanks, aircraft and engineer troops are shifted to supporting the commitment of mobile units [soyedineniye] to the penetration.

213. Coordination is organized by the army commander and unit [soyedineniye] commanders on the terrain with the participation of their staffs, chiefs of combat arms and unit [chast'] commanders. They must precisely define who coordinates with whom, when and for what purpose.

The army commander and unit [soyedineniye] commanders must:

--Define the mission and attack frontage for every unit [soyedineniye or chast'];

--Establish the sequence of mission accomplishment by each combat arm;

--Together with infantry, artillery, tank, air and engineer commanders, clarify on the ground the axes and objectives for the actions of infantry and tanks;

--Determine for artillery and aircraft the targets to be destroyed or annihilated and sectors to be covered with smoke on the axis of main attack;

--Indicate the initial lines for infantry attack and the line for resubordination of a portion of the artillery to the infantry;

--Establish initial positions and concentration areas for tanks, arrange for observation of their actions and assist them in negotiating obstacles and neutralizing antitank artillery;

--Determine the procedure and methods of communication among the infantry, artillery, tanks and aircraft by tactical phases and lines; establish signals and personally see that the mission is correctly understood and the signals are mastered;

--Constantly keep aviation up to date on the situation, support the overflight of the front by aircraft and establish the procedure for denoting the forward line of the front which the infantry has reached;

--Organize coordination of antiaircraft artillery with fighters in order to screen the unit [soyedineniye] combat formation.

214. In organizing combined-arms combat on the main axis, the army (corps) commander gives division (brigade) commanders *at least 12 hours of daylight for organization of combat*, including hours of daylight set aside for battalion commanders for this purpose.

In planning the work of coordination, commanders and staffs of combined-arms units [soyedineniye] must leave the battalion commander *at least 3 hours of daylight for work on the terrain* and for detailed organization of coordination with the commanders of attached and supporting artillery, tank, mortar and engineer units [chast'] and chemical defense subunits.

Coordination instructions are made out, depending on the nature of combat and time available, in the form of planning tables, sketch maps, or notes on the map and in the field message pad.

215. In carrying out directions of the combined-arms commanders, the infantry, artillery, tank and engineer commanders must:

- Know the missions, axes and objectives of actions by the units with which they are interworking, and know their command and observation posts;
- Coordinate their own actions on the ground by objective, place and time; establish mutual observation, communications and methods of target designation and clarify prearranged signals; have a general sketch map and common target numbering;
- Tie in their actions with the supporting aviation;
- Know the disposition of adjacent units' combat formations and the missions and axes of their operations;
- Arrange continuous mutual support during combat, especially in the attack, commitment of division (brigade) reserves, and in repulsing enemy counterattacks;
- Clarify the procedure for artillery resubordination and tank assembly areas.

To assure coordination, locate combined-arms (infantry) and artillery command and observation posts together where possible and, with separate locations, establish reliable communications between them by radio and telephone.

216. Air commanders must:

- Know the situation and continuously observe the progress of actions by ground troops;
- Know the combat formations and missions of the infantry, artillery and tanks;
- Together with the combined-arms unit [soyedineniye] commander, clarify the objectives, time and signals for an air attack; establish the direction and altitude of flights over the front and the marking of friendly aircraft and forward tank and infantry units [chast'];
- Maintain constant communications with the combined-arms unit [soyedineniye] commander and have his own responsible representatives at the combined-arms command posts.

217. The commanders of air regiments and squadrons participating in an offensive personally familiarize themselves on the ground together with their

navigators with the disposition of friendly and enemy troops and with the disposition of targets and reference points on the axis of main attack.

218. Commanders and staffs at all levels must personally make an on-the-spot check of the troops' readiness for an attack.

5. Conducting the Offensive

219. With the beginning of the offensive the infantry begins a rapid advance from the initial position to the assault position, taking advantage of the powerful fire of artillery, mortars and aircraft and supported by its own weapons.

At the assault position the infantry must dig in, organize observation and friendly fire and await the moment for launching the assault.

If the offensive must begin at dawn troops use the night for moving up to the assault position and for digging in.

220. After assuring himself from reports of the rifle regiment commanders, the commander of division artillery, and his own personal observation that the enemy has been neutralized and the troops are ready for the attack, the division commander gives the order for beginning the attack.

If tanks are operating in the division zone, their approach to the assault position is the signal for the infantry to move into the assault.

When attacking without tanks, the transfer of artillery fire into the depth will be the signal for the infantry to move into the assault.

There is a transfer of artillery fire into the depth and to the flanks of the attacking troops on order of the regimental (division) commander when the tanks approach the assault position.

221. The *infantry* must attack enemy positions in concert and simultaneously, annihilating the enemy by point-blank fire, bayonets and grenades, penetrating through weakly occupied intervals, and enveloping and surrounding enemy strongpoints and centers of defense.

Combat engineers widen passages in obstacles and seal off and destroy weapon emplacements together with the infantry.

A delay in moving into an assault deprives the infantry of all advantages achieved by the enemy's neutralization.

222. To support tank actions the infantry must use all its firepower as well as the fire of accompanying guns to neutralize enemy antitank weapons; together with combat engineers it must reconnoiter and clear minefields, help tanks cross antitank obstacles and marshy sectors of terrain, combat enemy tank destroyers, resolutely follow the tanks into the attack, quickly

consolidate the lines captured by the tanks, cover the delivery of ammunition and fuel to the tanks and cooperate in the evacuation of disabled tanks from the battlefield.

223. In those instances where an attack is made with tank participation the tanks press closely to the line of friendly artillery and mortar bursts, moving at maximum speed and conducting intensive fire from the move, burst into the enemy defensive position, neutralizing gun, mortar and machinegun crews and the infantry, maneuvering on the battlefield and taking advantage of folds of the terrain for moving to the flank and rear of enemy weapons and infantry.

Tanks operating jointly with the infantry have the primary mission of annihilating enemy infantry and they must not separate from their own infantry by more than 200-400 m.

In combat the tank commander organizes observation of the friendly infantry combat formations. If the infantry has hit the dirt and is not advancing behind the tanks, the tank unit [chast'] commander assigns a portion of the tanks to destroy the weapon emplacements hindering our infantry's forward movement.

224. *Artillery* and mortar units [chast'] must neutralize enemy weapon emplacements and destroy the antitank weapons in his defense before the infantry and tanks move into the attack.

In the period of an attack on the forward edge and combat in the depth of enemy defenses, the artillery, in response to signals from the tank and infantry commanders, neutralizes weapons hindering the advance of tanks and infantry, for which the artillery commanders must direct artillery fire from forward mobile observation posts out of radio-equipped tanks.

Artillery forward observers advance together with the attacking forward infantry companies and in radio-equipped tanks to ensure support to infantry and tanks in the depth of the enemy's defense zone.

The army (corps) artillery group and aviation neutralize enemy artillery and tank and infantry reserves during the attack.

225. The presence of intervals in the enemy defense permits a penetration between strongpoints and the delivery of attacks against the defender's flank and rear. Capture of a strongpoint disrupts the defensive system and facilitates successful exploitation of a penetration.

Attacking regiments do not engage in protracted fighting against the garrisons of powerful strongpoints. Leaving blocking subunits behind, they must move swiftly forward to cut the strongpoints' garrisons off from other parts of the enemy defense and continue executing their missions. With the arrival of reserves the garrisons of these strongpoints are annihilated or taken prisoner by the joint actions of the reserves and blocking subunits.

226. After capture of the forward edge of enemy defense the rifle regiments and tanks develop the attack into the depth, supported by artillery and aircraft and accompanied by combat engineers.

Advancing simultaneously with the infantry, the mortars, regimental artillery, a portion of division artillery and batteries of antitank regiments as well as subunits of antitank rifles destroy enemy antitank guns and machineguns and are ready to repulse his tank attack in turn.

Rifle regiment commanders ensure that their reserves move up to the forward edge without delay.

Aircraft are used for observation of the actions of friendly infantry and tanks; they determine the location of friendly units in the depth of the enemy defense zone.

227. General success in an attack takes shape from a number of local successes persistently exploited until the enemy's total defeat.

Procrastinating and awaiting instructions are most dangerous in combat.

While firmly and persistently striving to achieve an assigned objective, one must show flexibility in the methods of achieving it in necessary instances.

Each breach in the enemy defense, even if it was formed on a secondary axis, must be used immediately to develop success in the depth.

228. With the advance into the depth of defense, army (corps) second echelons and division (brigade) reserves build up the force of the attack out of the depth.

They are committed for the purpose of:

- Exploiting success;
- Expanding a penetration and enveloping the enemy flanks and rear;
- Defeating a counterattacking enemy;
- Relieving first echelon divisions (brigades) if they cannot execute their assigned mission;
- Encircling and destroying the surviving enemy strongpoints and centers of resistance.

229. Division (brigade) commanders develop the penetration in the direction given them, striving to seize the enemy artillery. His fire plan will be broken with a move by infantry and tanks to the vicinity of artillery defense positions.

Division (brigade) commanders must shift a portion of the artillery and tanks to support of the reserves by the moment of their commitment. The division (brigade) commanders must reform their reserve at the first opportunity.

In exploiting success of an attack, tanks must penetrate into the depth of the defense zone and attack enemy artillery, reserves and headquarters.

230. Troop actions must not cease with the onset of darkness. Detachments reinforced by individual guns, mortars and machineguns are assigned from the attacking troops and division (brigade) reserves for conducting a night attack, with the mission of pressing the enemy continuously and keeping him from setting up a defense on new lines.

231. Attacking troops always must be ready to repulse enemy counterattacks; unit [chast' and soyedineniye] flanks and boundaries must be observed and secured in particular.

A portion of the forces of the army (corps) second echelon and reserves, especially antitank reserves, must be disposed without fail behind the boundaries and flanks of attacking troops.

During enemy counterattacks on the flanks or at a boundary, reserves are employed to repel them and deliver a counterblow.

Approaching enemy reserves are attacked by aircraft and neutralized by the concentrated fire of artillery and mortars.

232. *Consolidation of success*, rapid placement of captured installations in a condition for defense, and organization of their antitank and antiaircraft defense are mandatory during an attack.

The tactical plan must specify lines or individual local features within the enemy's defense to be consolidated during an attack. Heavy machineguns, mortars, artillery pieces, antitank guns and rifles and combat engineers with mines who organize a defense on the designated lines and set up antipersonnel and antitank obstacles must be in constant readiness in the combat formations. As soon as reconnaissance establishes the threat of an enemy counterattack, machineguns, mortars, artillery and aircraft bring down concentrated fire on the counterattacking troops.

Infantry assigned to repel a counterattack occupies a line chosen for defense and hits the enemy with the withering fire of its weapons.

Tanks must not enter into single combat with counterattacking enemy tanks if they do not have a clear superiority over them. In the latter instance tanks are employed for firing from ambushes and as roving guns. Artillery and anti-tank weapons participating in a repulse of the counterattack hit the enemy tanks with fire.

Artillery takes up firing positions to secure the line reached, organizes centralized control and prepares a fire plan, giving special attention to the flanks.

Combat engineers use obstacles to screen exposed flanks of attacking troops.

233. The army (corps) commander and division (brigade) commanders direct the coordinated attack of the units [soyedineniye or chast'] and organize their coordination at boundaries and with adjacent units.

They assign the troops secondary missions with the development of the attack, striving to take advantage of the advanced position of some units [chast'] for enveloping the enemy and attacking his flank and rear in order to merge separate local penetrations into a general penetration.

The initial sectors where units are wedged into the enemy defense zone may be narrow.

The widening of a penetration toward a flank begins after taking or sealing off strongpoints of the enemy's first line of defense.

Enemy combat formations must be split into separate pieces covered by effective mortar and machinegun fire and annihilated in detail.

234. The wider the penetration frontage, the deeper it is possible to conduct a supported attack.

When combat develops in the depth of defense it is necessary for the frontage of the army penetration to be wide enough for subsequent development of the attack. It is desirable that it not be covered by effective [enemy] artillery fire from the flanks.

235. The division (brigade) commander influences the progress of combat by the fire of his artillery, by assigning secondary missions to rifle regiments (battalions) and tanks and by committing the reserves.

The division (brigade) commander must achieve a penetration of the defense zone to the full depth with his own forces and weapons and immediately pursue the enemy in the direction given him.

236. The army (corps) commander influences the progress of combat by assigning new missions to first echelon divisions (brigades), army artillery groups, supporting aviation, and his own tank and antitank reserve, and by committing second echelon divisions (brigades).

In completing the crossing of the main defense zone the army (corps) commander updates the plan for capturing the second defense zone and immediately pursues the retreating enemy. He forms forward detachments of motorized infantry, tanks, artillery and combat engineers for this purpose. A grouping of forces for attacking the second defense zone is prepared simultaneously.

237. In case of an unsuccessful outcome of an attack, troops consolidate on the lines reached, they are placed in order, disrupted coordination is restored and they repeat the attack after additional artillery and air preparation.

When an attack has a general lack of success it is at times advisable to regroup under cover of night and deliver an attack on a new axis. In this case fresh units [chast' or soyedineniye] usually are committed on the axis of main attack.

6. Offensive of Tank and Mechanized Units [Soyedineniye]

238. Tank and mechanized units are one of the decisive means of attack.

The primary mission of tank and mechanized corps in an attack is to deliver a concentrated attack to isolate and encircle the main enemy grouping and defeat it through joint actions with aircraft and the front's ground troops. Mobility gives them surprise in the attack and an opportunity for a broad, bold maneuver.

A deep envelopment of the enemy and an attack against his flank and rear represent the basis of offensive actions by tank and mechanized corps. When a deep envelopment is possible these corps, reinforced by other combat arms, can penetrate on their own a defense zone hastily or weakly occupied by the enemy.

239. The axis of main attack of tank and mechanized corps must assure the most favorable conditions for a rapid penetration of the enemy defense and a subsequent swift maneuver to the flank and rear for defeating the main enemy grouping by decisive and bold attacks.

These conditions include:

- The terrain's convenience for operations by tank and mechanized units [soyedineniye];
- Least developed enemy antitank defense works;
- Possibility for a rapid concentration of superior artillery weapons in the chosen penetration sector;
- Use of tactical aviation for operations in penetration sectors;
- Concentration of engineer resources for supporting the unhindered advance of tank and mechanized units;
- Possibility of concentrating fuel and ammunition stocks, and the presence of supply routes.

240. The combat echelons of tank and mechanized corps can be made up of tanks, motorized infantry or a combination (tanks and infantry). Under winter conditions the tank and mechanized units should be given the attachment of special ski units [soyedineniye or chast'].

The first echelons usually are made up of tanks in an independent penetration of a defense zone.

Motorized infantry advances behind the tank echelons, using motor transport for a rapid approach and deployment into a dismounted combat formation.

The transport vehicles in motorized brigades serve as a means of movement and are not combat vehicles; therefore motorized infantry dismounts from them ahead of the zone of artillery fire and moves to the battlefield and fights in dismounted formation.

Motor transport is placed in convenient shelters in dispersed locations in constant readiness for rapid delivery for a further rush by the motorized infantry.

The artillery of tank and mechanized corps forms tank close-support artillery groups.

The tank and mechanized corps reserve usually consists of tanks and motorized infantry.

241. The basic method of tank and mechanized unit actions in an attack is a concentrated tank attack, prepared and supported by the fire of artillery, mortars and aircraft and accompanied by motorized (ski) infantry.

The tank and mechanized corps must not be drawn into combat with enemy tanks if they do not have clear superiority over the enemy. In case of an encounter with large enemy tank units [chast'] the corps assigns antitank artillery and a portion of the tanks against them, the infantry in turn moves up its own antitank artillery and, screened by all these weapons, the corps executes a deep envelopment of the enemy tanks with its main body and hits his infantry in order to separate it from the tanks and paralyze the actions of enemy tanks. The primary mission of the tank and mechanized corps is to annihilate enemy infantry.

Tanks with motorized (ski) infantry supported by aircraft and accompanied by artillery pieces or batteries penetrate a defense zone without delaying for final neutralization of all defense objectives.

After penetration of the enemy's defense zone all echelons of the tank unit [soyedineniye] concentrate in assembly areas. Subsequently, depending on the situation, the tank units may be employed both for exploiting success in the depth and for defeating the enemy in penetration sectors.

242. The motorized infantry of tank and mechanized corps and the rifle units [soyedineniye] attached to them advance immediately behind the tank echelons.

They perform the following missions:

- Clear the penetration zone of remnants of the resisting enemy;
- Consolidate captured areas;
- Widen the breach formed, developing the attack to the flanks and rear of the [one word illegible] sectors of the enemy front;
- Secure the penetration's flanks and the rear of [one word illegible, probably "tank"] units [soyedineniye] against an enemy counterblow.

243. Artillery of the rifle units is employed for supporting the attack of tank and mechanized units while preserving its own grouping and subordination.

244. Surprise is the decisive element in all forms of combat of the tank and mechanized corps. Surprise is achieved by camouflage, concealment of positions and movement, the use of nighttime for a march, and by air cover of assembly areas.

The conditions for successful execution of the mission by tank and mechanized corps are a thorough reconnaissance of enemy weapon dispositions, obstacles and terrain, the interworking of all their units [chast'] in combat, and coordination of the tank attack with combat air actions.

245. The mechanized brigade in the attack uses daring and swift actions to quickly execute missions of seizing and holding important objectives until the arrival of the main body operating on the given axis.

The mechanized brigade executes missions for exploitation of success in a local army offensive operation.

The mechanized brigade also can reliably secure the flank of attacking units [chast'].

It captures crossings, defiles and the most important road junctions in the enemy rear for pursuit of a retreating enemy and uses decisive actions to help encircle and defeat the enemy.

The following must be the basis of all actions by the mechanized brigade: high maneuverability, boldness, decisiveness and determination in accomplishing the assigned mission.

Using its high mobility, the mechanized brigade must seek out the enemy's weak spots and deliver brief strikes against him.

7. Offensive of Cavalry Units [Soyedineniye]

246. Cavalry units can conduct an offensive against an enemy who has assumed a hasty defense across a broad front or who is employing a mobile defense.

Cavalry units are not employed for an independent penetration of heavily fortified enemy defense positions or for an attack against large populated points.

When attacking a defending enemy, cavalry units must be reinforced by high command reserve artillery and mortars, tanks and special units [chast'] and supported by aircraft.

In winter cavalry units can be reinforced by special ski units [chast'].

247. When the enemy assumes a hasty defense cavalry unit commanders must organize an attack with accelerated preparation so as not to give the enemy an opportunity to strengthen his defense.

Cavalry achieves the most decisive successes by actions leading to an attack against the enemy flank with a subsequent move to the rear and to withdrawal routes, and to encirclement of the enemy.

The cavalry corps usually attacks in two echelons. The cavalry division attacks in one echelon with a reserve.

248. An artillery offensive must be conducted to the full depth of cavalry actions. Artillery and mortar fire on the axis of main attack must be massed, intended for neutralizing enemy weapons and personnel in centers of resistance and strongpoints, and it must prevent his possible counterattack.

The control of artillery and mortars on the main axis of attack is centralized.

Cavalry close-support artillery groups usually are formed to support regiments.

249. The cavalry's offensive must be preceded by engineer organization of the initial line and organization of an antitank defense in order to prevent enemy attempts at disrupting the offensive. The offensive is organized and conducted by lines. To this end the tactical plan must specify the procedure for consolidation on captured lines, measures against enemy infantry and tank counterattacks, forward movement of weapons and especially individual artillery pieces and groups of antitank rifles, the shift of artillery observation posts and the drawing up of reserves.

250. Tank and mechanized units [soyedineniye] attached to a cavalry corps are employed on the axis of main attack in close coordination with the cavalry.

When there is an exposed flank the tank and mechanized units are employed together with the main grouping of cavalry for a deep envelopment of the enemy positions and an attack against his flank and from the rear.

When there is successful development of the attack tanks penetrate into the depth of enemy defense to attack and rout his reserves and headquarters. The tanks must be accompanied by tank-mounted assault forces from specially assigned subunits of motorized rifle battalions and dismounted cavalry with automatic weapons and means of antitank defense.

Tanks of a cavalry division are employed as cavalry close-support groups and operate on the division's axis of main attack.

251. Combat aviation supporting the cavalry unit screens cavalry combat formations from the air, conducts air preparation before the beginning of an attack and supports the cavalry offensive by neutralizing and destroying enemy reserves, artillery, and mortar batteries.

252. The first echelons of a cavalry corps attack in dismounted formation and the second echelons attack in mounted or dismounted formation depending on success of the first echelons' actions, terrain conditions and enemy fire.

Any success achieved by first echelon units [chast'], even if on a different axis than planned, must be exploited immediately until the enemy is completely defeated.

Division commanders must take advantage of favorable conditions for employing reserves in mounted formation, supporting their attack with all firepower and tanks.

253. As soon as the enemy's withdrawal has been detected the cavalry immediately shifts to pursuit and conducts it relentlessly.

Parallel pursuit is most advantageous. The greater part of cavalry forces, the tanks and (if present) the motorized (ski) infantry must move quickly to the enemy's routes of withdrawal in order to encircle his main body.

The pursuit ceases only on order of the senior commander.

8. Exploitation of Penetration by Mobile Units [Soyedineniye]

254. Mobile units--tank, mechanized and cavalry, and special ski units in winter--are the primary means for exploiting a penetration.

The tank and mechanized corps assigned to exploit a penetration must be reinforced by antitank artillery and combat engineers.

Exploitation of a penetration by mobile units is accomplished by:

--Seizure of the second defense zone before the enemy manages to organize a defense in it;

--Annihilation of approaching enemy reserves;

--Final defeat of the main enemy defensive grouping by an attack from the flanks and rear in coordination with troops attacking from the front;

--Capture of lines and objectives in the deep enemy rear which can be used by him for further resistance.

255. Commitment of mobile units to a penetration is one of the decisive moments in developing an army's offensive. It requires a well-conceived plan and careful preliminary preparation.

In preparing the commitment of mobile units to a penetration, the army (front) commander determines:

--General missions of mobile units to exploit a penetration and the primary direction of their actions;

--Assembly areas of the mobile units before commitment to the penetration;

--Initial position and line of deployment of the mobile units for moving into the penetration;

--Movement routes from the assembly area to line of deployment;

- Primary directions of crosscountry routes for the movement of mobile units in a penetration zone;
- Orientation lines in the depth of enemy defense which, when captured by rifle troops, mark the beginning of the mobile units' movement into the penetration;
- Measures for supporting the mobile units' commitment to the penetration;
- Missions and procedure for consolidation of success of mobile troops by the rifle units [soyedineniye];
- Air and ground support to the penetration area;
- Procedure for logistical support of mobile units during their actions in the depth of enemy defense.

256. Success of the commitment of mobile units to a penetration is assured by:

- Thorough preparation of the commitment to the penetration and coordination of actions of mobile units with actions of rifle units conducting the penetration;
- Concealed concentration, camouflage of all preparatory work and surprise in the beginning of actions;
- Reliable cover by fighter aviation and air defense weapons;
- Precisely organized coordination with rifle units;
- Neutralization of enemy resistance in the depth of defense and a delay of his reserves' approach by air actions;
- Continuous control of mobile units during the actions and their close contact with supporting combat aviation and rifle units;
- Consolidation by rifle troops of the lines reached by the mobile units.

257. When committing tank, mechanized and cavalry units to a penetration the army (front) commander must ensure their passage into the penetration zone.

He must:

- Develop the attack in close envelopment and the rear of flanks which form to widen the penetration frontage;
- Use artillery and mortar fire to neutralize centers of resistance on the penetration's flanks;
- Organize the boxing-in by fire of the penetration flanks and, with a favorable wind, by smoke as well;
- Use the fire of long-range artillery to neutralize enemy resistance in the depth of a breach which has formed;
- Hold up the approach of enemy reserves by the fire of long-range artillery and aircraft;

--Repair demolished roads and bridges right behind the attacking infantry units [chast'] and lay crosscountry routes for units [soyedineniye] committed to the penetration;

--Free planned roads and routes of artillery units and transports;

--Assure the passage of mobile units through first echelon combat formations;

--Support the advance of tank, mechanized and cavalry unit rears.

258. The preparation of tank, mechanized and cavalry corps for commitment to a penetration includes:

--Reconnaissance of terrain, the enemy positions, and friendly assembly and initial areas;

--Coordination of tank, mechanized and cavalry corps actions with the actions of combined-arms units [soyedineniye] in whose sectors the corps is being committed to a penetration;

--Preparation of routes for the movement of combat units [chast'] and rears;

--Organization of control and communications;

--Preparation of equipment and organization of the rear;

--Organization of the forward movement of tank and mechanized corps to the initial area and their movement through combat formations of friendly rifle units in the penetration zone.

At least three days must be granted to the commanders of tank, mechanized and cavalry corps for carrying out all measures to prepare for commitment of their corps to a penetration.

259. The time for commitment of mobile units to a penetration is set by the front or army commander who gives the command (signal) for this.

The commitment of mobile units to a penetration usually begins after the combined-arms units cross the main defense zone and the attacking infantry moves to the area of the enemy artillery positions, or (with a deliberate and solidly occupied defense) after combined-arms units take his second defense zone.

The width of the zone for commitment to a penetration must permit the mobile units to penetrate into the depth of enemy defense and it must secure them if possible from being hit by effective flanking artillery fire as they pass.

In exploiting a penetration the attack should be delivered above all against approaching enemy units [chast'].

260. A mechanized corps is committed to a penetration in approach march formations along 2-4 routes in a 6-8 km zone.

The order of alining mechanized and tank brigades (regiments) for commitment to a penetration is established based on the following:

--Corps reconnaissance units [chast'] must move in front following the attacking infantry units [chast'];

--March support detachments move behind the reconnaissance with the mission of preparing routes in the corps zone of movement;

--Then comes the security force and behind it the corps main body.

Depending on the situation, the main body columns can have tank regiments of mechanized brigades or motorized rifle battalions in front. The corps commander's tank reserves move behind columns of mechanized brigades with the mission of exploiting the success of first echelons.

Units move in formations assuring fewest losses from enemy aircraft and artillery fire and assuring convenience in deploying.

All corps artillery moves in the main body columns behind mechanized brigade tank regiments.

The lead echelons of rear units and subunits of the tank and mechanized brigades move behind the reserves with the covering force assigned to them.

261. A cavalry corps is committed to a penetration in approach march formations, usually in two echelons along 2-4 routes in a 12-15 km zone.

The order of alining cavalry divisions and tank brigades (regiments) for commitment to a penetration is established based on the following:

--Reconnaissance units and subunits of cavalry divisions and tank brigades (regiments) must move behind the attacking infantry units [chast'];

--Advance guards of cavalry divisions and tank brigades (regiments) and march support detachments with the mission of preparing and clearing routes in the corps zone of movement proceed behind the reconnaissance;

--Then come the main body columns of cavalry divisions and tank brigades (regiments), with the tank units [soyedineniye or chast'] usually committed to the penetration along a separate road on the most threatened flank or in the corps first echelon.

All artillery and mortars proceed closer to the heads of main body columns. Advance guards are reinforced with artillery, mortars, antitank defense weapons, antiaircraft weapons and combat engineers.

The alinement of approach march formations when the cavalry is committed to a penetration must provide for:

--Flexibility of control and the possibility of deploying for combat both in the direction of movement and toward the flanks;

--Speed in crossing the penetrated enemy defense zone without being delayed by fighting his centers of resistance which have not yet been neutralized;

--An all-around antitank and antiaircraft defense of the column;

--Fewest losses from enemy aircraft and fire.

262. In the period of exploitation of a penetration of the enemy defense, artillery accompanying the mechanized, tank and cavalry corps accomplishes the following missions:

--Repulses enemy tank counterattacks;

--Neutralizes or destroys enemy weapons and centers of resistance which have survived or which are newly organized during combat;

--Provides fire accompaniment to tanks in their penetration of the second defense line;

--Covers tanks when disposed at the halt and at assembly points after execution of a combat mission.

The actions of this artillery must be connected closely with actions of artillery and aircraft of the attacking troops.

263. Actions of mobile units [soyedineniye] in the depth of defense are screened and supported by combat aviation and air defense weapons of an army.

To this end a portion of the fighter aircraft land at airfields in the area of operations of mobile troops in the enemy rear, and necessary fuel and ammunition stocks for these air units are moved with the first rear echelons of the mobile units [soyedineniye]. Teams assigned by the air command element for reconnoitering airfields proceed with headquarters of the mobile units.

264. During enemy air raids the tank, mechanized and cavalry units continue performing the assigned mission while repulsing the air attack by all available weapons.

265. Airborne assault forces landed in the rear of the enemy defense are subordinated to the commanders of mobile units [soyedineniye] with the latter's approach to the assault forces.

266. Rifle units [soyedineniye] move into the breach following the mobile units to consolidate success.

267. Security of supply and evacuation routes is a very important condition for successful actions of the mobile units in the depth of defense.

In the absence of secured supply and evacuation routes, supply is accomplished under strong cover, and by transport aviation in necessary instances.

Landing strips are prepared for transport aviation in the mobile units' zone of operations. Cargo is dropped by parachute in the absence of landing strips.

268. After continuous combat actions for 5-6 days the mobile units must be provided with 2-3 days for restoring equipment and horses and replenishing supplies.

9. Regrouping During an Offensive

269. A regrouping of troops and combat equipment (artillery, tanks, aircraft and so on) may be required in transferring combat efforts to another sector of the front or another axis, for exploiting success reached where it was not expected, and for repelling an enemy flank attack.

270. A regrouping of troops during combat actions is a complicated and responsible maneuver. Troops often will have a strictly limited amount of time for preparing the regrouping. Despite this, a regrouping must be conducted under a carefully conceived plan.

The organization of a regrouping requires prompt decisionmaking for the regrouping, centralized control, concealment in conducting it, and the rapid, precise work of staffs.

The regrouping plan must specify:

- The purpose of the regrouping;
- The final grouping of troops in new concentration areas;
- Movement routes;
- A calculation of the movements of troops and rears by time and place (for each unit [soyedineniye]);
- Traffic control on movement routes;
- Reliable cover against attack by enemy ground troops (especially tanks) and aviation to avoid disruption of the regrouping;
- Procedure for troop supply;
- Organization of communications.

The use of motor transport permits accelerating execution of the regrouping.

271. The basic kinds of troop regrouping during an offensive are:

- Out of the depth toward the front;
- Along the front (lateral movement);
- Toward one of the flanks.

The situation also may give rise to a combination of these kinds of regrouping.

272. A regrouping of forces out of the depth toward the front is the simplest. It allows establishing the necessary troop density in the planned sector by moving troop units [soyedineniye or chast'] forward from the army second echelon (reserve). Such a regrouping also can be conducted by troops of the army (corps) first echelon when there is an opportunity to form a new grouping of forces during forward movement by maneuvering boundary lines (by narrowing zones for the operation of some units [soyedineniye] and expanding them for others).

273. A regrouping along the front (lateral movement) is done when a portion of the troops in the army (corps) first echelon must be moved to another sector of the front. In this case execution of the regrouping consists of removing the laterally moving units [chast' or soyedineniye] from the front by replacing them with adjacent units [soyedineniye] through an expansion of sectors of adjacent units [chast' or soyedineniye]; withdrawing the units removed from the front to the rear to the necessary depth allowing the execution of flank marches parallel to the front (outside of effective enemy artillery fire); and executing these marches with a move to a new area.

Units moving along the front cut across the supply routes of units at the front, and so it is necessary to establish traffic control and strict observance of time periods for troops and rears to pass over the designated routes and through designated points. The supply of troops at the front through whose rear areas the laterally moving units are passing is done at exactly the time indicated.

274. A regrouping of forces toward a flank may be caused by an abrupt change in the situation of an army at the front, a threat which suddenly arises on a flank, or it can be for an attack against an enemy flank.

When time is limited troops are moved to new areas over the shortest routes.

The most important mission of a staff under these conditions is to make a precise calculation of the time of passage for columns and rears and to organize traffic control, especially at places where routes intersect.

Army rear establishments are removed in advance from the regrouping area and receive missions for supporting troops on new axes.

The rear establishments of military units [soyedineniye] move to new areas under a plan developed by the chief of the army (corps) rear.

10. Deep Envelopment of the Enemy Flank

275. The deep envelopment as a maneuver to the enemy flank and rear is undertaken:

--When air and ground reconnaissance has detected enemy groupings with the intervals between them weakly occupied;

--As a result of the exploitation of a penetration of the enemy defense.

276. In undertaking a deep envelopment of an exposed enemy flank it is necessary for reconnaissance to determine what enemy groupings can offer opposition from the depth to the planned envelopment.

277. In a deep envelopment the enemy always must be enveloped from the flank and attacked from the front.

278. The number of troops assigned to execute a deep envelopment to defeat the enemy must correspond to the assigned mission. In all instances one must have forces superior to those enemy groups which can offer opposition to the deep envelopment.

279. Depending on the width of free space for maneuver, the army (corps) commander can plan a deep envelopment of the entire opposing enemy grouping or of its main portion. The enveloping troops are reinforced with artillery, tanks, mortars and engineer units [chast'] and are supported by aviation.

It is advantageous to have mobile units [soyedineniye] on the outer flank of envelopment which are reinforced with infantry and combat engineers and supported by aviation and artillery.

280. The success of a deep envelopment often depends on proper choice of the axis of movement for the enveloping troops.

The envelopment maneuver must be preceded by the advance of the enveloping group of troops to an initial area opposite the enemy flank. The move to the initial area must be made secretly from the enemy, usually at night.

Troops are moved to the initial area from the depth or by the lateral movement of forces along the front.

Regroupings should be avoided in the initial area.

281. The enveloping troops must be alined in a march formation for executing a flank march and at the same time a march toward the enemy in anticipation of a meeting engagement.

The enveloping movement should be made as straight as possible to avoid difficult wheeling movements and make it easier for the rapid deployment of troops.

The grouping of enveloping troops on an outer flank must provide the opportunity of rapidly enveloping the enemy flank.

Flank columns should be moved with an echelon to the rear and screens moved out to secure an outer enveloping flank.

282. Engineer units attached to enveloping troops are assigned to support troop movement, to cross barriers and to use obstacles to screen flanks of the main body and its rear as they advance.

283. Combat under conditions of a deep envelopment of the enemy may develop either into a swift attack against enemy troops who have been moved up to oppose the envelopment and have assumed a hasty defense or into a meeting engagement with approaching strong enemy reserves.

In the first instance the main body deploys and attacks the enemy from the front while attempting to execute a close envelopment or go around him on the flank.

In the latter instance the main body secures its exposed flank and attacks the approaching enemy reserves piecemeal.

284. The frontal attack must lead the enemy astray relative to the axis of main attack and prevent the enemy from regrouping his forces toward the threatened flank.

It must break up his combat formation and precede engagement of the enemy on the flank.

285. With a penetration of the enemy front, the initial close envelopment of his flanks which form develops into a deep envelopment of the enemy flank and rear.

Enveloping groups are reinforced with antitank artillery, mortars, artillery for direct fire, and tanks.

286. The army (corps) employs its second echelon and tank and antitank reserves for a deep envelopment of enemy flanks which have formed during a penetration of his defense zone.

287. Enveloping troops must have continuous communications with their rear. Primary supply routes are protected by security and defense.

11. Battle of Encirclement

288. A battle of encirclement consists of coordinated attacks against the enemy flanks and rear combined with a simultaneous attack from the front. The battle of encirclement must conclude with the enemy's capture or total annihilation.

289. In the encirclement one should strive above all to deprive the enemy of freedom of maneuver and the opportunity of obtaining assistance from adjacent units and from the rear.

This is achieved by:

--The troops' swift and decisive attack on the flanks of the grouping being encircled;

--A swift attack of mobile units [soyedineniye or chast'] against the enemy rear;

--Neutralization and isolation of the troops being encircled with mortar and artillery fire and air strikes;

--The capture and holding of important tactical points on the enemy flanks and in his rear;

--The defeat or delay of approaching reserves;

--Putting out screens and arranging obstacles on secondary and threatened axes.

290. The success of a battle of encirclement depends on speed and decisiveness of actions and on the continuous coordination of all troops executing the encirclement.

An encirclement is facilitated by the presence of natural obstacles on one of the flanks or in the enemy rear; one must strive to press the enemy to these obstacles and encircle, capture or annihilate him.

291. An encirclement in modern combat usually is achieved initially by the enemy's defeat on the flanks and by a move of mobile units [soyedineniye] to his rear, and also at times by a landing of airborne assault forces in his rear. An encirclement can be firm, however, only when it is concluded by rifle troops.

292. As a rule it is necessary to have a superiority in forces to execute an encirclement. Nevertheless, it is at times possible to encircle and annihilate the enemy with equal or even numerically inferior friendly forces.

This requires:

--Exceptional speed, boldness, decisiveness, maneuverability and determination in the troops' actions;

--The ability to achieve a decisive superiority in forces on the flanks with a weakening of other sectors of the front;

--A skillful combination of fire and maneuver;

--Taking advantage of the enemy's passiveness and mistakes;

--Skillful use of favorable terrain conditions.

Establishment of a decisive superiority in forces on the main axes is achieved with a combination of an attack on these axes with defensive actions and with the use of obstacles in secondary sectors.

It is a matter of honor, valor and heroism of troops and a high art of the commanders to encircle enemy troops and subsequently capture or annihilate them with equal or inferior friendly forces, and it must be viewed as the supreme military exploit.

293. Troops executing an encirclement usually fight with an inverted front and require their flanks and rear to be secured against enemy counterattacks and counterblows. This is achieved both by coordination with adjacent units [soyedineniye or chast'] and by one's own measures for securing the encircling troops.

Adjacent units [soyedineniye or chast'] try to throw back the enemy forces opposing them as far as possible and use all measures accessible to them to secure the flanks and rear of the encircling units.

Encircling troops perform deep reconnaissance, put out screening forces and widely employ engineer obstacles on all axes where enemy counterattacks or the enemy's appearance is possible.

Aviation, mobile troops and reserves are employed above all to defeat approaching reserves.

294. The annihilation or capture of an encircled enemy must be completed in the shortest possible time periods. This is done by a successive constriction of the encircling ring with a simultaneous splitting of the encircled troops' combat formations into separate scattered groups which would be covered by the crossfire of mortars and artillery.

295. In an encirclement of the enemy there must be a precise organization of coordination among individual groups of encircling troops, tanks and artillery and between the artillery and aviation. Mortars should be widely used. Units [chast'] must know the signals for ceasing artillery and mortar fire and must clearly denote their position.

296. Any attempt by the enemy to break out of encirclement must be countered resolutely. This is done by preparing concentrated artillery and mortar fire against supposed sectors of an enemy penetration from the widest possible front and by drawing reserves of the encircling troops and tanks up to areas from which they can immediately block the path of enemy troops who have broken through or can rout them by a flank attack.

In breaking out of encirclement the enemy will strive to conceal the axis of main attack using feints. The continuity and timeliness of receiving data from reconnaissance of all kinds and the commander's ability to estimate a situation quickly and correctly must ensure prompt revelation of the enemy's real plan.

297. As soon as an enemy attempt to break out of encirclement is discovered, the encircling troops immediately move into an attack across the entire front and, delivering concentrated attacks, they strive to throw the enemy screening forces back to his attack grouping and attack that grouping in the flank and rear.

298. If an encircled enemy has succeeded in establishing an organized perimeter defense, his annihilation is achieved by a carefully prepared offensive. Attacks are delivered against the encircled troops by concentrated forces with the employment of tanks and strong artillery and with thorough organization of coordination of all combat arms.

The purpose of the attack is to split the enemy combat formations into separate scattered groups and annihilate them piecemeal. Points and lines from which the enemy's position can be covered by crossfire of artillery and mortars are to be captured first of all.

Speed, daring and boldness of actions are the most important conditions for the rapid and total destruction of an encircled enemy.

299. In a battle of encirclement aviation isolates the areas of encirclement, prevents the maneuver and regroupings of encircled troops and actively cooperates with ground troops in destroying the encircled enemy. A special mission of aviation is to deprive the enemy of an opportunity of obtaining assistance and having liaison by air.

Disruption of the encircled enemy's air liaison also is a mission of ground troops, especially artillery (firing on descending aircraft and taking areas convenient for a landing under fire).

300. The battle of encirclement requires continuous control and always is linked with the need for a repeated updating of missions for encircling units [chast'] during combat. In addition to this, the battle of encirclement requires exceptional initiative in the actions and decisions of all commanders and the troops participating in the encirclement.

Timely information from higher headquarters about the situation along the entire front of encirclement and timely reports to higher headquarters on the part of commanders and staffs of the encircling troops about all changes in the situation are a very important precondition for success of encirclement and destruction of the encircled enemy.

301. The delivery of ammunition and other kinds of supply for units [chast'] which have moved into the enemy rear must be organized under reliable cover, and in some cases by air as well.

12. Penetration of Fortified Areas and Heavily Fortified Positions

302. The penetration of fortified areas and heavily fortified positions requires powerful means of destruction and neutralization, a plan of action worked out in detail, centralized control and thorough preparation.

The methods for overcoming fortified areas and heavily fortified zones depend on the extent to which their fortifications are developed, the nature and density of defense works, and the strength and quality of defending troops.

303. An attack against fortified areas and heavily fortified positions is organized after immediate contact has been established with the forward edge of enemy defense and after the deployment of his combat formation, system of disposition of weapons and obstacles and the type of fortifications have been clarified.

304. The penetration of fortified zones usually is done by the successive capture of strongpoints and centers of resistance.

The capture of centers of resistance is possible after preliminary neutralization and partial destruction of the enemy's permanent emplacements, destruction of obstacles and batteries and exhaustion of enemy personnel.

305. The penetration usually is prepared in advance and provides for:

- Organization of detailed reconnaissance and a study of the fortified area's defense in addition to available data;
- Elaboration of a plan of attack;
- Concentration of troops and their special training for the upcoming penetration;
- Establishment of an initial base of operations for the troops;
- Deployment of reinforcing artillery;
- Organization of routes, communications and logistical support for the troops.

Concealment of all preparation is an important condition for success of the attack. The camouflage of troop positions is checked periodically by aerial photography.

The penetration preparation area is screened by air defense weapons.

The army (front) commander sets the day and hour of the attack.

306. Thorough organization of all kinds of reconnaissance assumes decisive importance in an attack on a fortified area. Available information about the strength and type of permanent emplacements is checked by comparison with ground reconnaissance data. Periodical, solid aerial photography of the fortified area is mandatory.

The enemy grouping, his defense plan and the location of permanent emplacements are established as a result of careful interpretation of photos made at different times and by a comparison of these data with the results of around-the-clock observation of all combat arms and ground reconnaissance of all kinds, including night raids with the capture of prisoners for interrogation and local attacks for reconnaissance purposes.

Based on the data obtained, the artillery uncovers the camouflage of permanent emplacements by the fire of specially assigned batteries.

307. After a generalization and study of all intelligence as to the nature and strength of the fortified area, after personal reconnaissance, and as a result of a consideration of the capabilities of available means of neutralization (especially artillery), the army (front) commander makes the decision for the penetration, based on which the army (front) staff draws up the plan for capture of the fortified area.

308. The plan for capture of the fortified area specifies:

- The plan of attack (basic idea of the decision and the method of capturing the fortified area);
- Direction and width of the penetration on the main and secondary axes;

- Grouping of forces and weapons of reinforcement (especially heavy [in power] artillery) and their missions;
- Procedure for occupying the initial position and for the relief of units [chast'];
- Procedure for the artillery and air offensive;
- Organization of coordination of the combat arms;
- Employment of tanks, engineer units and chemical defense units;
- Sectors and procedure for conducting reconnaissance in force of the forward edge of the fortified area;
- Measures providing for camouflage and surprise of the attack;
- Organization of command and control and communications with the troops;
- Installation of field depots and stockpiling of ammunition.

309. Based on the army (corps) commander's decision for the penetration, the division (brigade) and unit [chast'] commanders conduct personal reconnaissance and organize coordination.

On the terrain they clarify and establish:

- Objectives for the joint attack of infantry, tanks and assault groups, and the missions and procedure for preparing and supporting the attack;
- Details of the coordination of tanks with infantry and artillery, and the tanks' initial positions and directions of attack;
- Procedure for employing engineer subunits in assault groups and their coordination with infantry, artillery and tanks;
- Procedure for crossing enemy obstacles;
- With the commanders of air units [chast']: objectives of attack from the air, the procedure for air preparation and support of the attack, and coordination of aviation with ground troops.

310. Troops receive special training for the penetration in sectors in the rear organized with obstacles and mock-ups of permanent emplacements based on the type which the enemy has.

311. Actions of the combat arms to weaken the enemy defense zone are accomplished in the preparatory period. The duration of artillery and air softening up depends on the nature of fortifications, observation conditions and the attacker's resources.

Artillery and mortars uncover and demolish detected defense works, hit enemy batteries, make passages in antitank and antipersonnel obstacles, hit and exhaust the personnel of field troops, hinder work on defenses and disrupt control and the work of the rear.

Combat aviation demolishes defense works, hits and exhausts personnel, destroys enemy artillery, prevents work on defenses, and disrupts control and the work of the rear.

312. The results of the destruction of permanent emplacements are photographed by aviation and checked by ground observation and night reconnaissance raids.

To prevent the reconstruction and mining of demolished works and obstacles, one must keep them under constant fire of specially assigned machineguns, mortars and artillery.

313. In order to establish a compact grouping of forces and weapons on the axis of main attack, troops ordinarily are drawn up from the rear and there is a relief of troops, connected with the occupation of an initial position by newly arrived units [chast']. The troops' move to an initial position for the attack, the relief of units and the establishment and occupation of initial positions takes place in the order indicated for preparation of an attack from an area of immediate contact with the enemy.

The infantry prepares initial positions as close as possible to the forward edge of the enemy defense zone.

Initial positions are established in conformity with the combat order assumed for the penetration. The construction of trenches in the area of initial positions should be done across a broad front so that the enemy cannot uncover the axis of main attack. Shelters permitting direct fire are prepared for regimental artillery, for a portion of division artillery and for individual heavy guns. Camouflage measures and the establishment of dummy emplacements are widely employed.

314. The penetration of fortified areas and heavily fortified zones requires the rapid relief of first echelon divisions (brigades), and so combat formations must be deeper.

Army (corps) combat formations must be alined in three echelons in penetrating a fortified area.

Division (brigade) combat formations usually are alined in two echelons.

315. Assault groups, obstacle clearance groups and support groups are formed for the attack and capture of permanent emplacements.

Assault groups are made up of riflemen, submachinegunners, individual pieces of regimental and antitank artillery, one or two heavy tanks, combat engineers and flamethrower personnel and are provided with necessary gear, instruments, tools, explosives and cans of fuel.

Clearance groups are made up of combat engineers, reinforced by infantry and provided with mine detectors, tractors and means for crossing obstacles.

Support groups are set up in each rifle regiment and consist of one or two platoons of infantry and a subunit of combat engineers commanded by the combat engineer commander. The support groups receive the attachment of transports for the rapid and uninterrupted supply of assault groups and attacking subunits with explosives, ammunition and means for consolidating the terrain (entrenching tools, wire obstacles, mines, sandbags).

316. Artillery and mortars prepare and support the attack to the full depth. The use of massed fire of artillery and mortars in narrow sectors requires centralization of control (in the hands of the army artillery commander on the axis of main attack).

The primary missions of artillery on the day of attack are the destruction and neutralization of individual surviving emplacements, creation of additional passages in obstacles, and destruction of enemy weapons and personnel.

The destruction of surviving emplacements is executed by the fire of individual pieces from short ranges. The duration of artillery preparation of the attack is determined by the availability of artillery resources and the nature of the enemy's defense plan.

Artillery support of the attack and of combat in the depth of defense supports the rush into the attack, capture of the forward edge and subsequent advance of infantry, tanks and assault guns.

The attack on each subsequent center of resistance in the development of combat in the depth must be especially prepared by artillery and mortar fire. Primary attention is given to the destruction and neutralization of surviving permanent emplacements.

As the infantry advances into the depth of defense the artillery uses its fire to successively box in centers of resistance, thus disrupting the mutual fire support by elements of the enemy defense, and it prevents counterattacks from centers of defense not under attack.

317. Depending on the nature and system of the enemy's engineer works as well as the saturation of friendly units [chast'] with tanks, tanks are best employed in two or three echelons with a portion left in reserve.

The first echelon primarily consists of heavy tanks operating as part of assault groups.

They conduct point-blank fire against the embrasures of DOT [reinforced concrete pillboxes] and DZOT [earth-and-timber pillboxes] and destroy the infantry and its weapons in supporting the advance of assault groups.

On accomplishing the mission of penetrating a fortified zone, regiments of heavy tanks concentrate in assembly areas in readiness to repulse enemy counterattacks.

The second echelon made up of separate tank (mechanized) brigades and regiments uses fire and tracks to destroy enemy personnel and weapons hindering the infantry's advance, assists in consolidating captured centers of defense and lays a path for the infantry in the depth of the fortified area.

A tank reserve is assigned to exploit success in the depth and for parrying possible counterattacks of enemy infantry.

In the period of tank attack on the forward edge and combat in the depth of enemy defense, the commanders of supporting artillery must direct the artillery fire from forward mobile observation posts out of radio-equipped tanks.

318. In the period of artillery preparation and the attack, combat aviation continues to destroy defense works in the depth of enemy defense which are not observed from ground observation posts, it neutralizes enemy batteries and personnel, and it provides air cover to the main grouping of friendly troops.

Delaying the approach of enemy reserves to the sectors under attack also is an important mission of aviation.

319. Engineer troops advance with the first echelons of attacking tanks and with forward infantry subunits; they make passages in obstacles; and they support the advance of subsequent units [chast'] of the combat formation and the artillery's move up to new deployment areas. Some of the combat engineers are assigned to adapt captured weapon emplacements for defense and to destroy permanent emplacements which cannot be used for consolidation of success.

320. Combat in a fortified area usually has the nature of a stubborn struggle for each center of resistance.

With the transfer of artillery and mortar fire into the depth and to the flanks of the penetration, assault groups attack and seal off the permanent pillboxes right behind their supporting tanks.

The infantry with attached tanks moves into the attack simultaneously with the assault groups, destroying enemy personnel and weapons in the intervals between permanent emplacements, and it contributes to the attack of assault groups by enveloping the permanent emplacements from the flanks and rear with a portion of the forces.

Taking advantage of the disrupted mutual fire support in one sector of the enemy defense, each commander must boldly exploit the success achieved by executing a maneuver to the flank and rear of the enemy centers of resistance.

Occupied emplacements are immediately adapted for combat at the line which has been reached, or they are destroyed if it is impossible to adapt them.

Captured areas are thoroughly consolidated.

321. A decisive attack must be continued after capture of the main defense zone, not allowing the enemy to consolidate at switch, intermediate and rear positions. Attempts at enemy counterattacks are stopped by concentrated artillery and mortar fire, by the actions of aviation and tanks and by laying minefields.

322. In addition to the successive destruction of defense works and the gradual crossing of a fortified zone by the methodical use of powerful means of destruction, a penetration can be made when conditions are favorable using the methods of an accelerated attack based on surprise and swiftness of actions.

Favorable conditions for this are:

- Disorganization or decreased combat effectiveness of enemy troops;
- Insufficiency of the enemy's forces and weapons for defense of the fortified area (insufficient saturation with permanent emplacements, weak antitank defense);
- The enemy's lack of readiness to defend the fortified area or fortified zone;
- The presence of weakly fortified boundaries between enemy centers of defense or adjacent fortified areas, as well as the presence of unoccupied sectors.

In these instances a vigorous attack with the employment of strong aviation, airborne assault forces and tank and mechanized units [soyedineniye] and supported by powerful weapons concentrated in a narrow front can count on success. After seizing a certain sector of the fortified zone by a surprise attack from the move or having penetrated at a boundary of centers of defense, one must quickly exploit success, penetrate the main zone of fortifications and take the fortified area.

13. Attack Against an Enemy in a Hasty Defense

323. The enemy's hasty assumption of a defense occurs in instances of:

- A withdrawal after loss of a main defense zone;
- An advance of enemy reserves for the purpose of halting our attacking group of troops who have penetrated the defense or have enveloped an exposed enemy flank;
- Unsuccessful progress of a meeting engagement for the enemy.

324. The enemy's hasty defense is characterized by:

- Weak development or absence of engineer works;
- Insufficiently developed antitank and antipersonnel fire plan;
- Weak development of the terrain;
- Insufficiently firm coordination within enemy combat formations;
- Weak development of the defensive depth and concentration of the center of gravity of resistance in the first line of strongpoints and centers of defense.

325. The primary condition for achieving swift success in fighting an enemy who has assumed a hasty defense is boldness and swiftness of actions by attacking troops with assurance of a massive superiority in fire on decisive axes of attack.

Rapid development of local successes assumes special importance.

326. The attack on an enemy who has assumed a defense in a period of withdrawal usually is preceded by his pursuit. In this case two forms of defense should be distinguished:

--The enemy is forced to assume a defense on an unorganized line in an attempt to win time or form a common front with adjacent groupings;

--The enemy has withdrawn to a prepared defensive line but is forced to occupy it hastily and with weak forces.

In both cases preparation of the attack must begin in the very course of pursuit.

While annihilating screening enemy units [chast'], the pursuing troops attempt to penetrate in the boundaries between them and to use strong detachments to burst into defense areas, hindering their organized occupation by retreating enemy units.

Aerial reconnaissance determines the outline of defensive lines and reveals the enemy grouping as it occupies a defensive line.

Combat aviation delays approaching reserves and attacks enemy troops on the approach to defensive lines and while they are being occupied.

Tank and mechanized units [soyedineniye] try to break the retreating enemy's resistance on selected axes and to seize specific sectors of defensive lines before their occupation by major enemy forces.

Long-range artillery uses organized fire to hinder retreating troops in occupying a defensive line and to hinder the approach of enemy reserves.

327. The attack on an enemy who has halted at an unprepared line must begin as quickly as possible.

Divisions (brigades) receive missions for penetration of the defense in the period of approach to the defensive line, and they are given the attachment of means of reinforcement.

The army (corps) commander forms a grouping for penetration by narrowing the zones of divisions (brigades) intended for delivering the main attack and by placing second echelon units [soyedineniye] into the first echelon.

Division (brigade) commanders make and update their decisions as the attacking units [chast'] approach the enemy's main defensive lines.

The bulk of division (brigade) artillery proceeds with the rifle regiments (separate battalions) and are at the disposal of the commanders of these regiments (separate battalions). Centralized control of artillery is prepared simultaneously for an organized attack in case the forward units [chast'] are not able to burst into the enemy positions from the line of march.

Commanders of regiments (separate battalions) must receive combat missions no later than when advance guards arrive at the presumed enemy forward edge of defense.

328. If forward units [chast'] have succeeded in seizing favorable areas in the enemy defense zone, the bulk of division (brigade) artillery is immediately shifted to their support. The division (brigade) main body and tanks take up an initial position under cover of forward units and assume the attack after a reconnaissance in force, attempting to penetrate the full depth of enemy defense in a single attack.

The successes achieved are immediately exploited by army second echelons and division (brigade) reserves.

Second echelons are restored at the expense of divisions (brigades) operating on secondary axes.

In a hasty enemy defense the width of a penetration sector is not of decisive importance initially. With swift and decisive actions major forces often can penetrate even in a narrow breach and attack the defending enemy grouping in the flank and rear before the latter is able to take decisive countermeasures. This method of operation will be favorable when reconnaissance has established the enemy's lack of major reserves.

329. Decisiveness of actions across the entire attack frontage assumes special importance with the enemy's hasty assumption of a defense after a withdrawal. Units [chast' and soyedineniye] delivering secondary attacks must act boldly and resolutely and attempt to penetrate as deeply as possible into the enemy defense. Such actions must conceal the axis of main attack, draw enemy reserves to themselves and allow the units [soyedineniye] delivering the main attack to rapidly cross the entire depth of defending units [chast'] and move to the flank and rear of the enemy main body.

330. An attack on an enemy who is retreating to a prepared defensive line already occupied by reserves (even if deployed across a broad front) requires more careful preparation.

Attacking units [chast'] try to take individual sectors and strongpoints of the enemy defense from the line of march using the forces of forward detachments and advance guards, and they shift to preparation of an attack if they establish that the defense is sturdy.

Depending on the nature of the defense, an attack is conducted either by methods approximating an attack on a deliberate defense under field conditions or methods of attack on an enemy who has halted on a line unprepared for defense.

In all instances preparation of the attack must not take more than 24 hours.

331. An attack on a defense set up by hastily advanced enemy reserves can have different forms.

If the enemy was forced to deploy in the immediate vicinity of our troops on a line unprepared for defense, then the attack is conducted by the very same methods as in an attack on an enemy who has assumed a defense in a meeting engagement. There is special importance here in the speed of concentrating forces and weapons and the depth of the initial attack. Any success is immediately exploited by second echelons and reserves.

If the enemy succeeded in occupying a line prepared for defense and has created a sufficient density of defense then the attack is conducted by the very same methods as an attack on an enemy in a hasty defense.

332. Troops conduct an attack against an enemy who has assumed a defense as a result of a meeting engagement without changing the axis of main attack if possible; in this case massed artillery and mortar fire is organized above all against the sector planned for penetration of the enemy defense.

Not only the artillery located here previously, but also artillery in adjacent sectors is used for supporting the main attack. Special attention is given to organizing the fire of those groups of artillery which occupy positions giving them an opportunity for conducting flanking and oblique fire against the chosen sector of attack.

Depending on the situation army (corps) artillery either continues counterbattery fire or shifts to support of tanks and infantry of the attacking forces on the main axis.

333. Penetration of an enemy defense which arose during a meeting engagement usually is done by forces of the army (corps) first echelons. To this end the units [chast' and soyedineniye] are placed in order, they receive updated missions and, after artillery preparation which primarily bears the nature of massed fire assaults on the most important centers of defense, they move into the attack, striving to penetrate the enemy defense to the full depth at a single blow.

The bulk of the tanks participates in this attack, attempting to break through with artillery support into areas where enemy reserves and artillery positions are located.

334. If by this period of combat the army commander has unused tank and mechanized units [soyedineniye] at his disposal, they can execute the penetration of the enemy defense. Rifle units [soyedineniye or chast'] previously in the first echelon attack behind the tank and mechanized units [soyedineniye], consolidating and exploiting their success.

335. The missions of combat aviation are to provide support on the battlefield for units [chast' and soyedineniye] attacking on the main axis, to delay approaching enemy reserves and to support the main army (corps) grouping from the air.

336. All preparation of an attack on an enemy who has assumed a defense as a result of a meeting engagement must take no more than 4-6 hours.

If the attack is executed in the latter half of the day the tactical plan must provide for the exploitation and consolidation of success by night actions.

If for some reason an attack is impossible during the day it should be conducted at night or, in the extreme case, on the morning of the following day, taking advantage of hours of darkness for a more thorough preparation of the attack.

337. In all instances of a struggle against an enemy who has assumed a hasty defense there is special importance in speed in collecting and processing data from all kinds of reconnaissance.

14. Attack at Night

338. Combat actions at night are common under present-day conditions.

Hours of darkness (or fog) contribute to attaining surprise and reduce losses from fire to the greatest extent.

339. In offensive combat nighttime can be used for purposes of:

- Seizing strongpoints on the forward edge of enemy defense for facilitating development of the attack at dawn;
- Exploiting success achieved during the day in the depth of defense;
- Regroupings of forces and weapons during combat;
- A concealed deep envelopment of the enemy and movement to his rear;
- Reconnaissance raids and brief attacks to inflict losses on the enemy and capture prisoners.

340. The plan for a night attack must be simple in concept. Troops are assigned limited missions for a night attack and are given straight, short axes for attack; complex maneuvers are not permitted in a night attack.

341. The plan of a night attack includes:

- Missions for reconnoitering attack sectors;
- Directions for investigating all obstacles along a movement route, especially minefields; methods for marking and crossing them;
- Axes and objectives of attack and final objectives based on terrain reference points (azimuths);

- Forces and make-up of units [chast'] for the attack and procedure for supporting them by fire;
- Missions for supporting means of reinforcement;
- Procedure for illuminating the terrain and establishing luminous reference points;
- Procedure for advancing to the assault position;
- Measures for countering enemy counterattacks and consolidating success;
- Organization of communications, prearranged signals (colored flares, signal lanterns), identification markings of friendly troops;
- Measures for securing and supporting the flanks.

342. A night attack requires the most thorough preparation and organization.

Daytime commander's reconnaissance is carried out secretly prior to a night attack, where the following are established:

- Objectives of attack for subunits and directions to them;
- Initial lines for the offensive and an attack;
- Movement routes to initial lines and methods of denoting them by identification markings and previously determined azimuths.

Movement routes must be marked by identification markings visible in the darkness so that guides assigned to reconnaissance from the subunits can faultlessly lead the troops to the initial lines at night.

Preparation of a night offensive and the time of attack must be kept in strict secrecy.

343. Infantry plays the main role in night combat.

Artillery preparation usually is not carried out, but artillery and mortars must be ready to open fire immediately at the infantry's request against pre-planned targets and to conduct barrage fire to isolate the attack area.

Tanks can be employed in a night attack under favorable terrain conditions without a complicated maneuver and for a brief period. In this case they move in the infantry combat formations.

Combat aviation is employed for exhausting the enemy, disrupting communications and creating fires and artificial illumination in the enemy position.

344. The troops' advance to the assault line is done in small columns while observing strict light discipline and silence. Special file leaders from among middle command personnel must be trained for leading the troops. A security force is sent out to abbreviated distances. Short halts are made to check the correctness of the direction of movement, to draw up columns and to maintain communications.

Everyone quickly lies down when caught in the beam of a searchlight.

345. After taking the area indicated, every unit [chast'] immediately adapts it for defense, draws up weapons, sends out reconnaissance and puts out a security force.

15. Attack on Populated Points

346. An attack and combat within populated points is characterized by the restricted nature of the field of view and fire, complexity of command and control, and limited opportunities for maneuver within the populated points.

347. Combat for a populated point is conducted in coordination with troops operating outside the populated point.

A frontal attack should be avoided in attacking a populated point, with thrusts directed toward its close and deep envelopment. Large populated points should first be encircled. One must be concerned with maintaining close contact with adjacent units to avoid opening fire against friendly forces.

It is more advantageous to conduct an attack of a populated point after units [chast'] advancing from the front cross the zone of the enemy covering force (or his main defense zone) extended ahead of the populated point and enveloping units succeed in moving to the flank and rear of the populated point, sealing off its defending garrison.

There must be sufficient and free forces outside the populated point to combat enemy troops trying to raise the blockade.

348. Combat within a populated point breaks into a number of separate local clashes. The outcome of combat is decided by independent actions of initiative even by small subunits.

Strong reserves are mandatory.

349. The following is considered when attacking a large populated point (or city): size of the populated point, width of streets and nature of buildings; presence of fortifications ahead of and in the rear of the populated point, on the outskirts and within it; disposition of defensive troops as well as of weapons covering approaches to the populated point; layout of municipal and governmental establishments, industrial enterprises and depots; medical and veterinary condition of the populated point; and sentiments of the local populace.

A city is broken into areas. The capture of each area is given as the mission to a reinforced battalion or regiment depending on the size and importance of the objective and the presence therein of strongpoints and heavily fortified buildings.

350. Success of an attack on a fortified populated point depends on thoroughness of reconnaissance of the system of defense, obstacles and approaches to the populated point; and on close coordination of infantry, mortars, artillery, aviation, tanks and armored vehicles.

The infantry attack must be preceded by artillery and air preparation for uncovering and destroying defensive structures, especially stone structures which can be adapted for a stubborn defense.

After overcoming the resistance of centers of defense ahead of the populated point, the infantry approaches almost right up to the attack objectives under cover of aviation and the fire of artillery and mortars. Projecting corners of the populated point are attacked first of all.

351. Units [chast'] assigned to attack individual points within a city make up assault groups reinforced by combat engineers with demolition equipment, individual guns, flamethrowers and one or two heavy tanks.

All personnel of the assault groups are supplied with a large number of hand grenades (including smoke grenades), Molotov cocktails, thermite balls and antitank grenades.

Tanks are assigned the missions of seizing all exits from a populated point; close support and accompaniment of assault groups; and repulse of enemy counterattacks, for which a portion of the tanks must be kept in reserve.

After the outskirts of a small populated point are taken, the attack is conducted without let-up until reaching the opposite outskirts or, in a large populated point (a city), from block to block.

An advance is made within a large populated point (or city) by infiltrating through yards, gardens, parks, and alleys, through holes in building walls, and along underground passages and tunnels. Small subunits, armored cars and tanks attack along streets.

A careful inspection must be made of all buildings and underground facilities.

352. As a populated point is taken one immediately begins consolidating occupied quarters, areas and lines, for which the attacking units [soyedineniye or chast'] are reinforced by engineer units or subunits. Stone or sturdy wooden buildings are reinforced and adapted for defense (especially on outskirts facing the enemy). Barricades and weapon emplacements are erected and minefields laid at street intersections.

Strongpoints and centers with a perimeter defense are set up in occupied blocks; special commandants are assigned in them who are responsible for the defense. Leaving a strongpoint or center of defense can be authorized only on order of the senior commander.

When the troops move outside the populated point, steps are taken to organize a defense on approaches to the populated point and on the flanks; field fortifications, earth-and-timber emplacements, and antitank and antipersonnel obstacles are set up. Forces are assigned for repulsing enemy attempts to reoccupy the populated point.

353. To organize and maintain order in an occupied city it is necessary:

--To introduce a state of siege;

--To establish commandants' offices by areas; to put out posts for guarding the most important buildings (telegraph office, telephone office, power station, water lines), enterprises and depots;

--To send out strong foot or mounted patrols along the streets;

--To set up outposts (individual outguards) with armored vehicles, tanks and individual guns at street intersections leading to important areas and on squares;

--To post guards near individual buildings in mined areas and begin clearing them;

--To set up duty units [chast'] at the commandants' offices equipped with trucks for rapid movement;

--To organize the confiscation of weapons, radio receivers and radio transmitters from the populace.

16. Attack in the Forest

354. An attack in the forest has the following features:

--Restriction of field of view and field of fire;

--The enemy's ease in setting up chemical obstacles and ambushes;

--A need for deeper combat formations;

--Difficulty in the simultaneous neutralization of the full depth of the defense zone;

--Complexity of control.

The success of actions in large and dense forests depends to a considerable extent on the troops' ability to maintain the designated direction.

355. An attack on an enemy defending a large wooded area requires his organized neutralization on the edge of the forest by the fire of artillery, mortars and aircraft.

When attacking an enemy who holds the forest edge, one first attacks the salient wooded areas. The treetops must be cleared of enemy submachinegunners by fire.

When attacking an enemy in the forest one must strive for close or deep envelopments of him if only by small units. The boldness and initiative of small infantry subunits supported by mortars, individual guns and tanks is of great importance.

In forest combat it is advantageous to seize exits from the forest in the enemy rear for the purpose of encircling and destroying him. Small forests usually are easiest of all to seize by encirclement.

Combat within a large dense forest often is conducted by independently operating units [chast'] with means of reinforcement and engineer and antichemical support.

356. A concealed approach to the enemy to short range for occupying an assault position is facilitated in a large dense forest. Troops must avoid concentrations on roads, in clearings and in meadows.

The attacking units advance from line to line (roads, clearings, meadows, ravines, streams). At each line the units are put in order, weapons are drawn up, communications restored and further avenues for advance are reconnoitered.

Large clearings and cut areas should be gone around, leaving some of the forces and weapons to pin down the enemy defending them.

Units and subunits in combat formation are alined in echelons; reserves usually are reinforced and advance behind the forward subunits at shortened distances. The flanks and rear are secured by outposts and patrols sent out in advance. A screening force is assigned to the artillery and combat trains.

357. An infantry attack is supported by artillery, mortars, subunits of tanks and aviation.

On attacking in sectors accessible for their use, tanks usually proceed in the infantry combat formations, maintaining visual contact with the infantry and among themselves.

Passages are made in obstacles for the attacking infantry and tanks.

Division and army artillery and the tank group usually are distributed to the rifle regiments.

358. Deep in the forest artillery supports an attack by successive neutralization of enemy resistance, primarily conducting direct fire.

The need may arise in a large forest for successive artillery preparation of an attack by lines for the purpose of neutralizing enemy fire on roads, in clearings and in meadows.

The fire of mortars and individual guns is employed to destroy enemy blockhouses, weapons and antitank strongpoints.

359. Combat aviation is employed to attack enemy troops in meadows, on edges, in clearings and on roads; to damage forest roads; to destroy crossings; and in some cases to burn down the forest.

To avoid hitting friendly forces there must be a restriction of air actions to lines visible from the air (clearings, roads, streams, large meadows, marshes) and running parallel to the attack frontage.

It is sometimes more advisable to set fire to small forests and individual fortified areas of a large forest than to attack them.

The possibility of lengthy persistence of toxic agents in the forest and of forest fires makes it necessary to carefully organize antichemical and fire protection of the troops.

360. An attack in marshy woodland areas usually is conducted along separate axes.

Marshy sectors must be thoroughly reconnoitered and an attempt must be made to have small detachments seize passages between them in the rear and on the flanks of the enemy.

361. The restricted road network in forest areas requires thorough organization of the movement of troops and rears. Combat engineer units are reinforced by infantry to speed up road work and remove obstacles. Blockhouses, to which special garrisons are assigned, should be built on the most important routes and at road junctions to assure security.

17. Attack with River Crossing

362. The importance of a river as an obstacle is determined by its width, depth, current velocity, nature of banks and valley, the presence of fords, hydraulic works and reservoirs, state of weather and time of year.

An attack with a river crossing demands thorough reconnaissance of the river, the nature of approaches to it, existing hydraulic works and reservoirs, and the enemy defense on the opposite bank, as well as the concentration of crossing equipment and the preparation and support of a crossing by artillery and mortar fire and aviation.

363. It is most advantageous to use the following for a crossing: river sectors curving inward toward the attacker; areas providing for camouflage of the units which are to cross; an elevated bank with good observation posts; concealed approaches to crossings; river sectors with fords, islands and convenient places for troops to embark and disembark and for building bridges.

In choosing a spot for a crossing one must consider that the most convenient sectors for a crossing usually will be defended more strongly by the enemy.

364. Success of an assault river crossing is achieved by:

- Surprise: the sudden seizure of existing crossings and hydraulic works; swift seizure of a bridgehead on the opposite bank; a simultaneous crossing over a wide front; construction of dummy crossings; secrecy in preparing the assault crossing; the timely, skillful maneuver of crossing equipment;
- Concentration of superior forces at crossing points; reliable neutralization of enemy weapons; thorough organization of the crossing;
- Well organized antiaircraft and antitank defense and antichemical protection of crossing points.

365. On approaching a water line the forward detachments, tank units [chast'] and advance guards, with the cooperation of aviation, should seize crossings quickly and suddenly and hold them until the main body arrives.

There is a planned preparation for an assault crossing of a water line if crossings failed to be seized.

In this case it is necessary to clear the enemy from the near bank and remove obstacles; reconnoiter the water line and enemy defense; concentrate the main body in sheltered areas; prepare roads and crosscountry routes; organize concealed supply, a concentration of crossing equipment and collection of local floating resources and improvised materials; and develop a plan of attack.

366. Several crossings are organized in the division (brigade) zone of advance. Their number depends on the availability of points suitable for a crossing and on the supply of crossing equipment and means of neutralization.

367. An assault crossing of a water line is done:

- In the daytime after artillery and air preparation;
- In the evening (while it is still light) after artillery and air preparation, with the main body crossing at night;
- Before dawn, under cover of the darkness of night.

The main body's crossing is preceded by capture of a bridgehead on the enemy bank, with organization of an antitank defense.

It is most advantageous to send the main body across under cover of darkness.

An assault crossing usually is accomplished after neutralization of the enemy defense by artillery, mortars and aviation. The crossing must be accomplished under the reliable fire of artillery, mortars and combat aviation.

368. The decision for an assault crossing specifies:

- Objective and commander's concept;
- Troop missions on the opposite bank;
- Seizure of a bridgehead for supporting the main body's crossing and measures to consolidate it;

- Alinement of combat formation of the units which cross and the method of crossing;
- Organization of artillery and air preparation and support throughout the action;
- Organization of coordination of the troops who are crossing;
- Order of crossing for the main body, particularly the artillery and tanks;
- Measures for camouflage and for deceiving the enemy to achieve surprise;
- Organization of communications during the crossing and on the opposite bank;
- Combat support measures;
- Organization of the rear;
- Command post location and procedure for transferring it to the opposite bank.

369. A crossing timetable is drawn up based on the decision for the assault river crossing.

The table indicates;

- Locations of crossing, their readiness times and crossing commanders;
- Distribution of troops (including engineer troops) and crossing equipment to the crossings;
- Order of crossing for forward subunits;
- Sequence and time of crossing of troops by echelons;
- Time for each echelon's crossing;
- Assembly areas and initial areas for troops who are to cross and their embarkation locations;
- Communications with the crossings and units which have crossed;
- Crossing support measures;
- Reserves of crossing equipment.

370. An army (corps) and division (brigade) receive a crossing sector in their zone of advance. Commanders of the divisions (brigades) which are to cross are the crossing commanders in their sectors.

The chief of engineer troops of an army and the corps and division engineers organize and direct all engineer work in support of the attack and crossing and take part in drawing up the crossing timetable.

The commanders who built crossing points are appointed crossing commandants to assure the uninterrupted operation of the crossing points.

Crossings are removed only on order of the army (corps) commander.

371. Artillery and air support of crossings and the neutralization of enemy artillery, mortars, observation posts and weapons directly hitting crossing locations are of exceptional importance.

If the forward edge of enemy defense is at a distance from the riverbank, artillery and air preparation continues until units of the combat formation arrive at the assault position.

Artillery and air support must continue right up until completion of the main body's crossing to the opposite bank and execution of the combat mission there.

372. Infantry subunits with antitank weapons and obstacle clearing detachments assigned for supporting the first echelon's crossing go across first of all under cover of all kinds of fire. Their mission is to destroy surviving enemy weapon emplacements on the bank, make passages in obstacles and set up an antitank defense.

Following them, the first echelon crosses over a wide front and seizes a favorable line for supporting the crossing of subsequent echelons. Light tanks, antitank and regimental artillery, artillery forward observers and squads for communications with the infantry cross with the first echelon.

Subsequent echelons immediately begin the crossing under cover of the first echelon.

Artillery and mortars cross by echelon so that the bulk of them can continuously give fire support to the crossing and actions of troops on the opposite bank. Artillery units which have crossed are subordinate to the infantry commanders until unified by the senior artillery commander.

Bridges are built only under cover of darkness, after the first echelon has seized the opposite bank and moved to a line which secures the crossing against rifle and machinegun fire.

The bridges are opened in the morning and the crossing during the day is made on ferries.

373. A crossing area must be reliably screened by aviation, antiaircraft artillery and antiaircraft machineguns.

A portion of antiaircraft weapons is sent across to the opposite bank even before bridges are built.

374. An assault river crossing in the evening must provide the opportunity of seizing planned lines for securing the bridgehead while it is still light. The first echelon's crossing is accomplished on the very same basis as during the day. The main body crosses during the night, and at dawn it must begin a general offensive.

375. An assault river crossing can be accomplished directly on an approach in a meeting engagement, when pursuing the enemy and when the enemy assumes a hasty river defense.

The enemy must be subjected to air strikes even before the approach to the river.

Bridges and hydraulic works must be seized above all. Rifle subunits cross the river quickly at various points across a broad front on their own or improvised crossing equipment. The artillery uses its fire to box in crossing sites and together with aviation it neutralizes enemy artillery.

Antitank and regimental artillery and tanks fire point-blank on enemy weapons from the near bank.

In this instance the aggressiveness of units which have crossed and their vigorous actions on the opposite bank can decide the outcome of the assault river crossing.

Airborne assault forces can be employed to seize the most important crossings and bridgeheads on the opposite bank and to hold a water line until the arrival and crossing of forward friendly units.

376. The division (brigade) commander's command post is moved to the opposite bank after the first echelon crosses.

Necessary means for wire and radio communications are sent across with the first echelons.

18. Attack in Winter

377. An attack in winter is conducted with consideration of the effect of the snow cover, cold, and short day.

An attack in winter imposes the duty on commanders to show special concern for preserving the strength and combat effectiveness of troops and for the use of weapons, equipment and motor transport.

During an attack in winter:

- The importance of populated points and forests as shelters from the cold increases;
- Offroad troop movement is hindered (except for ski units);
- More time is required to prepare and conduct an attack;
- The time for night actions increases;
- The importance of natural obstacles changes.

378. When attacking from an area of immediate contact with the enemy, special importance is acquired by:

--A detailed study of the enemy defense plan, layout of his strongpoints, establishment of intervals between them, the nature and location of enemy obstacles as well as the screening forces and weapons;

--Advance preparation of an initial line for the attack (organization of snow trenches and shelters for warming the personnel and equipment shelters);

--Constructing snow trenches to the forward edge of enemy defense;

--Drawing up infantry weapons and reserves in advance.

379. The assault position should be occupied at night, not long before dawn, to avoid excessive losses and to ensure surprise of the attack. The time present at the assault position must be kept as short as possible, especially in freezing temperatures, to avoid frostbite.

380. An attack from an area of immediate contact with the enemy usually is conducted without skis along the constructed snow trenches in a deep envelopment of enemy strongpoints, with a simultaneous attack against them by a portion of the forces from the front.

Tank reconnaissance of the battlefield to identify snowcovered antitank obstacles and minefields acquires special importance.

Tanks attack in close coordination with the infantry on axes accessible for their operations (crests and watersheds with little snow).

A snowcover more than 50 cm thick considerably restricts the use of tanks and with snow deeper than 75 cm it is inadvisable to employ tanks. Tank crews are supplied with skis.

Artillery and mortars support an attack by infantry and tanks under all conditions of snow cover and temperature.

To facilitate the movement and maneuver of artillery on the battlefield guns and the personnel of reconnaissance and signal subunits must be placed on skis. In necessary instances the infantry must assist in advancing accompanying guns on the battlefield.

381. Deep and close envelopments acquire decisive importance in a period of combat in the depth of enemy defense. Bold actions even of small ski subunits against the enemy flanks and rear can assure substantial success.

Troops who are well trained for winter operations should be employed for a night attack with a limited objective when there are short distances and well reconnoitered attack objectives.

382. Ski detachments reinforced by tanks, mortars, artillery and combat engineers should be employed widely in attacking enemy reserves and artillery.

Friendly flanks must be secured by groups of skiers with antitank weapons.

383. Reconnaissance detachments of skiers reinforced by combat engineers, submachinegunners and mortars (on sleds) are moved forward and to the flanks in an attack involving a main body's approach to an enemy defense zone; before the main body arrives these detachments must establish the outline of the forward edge of enemy defense, his strongpoints, intervals between them, and the fire and obstacle plan.

Advance guards placed on skis (with combat engineers, artillery and mortars on ski-sled mounts) must burst onto the forward edge of enemy defense on the heels of the battle outposts. They send out flank detachments onto axes allowing a sudden move to the flank and rear of the enemy battle outposts. Main body artillery must be ready to support the advance guards' actions.

384. The main body moves from line to line, often along snow trails laid in advance (later developed into snow roads) for the purpose of moving stealthily to the flanks or into intervals between enemy strongpoints.

The main body must be ready to repulse surprise attacks of enemy ski detachments. This demands a reinforced perimeter security by skiers, the presence of ski subunits at the heads of columns, and readiness of a portion of the batteries to open fire.

Main body deployment areas must give the troops an opportunity for a concealed disposition against enemy air and ground observation, and the areas must protect them from the cold.

Further actions take place in the very same order as from an area of immediate contact with the enemy.

385. Special ski units [chast' and soyedineniye] are an asset of the army command.

Distinguished by high mobility, independence of roads under winter conditions, and the ability to appear suddenly and fight in the enemy rear, the ski unit [chast'] can accomplish the following missions:

--Cooperate with troops attacking from the front in encircling and destroying the enemy by joint actions with airborne assault troops and partisans in the enemy rear;

--Destroy headquarters, communications centers, depots, bases, airfields, bridges and other rear installations and works by operations in the enemy rear;

--Screen a regrouping of friendly troops and secure flanks in an offensive operation;

--Pursue a retreating enemy either independently or in coordination with cavalry and tank units [chast'].

386. Signal units and subunits must be placed on skis and must have adapted transport.

Individual skiers and ski detachments must be used widely for communications in all units [chast' and soyedineniye].

387. Warming points and field messes are set up on supply and evacuation routes.

Medical evacuation points are echeloned at shorter distances. Special attention is given to the most rapid manual evacuation of wounded and to heating during their transportation.

19. Attack in the Mountains

388. An attack in the mountains is conducted along valleys and along and across ridges.

389. An attack along ridges is conducted by a combination of penetrations along valleys with a deep envelopment across the mountains and the seizure of passes, mountain passages and commanding heights in the enemy rear and on the flanks.

390. The main body concentrates for a penetration along valleys with the greater portion of artillery, tanks and motorized units [chast'].

A valley penetration should be developed vigorously in depth, using tanks with tank-mounted forces and aviation above all for this purpose.

Development of a penetration by mobile units [soyedineniye] and the employment of airborne assaults for capturing road junctions in the enemy rear can lead to the enemy's encirclement and destruction in considerable sectors of his front.

391. When attacking along valleys it is necessary to secure friendly flanks by seizing hills and their slopes which dominate over the valleys.

Troops attacking along valleys must cooperate with units [chast'] attacking along ridges using air attacks, friendly artillery fire and a move to the rear of an enemy defending the hills.

Units attacking through the mountains on flanks must cooperate in turn with troops attacking along valleys by means of fire and an attack against the flank and rear of an enemy blocking the valley.

A screening force or reserves must be left at road junctions and spots where valleys branch in order to secure one's rear.

392. When attacking across ridges to seize passes and mountain passages one must take commanding heights and move to the other side of the ridge into the rear of the defending enemy by a swift turning movement.

The landing of an airborne assault force in the rear of an enemy who is defending passages and passes can be of decisive importance.

A vigorous attack against a pass from the front should be developed simultaneously with the cooperation of aviation.

393. Infantry fights in deeper combat formations and its actions chiefly bear the nature of close combat.

Gaining special importance in the infantry's combat is mortar fire to hit the enemy behind natural cover, the hand grenade and the brief bayonet attack. The abundance of dead ground makes it easier for the infantry to close to within a short distance of the enemy.

A deep penetration by infantry between enemy strongpoints may lead to successful results. There must be a good organization of the struggle against enemy flanking weapon emplacements, and subunits which have wedged in must be secured from flank attacks for this purpose.

Groups of submachinegunners (at least one per battalion) advance in front of the infantry combat formations with the mission of seizing individual intermediate hills and combing approaches to them.

Cavalry is employed in the mountains for a deep or close envelopment of enemy flanks and for operations against rear areas.

When attacking along accessible broad valleys, artillery is distributed and employed on a universal basis.

When a division attacks along several axes the artillery usually is attached to rifle regiments.

Mortars, pack horse artillery and separate 45-mm guns operating in infantry combat formations acquire great importance for accompanying the infantry.

The neutralization of enemy resistance on the flanks is a special mission of artillery and mortars in supporting an attack in the mountains. It is advantageous to employ long-range artillery for this purpose.

Tanks are employed in valleys on a universal basis.

Individual tanks and tank platoons must be moved to the crests of ridges for operations along them.

After the infantry takes mountain passages tanks should be employed to exploit success along accessible axes. A portion of the tanks is employed in close coordination with the infantry. Depending on terrain relief it is possible to employ tanks for supporting the infantry by fire from the halt.

A reserve of tanks must be kept in all cases.

Combat aviation destroys enemy weapons, artillery, reserves and concentrations of his troops in defiles and gorges.

Aviation also is employed for spotting artillery fire, for maintaining communications and for photographing the terrain.

Transport aviation is used to deliver combat cargoes to units operating in high mountain sectors.

394. The initial grouping of forces and weapons by axes is of decisive importance during combat actions in the mountains.

The deep envelopment and close envelopment are the primary forms of maneuver when attacking in the mountains.

The limited number of routes and difficult obstacles narrow the maneuver opportunities of the defending enemy and create favorable conditions for his encirclement.

Good organization of road work is of great importance when attacking in the mountains. Combat engineers must be attached to units [chast'] (at least a battalion per division) for this purpose.

395. Negotiating obstacles in the mountains demands considerably greater effort, resources and time than under level conditions. Therefore it will be more advantageous at times to go around obstacles than waste time removing them.

Every unit [chast'] attacking on an independent axis must have its own obstacle clearing detachment.

396. When organizing air defense in the mountains serious attention must be given to securing passes, mountain passages, gorges, river crossings and road junctions. Areas for troop disposition and rears should be chosen with consideration of the possibility of being hit by avalanches and falling rocks caused by air bombardment.

397. Control is organized in the mountains on the basis of maximum use of radio communications and visual signaling. Wire communications directly along the front is difficult and is maintained through the senior headquarters.

Signal subunits and units must be placed on pack and adapted transportation.

398. Extensive use of pack transportation and establishment of intermediate supply bases at the regimental and division levels are features of the rear organization.

20. Attack in the Desert Steppe

399. An attack in the desert steppe usually is conducted along individual axes on which there are water sources.

Troops, especially mobile troops, who are specially trained and appropriately equipped can operate at a considerable distance from water sources.

The possibility of offroad movement in the absence of a continuous front permits broad freedom of maneuver in the desert steppe. The deep envelopment and attack against the enemy flanks and rear are the most favorable forms of combat actions.

400. The strength and composition of troops for operations on individual axes are determined by the combat mission and the possibility of their logistical support, primarily with water and fuel [toplivo and goryucheye].

401. An enemy defense in the desert steppe ordinarily does not have firmly secured flanks and is built on fire from long ranges and on strong reserves. Therefore fewer forces are assigned for a frontal attack; the main body is sent in a deep and close envelopment of the flanks and an attack against the rear.

Combat formations have strong reserves and are supported by deep reconnaissance.

The nighttime should be used to occupy initial positions and execute a maneuver and regroupings.

Flanks are secured by observation and fire at long ranges and by sending out mobile units [chast'].

Reserves are disposed behind exposed flanks.

402. Artillery is attached to units [chast'] operating on separate axes and must be ready for rapid regroupings and a maneuver of fire to support deep envelopments and flank attacks of the attacking units.

Tanks and armored vehicles are employed for a rapid deep envelopment of the defending enemy's flanks and for attacking him from the rear together with motorized infantry.

403. Aviation is employed in the desert steppe for strikes against enemy troops, bases and water supply sources, for covering friendly troops against air attack, for coordination with mobile units [chast'] and for supplying the troops.

It is advantageous to employ airborne assault forces for capturing water sources in the enemy rear.

404. Operating conditions in the desert steppe require troops to carefully organize all combat support measures, chiefly antiaircraft and antitank defense.

405. Radio and mobile and signal means of communication find wide use in command and control.

406. The rear's uninterrupted operation and the organization of water supply are of special importance during offensive actions in the desert steppe.

Troops are supplied by a motorized rear and by transport aviation. The installation of dirt roads, construction of intermediate bases and establishment of stocks of all kinds of supplies with the troops must be provided for in advance with a deep penetration into the steppe.

21. The Rear in Offensive Combat

407. The following is of special importance in organization of the rear in an attack:

--Concentration of the bulk of ammunition, fuel and evacuation resources on the axis of main attack;

--Preparation and development of roads in a rear area;

--Restoration and laying of new routes (including crosscountry routes) following attacking troops;

--Maneuver of supplies, supply and evacuation routes, and rear units and establishments in conformity with a change of the situation during combat.

408. In the initial position for an attack the depth of rear areas is shortened to 8 km for the regimental and to 25 km for the division area.

Rear subunits and establishments are echeloned at shortened distances to facilitate supply and evacuation.

409. Rear establishments move behind the troops during an attack and deploy quickly in new areas without disturbing the continuity of troop supply.

410. Replenishment of mobile ammunition and fuel reserves up to the norm and establishment of ammunition reserves on the ground for preparation of an attack are the most important mission of the rear in an attack.

Special attention must be given to seeing that troops are not left without the necessary amount of ammunition and fuel at decisive moments of combat.

Supply is organized directly to combat subunits for restoring mobile reserves of pursuing troops.

411. A maneuver of supplies by reinforcing some units [soyedineniye or chast'] at the expense of others should be used widely under difficult supply conditions or with a disruption of supply.

Chapter 8 - The Pursuit

412. Total defeat of a retreating enemy can be achieved only by a relentless pursuit. It is undertaken by the units [chast' and soyedineniye] independently as soon as the beginning of an enemy withdrawal is discovered.

The pursuit is conducted continuously with a maximum exertion of effort until the enemy's total defeat and with a broad display of initiative by all commanders.

413. The unit [soyedineniye] commander plans measures for pursuing the enemy in the course of an attack. As soon as the enemy's withdrawal has been noted, the unit commander organizes pursuit by the rapid forward movement of all available forces and weapons in an attempt to overrun the enemy rear guards and block the withdrawal routes of his main body over the shortest axes. Tanks, motorized infantry and cavalry reinforced by combat engineers with means of obstruction and supported by long-range artillery and aviation are employed above all for this purpose.

414. The pursuing forward units and subunits (submachinegunners in vehicles and, in winter, ski units [chast' and soyedineniye]) try to wedge as deeply as possible into the retreating enemy's combat formations and disorganize them, going around surviving centers of resistance. Destruction of the latter is done by the main body.

415. Reconnaissance of all kinds must determine the withdrawal routes and grouping of the retreating enemy, the approach of reserves, and the preparation and occupation of defensive lines.

416. Moving forward in succession, long-range artillery uses its fire against road junctions, defiles and crossings to hinder the enemy's withdrawal and the approach of his reserves out of the depth.

Tank, mechanized and cavalry units [soyedineniye] (and ski units [chast' and soyedineniye] in winter) penetrate forward boldly, seize defiles, crossings and road junctions, and destroy the headquarters, communications and separate columns of the retreating enemy.

Combat aviation attacks the retreating enemy independently and in coordination with tanks and motorized troops, especially in places of his concentration, delays the approach of his reserves out of the depth, and covers the pursuing units against enemy aircraft.

Airborne assault forces seize defiles, crossings, road junctions and commanding heights and hold them until the arrival of mobile units [chast'].

417. *Parallel pursuit* from one or both flanks produces the most decisive success.

This is organized by moving up tank units [soyedineniye], motorized infantry (ski units in winter) and cavalry along routes parallel to the enemy's movement which allow forestalling the enemy at important road junctions, at crossings and in defiles and throwing him back onto difficult terrain or pressing him to impassable obstacles.

418. When an enemy withdrawal begins from close contact with our forces, the pursuit is conducted initially by the entire combat formation of the units

[chast']. Subsequently, when the enemy breaks off, troops quickly close up into columns and conduct the pursuit along main roads.

The pursuing units [soyedineniye and chast'] are assigned deep missions requiring their total exertion of efforts and giving their commanders an opportunity for broad initiative in actions.

Combat formations of the pursuing units must give them swiftness of actions as well as a swift deployment and maneuver across a broad front if the enemy attempts to offer organized resistance or undertakes an attempt to counter-attack the pursuing units.

A pursuit must lead to the isolation of separate enemy columns, their encirclement and their piecemeal defeat. But the rate of pursuit of his main body must not be weakened in so doing.

419. Command and control in the pursuit is based on a wide use of radio, mobile equipment and liaison officers. Wire lines of the communications axis are laid in advance and message centers are moved forward in the direction of the displacement of headquarters.

420. The supply of ammunition and fuel to pursuing troops, especially tank, motorized and cavalry troops, is a decisive condition for a successful and continuous pursuit.

Chapter 9 - The Meeting Engagement

1. Fundamentals of the Meeting Engagement

421. The meeting engagement is a special form of offensive combat. It is an engagement of sides who have moved into the attack simultaneously.

The meeting engagement arises:

--During a clash with the enemy on the march;

--During a clash with counterattacking enemy reserves during an attack;

--When moving into a counteroffensive or delivering counterblows in the defense.

422. The meeting engagement is characterized by obscurity, abrupt and rapid changes in the situation, transient nature of combat actions, and a struggle to seize and maintain the initiative from the beginning to the end of combat.

Success in a meeting engagement is achieved by speed and decisiveness of actions and by the rapid and coordinated employment of all combat arms in combination with a well-planned system of reconnaissance and support to attacking units [chast'].

423. A meeting engagement usually develops across a broad front, but its success is decided in the final account by the speed and strength of the attack on the main axis.

An attack against the flank and rear of enemy units [chast'] leading to their close envelopment and encirclement produces the greatest success in a meeting engagement.

In a meeting engagement the enemy in turn strives for attacks against the flank and rear. Therefore in organizing a strong, swift attack one has to secure the flank and rear of friendly troops by deep reconnaissance and the disposition of weapons, antitank resources and the reserve behind the flanks.

424. An encirclement in a meeting engagement usually is executed at the army (corps) level. The division (brigade) usually delivers an attack in one direction.

425. All combat arms are employed in a meeting engagement, but there is special significance in the rapid, massed commitment of mortars, artillery, tanks and combat aviation.

In the presence of tanks and aviation an attack usually is delivered simultaneously against the entire depth of the march or combat formation of the attacked enemy grouping.

In the absence of these resources the enemy's defeat usually is accomplished piecemeal.

In a meeting engagement there must be an attempt at rapid disorganization of the enemy's combat and march formations, their breakup into separate isolated groups, and the defeat of these groups in detail.

426. The meeting engagement can assume various forms depending on the situation:

--A clash with the enemy on the march; combat develops across a broad front and has a very mobile nature; in this case one must strive for isolation of separate enemy columns from each other and for the concentration of overwhelming forces against some of them with secondary actions and blocking forces against others;

--Combat against an enemy deployed in advance; in this case there is special importance gained by the surprise commitment of overwhelming weapons and tanks in a chosen sector, and the attack by tanks usually must be preceded by an air strike;

--Combat with an enemy who has shifted to waiting actions; in this case the combat assumes the nature of an attack against a defending enemy with accelerated preparation.

With the withdrawal of an enemy who has refused combat one should immediately assume a resolute pursuit.

Unit [soyedineniye] commanders must anticipate in advance a possible change in forms of the meeting engagement and undertake appropriate actions depending on this.

427. It is of exceptional importance in a meeting engagement to anticipate the enemy in deploying, in opening up massed mortar and artillery fire, in delivering surprise attacks by combat aviation and in moving into the attack.

Deployment in a meeting engagement must be executed with the calculation of bringing the enemy units deploying or still proceeding in march columns under immediate artillery and mortar fire.

Premature deployment leads to a loss of time and the slow development of combat actions.

If the enemy has preempted in deployment, his units are pinned down by the advance guards across a broad front and the main body delivers a swift attack supported by the bulk of artillery and by the tanks. Assumption of a defense by the advance guards is advisable in this instance.

428. In a meeting engagement a considerable portion of the artillery deploys at the initiative of column and advance guard commanders.

Army (corps) artillery proceeding as a separate column deploys by order of the combined-arms commander to whom it is attached.

Swift unification of the deployed groups of artillery for the coordinated employment of their fire in the interests of combat by the unit [soyedineniye] as a whole is a concern of the combined-arms commander.

429. In a meeting engagement aviation delivers systematic strikes against enemy troops while they still are in march columns; its primary efforts must be concentrated on destroying that portion of enemy forces which is operating on our troops' axis of main attack.

Simultaneously with the execution of this mission the aviation supports friendly troops as they pass through defiles and over open sectors of terrain.

After the battle has been joined the efforts of aviation are concentrated on assisting the advance of our troops' main grouping and securing its flanks against enemy counterattacks.

430. Tanks are employed in a meeting engagement primarily for attacking the enemy before he deploys out of march columns. In case the enemy preempts our deployment the tanks are employed in close coordination with the infantry (with the exception of large tank and mechanized units [soyedineniye]).

431. The infantry achieves success in a meeting engagement by speed of deployment, the swiftness of its offensive actions, the stubborn holding of individual important points and the rapid, massed commitment of mortars and machineguns.

432. Decisions in a meeting engagement usually are made in an obscure situation. Speed in decisionmaking assumes special importance. A delay here entails the loss of initiative. Decisions must be simple and must be executed persistently.

433. Combat actions in a meeting engagement begin back in the period of march execution before the march security of columns clashes with the enemy. Aviation, long-range artillery and mobile troops are employed above all for this purpose.

434. There is special importance of a proper terrain estimate and use of the terrain in combat under conditions of a meeting engagement. Commanders and staffs are obligated to carefully study the nature of terrain in the entire zone of movement in anticipation of a meeting engagement, determining all lines which are favorable or unfavorable for deployment and combat.

435. The basic decision for a meeting engagement is made in the army (corps) in organizing a march. This decision is updated during a clash with enemy forward units [chast'].

The decision for a meeting engagement in the division (brigade) must be made with the beginning of a clash with the enemy by forward security subunits.

436. The plan for a meeting engagement must be as simple as possible. Units [soyedineniye and chast'] receive immediate and subsequent missions in a meeting engagement. The assignment of missions is done by lines which provides favorable conditions for further conduct of combat.

437. The primary duty of the army (corps) commander and staff in a meeting engagement is to organize the coordination of rifle divisions (brigades), aviation, tank and mobile units [soyedineniye], and long-range artillery and to secure their main body against attacks from the flanks by major enemy groupings, especially tanks, and against air strikes.

Division (brigade) commanders and staffs organize the coordination of rifle regiments (separate battalions), artillery, and their attached tank units [chast'], and their security against enemy flank attacks.

438. Command and control in a meeting engagement usually is accomplished by brief fragmentary operation orders issued personally or via liaison officers. Radio opens up for transmission work and wire communications are laid from the moment columns deploy. Radio is the primary means of communication in a meeting engagement.

Coordination communications is organized in advance.

439. When organizing a march in anticipation of a meeting engagement one must replenish all individual and unit reserves.

440. Rear units and establishments of the division (brigade) move by echelon as part of the regimental (battalion) train columns and in independent columns.

With the initiation of a meeting engagement division (brigade) rear units and establishments move up ammunition transport, the medical aid station and evacuation resources.

2. Organization of Reconnaissance and the March in Anticipation of a Meeting Engagement

441. The organized commitment to a meeting engagement requires continuous reconnaissance of the enemy, preemption of him in seizing favorable lines, and reliable security of the march column, especially against an attack by aviation and tank units [soyedineniye].

442. Reconnaissance of all kinds must determine the enemy's distance, the direction of his movement and his grouping of forces on the march.

Not one detected enemy column must be left unobserved. Especially careful observation is established over mobile troops.

Aerial reconnaissance provides the army (corps) commander with data for changing the grouping of forces on the march, for employing aviation, tanks and long-range artillery and for making a decision for deployment of the divisions (brigades).

Ground reconnaissance is conducted by strong reconnaissance units [chast'] in the zone of the columns' movement and on the flanks. It must penetrate enemy security forces to reconnoiter his main body.

Commanders and staffs must assure speed in receiving reports from the reconnaissance subunits.

Under conditions of a meeting engagement there is also special importance in timely information about intelligence received by higher headquarters from aviation and from mobile troops who have been thrown forward, as well as from commanders and staffs of units [soyedineniye and chast'] proceeding in first echelons.

443. The seizure of favorable lines provides friendly troops with favorable conditions for deployment and is carried out by forward detachments or reinforced advance detachments sent out from various combat arms. Under winter conditions special ski units [chast' and soyedineniye] are employed for this purpose.

Forward detachments seize and hold lines until the arrival of advance guards, after which they become subordinate to the advance guards.

The dispatch of forward detachments usually is done by divisions (brigades).

Forward detachments of a reinforced make-up sent out by instruction of the army (corps) commander are organized when it is necessary to seize a favorable line a great distance away and hold it until the arrival of the main body.

444. A specific maneuver plan must be the basis for alignment of the march formation. Preliminary study of the enemy and terrain in the movement zone permits a determination of lines favorable for combat and planning of the most advisable troop grouping in the march and when deploying at each of the lines.

The basic questions of coordination of infantry, artillery, tanks, aviation and engineer troops are worked out simultaneously with decisionmaking for the march. The entire organization of march movement must ensure speed in the troops' deployment.

445. In organizing the march the army (corps) commander determines the main axis and most favorable grouping of troops on the march.

Rifle divisions (brigades) are given zones or routes for movement.

Tank and motorized units [chast' or soyedineniye] included in the army (corps) proceed independently on the march along a separate road or crosscountry routes.

Army artillery is attached to the divisions (brigades) or proceeds together with them while remaining at the disposal of the army (corps) commander.

In addition it is advisable to have an antitank reserve with a strength of at least one artillery regiment per army (corps), which proceeds on the march as a separate column and is committed by order of the army (corps) commander.

The army (corps) commander designates phase lines for control of movement on the march.

As data on the enemy are updated or depending on results of combat actions by aviation and mobile units [soyedineniye], the army (corps) commander must be ready to change the grouping on the march and execute a maneuver for winning a flank or penetrating the enemy front.

446. When making a march in anticipation of a meeting engagement the division (brigade) may proceed along one or two roads.

When moving along two roads the division (brigade) executes the march with two independent columns. Artillery is distributed between the columns by instruction of the division (brigade) commander, and within the columns--between the advance guard and main body--by instruction of the column commanders; a sufficient amount of artillery, including long-range artillery, proceeds in the advance guard and in the lead echelon of the main body.

Tanks attached to the division (brigade) execute the march in a separate column or they move in front of or at the tail of the entire column.

At times it may prove advisable to attach a certain number of tanks to the advance guards as well as to advance or forward detachments.

447. One must have strong security units [chast'] when making a march in anticipation of a meeting engagement. To this end the advance guards, advance and flank detachments and march security detachments are reinforced by artillery and antitank weapons.

Engineer troops and antichemical protection resources are distributed among the columns and, within the columns, among security units and the main body.

It is advisable to have a mobile reserve of engineer forces and resources in the hands of the senior commander.

The distance of security units from the main body is determined by the situation. It must provide security of movement and the prompt deployment and commitment of the main body.

Antiaircraft and antitank defense weapons and antichemical protection resources must be in constant readiness for action on the march, and the troops must be in constant readiness to take steps for protection and to repel an attack by enemy aircraft and tanks.

448. Fighter aviation and antiaircraft groups screen the main grouping of troops, especially as it passes through defiles. The columns split up and continue the march without delaying movement when there is a threat of enemy air attack.

449. The army (corps) commander with his staff moves from one point convenient for control to another in the movement zone of the main grouping.

Message centers are chosen with consideration of the possibility of setting up command posts at their location. Commanders and staffs with communications equipment must be located at the message centers.

The division (brigade) commander with the staff first echelon and a radio proceeds in the division (brigade) advance guard. Liaison officers from all units [chast'] are with the division (brigade) commander.

Radio communications on the march operates on transmission only with reconnaissance, for the warning service, and for command and control by radio signals.

3. The Initial Engagement and Combat of Advance Guards

450. Initiation of a meeting engagement begins with air actions against enemy columns.

That enemy group which most hinders the outlined plan of action is attacked and disabled above all. The employment of aviation must be exceptionally purposeful. It is better to knock out a lesser number of enemy troops on the march reliably than to dissipate air efforts against many columns but without sufficient effect. Special attention must be given to knocking out enemy tank units [chast'] and artillery on the march.

451. Long-range artillery is employed to damage and delay enemy columns as one closes with the enemy, especially when they pass through defiles and over crossings. Tanks and motorized units [chast'] are sometimes moved forward for an attack against individual enemy columns jointly with aviation.

452. In a clash with the enemy the advance guard must attack him swiftly, crush forward security units and attract the enemy main body to itself. By

such actions the advance guard simultaneously gives the main body column freedom of deployment by seizing a favorable line.

453. The column commander indicates points and lines which the advance guard must seize and secure. The advance guard attacks the enemy along the shortest axis, avoiding a complicated maneuver. The actions of advance guards must be supported by powerful fire of the main body's artillery and by combat aviation.

If the advance guards preempt the enemy in deploying, the main portion of tanks is committed simultaneously with them on the main axis with the mission of attacking the enemy main body and his artillery in the period of their deployment.

The advance guards of adjacent columns give each other what assistance is possible by artillery fire and by an attack with a portion of the forces against the flank and rear of enemy troops deploying against adjacent units without deviating from executing their primary missions.

454. Artillery and mortars of the advance guards screen their deployment by preempting the enemy in opening fire. Steps are taken to organize centralized artillery fire control.

Army (corps) artillery assists the infantry in seizing important points, it neutralizes enemy artillery and hits his approaching columns.

455. Antitank and regimental guns as well as subunits of antitank rifles quickly take up positions at the line planned for deployment of the advance guard, on the flanks and behind boundaries, organizing a firm antitank defense.

The advance guard's infantry uses concealed approaches to move quickly to the line of deployment and, supported by artillery and tanks, swiftly attacks the enemy by enveloping his flanks.

456. If the enemy preempts in deploying and the advance guard is attacked by superior forces or if the terrain ahead is unfavorable for the main body's deployment, the advance guard assumes a defense with the mission of halting the enemy attack, holding the captured line, and screening the main body's deployment there and its commitment.

457. The advance guard commander makes a decision and chooses the method of actions based on the general mission assigned to the column as a whole.

The column commander must assign the advance guard a mission for combat no later than the deployment of the advance guard's advance security units. If in this period the advance guard has not received a new mission the advance guard commander operates on his own initiative based on the situation, the mission previously received and the unit's [soyedineniye] general mission.

In assigning a mission to the advance guard one must be guided by the fact that primary damage on the enemy must be inflicted by combat of the main body.

Therefore the advance guard's mission must be such that the main body can immediately exploit the results of its actions for inflicting a general defeat on the enemy.

4. Main Body Actions

458. [One word illegible] of deployment and commitment of the main body begins with initiation of combat by the advance guard. On assigning a mission to the advance guard the column commander simultaneously determines the main direction of actions by the main body and takes steps to support its deployment.

459. Commitment of the main body can occur under the following conditions depending on the situation and the tactical plan:

--When the enemy has been preempted in deploying, the main body is committed immediately as it approaches, directly from the column; coordination of the infantry with artillery, tanks and aviation is clarified on the move.

The main body's rapid and decisive move into the attack may lead to the defeat of a [one word almost illegible, probably "stronger"] enemy who has not succeeded in deploying.

--When the enemy has preempted [two words illegible, possibly "our troops"] in deploying and already is advancing major forces, [two words almost illegible, possibly "it is more"] advisable to have an organized [two words almost illegible, possibly "commitment"] of the entire mass of the main body simultaneously [one or two words illegible] supported by all artillery and [one word almost illegible, possibly "tanks"].

The main body heads for its designated deployment area from which it quickly organizes a decisive attack. The main body deployment area is secured against the infiltration of [one word illegible] groups and enemy submachinegunners and covered from the air.

460. Greatest success is achieved in a meeting engagement by the close or deep envelopment of the main enemy grouping by the main forces, by splitting it into separate groups, and by defeating these groups separately in detail.

To this end the army (corps) commander organizes a coordinated attack by tank and mechanized units [soyedineniye] and rifle divisions (brigades), sending them against the enemy grouping which is to be defeated first of all. The attack is supported by the entire mass of combat aviation.

If the enemy has succeeded in forming a continuous front, the latter must be broken immediately by attacks of tank, mechanized and rifle units [soyedineniye]. This creates exposed flanks for the grouping which is to be destroyed first of all.

461. If the enemy attempts to make a close or deep envelopment of our main body's flank, his enveloping units [chast'] are pinned down from the front by the nearest reserves, supported by concentrated mortar and artillery fire and

air strikes. The enemy's enveloping units simultaneously are attacked in the flank and rear by units [chast'] arriving from the depth.

If the situation shapes up unfavorably on one of the flanks friendly forces, primarily tanks, should be quickly regrouped toward the threatened flank and the enveloping enemy group counterattacked from one or both flanks with the support of concentrated artillery fire and aviation in an attempt to cut it off from the main body.

462. When the division (brigade) proceeds along one road the division (brigade) commander must deploy all artillery of the main body simultaneously with assignment of the mission to the advance guard in order to screen the main body's deployment and support the advance guard with its fire. The artillery's deployment area is secured against attack by enemy tanks and submachinegunners.

When the division (brigade) moves in several columns the artillery of each column deploys independently. The division (brigade) commander directs deployment of artillery of the main body column and of artillery units [chast'] directly subordinate to him, and he simultaneously prepares centralized control of all artillery.

463. In a meeting engagement great independence is required of commanders of all units [chast'] within the limits of their assigned missions. Each unit wedges boldly and daringly into the enemy combat formation, opening the flanks and rear of the enemy main body and inflicting swift blows against it. Screening forces are put out on secondary axes.

464. In case decisive results have not been achieved before the onset of darkness, one should continue the action at night and achieve the enemy's defeat.

5. Meeting Engagement of Tank and Mechanized Units [Soyedineniye]

465. A meeting engagement of tank and mechanized corps is characterized by speed of deployment and by the force and swiftness of a concentrated tank attack.

466. Alinement of the march formation of tank and mechanized corps in anticipation of a meeting engagement must assure rapid deployment and massing of forces on the main axis.

An attempt must be made to reduce the depth of march columns to accelerate deployment.

467. The deployment of tank and mechanized corps occurs as close to the enemy as possible. Combat success is determined by speed in decisionmaking, swiftness of the attack and continuity of control.

The decision on the axis of main attack usually is made based on conveniences of terrain for employing tanks and on the attack objective.

A forward detachment of motorized infantry reinforced by tanks, artillery and mortars is sent out to seize favorable deployment lines and to support the actions of the tank and mechanized corps main body.

Tank units of the tank and mechanized corps take advantage of concealed approaches to move up quickly to the deployment line.

Motorized units move in vehicles as long as enemy fire permits this, then they quickly dismount in consolidating occupied lines.

Motor transport is moved aside to convenient shelters where it is dispersed in constant readiness for rapid delivery for a further rush by the motorized infantry.

Antitank weapons are thrust forward to axes of likely enemy counterattacks.

Artillery and air actions must screen the deployment into combat formation and the attack by tank and mechanized corps.

468. Tank and mechanized corps annihilate mobile enemy troops above all, but they must not become engaged in fighting enemy tanks if there is no clear superiority over them in forces.

In this instance the corps assign antitank artillery, a portion of the tanks and motorized infantry, and engineer resources against enemy tanks and, screened by them, the corps main body envelops the enemy tanks, delivering an attack against the infantry to separate it from the tanks and paralyze the tanks' actions.

When there is a superiority over enemy tank forces, the tank and mechanized corps prepare an attack by their own tank units with the surprise fire of artillery and antitank weapons and attack the enemy swiftly, conducting withering fire from the move.

Motorized infantry attacks behind the tanks, consolidating and exploiting success which has been gained.

469. The tank and mechanized corps attack enemy combined-arms columns immediately on encountering them without losing time in enveloping movements.

The attack on an enemy who has managed to take cover completely in an area accessible to tanks is done by motorized infantry reinforced by artillery and aircraft.

When areas of organized enemy antitank defense are discovered, the tank units [chast'] try to envelop them and attack from the rear.

470. The control of tank and mechanized corps in a meeting engagement must be flexible and provide for speed in passing on orders and instructions. This is accomplished by assigning missions in the form of brief fragmentary operation orders issued by the commander personally and through liaison officers. Radio

is the primary means of control during combat. Coordination with the infantry, artillery and aviation is provided by establishing the simplest light and radio signals.

During an attack the commanders of tank and mechanized corps with a group of staff commanders [komandiry shtaba] and a control equipment reserve are located behind the combat formations of tank units [chast'] operating on the main axis.

6. Meeting Engagement of Cavalry Units [Soyedineniye]

471. A meeting engagement of cavalry is characterized by speed in deployment and flexibility in maneuver.

Moving forward quickly, the cavalry main body attacks the enemy in the flank and rear, giving him no opportunity to deploy in an organized manner.

472. Tank units [soyedineniye] attached to a cavalry corps are employed for delivering an attack on the main axis in coordination with the main cavalry grouping.

A cavalry division's tanks pave the way for its main body.

473. On encountering enemy infantry the cavalry must strive to attack it on the march. If the enemy infantry succeeds in deploying it must be contained with small forces from the front while the main body and tanks attack it in the flank and rear.

Enemy cavalry should be attacked from the move without being carried away by a complicated maneuver.

In a clash against enemy tank and motorized units [chast'], the cavalry takes advantage of areas inaccessible to tanks to halt the enemy tanks by fire while the main body and the tanks deliver an attack against the rear.

Chapter 10 - The Defense

1. Fundamentals of the Defense

474. The defense is a form of combat in which troops taking advantage of favorable terrain conditions, engineer reinforcement of the terrain and the power of modern fire can hold the occupied positions against superior enemy forces, inflict considerable losses on them and make the enemy offensive fail.

But only a subsequent assumption of a decisive offensive can complete the enemy's total defeat.

475. The strength of a defense consists of the staunchness and determination of the troops, its survivability and stability, coordination of the system of

fire of all kinds with the system of antitank and antipersonnel obstacles, skillful use and organization of the terrain, and counterattacks.

A defense must be:

- Deep and antitank*, intended for repelling a concentrated attack of enemy tanks and infantry supported by artillery and combat aviation;
- Anti-artillery*, intended for securing personnel and weapons against damage by concentrated artillery and mortar fire;
- Antiair*, capable of withstanding the attacker's strong air pressure.

In all instances the defense must be stubborn and active, capable of inflicting damage on the attacker.

476. Engineer organization of the terrain is one of the deciding measures ensuring staunchness of the defense. The defense must have a far-flung network of protective works and antitank and antipersonnel obstacles.

Every populated point and individual structure must be turned into a center of resistance or a sturdy strongpoint with a perimeter defense assuring that it can be held a long while even in enemy encirclement.

477. Troops who have assumed a defense must immediately begin organizing the terrain with their own resources and then continuously improve and develop the defense zone without awaiting special orders.

Unit [soyedineniye and chast'] commanders organize the construction of protective works, direct the work and bear full responsibility for it.

478. A defense can be static or mobile depending on missions, forces, resources and terrain.

A *static defense* has the purpose of inflicting damage on the enemy and stubbornly holding specific terrain prepared for defense.

The *mobile defense* has the purpose of gaining time, inflicting losses on the enemy and preserving friendly forces while allowing the loss of space.

479. The troops receive the following for defense:

- An army (corps) or division (brigade) receives a defense zone;
- A regiment receives a defense sector;
- A battalion or company receives a defense area.

480. The combat formation of an army (corps) on the defense consists of two echelons, army (corps) artillery groups, an antitank reserve and a tank reserve.

The army (corps) first echelon consists of combat formations of rifle divisions (brigades) located side by side.

The army second echelon consists of rifle divisions (brigades) with their organic weapons located in the second defense zone in accordance with the tactical plan.

The corps second echelon is assigned in accordance with the tactical plan.

481. The combat formation of a division (brigade) on the defense consists of combat formations of rifle regiments (separate battalions), artillery groups, and reserves (general, antitank, and sometimes a tank reserve).

Combat formations of rifle regiments (separate battalions) include the bulk of division (brigade) forces and assets intended for firmly holding the defended terrain.

Rifle regiments (separate battalions) usually are located side by side in the division (brigade) combat formation.

482. A general reserve (in the division and brigade) and an antitank reserve (in all units [soyedineniye]) are assigned for creating a depth of defense, for repelling surprise enemy attacks, especially on the flanks and at boundaries, and for supporting the subunits or units engaged in fighting.

The strength and make-up of the reserve depend on the mission to be executed, the plan for impending combat and the location occupied by the unit [soyedineniye] in the combat formation. Two battalions usually are assigned to the division reserve and one battalion to a brigade reserve.

The tank reserve is intended for a concentrated attack against enemy infantry groups which have penetrated.

2. Organization of a Static Defense

483. The defense frontage and depth are determined by the unit mission and nature of the terrain.

The defense frontage of an average-strength division is up to 10 km, and that of a rifle brigade is 5-6 km.

484. With advance organization of a static defense, the army defense zone includes:

--A forward defense area (security zone), the forward boundary of which is 10-15 km away from the main defense zone;

--A main defense zone up to 5-6 km deep;

--A second defense zone formed in the rear of the main zone, 10-12 km from the forward edge of the main defense zone;

--A rear (third) army defense zone 10-15 km from the forward edge of the second defense zone.

With advance organization a division defense zone includes:

--A forward defense area (security zone) up to 10-15 km deep;

--A main defense zone up to 5-6 km deep.

485. The *forward defense area (security zone)* is formed on instructions of the army (corps) commander to delay and exhaust the attacking enemy and gain time.

The forward defense area consists of forward and intermediate field-type positions reinforced by engineer obstacles and individual strongpoints and defended by forward detachments sent out on order of the division (brigade) commanders and operating by mobile defense methods. Obstacles are most heavily developed on axes of likely attack by the enemy main body and in areas of his possible initial position for the attack.

Combat engineer units and subunits reinforced by infantry are assigned to construct obstacles.

There also may not be a forward defense area depending on the situation.

486. The *main defense zone* is formed for the purpose of halting an attack by enemy tanks and infantry, inflicting damage on him and forcing him to give up a further attack. This zone must be the most developed in the engineer sense and is defended by the main forces and assets.

487. Battle outposts are put out in front of the main defense zone 1-2 km from the forward edge, and they organize a battle outpost position.

The *battle outpost position* is set up to prevent a surprise enemy attack, hinder him in conducting ground reconnaissance and organizing artillery observation, and lead him astray with respect to the actual location of the forward edge of the main defense zone.

The battle outpost position is designated by the division (brigade) commander and is occupied by subunits from first line battalions. The position consists of separate strongpoints having mutual fire support, screened by obstacles and supported by the fire of machineguns, mortars and artillery from the main defense zone.

Reinforced battle outposts are put out on those axes (in those sectors) where a false forward edge of the main defense zone must be formed and on the most important approaches to the forward edge.

488. Continuous sectors of obstacles with the greatest density are set up on the most important axes ahead of the forward edge of the main defense zone, within it, on the flanks and boundaries, between defense sectors and defensive areas, between positions and on approaches to the second and rear defense zones. The obstacles must not hinder conduct of counterattack within the defense zone and ahead of the forward edge; quickly obstructable passages are left in them for this purpose.

489. A main defense zone must provide:

- Deep disposition of defense forces and assets;
- Strong antitank fire ahead of the forward edge, on flanks and boundaries and in the depth in combination with antitank obstacles for repelling a mass tank attack;
- Concentration of the bulk of all kinds of fire directly ahead of the forward edge;
- Fire in the depth for inflicting damage on enemy tanks and infantry which have penetrated;
- Favorable disposition of artillery observation posts and echelonment of artillery;
- Concealed location of the entire combat formation and especially mortars, artillery and reserves.

490. A main defense zone is organized as the main defense line and is supported most heavily by weapons and engineer resources for antitank and anti-personnel protection.

The zone usually is chosen behind natural antitank barriers and includes lines and local features which if held prevent an enemy penetration.

The main defense zone consists of battalion defense areas.

A battalion defense area occupies up to 2 km of frontage and $1\frac{1}{2}$ -2 km in depth.

A battalion center of resistance is organized in the battalion area and includes a large portion of main company strongpoints, the battalion reserve strongpoint and the positions of battalion weapons unified by an overall fire plan and organized with obstacles. Its defense must be all-around, and anti-tank above all.

A company defense area represents a terrain sector up to 700 m wide and deep. It is organized for a perimeter defense with trenches, connecting passages, weapon emplacements, shelters, dummy positions and obstacles.

Organized in each company defense area are:

- Platoon strongpoints, the most important of which is the main company strongpoint;
- Several heavy weapon emplacements (DOT or DZOT), comprising the backbone of the defense;
- Primary and alternate positions which permit the platoons and attached weapons to move out from under enemy fire without weakening the defense.

Terrain ahead of the main defense zone must hinder the enemy in organizing artillery observation.

491. In order to create a depth of defense, block the enemy's spread into the depth and provide a favorable initial position for counterattacks, the reserves of rifle regiments and divisions (brigades) on the most threatened axes organize and occupy separate company (battalion) defense areas allowing the most important local features to be held in the depth of defense. Intervals between defense areas must be blocked and covered by machinegun, mortar and antitank fire.

492. The *second defense zone* is set up by instruction of the army (corps) commander in the rear of the main zone for the purpose of halting an attack by enemy tanks and other units [chast'] which have penetrated the main zone and providing friendly troops with an initial line for a counterattack out of the depth.

The second defense zone should be located primarily behind natural antitank barriers and connected with the main zone by switch positions and antitank areas.

The army (corps) commander determines the nature of the second defense zone's organization. It normally consists of battalion centers of resistance.

The distance of the second defense zone from the forward edge of the main defense zone must preclude the possibility of a direct attack on it after a penetration of the main defense zone and must force the enemy to regroup forces and move all artillery; the army second echelon and the army antitank artillery group usually are located behind the second defense zone.

493. The *rear (third) army defense zone* is organized on instruction of the army commander with assets assigned from the front. It is formed to keep enemy tank and motorized units [soyedineniye] which have penetrated the second defense zone from penetrating into the deep rear. The rear zone consists of separate battalion centers of resistance and separate strongpoints covering possible avenues of enemy movement.

The terrain zone between the second and rear (third) army defense zones is prepared for a countermaneuver of front reserves and organized with antitank obstacles and switch positions.

With the army's withdrawal the second and rear (third) defense zones are successive army lines of resistance.

494. A system of infantry, mortar, artillery and antitank defensive fire is set up for the purpose of:

--Delaying the enemy's approach and supporting the actions of forward detachments by a long-range artillery fire assault on enemy columns and troop concentrations;

--Inflicting damage on the enemy, and his tanks above all, during the period of concentration and hindering preparation of the offensive and attack by the fire pressure of artillery, antitank weapons, machineguns and mortars;

--Disorganizing an offensive and disrupting an attack by the enemy, and his tanks above all, by setting up a solid antitank and antipersonnel fire barrage ahead of the forward edge and in the depth of the main defense zone;

--Cutting the enemy infantry which has penetrated off from the tanks and annihilating it;

--Supporting the counterattack by reserves.

The defensive fire plan is supplemented by the combat actions of aviation.

495. The *antitank defense* is organized by the senior military commander and consists of an observation and warning system; a combination of fire of artillery, mortars and infantry antitank weapons with the actions of tanks and aviation; extensive use of natural and manmade antitank obstacles; and measures for sheltering personnel.

An antitank defense is organized to the full depth of defense, and above all ahead of the forward edge of the main defense zone.

The respective commanders are responsible for prompt readiness of the infantry, mortar, artillery and combat engineer subunits for antitank defense.

The bulk of forces and assets of an antitank defense is used for the struggle for the main defense zone.

Mobile antitank reserves consisting of guns, antitank rifles and combat engineers with mines are assigned in regiments, divisions (brigades) and armies (corps) to the most important axes.

Troops on the most likely axes of tank attacks are reinforced by tank destroyer units [chast' and soyedineniye] of the high command reserve; the latter are employed for creating a depth of antitank defense and for organizing mobile antitank reserves.

496. Battalion centers of resistance and company defense areas located on terrain accessible to tanks are organized as antitank centers and areas.

The company antitank area usually includes a rifle company; 3-5 guns; 1-2 platoons of antitank rifles; mortars and machineguns.

497. Special attention is given to the organization of antitank fire at the boundaries. The army (corps) and division (brigade) commander appoints commanders responsible for boundaries and checks the organization of fire at the boundaries personally or through their staffs.

In arranging an antitank defense special attention should be given to the observation and warning system as well as to the installation of antitank obstacles both in company antitank areas and in battalion antitank centers of resistance.

Natural barriers are used above all to set up company antitank areas. Manmade antitank obstacles, minefields, portable wire obstacles, antitank ditches, dragons' teeth, log obstacles and flooding are created in sectors devoid of natural barriers.

All antitank obstacles must be under effective antitank, mortar and machinegun fire.

498. Artillery firing positions are disposed so that the bulk of the artillery can take part in repulsing a tank attack in case of a tank penetration. Approaches to firing positions must be organized with antitank obstacles and mined.

499. In organizing the struggle against enemy tanks it is necessary to provide for:

--Preparation of concentrated artillery fire and air attacks against columns and concentrations of tanks on the approach to and in the forward defense area;

--Creation of minefields on axes of probable tank movement ahead of the forward edge of the defense zone and within the zone;

--Preparation of artillery fire and air attacks against areas of the initial position of enemy tanks;

--Installing obstacles in and setting fire to forests in areas of a probable tank concentration;

--Surprise artillery fire assaults and air actions against tanks on approaches to the main defense zone;

--Location of antitank artillery groups and reserves on the most likely avenues of enemy tank attacks;

--Organization of tank ambushes and use of tanks dug into the ground as fixed artillery emplacements.

The infantry must be ready to use its fire to prevent the enemy from clearing antitank obstacles and to cover antitank artillery positions.

Minefields are installed only on instruction of the division (brigade) or army (corps) commander. Sectors are prepared in advance for rapid minelaying within the defense zone.

500. An *antiaircraft defense* must cover most densely the most important defense sectors and the main grouping of artillery, tanks and reserves.

Antiaircraft artillery must be disposed in areas accessible to tanks or behind antitank obstacles; it can take part in repelling an enemy tank attack.

In addition, thorough camouflage of the troop disposition and actions, and order and discipline in assembly areas and on rear routes must be observed.

In organizing the antiaircraft artillery grouping one must provide for the possibility of maneuver of a portion of these forces during combat as the army commander's reserve.

Antitank rifles and other infantry weapons are used to combat enemy aircraft.

501. *Engineer preparation* of the defense provides for the installation and organization of:

--Antitank obstacles, natural antitank lines and areas throughout the depth of defense;

--All kinds of obstacles in the forward defense area (security zone);

--Battle outpost positions;

--Trenches and firing positions with clearing of the field of fire, command and observation posts, antipersonnel obstacles, connecting passages, shelters for cover against artillery fire and aviation and dummy structures in the main defense zone;

--Areas and initial lines for counterattacks by second echelons, reserves and tanks;

--A second defense zone, switch positions and dummy areas;

--Crossings, bridges, roads and crosscountry routes for maneuver and operation of the rear;

--Landing strips, depots and troop water supply.

Antitank obstacles (ditches, escarpments, dragons' teeth) must not have a straight outline; they must have breaks (salients) imperceptible to the enemy every 500 m which allow flanking fire of carefully covered and camouflaged antitank guns and rifles; antitank obstacles ahead of salients also must be flanked; cofferdams must not be left when installing antitank ditches on roads.

Special attention should be given to the camouflage of defense works and to engineer fortification of the boundaries and flanks of defense areas, sectors and positions.

The camouflage of structures is checked periodically by aerial observation and photography.

Installations to be destroyed are prepared for demolition or burning in advance.

502. The sequence of engineer work depends on the defense mission, situation and terrain conditions.

Work performed first is that which provides for observation, the conduct of fire, control, antitank defense system, and the construction of trenches for primary and alternate firing positions, of obstacles, barriers and light shelters against artillery fire and aircraft.

In certain instances priority work must include connecting passages (on open terrain), roads (on mountainous terrain and marshy woodland), and shelters (in winter).

Heavy weapon emplacements (DOT and DZOT) are made simultaneously with the organization of firing positions; shelters are made as a second priority.

All engineer work is performed with observance of the strictest camouflage discipline.

503. Engineer units usually are employed for performing complicated work and for directing engineer work by other combat arms.

Units [chast'] located in the rear and the local populace are used for setting up a second defense zone and performing road work in a division area of responsibility.

504. A *counterpreparation* may be conducted by decision of the army (corps) commander for the purpose of disrupting an enemy attack. A counterpreparation is conducted against enemy troop concentrations in an initial position for an attack and against headquarters and communications centers. It is accomplished by a powerful surprise fire assault by artillery, mortars, aviation and, in some cases, by tanks as well.

A counterpreparation is conducted against a main enemy grouping before its attack begins.

Regardless of a counterpreparation, there is a systematic exhaustion of the enemy by the attack of aviation, fire assaults of mortars and artillery, and the setting of fires.

505. Counterattacks may be conducted in the depth of defense by division (brigade) reserves and by army (corps) second echelons and, under favorable conditions, by first line units [chast'] ahead of the forward edge of the defense zone.

The following must be indicated in conducting counterattacks:

- Missions for the counterattacking units [chast'];
- Axes and initial lines for counterattacks;
- Missions for the artillery, mortars, tanks and aviation;
- Secondary missions for first line units [chast'] to secure the deployment of and give support to the counterattacking units;
- Coordination with adjacent units.

Counterattacks must be executed suddenly, decisively and in an organized manner.

506. Reconnaissance in a defense where there is immediate contact with the enemy has the purpose of revealing the enemy's preparation for an attack and determining the strength and composition of the main enemy grouping and the axis of its main attack.

Air and ground reconnaissance must detect the enemy main body while still approaching and determine its assembly area.

Night reconnaissance of all kinds, commander's observation and reconnaissance in force are of special importance. The latter is conducted in the form of brief strikes by subunits of infantry and tanks supported by mortars, artillery and aircraft.

In the absence of immediate contact with the enemy, reconnaissance in the defense establishes the approach of enemy forces and their concentration and deployment areas, especially for tanks and artillery.

507. The missions of infantry in a defense consist of the stubborn holding of terrain and destruction of the attacking enemy by powerful withering fire and decisive counterattacks.

The staunch holding of occupied positions is a matter of honor for the infantry, which does not withdraw without an order from the senior commander.

The infantry and its weapons are disposed in company and battalion defense areas dispersed laterally and in the depth, forming crossfire, flanking fire and fire pockets ahead of the forward edge as well as on the boundaries and in the depth of defense.

Every point on the terrain in a zone up to 400 m from the forward edge must be under effective fire.

When the enemy attacks, the bulk of infantry weapons suddenly opens up annihilating fire from short range. A zone of submachinegun fire must be formed directly ahead of the forward edge.

Fire at medium and long ranges is conducted by snipers as well as from temporary positions by machinegun subunits and mortars especially assigned for this purpose. The barrage fire of mortars is of great importance for repelling an attack.

Fire must be especially powerful at the boundaries.

The infantry, in close coordination with antitank artillery located in company defense areas, is obligated to use its own resources to successfully combat and repel an enemy tank attack.

In repelling the attack the infantry must first separate the enemy infantry from the tanks and annihilate it by fire.

508. Artillery in the defense destroys enemy artillery and mortars and, in coordination with the infantry fire plan, destroys enemy infantry and tanks on approaches to the forward edge and in the depth of defense.

In the period of the enemy's approach to the main defense zone and preparation of the attack, the artillery:

- Executes long-range fire assaults on enemy columns and troop concentrations;
- Supports forward detachments and battle outposts;
- Hinders deployment of the enemy main body and its occupation of an initial position for the attack;
- Destroys or blinds observation posts and neutralizes artillery and mortars at firing positions;
- Prevents the clearing of antitank obstacles;
- Conducts a counterpreparation.

These missions usually are executed by concentrated fire from temporary positions. A counterpreparation also can be conducted from primary positions.

Roving batteries and guns are employed and dummy positions are installed to lead the enemy astray relative to the grouping and number of artillery and mortars.

Artillery and mortars must not remain for a lengthy time at one and the same positions, especially in expectation of an enemy attack, but they must change their firing positions piecemeal.

509. In the period of an enemy offensive and attack the artillery and mortars together with infantry weapons take advantage of the enemy's delay on obstacles to destroy enemy tanks and infantry. A portion of the long-range artillery continues counterbattery fire.

510. In the period of combat in the depth artillery together with infantry weapons destroys the enemy tanks and infantry which have penetrated and prepares and supports counterattacks while continuing counterbattery fire.

Control of division (brigade) artillery in the defense usually is centralized. Infantry close-support artillery groups are attached to rifle regiments on rugged terrain and with a broad division defense frontage.

Depending on the defense frontage, army artillery sets up a long-range army artillery group or it is distributed to the divisions. In the latter instance long-range groups are set up in the divisions.

511. The most important missions of tanks in the defense are combat against motorized troops and tanks which have penetrated the defense zone and annihilation of an enemy enveloping the defense's flanks.

In defensive combat tank regiments and brigades do not receive independent sectors for defense, but they are employed as a means of delivering counterblows against enemy units which have penetrated into the depth of defense. In some cases tanks may be dug into the ground as fixed artillery emplacements, used for ambushes or employed in place of roving guns.

Tank corps also do not receive independent defense sectors and are employed as a powerful means for a counterblow from the depth while disposed at army boundaries outside the effects of enemy artillery fire (20-25 km).

Axes for tank counterattacks within a defense zone are reconnoitered and prepared in advance and left free of obstacles.

Initial positions are designated, organized and camouflaged by instruction of the combined-arms commander.

The bulk of tanks in a defense comprises the army (corps) tank reserve.

512. Combat aviation in the defense:

- Attacks enemy troops on the approach to a defense zone and in concentration areas;
- Participates in a counterpreparation together with artillery;
- Destroys the attacking enemy by attacking his artillery, tanks, reserves and crossings;
- Annihilates an enemy who has penetrated, jointly with army (corps) second echelons and division (brigade) reserves;
- Combats mobile troops and airborne assault forces who have penetrated into the depth of defense;
- Screens friendly troops, especially artillery, army (corps) second echelons and division (brigade) reserves, against air attack.

513. The work procedure of commanders and staffs in organizing a defense depends on the time which the troops have.

With sufficient time available the army (corps) and division (brigade) commander performs personal reconnaissance of the main defense zone after making a decision from the map and issuing warning orders to the troops.

During reconnaissance the army (corps) and division (brigade) commander updates his decision and assigns missions on the terrain to subordinate commanders, organizes coordination of the combat arms and gives directions on organizing the construction of protective works.

The commanders of rifle regiments and battalions must be included in the reconnaissance without fail and only together with them clarify on the terrain the true location of the forward edge of defense in their sectors.

In those instances where the situation does not permit this to be done, battalion commanders are given responsibility for clarifying the forward edge of the main defense zone on the terrain, with a subsequent check of those commanders.

When there is a shortage of time the commanders' personal reconnaissance is done briefly and only on the most important axes.

In all cases the assignment of missions to the units must not delay the troops' movement to their designated areas and the prompt beginning of construction of protective works.

514. When shifting from the attack to a defense in those instances where the line occupied by troops at the moment the order for a defense is received is unfavorable for defense, the army (corps) commander must demand that division (brigade) commanders organize the defense on the closest most favorable tactical line with a successive withdrawal of units [chast'] to it, which he reports to the front commander. Screening units are left at the previously occupied line.

515. In organizing the defense the army (corps) commander indicates:

- The forward edge of the main defense zone;
- Boundaries of the forward defense area (security zone);
- Division (brigade) missions: main defense zones and procedure for engineer preparation (what antitank areas, switch positions and lines to prepare);
- Measures for defense of boundaries and the commanders responsible for them;
- Deadlines for occupying the defense and for readiness of the defense;
- Army (corps) artillery missions and its deployment areas; special missions of division artillery performed in the army's interests;
- Composition and missions of the army antitank artillery group;
- Distribution and missions of the tanks;
- Missions of supporting aviation and the antiaircraft group;
- Line of the second and third army (corps) defense zones and procedure for organizing and occupying them;
- Missions for the second echelon divisions (brigades);
- Tank and antitank reserves of the army (corps), their missions and location;
- Counterpreparation missions and its organization;
- Combat support measures;
- Procedure for organizing the rear;
- Primary and alternate command posts and auxiliary control post.

516. In organizing the defense the division (brigade) commander indicates:

- The forward edge and rear boundary of the division (brigade) main defense zone;
- Battle outpost position;
- Forward boundary of the forward defense area (security zone) and forces assigned for its defense;
- Missions of the regiments (separate battalions);
- Distribution of means of reinforcement and procedure for engineer preparation (obstacle areas, antitank areas, switch positions);
- Time for readiness of the defense;
- Measures for defense of boundaries and commanders responsible for them;
- Composition of infantry close-support artillery groups and their deployment areas;
- Missions of the infantry close-support artillery and long-range artillery in preparing a long-range fire assault, rolling barrage, standing barrage and fire concentrations on the most important axes and missions for support of counterattacks;
- Artillery's readiness time for opening fire;
- Composition and missions of the antitank artillery group;
- Missions for attached tanks;
- General and antitank reserves and their missions;
- Combat support measures and measures in case of a lengthy chemical attack;
- Measures for organizing the rear;
- Friendly command posts (primary and alternate).

517. All commanders must check the correctness with which the defense is occupied, performance of defensive works, organization of fire, and camouflage.

518. Control in defensive combat must rely on a far-flung network of command and observation posts. In addition to the primary command post, each unit [soyedineniye and chast'] prepares one or two alternate command posts.

Observation posts are organized by division (brigade) and regiment (separate battalion) staffs so that the entire defense zone is under their surveillance. Commanders of the staff and reconnaissance subunits are used to perform the observation service. In necessary instances, especially on the flanks, observation posts are organized as platoon strongpoints and provided with antitank, automatic and machinegun weapons and engineer organization.

Unit [chast' and soyedineniye] staffs usually are located together with the reserves in antitank areas.

519. Radio is the primary means of control with the beginning of combat. Radio communications acquires especially great importance during combat in the depth of defense when the stability of wire communications is disrupted.

Wire communications in the defense is installed:

--Out of the depth (along axes) from the senior commander's main command post to the main command post of a subordinate commander via the latter's alternate command posts;

--Along the front (between adjacent units) from right to left via main and alternate command posts.

Steps are taken against the monitoring of telephone conversations and for the security of communications lines.

520. With a shortage of personnel and resources or on terrain which is not accessible everywhere, the defense is arranged for holding individual areas which interdict the most important axes.

Defense areas must have mutual fire support and be echeloned in depth.

Depending on the extent of the front, mutual fire support can be accomplished by machinegun, mortar or artillery fire.

Intervals between defense areas are occupied by small infantry subunits with machineguns, filled in with dummy structures and blocked by engineer obstacles.

A battalion with its attached means of reinforcement usually prepares a separate defense area. On difficult terrain a battalion may be disposed for defense in separate company defense areas with sturdily fortified strongpoints.

The organization of defense of each strongpoint and each company and battalion defense area must assure their defending troops of a stubborn and successful struggle even in full encirclement for the time needed by the senior commander to prepare and conduct a counterattack.

Battle outposts are set up independently in each defense area. Special attention must be given to securing the flanks. Reconnaissance ahead of the front, in the intervals between defense areas and on the flanks must be organized just as thoroughly.

Control of artillery is decentralized and the artillery of infantry close-support groups is distributed to the battalions.

There is great importance in setting up strong tank reserves in the army (corps) as well as general and tank reserves in the division (brigade).

The reserves must possess great mobility. They include infantry on motor transport, artillery, tanks and combat engineers with means of antitank warfare.

They are located at one or several points near road junctions.

If the enemy penetrates the forward edge of defense the defending units [chast'] must hold their defense areas stubbornly and throw the enemy back beyond the forward edge of defense with a swift counterattack of reserves.

521. In addition to ammunition, engineer (positional) equipment and chemical protection equipment acquire great importance in the defense.

Rear units and establishments in the defense are echeloned to deeper distances than in the offensive.

The depth of a rear area is taken to 12 km for the regiment and to 30 km for the division.

The changing of unit [soyedineniye] supply bases is planned and prepared in organizing a defense simultaneously with the organization of supply and evacuation routes.

3. Conduct of Defensive Combat

522. When the enemy concentrates on lines located close to the forward edge he is subjected to the pressure of aviation and the fire of the bulk of artillery and mortars.

The personnel must be in shelters during an enemy artillery and air preparation. Observers and duty weapons with duty teams remain in trenches and at firing positions.

All forces and assets of the divisions (brigades) are committed to the fight for the main defense zone.

The struggle for the forward edge begins with the fire of the entire mass of infantry weapons from short ranges, unexpected by the enemy.

The infantry directs the full force of its fire at cutting enemy infantry off from tanks, inflicts a decisive defeat on the enemy infantry and does not allow an attack on the forward edge. All weapons of adjacent company areas not under attack are used to repel the attack.

In case the enemy wedges into the defensive position he is hit by concentrated fire from adjacent sectors and from the depth and annihilated by counterattacks after a short, powerful fire preparation.

Small groups of the enemy who infiltrated beyond the forward edge are annihilated by sudden local counterattacks.

Weapons must be in readiness to repel a repeat enemy attack.

523. Specially assigned antitank artillery pieces, mortars, flamethrowers and antitank rifles open up surprise fire from ambushes with the approach of small groups of enemy tanks to obstacles ahead of the forward edge.

When there is a concentrated attack of enemy tanks, the fire of all antitank weapons is concentrated on them.

Tanks which have penetrated are delayed in the depth by barriers and mine-fields; destroyed by the fire of antitank artillery groups, antitank rifles, flamethrowers and antitank reserves; and fired on from the rear by antitank guns and antitank rifles assigned in advance.

The infantry destroys enemy tanks with the fire of antitank rifles, grenades, mines and incendiary weapons.

The enemy's tank-mounted assault force is fired on by machineguns and submachineguns ahead of the forward edge and annihilated by fire and counterattacks when the force dismounts in the depth of defense.

Tank units [chast'] complete the rout of the attacker's tanks in coordination with antitank reserves and the antitank defense.

524. All infantry close-support artillery and mortars and a portion of the long-range artillery as well as artillery from adjacent sectors not under attack repel enemy attacks against the forward edge.

In this period the artillery and mortars concentrate fire against enemy tanks and separate the attacking infantry from them.

After repulsing the tanks, artillery and mortars shift to supporting friendly infantry.

525. Combat against enemy assault guns is conducted by:

--The fire of batteries and battalions operating from indirect positions;

--The direct fire of guns when the assault guns come to within $1\frac{1}{2}$ km of the forward edge;

--The barrage fire of batteries and battalions cutting off enemy infantry from the assault guns.

A mobile antitank reserve from the antitank battalion or from tank destroyer regiments must be moved up in the direction of operations by the assault guns.

In case the assault guns penetrate into our defense positions, antitank rifles, machineguns and submachineguns are effective means for their destruction in addition to artillery; their fire is used to annihilate the gun crews.

526. The division (brigade) commander concentrates artillery and mortar fire on the attacking enemy's main body in an attempt to prevent it from attacking the forward edge.

527. If the enemy penetrates the main defense zone and it is impossible to restore the situation with the resources of regiments (separate battalions), the division (brigade) commander concentrates the fire of the bulk of artillery and mortars against the enemy who has penetrated and conducts a counter-attack with his reserve.

The counterattack by the division (brigade) reserve is supported by actions of the regiments (separate battalions) and conducted suddenly, decisively and quickly until the forward edge is restored.

Artillery concentrates fire against enemy tanks and infantry which have penetrated, supports the holding of the initial line for a counterattack and the area of observation posts, and prepares and supports the reserve's counterattack.

Combat aviation uses attack and bombing actions to inflict damage on the enemy groups which have penetrated.

The reserve quickly advances to an initial line for a counterattack.

A counterattack produces the best results in the period when enemy infantry which has penetrated has not yet restored coordination with the supporting artillery and has not had time to consolidate on the captured terrain, and when the decision for the counterattack is made quickly.

In case of an enemy penetration across the entire defense frontage the division (brigade) commander organizes a defense on a line prepared in advance by the division (brigade) reserve.

528. Based on the intelligence available to him about the enemy's preparation of an attack, the army (corps) commander takes steps to beef up the defense on threatened axes with mortar, artillery, antitank and tank units [chast'], executing a regrouping of the disposition of divisions (brigades) and his second echelon if necessary.

As the most dangerous axis of the enemy's penetration of the defense is identified, the army (corps) commander organizes a counterattack with his second echelon, reinforcing it if necessary by troops from less threatened axes. The counterattack is supported by aviation and tanks and executed by the second echelon independently or in coordination with reserves of divisions (brigades) on the main axis.

The army (corps) commander must take a successful counterattack up to the restoration of the forward edge.

Throughout the combat the army (corps) commander directs the first echelon divisions (brigades). He sees to it that a withdrawal of units [chast'] is not permitted and he bears responsibility for staunchness of the defense.

When the situation shapes up favorably in individual sectors of the front, the army (corps) commander organizes a counterattack by first and second echelon divisions (brigades) for the purpose of disrupting the enemy offensive by a flank attack.

529. In case enemy tank and motorized units [chast'] penetrate into the depth of defense, the divisions continue to struggle for the main defense zone. Relying on the second defense zone, or the third defense zone and switch positions

when there is a deep penetration, the army (corps) commander uses all his available forces and assets and supporting aviation to prevent the enemy from spreading into the depth and toward the flanks.

While remaining in areas inaccessible to tanks, all rear establishments and units must defend with their own resources.

530. The struggle against enemy airborne assault forces is conducted by special mobile detachments assigned by instruction of the army (corps) commander and by all rear units and subunits near which the assault force was landed.

531. Defensive combat begins at long ranges in the absence of immediate contact with the enemy.

The enemy is subjected to pressure of aviation and long-range artillery fire on the approach.

Units [chast'] operating in the forward defense area rely on obstacles to delay the enemy, exhaust his forces and inflict the heaviest possible losses on him.

When the enemy moves to the battle outpost position, the subunits occupying it, together with forward and reconnaissance detachments, must halt the advance of the enemy advance guards and force them to take the battle outpost line as the true forward edge of defense.

Weapons assigned in support of the battle outposts should be advanced to temporary firing positions.

4. Mobile Defense

532. The *mobile defense* consists of a number of successive defensive actions at preplanned lines in combination with short surprise counterattacks. It requires every commander to show initiative and an ability to maneuver troops rapidly to create more favorable conditions for combat.

533. The strength of a mobile defense consists of a coordination of troop maneuver with fire and the extensive employment of all kinds of obstacles.

The number of lines in the defense zone and duration of defense of each of them depend on the nature of terrain, friendly forces, and the time needed for delaying the enemy.

Lines are chosen at such a distance from each other that the enemy is forced to shift artillery firing positions after capturing one of them and organize another attack to seize the next line.

Lines should be chosen which primarily are inaccessible to tanks, which have concealed withdrawal routes and which are secured from the flanks by natural barriers. In addition, the selected lines are reinforced with barriers and obstacles.

Based on the decision by the combined-arms unit [soyedineniye] commander, the staff draws up an obstacle plan which is promptly made known to the troops.

534. Military units [soyedineniye] conduct a mobile defense in their designated zone by occupying selected lines successively. The strength and composition of units [chast'] occupying the lines change during the defense depending on the nature of terrain and the plan of action at each line.

At the selected lines the infantry occupies battalion centers of resistance which interdict the most important axes. Intervals between centers of resistance and with adjacent units must be covered by machinegun, mortar and artillery fire.

The subsequent line is occupied simultaneously by the reserves and previously withdrawn units.

The assignment of strong mobile reserves, primarily antitank reserves, acquires special importance.

As a rule, the control of division artillery is decentralized and the artillery is distributed among regiments and battalions.

535. Troops defending the lines must force an attacking enemy to deploy and lose time in organizing an attack and negotiating the obstacles under fire; then, without letting the action reach a general enemy attack and screened by obstacles, they are to move out from under his attack.

Artillery, mortar and machinegun fire is opened up from maximum range.

The defense commits all its weapons as the enemy approaches.

Aircraft attack the enemy and delay his movement.

Tanks deliver short strikes against the enemy and cover the troops' withdrawal to a new line on their own and together with the infantry.

536. Troops holding the first line withdraw after combat across the line held by the reserve and units previously withdrawn to it, primarily across its flank, and they proceed to the next line where they are immediately put in order and they organize a defense.

The withdrawal from one line to another is regulated by directions of the senior commander and covered by small subunits with antitank weapons, offering resistance to the enemy at obstacles and closing passages in them.

537. When withdrawing from one line to another it is advisable to set up a grouping for a brief counterattack and ambushes involving tank participation. The counterattack must be supported by concentrated fire of artillery and aviation.

When executing a maneuver between intermediate lines, one must closely tie in actions with those of adjacent units to keep the enemy from a close envelopment of the defense's flanks.

538. When conducting a mobile defense against enemy tank and motorized troops it is necessary:

--To set up an antitank defense echeloned by lines with a developed system of obstacles, especially on the flanks;

--To dispose infantry and artillery for combat in areas inaccessible to tanks;

--To use tanks en masse on the most important axes from previously prepared positions and from ambush for a surprise flank attack and destruction of enemy infantry and tanks;

--To concentrate air efforts for delaying and destroying enemy tank and motorized units [chast'], especially in the period of their approach and in defiles.

In combating motorized units [chast'] one must strive to use all means to destroy enemy motor transport and mobile fuel reserves.

Steps must be taken to secure crossings and defiles in the friendly rear against their capture by the enemy and against air attacks.

539. Air defense must screen the troops, especially when they move from one line to another, when passing through defiles and during counterattacks.

540. Control is exercised by radio, by mobile equipment and by signaling. Wire means of communication are used briefly and only on direct links.

541. During a withdrawal in a mobile defense the supplies necessary for combat remain on the troop withdrawal routes (on transport under guard). The unit [soyedineniye] commander establishes supply transfer points.

All rear establishments not needed for direct support of combat are withdrawn to the rear in advance.

5. Defense of a Fortified Area

542. A fortified area is intended for a lengthy static defense.

Its strength and power are based on previously organized and chiefly flanking fire from permanent machinegun-artillery, artillery, and machinegun emplacements, on the special training of troops of permanent garrisons, and on engineer organization of the terrain.

543. Defense of a fortified area must be deeply echeloned, with the organization of a forward defense area (security zone) 10-15 km deep ahead of the forward edge across the entire front of the fortified area.

A fortified area can be divided into sectors.

The overall extent of a fortified area laterally and in depth depends on its operational purpose and terrain conditions.

The main zone of a fortified area consists of centers of resistance.

Field fortification resources are used to construct fortifications of intervals, defense zones, and switch positions in the depth of a fortified area in advance.

544. A center of resistance is the basis of a fortified area and in all instances must have a perimeter defense both of the center as a whole and of the strongpoints comprising it, dispersed laterally and in depth.

Centers of resistance on the most important axes usually are disposed in depth, depending on terrain, and in an echelon formation.

545. The strongpoint is the basis of a center of resistance; the garrison of its permanent pillboxes must be capable of resisting all means of enemy neutralization and of fighting independently in encirclement.

546. Engineer organization of a fortified area includes permanent (reinforced concrete and armored) defense works (DOT), earth-and-timber works (DZOT) and other permanent and field type works; a developed system of powerful antitank and antipersonnel obstacles; sturdy (concrete, earth-and-timber, and underground) shelters for troops and the most important means of defense, linked by underground passages (tunnels) and covered field connecting trenches; sturdy command and observation posts outfitted with reliable means of communication; concrete, armored and earth-and-timber firing positions for field heavy [in weight] and heavy [in power] artillery; a developed road network; careful camouflage of all works; and water supply.

547. The basis of the main defense zone of a fortified area consists of permanent reinforced concrete and armored machinegun, artillery-machinegun and artillery defense works (DOT) of varying power which are located chiefly in the depth of defense and not on the forward edge; the main defense zone is reinforced by earth-and-timber works (DZOT).

548. Fortified areas are constructed so as to preclude the possibility of their deep or close envelopment.

The fire of all kinds of weapons and a system of obstacles preventing the penetration of an attacking enemy into the depth of defense is organized with special thoroughness in intervals between strongpoints and centers of resistance.

549. A perimeter defense of centers of resistance and strongpoints of the fortified area is achieved by skillful organization of fire from all kinds of installations and by the coordination of fire of separate permanent works, strongpoints and centers of resistance.

550. The strength of a fortified area's defense lies not only in engineer organization of the terrain, but also in the most favorable use of all kinds of fire, primarily artillery fire, in combination with counterattacks by reserves and unblocking groups.

Successful counterbattery fire and an antitank and antiaircraft defense best assures success of a fortified area's defense.

551. Defense of a fortified area is based on the precisely organized coordination of permanent garrisons with each other and with field troops assigned to reinforce the fortified area.

552. Field troops set up additional weapon emplacements, assign mobile reserves, and assign unblocking groups for strongpoints.

The number and composition of field troops assigned to reinforce a fortified area are determined by the fortified area's missions and size.

553. Field troops usually are located in the intervals between strongpoints and centers of resistance of a fortified area, moving up weapons to locations which are not covered by fire from permanent works.

554. In a fortified area there is special importance in the ability of field troops to launch a powerful counterblow to destroy the enemy who has wedged into the depth of defense or for the purpose of unblocking permanent pillboxes.

Field troops assigned to reinforce a fortified area hold joint exercises with the fortified area's troops if there is time, for full mastery of the terrain and development of precise coordination.

555. The forward defense area (security zone) usually is defended by field troops reinforced by artillery, tanks, engineer units, chemical defense units and permanent garrisons of the forward defense area works.

Control of troops operating in the forward defense area is exercised by the combined-arms unit [soyedineniye] commander appointed by the army (front) commander.

556. The artillery of the fortified area's permanent garrison is intended for close antitank, anti-artillery and antipersonnel defense of approaches to permanent works and of intervals between strongpoints and centers of resistance.

Long-range and field artillery combats the artillery carrying out an initial massed strike, destroys long-range targets and reinforces the fire of permanent works out of the depth of defense.

557. Especially important missions of the artillery are to combat artillery carrying out the initial massed strike and to destroy the tank and assault groups blocking the defense works.

558. Infantry close-support and long-range artillery groups are formed in defense of a fortified area.

Infantry close-support artillery groups are formed based on the number of regimental sectors or for one or two centers of resistance; they include light gun and howitzer artillery of the fortified area and the artillery of field troops.

Long-range artillery groups are formed, primarily based on the number of a fortified area's sectors, out of division and army artillery as well as long-range artillery of the fortified area (not caponier artillery).

559. Caponier and antitank artillery of centers of resistance and strong-points is not placed together in groups; it is subordinated to the commandants of centers of resistance and strongpoints and conducts fire at their request.

The primary missions of caponier and antitank artillery are to destroy tanks, armored vehicles, anti-embrasure artillery, and infantry operating with or without tanks; and to give fire support for unblocking permanent pillboxes.

560. The control of artillery in defense of a fortified area usually is centralized.

561. The missions of engineer troops are:

- Creation of powerful antitank and antipersonnel obstacles and conversion of the fortified area as a whole into an area inaccessible to tanks;
- Maneuver of minefields when a penetration of enemy tanks has become apparent;
- Camouflage of works, command posts, shelters and other installations which precludes the possibility of the enemy uncovering the defense plan and especially the location of the forward edge;
- Restoration of demolished obstacles and combat works in the course of combat and keeping them in readiness;
- Conduct of underground mine warfare;
- Direction of the construction of intermediate lines in the depth;
- Construction and development of the road network and bridges and maintaining them in a serviceable condition.

562. The primary purpose for tanks in a fortified area's defense consists of joint actions with reserves and with unblocking groups.

In addition, tanks may be assigned the following missions: reinforcing the troops operating in the forward defense area; and moving individual tanks and small groups forward to the vicinity of disabled permanent works as mobile and fixed weapon emplacements.

563. Tactical control of a fortified area requires:

--A defense plan worked out in advance which precisely establishes the combat missions of permanent garrisons, field troops and aviation;

--A precise knowledge of one's missions by the troops down to and including small subunits and fighting men;

--A developed network of command posts;

--Permanent communications (wire and especially radio) organized in advance.

564. When field troops reinforce a fortified area the procedure for subordination of command personnel is determined as follows:

--When a rifle battalion occupies a strongpoint the commander of a battalion of field troops becomes the strongpoint commandant; the commander of a fortified area company becomes the deputy battalion commander for control of the garrisons of permanent works; when a subunit less than a battalion of field troops arrives in a strongpoint the commander of the fortified area company remains the strongpoint commandant;

--When a rifle regiment occupies a center of resistance the commander of the regiment of field troops becomes the commandant of the center of resistance; the commander of a fortified area battalion becomes deputy regimental commander for control of the fortified area subunits; when a unit [chast'] less than a rifle regiment arrives in a center of resistance the commander of the fortified area battalion remains the commandant of the center of resistance;

--When combined-arms units [soyedineniye] occupy a fortified area the commandant is appointed by the army (corps) commander; the fortified area commandant becomes his deputy for control of fortified area units [chast'].

565. Populated points included in the fortified area defense zone are fortified without fail, adapted for defense, and are included in the overall defense plan.

566. Snipers are widely used in a fortified area to annihilate the crews of anti-embrasure guns and machineguns, assault groups, enemy attack planes, observers and other important targets.

567. *Field type fortified areas* are constructed on the very same basis as a static defense of field troops, with a strengthening of the might and resistance by a more developed system of engineer obstacles, earth-and-timber and earth-and-stone pillboxes, pillboxes assembled from reinforced concrete elements, individual reinforced concrete pillboxes and armored cupolas.

568. The overall frontage of a field type fortified area depends on its operational purpose and terrain conditions.

A forward defense area (security zone) up to 15 km deep is organized ahead of the forward edge of defense; individual centers of resistance with a strength of one rifle company or battalion are constructed on especially important axes.

569. The basis for defense of a field type fortified area is a battalion defense area.

The location of weapon emplacements in a battalion defense area must allow oblique, flanking and cross machinegun and artillery fire supplemented by all kinds of frontal fire from the depth.

570. The roads needed for operational purposes are covered by fortified bridgeheads (centers of resistance) at battalion strength at places where they cross over antitank ditches of the main defense lines.

The front (army) commander gives directions on which roads to leave for use and which to destroy.

571. The fortified area commandant assigns responsible commanders for receiving and letting through field troops withdrawing to a fortified area; the responsible commanders meet the field troops and indicate their routes of movement through the fortified area's defense works.

At the moment field troops pass the forward edge of defense, a fortified area's weapons support their withdrawal by fire based on a prearranged plan.

6. Defensive Actions of Tank and Mechanized Units [Soyedineniye]

572. Mechanized and tank corps (brigades) may conduct defensive combat:

--To screen a regrouping of troops;

--To screen the withdrawal of troops to a new defense line;

--To secure the exposed flank of a front or army;

--During actions in the enemy's operational depth, in case of an encounter with his clearly superior forces until the arrival of the army main body.

573. The defense of tank and mechanized units usually is organized across a broad front and bears a mobile nature.

574. The motorized units [chast'] of a tank unit [soyedineniye] and attached infantry, reinforced by tanks and artillery (especially antitank artillery), occupy strongpoints which have mutual fire support.

The bulk of tanks of mechanized units [soyedineniye] is intended for delivering decisive attacks against the flank of the attacking enemy.

The presence of a tank reserve in the hands of the mechanized unit commander is mandatory.

575. In case of an attack by the enemy's tank units [soyedineniye], the motorized units [chast'] of mechanized units [soyedineniye], in coordination with artillery and combat aviation, disorganize the attacking enemy by fire and counterattack him with tanks in the depth of the friendly defense.

In necessary instances motorized infantry must defend stubbornly even under threat of total encirclement.

7. Defensive Actions of Cavalry Units [Soyedineniye]

576. In a defensive operation large cavalry units [soyedineniye] usually comprise [the remainder of paragraph 576 and all of paragraphs 577 through 587, consisting of four pages, are missing]

8. Features of a Night Defense [chapter missing]

9. Defense of Populated Points

[A portion of the chapter is missing]

588. The defense of a populated point must be an all-around defense. It is organized and conducted in close coordination with troops operating outside the populated point.

589. A populated point is adapted for defense to its full depth. The forward edge of defense should be extended forward. If dominant heights adjoin the populated point they are included in the point's defense plan.

The most sturdy structures, especially at street intersections and squares, are adapted for an all-around defense as mutually flanking strongpoints, and antitank and antipersonnel obstacles and covered connecting trenches are built across the streets.

A two-tiered defense is prepared in each strongpoint and in separate buildings convenient for this purpose: in semibasement and lower floors for conducting fire along the streets; in upper floors and attics for conducting fire from above against streets, yards and adjacent buildings.

Strongpoints are organized above all as sturdy shelters. Measures are taken against fires.

Several strongpoints with mutual fire support form a center of resistance.

590. The defense of large populated points--cities--is constructed according to the principle of a defense of fortified areas.

A number of defense positions reinforced by engineer obstacles should be built at tactically favorable lines 15-20 km from a city for the purpose of preventing the enemy's approach or, if this is impossible to accomplish, exhausting his troops.

The forward edge of defense is extended forward or chosen along the outskirts of a city. Several defense positions are prepared within a city and consist of centers of resistance and individual strongpoints with close fire support.

Every strongpoint and center of resistance must be adapted for an all-around, lengthy defense even under conditions of total encirclement. Stocks of ammunition, food, medical equipment and potable water are set up in a strongpoint. It is permitted to leave a strongpoint only on order of the senior commander.

For convenience of control, large populated points are divided into areas (sectors) which include specific important axes.

Streets and ravines are not designated as boundary lines between defense sectors.

591. A city defense is constructed above all as an anti-artillery and anti-tank defense. Provisions are made for employing antiaircraft artillery for a deep defense against ground targets and above all against tanks. Antitank obstacles must be set up earliest on approaches to the city and on its outskirts, and must be developed within the city.

592. Approaches to strongpoints and intervals between them are covered by a system of log obstructions, by the installation of dragons' teeth, as well as by building barricades out of materials at hand and mining streets, barricades and buildings.

The approaches to obstacles and the obstacles must be covered by flanking and oblique fire of all kinds of weapons from adjacent buildings and special weapon emplacements constructed in the system of obstacles.

593. The most sturdy buildings are connected by making holes in adjoining walls and they are organized as centers of resistance. Walls are reinforced by sandbags and by additional bricklaying; ceilings are reinforced by logs, earth and the collapse of upper floors in multistory buildings; loopholes are made.

Basement rooms and lower floors in multistory buildings are used as shelters and medical aid stations; sewer and communications manholes are used for installing disappearing weapon emplacements; underground sewer lines are used as connecting passages.

594. Every street must be barricaded firmly or material prepared for rapid construction of barricades after the withdrawal of friendly units [chast'] fighting in front of the city.

The barricade system must not allow the enemy to envelop them or drive around them along adjacent streets. Approaches to barricades must be covered by flanking and oblique fire of guns, mortars and machineguns from weapon emplacements especially built in the vicinity of the barricades.

595. The barricades should be made of local materials without regard for the necessary destruction; streets should be blocked with trolleys and unserviceable vehicles; antitank obstacles should be built of rails, rock, brick and earth; obstructions should be made by demolishing buildings.

Clear a field of fire along streets, straightening them by demolishing buildings and removing public gardens, parks and other objects that interfere; don't leave intact or unoccupied buildings and local features which allow the enemy a concealed approach to strongpoints.

596. Entire subunits are assigned for defense of each strongpoint; their commanders are appointed strongpoint commandants.

597. A mobile reserve of riflemen and submachinegunners with antitank rifles, guns and mortars as well as combat engineers with mines must be assigned in the defense of each populated point. The reserve is employed for rapid reinforcement of the defense on threatened axes and for mopping up individual enemy groups which have penetrated into the populated point.

Local reserves from defending units or subunits are assigned in centers of resistance and in strongpoints.

Passages for dismounted and mounted movement are built within blocks through yards, orchards, gardens and parks for troop maneuver in a populated point.

598. The artillery fire plan is constructed on a combination of flanking and frontal fire of individual pieces. Subunits defending areas (sectors) of the populated point receive the attachment of batteries and battalions; subunits defending strongpoints receive the attachment of individual guns and mortars. At times it is advantageous to keep a portion of the artillery at the disposal of the senior artillery commander and locate it outside the populated point.

Tanks and armored vehicles make up a reserve. Individual tanks are used for conducting fire from the halt and from ambushes.

599. Available technical communications of the populated point is used for tactical control in addition to military means of communication; it is first checked out well, provided with reliable security, and supplemented and duplicated by mobile military means of communication.

A developed system of observation is set up, for which the attics of tall buildings, churches and factory smokestacks are used.

Troops are supplied in advance with large-scale city maps.

600. Every building, especially sturdy structures, must be stubbornly defended in combat within a populated point.

The enemy who has penetrated a populated point is annihilated by fire and vigorous counterattacks. After restoring the position, troops consolidate firmly at occupied lines in readiness to continue a stubborn struggle.

10. Defense in the Forest

601. Large forest areas, especially with marshes, facilitate the troops' defense actions.

Defense in a forest consists of an all-around defense of forest sectors included in centers of resistance, a widespread system of obstacles between centers of resistance and in the depth, and decisive counterattacks.

602. The forward edge of the main defense zone should be chosen in front of the forest edge or should be removed somewhat into the depth.

Antitank and machinegun block houses are set up at the intersections of roads and clearings, and observation posts, snipers and submachinegunners are placed in the trees.

The entanglement of trees with wire should be widely employed for obstacles, mined obstructions should be set up, and log walls and fences should be adapted for conducting fire.

Well-organized mortar fire and careful camouflage of defense works are of special importance in a defense in the forest.

Forest salients, which the enemy usually tries to seize first of all, must be defended especially heavily by fire and reinforced with obstacles. Sometimes clearings protected by fire and obstacles should be made in the depth of large forest salients in order to delay there the enemy's penetration into the depth of defense.

603. Reserves are disposed in areas organized for a perimeter defense near road junctions, forest meadows and clearings. Directions for counterattacks are staked out.

Guides are prepared in advance for supporting movement to areas of counterattacks.

Firefighting measures are planned.

604. Artillery and mortars employ concentrated fire against distant and near approaches to the forward edge and within the forest.

Individual guns and mortars are attached to rifle companies. The fire of individual guns and mortars is employed for flanking the approaches to the forward edge and clearings and for close support of infantry in the depth of the forest.

605. Tanks are employed in small subunits (platoon, company) with infantry for counterattacks, for operation from ambush, or for conducting fire from the halt, especially at boundaries, road intersections and in clearings.

606. In addition to execution of primary missions, combat aviation demolishes forest roads and crossings on the enemy's movement routes.

607. Communications lines and roads in the rear are carefully secured by sending out patrols and building blockhouses.

11. Defense of a River

608. A river strengthens a defense. Depending on the time of year and weather, even an insignificant river can become a serious obstacle for an attacker, especially for his tanks.

The defensive features of a river line can be reinforced by artificially raising the water level and by a system of manmade obstacles.

609. The forward edge of the main defense zone usually is chosen along the near bank of the river.

If a small river has a broad, open valley, the forward edge can be moved backward to a favorable line which assures observation and fire. In this case reinforced battle outposts are moved up to the riverbank.

610. In organizing a river defense one must determine the sectors convenient for the enemy's assault crossing and place them under special observation and fire.

Artillery and mortar fire must be prepared on approaches and in sectors of probable crossings and against areas of a possible concentration of the enemy and his crossing equipment.

The antitank defense is reinforced in sectors favorable for the crossing of enemy tanks. Fords are mined.

Infantry weapons must not reveal themselves before the beginning of an enemy crossing. Rifle, machinegun and mortar subunits are assigned to combat small enemy groups which are crossing. Existing islands must be occupied by infantry subunits for setting up flanking fire.

Reserves are located in areas providing an opportunity for rapidly approaching any crossing point in order to throw enemy units [chast'] which have crossed back into the river.

Combat aviation is employed for attacking enemy troops, especially in a period of their concentration and at crossings.

611. In case of a withdrawal for a defense behind the river, approaches to bridges from the enemy's side are mined in advance with antitank and antipersonnel mines and covered by weapon emplacements with antitank weapons. Bridges are mined in advance and are blown up on order of a specially designated commander. Local crossing equipment is assembled at the near bank or, if this is impossible, it is sunk.

612. In organizing a river defense in anticipation of friendly troops assuming the offensive, fortified bridgeheads are set up and staunchly occupied with a defense on the opposite bank across from existing crossings or crossings being newly constructed. The flanks of a fortified bridgehead rest upon

the river and are secured by fire from the opposite bank. Special attention is given to organizing an antitank defense of fortified bridgeheads.

Fortified bridgeheads are moved away to a distance securing the crossing against the fire of enemy infantry and ground artillery observation.

The disposition of artillery and mortars must provide fire support of troops defending the fortified bridgeheads and the move into an offensive.

12. Defense in Winter

613. In organizing a defense in winter one must create conditions providing both for combat work and for the warming and rest of troops, and preventing the frostbite of people and animals.

614. It is advisable to choose a defense zone on terrain which has forests, populated points and other shelters in which strongpoints and centers of resistance are organized.

The forward edge of the defense zone is chosen behind difficult obstacles. Most often it does not have a continuous zone of infantry fire, and as a result it is necessary to beef up reconnaissance and security on the boundaries and flanks. All shelters ahead of the forward edge which can be used by the enemy should be destroyed or blocked by engineer means and kept under artillery and mortar fire.

615. Reserves are disposed in covered places or shelters and weapons with crews are kept at firing positions in readiness to open fire.

Reserves must be placed on skis and routes (ski trails) prepared for them in the depth of the defense zone to ensure the reserves' maneuverability.

616. In addition to the installation of defense works and obstacles, the most important missions of engineer preparation in winter are the construction of troop shelters, camouflage, construction of roads and crosscountry routes in the friendly rear, and preparation of quickly installable obstacles for the roads and routes.

617. Artillery and mortars receive a special mission--preventing the enemy from using roads and populated points.

Steps are taken to increase the mobility of artillery and mortars and their battlefield maneuverability.

The local security of firing positions, observation posts and communications lines is beefed up.

618. Tanks are employed for counterattacks. Likely axes for counterattacks are carefully reconnoitered and prepared.

When there is a deep snow cover tanks can operate along roads and are employed for conducting fire from the halt, especially from ambush.

Steps are taken for warming the vehicles.

619. Combat aviation attacks the enemy on roads and demolishes populated points and field bivouac installations, preventing the enemy from using roads and shelters.

620. Air and ground reconnaissance keeps a systematic watch over development of the network of roads, paths and ski trails in the enemy position.

621. Troops must be especially vigilant during very cold weather, at night, in a snowfall and during a blizzard.

622. One must strive to exhaust the attacking enemy, slow his advance and increase the time he is out in the cold.

Ski units [soyedineniye or chast'] are employed for attacking the enemy flanks and rear, for destroying reserves, staffs, rear establishments and transport, for destroying communications and creating obstacles on the roads.

623. In conducting a mobile defense in winter with consideration of the brevity of the winter day, one should stay at each defense line until the onset of darkness. Shelters must be prepared in advance at each defense line and steps taken to warm the troops. Shelters are destroyed when the line is abandoned.

13. Defense in the Mountains

624. Mountain areas provide great opportunities for choosing lines favoring a frontal defense.

In the mountains one must have strong reserves and well-organized reconnaissance and security for securing the flanks and rear.

625. A static defense must be developed most fully on axes accessible to tanks where concentrated artillery fire can be employed.

A mobile defense under mountain conditions is constructed on a combination of a defense of commanding heights with active operations by strong reserves.

The defense frontage depends on the nature of the terrain and the importance of the defended axis.

626. In a defense along a ridge the forward edge of the main defense zone should be extended to slopes facing the enemy; in a defense across a ridge it should be located on slopes of the main ridge and its spurs which face the enemy.

When defending across a narrow mountain valley it is necessary to echelon strongpoints on hills adjoining the valley so that the valley is covered by

crossfire to the entire depth of defense; a security force should be located in the valley itself and strong obstacles set up there which are covered by the fire of antitank rifles and guns.

627. All populated points located in valleys and on mountain slopes are adapted for an all-around defense. Populated points located at entrances to valleys must be prepared especially staunchly. Passes in the rear of friendly forces must be prepared in advance for an all-around defense and secured by specially assigned detachments. The defense of passes must be organized on approaches to them.

628. Infantry, antitank and artillery frontal and flanking fire must ensure coverage of approaches and the numerous dead spaces.

Plunging and multitiered fire should be used widely.

Antitank weapons are employed for hitting tanks when they attempt to penetrate valleys and in the period when they are negotiating obstacles and ascents.

629. The location of army (corps) second echelons and division (brigade) reserves must assure the repulse of possible enemy deep envelopments and their prompt and unhindered (with respect to the terrain) commitment during counterattacks. As a rule counterattacks should be executed downward from above, along ridges and along valleys.

Axes for counterattacks are carefully reconnoitered and prepared.

630. Artillery and mortars must provide for fire coverage of the nearest approaches and dead spaces, using flanking and oblique fire of individual pieces in addition to frontal fire.

Artillery hinders the enemy in conducting observation from peaks which permit a field of view in the depth of defense; it hits the enemy on reverse hill-slopes, prohibits movement and supply along roads, and secures intervals and flanks of the defense by flanking fire and fire from the depth.

Batteries and pieces located on hills are used without fail for combating tanks advancing along valleys.

The control of artillery attached to units [chast'] defending independent axes is centralized depending on conditions of observation.

631. Tanks are located at road junctions and in valleys. They are intended for counterattacks either independently or jointly with army (corps) second echelons and division (brigade) reserves.

Even individual tanks are capable of inflicting damage and delaying the enemy by operating out of ambushes or in defiles.

632. Combat aviation attacks the advancing enemy in defiles, gorges and on mountain roads. It supplements and reinforces the artillery fire, hitting targets on reverse slopes, concealed approaches and in dead spaces.

Aviation also is employed for communications and for transporting ammunition, fuel and other cargoes to defending troops.

633. Engineer support of a defense in the mountains includes the preparation of roads and crosscountry routes in the friendly rear as well as the destruction of roads (trails) on enemy movement routes.

It is advantageous to carry out demolition and the installation of obstacles on roadways in difficult sectors of roads and trails or to blast sheer slopes adjoining them while mining detours.

634. The conduct of combat must be subordinated to the primary mission of defeating the attacking enemy in detail. The scattered nature of enemy actions along axes should be used for this purpose.

The stubborn holding of individual hills by troops even when they are completely encircled gains exceptional importance when the enemy penetrates into the depth of defense.

Division (brigade) reserves and army (corps) second echelons must employ a flanking maneuver to vigorously counterattack an enemy who has penetrated and defeat him together with the remaining troops.

635. Special attention should be given to combating airborne assault forces.

14. Defense in the Desert Steppe

636. A defense in the desert steppe usually is organized around populated points and water sources. It must be an all-around defense in the form of closed centers of resistance disposed laterally and in depth depending on the possibilities of water supply and conveniences of defense.

Motorized infantry reinforced by tanks and artillery should be assigned to the army (corps) second echelons and the division (brigade) reserves.

637. Artillery, mortars and tanks are disposed in centers of resistance. The artillery is employed for conducting fire from longest ranges.

Tanks are used widely for independent actions. The absence of obstacles which constrain maneuver gives tanks the opportunity to deliver rapid crushing blows against an attacking enemy.

638. Aviation is employed for delaying the enemy's approach and destroying him at places of concentrations, for attacking transport columns, and for destroying depots of food, ammunition and fuel and sources of water supply.

Aerial reconnaissance is organized across a broad front and to a great depth.

639. Camouflage as well as reconnoitering and obtaining water are the most important missions of engineer troops.

Chapter 11 - The Withdrawal and Disengagement

640. The withdrawal is one of the forms of maneuver executed when the situation requires troops to be moved out from under an attack by superior enemy forces.

641. A withdrawal can be executed for the purpose of:

- Getting out of an enveloped position;
- Occupation of a more favorable defense line (natural or fortified), a contraction of the front line of the defense, and assignment of forces for active operations;
- A withdrawal to friendly reserves and assumption of a new grouping for a counteroffensive against an enemy who has dug in.

642. A withdrawal can be executed only on order of the higher command (the army commander for the division and corps, the front commander for the army).

643. A withdrawal is inadmissible in those instances where the sector held by the given unit [soyedineniye] supports the flanks of other units conducting an offensive, covers troop concentration areas or blocks important defiles, crossings, road junctions and so on.

644. The primary methods of a withdrawal are:

- A successive withdrawal from line to line with continuous resistance;
- The rapid departure of troops to the planned depth of the withdrawal without a delay of the main body at intermediate lines.

The successive retrograde movement from line to line in a withdrawal can be employed:

- When the main body is engaged in fighting the enemy and cannot be disengaged right away;
- When the enemy must be delayed and time gained for preparing a countermaneuver or for evacuation of the territory being abandoned and organization of a defense in the rear.

A rapid troop withdrawal can be executed in those instances where:

- The main body is not engaged in serious fighting with the enemy;
- Preparation of a countermaneuver can be completed in a short period of time;
- There is a strong natural or prepared defense line at a considerable distance to the rear, a withdrawal to which provides great advantages for further action;
- Territory must be abandoned up to the final withdrawal line.

645. The withdrawal is one of the complicated forms of maneuver. To keep the withdrawal from turning into a disorderly departure and from demoralizing the

units [chast' or soyedineniye] being removed from under the enemy's attack, it must be conducted in an organized fashion and with rearguard fighting.

In organizing the withdrawal the army (corps) commander first of all must ensure the troops' disengagement and their separation from the enemy.

Depending on the objective, the plan for the withdrawal and disengagement provides for:

- The troops' mission in moving to a new area;
- Primary axis of withdrawal;
- Intermediate lines and missions for holding them;
- Procedure and time for disengagement and designation of units [chast'] supporting the disengagement;
- Composition of rear guards, the lines which rear guards must hold, and until what time;
- Designation of commanders of major rear guards on the main axes;
- Axis and times of withdrawal for each military unit [soyedineniye];
- Organization of antiaircraft and antitank defense and antichemical protection;
- Measures to combat parallel pursuit;
- Repair of roads and bridges for the withdrawal and measures for arranging obstacles and demolitions in the zone of withdrawal;
- Organization of communications in the withdrawal;
- Routes, areas and procedure for withdrawal of rear establishments and the procedure for evacuating the wounded and sick, and property.

646. A disengagement during the day is organized by leapfrogging. A defense line is occupied in the rear of subunits which are disengaging for the purpose of covering the subunits separating from the enemy and taking on the attacking enemy. Army second echelons, division (regimental) reserves and units [chast'] of the combat formation which can be removed earlier in the course of combat are used for occupying this line. The screening of separation from the enemy in a defense most often is performed by subunits occupying strongpoints of regimental and division reserves, and subunits of submachinegunners.

Units [chast'] execute the separation from the enemy and disengage across a broad front, screened by fire and smokes.

Motorized infantry and submachinegunners can be assigned to cover the disengagement and withdrawal. They delay the enemy by successively occupying favorable lines and populated points, forcing his forward units [chast'] to deploy and fight. In some cases it is advantageous to cover the disengagement by a brief attack.

A portion of the artillery and mortars must be ready to provide fire cover for the infantry's disengagement. The remaining artillery and mortars are moved to the second line in advance.

The artillery and mortars screening the infantry's withdrawal begin movement after the infantry separates from the enemy.

Tank units [chast'] are employed for local counterattacks against the pressing enemy and for actions out of ambush.

Combat aviation screens the disengagement by strafing actions against forward enemy units and against his tanks and motorized infantry.

Special attention is given to antitank defense, for which the rear guards are reinforced with antitank weapons.

It is easier to break away from an enemy with the onset of darkness. Even under difficult combat conditions an attempt should be made to hold out in place until the onset of twilight.

647. Disengagement at night is screened by reinforced reconnaissance subunits and subunits of submachinegunners. They are disposed at the forward positions of the withdrawing units, repel enemy attacks and lead him astray.

The covering subunits remain at their positions until an order from the commander who dispatched them, after which they break away from the enemy.

648. The withdrawal by a successive retrograde movement of the main body from line to line initially is done by the mobile defense method until the main body separates from the enemy. When the main body separation has occurred, the rear guard and obstacle detachments are responsible for covering a further withdrawal.

649. During a rapid withdrawal of troops it is necessary to break off from the enemy as quickly as possible, to be covered by the rear guards and to gain space. Withdrawing troops often will have to make long marches. A withdrawal across a broad front along a large number of roads facilitates the withdrawal.

It is very important to conceal our withdrawal or at least its beginning from the enemy. It is most advisable to execute it with the onset of darkness.

650. The number of large army-level rear guards and the composition and mission of each of them are determined by the situation.

Rear guards on the most important axes must be capable of independently accomplishing the missions assigned them without counting on support of the main body.

The primary role in the composition of rear guards will be played by troops possessing high mobility (tanks, motorized infantry, submachinegunners, artillery and mortars with mechanical traction or on vehicles, cavalry and, in

winter, ski units [chast']), which must hold until the last opportunity and then withdraw quickly.

Mobile units also can be employed for vigorous, brief actions against the flanks and rear of attacking enemy troops.

651. The primary mission of the rear guard is to allow the main body to break off from the enemy and give it an opportunity to withdraw unhindered without engaging in fighting.

To execute this mission the rear guard uses all forces and resources at its disposal, without stopping at sacrificing itself in necessary instances.

Particular attention must be given to the personal selection of commanders of large army-level rear guards capable of performing the responsible, honorable and difficult missions assigned to the rear guards which demand high courage and skill. The assignment of commanders of these rear guards must be accomplished without mandatory adherence to official seniority.

652. Rear guards withdraw from line to line, making wide use of obstacles in the zone of withdrawal and demolishing routes to delay the movement of pursuing enemy troops.

Depending on the situation, rear guards employ:

--A mobile defense, striving to delay the enemy and gain the time and space needed by the main body;

--A stubborn defense of important lines, defiles and road junctions regardless of the possibility of heavy losses;

--Offensive actions with a limited objective for delivering a brief attack against dug-in enemy units [chast'] if this can gain the time or distance needed for the main body.

653. In organizing a withdrawal it is necessary to take steps to repel an attack by enemy aviation and mobile units [chast'].

Crossings on withdrawal routes in the rear should be [one word partially legible, possibly "occupied"] by previously dispatched detachments.

Rear routes must be freed in advance. Only the first echelons of trains with evacuation resources proceed with the units. The other rear units and establishments are moved by [one word illegible] in advance to their designated areas.

654. Combat against the enemy's parallel pursuit acquires special significance in the disengagement and withdrawal. To this end there must be detachments with antitank weapons, submachinegunners and combat engineers on the flanks who cover all side routes. These detachments set up antitank and antipersonnel obstacles and hold them until the passage of forces withdrawing along the main axis.

655. Combat aviation covers the main body's withdrawal and attacks pursuing enemy units, especially tanks and motorized infantry, at the front and at the flanks.

656. Bridges, roads, installations, communications centers and communications lines in the withdrawal zone are demolished under the senior commander's plan in order to delay the enemy.

The army (corps) and division (brigade) commanders decide which installations are demolished only on their orders and designate responsible commanders and combat engineer subunits. All remaining installations are demolished on order of unit [chast'] commanders.

When there is a clear threat of enemy capture of installations both of army importance as well as others, they are demolished by instruction of the commanders of units and subunits located at these installations.

The demolition plan must be known to commanders of the rear guards. As a rule not one bridge must remain intact after the rear guards pass. The rearguard chiefs are responsible for executing this.

657. In a withdrawal the army (corps) second echelon and division (brigade) reserves:

- Occupy and hold lines which interdict the routes of enemy groupings making deep or close envelopments;
- Cooperate with the withdrawing first echelon divisions (brigades) by delivering brief attacks against the flank and rear of enemy groupings making a close envelopment or breaking out ahead;
- Occupy the final line in advance or receive withdrawing troops at intermediate lines on the most dangerous axes.

The army (corps) commander restores second echelons by using units [soyedineniye] experiencing the least enemy pressure.

658. It is advisable to withdraw army (corps) artillery to the deep rear in advance.

Tanks located in an army either are attached to rifle divisions or concentrated in the army commander's hands to make up his tank reserve. The latter always is advisable if the enemy has major tank units [soyedineniye] in the army zone and terrain favors their employment.

An army's engineer units are employed in the withdrawal:

- As part of rear guards and flank detachments for arranging obstacles and demolitions;
- For arranging obstacles and demolitions in the withdrawal zone;
- For improving roads and reinforcing crossing points on the withdrawal routes of the army main body.

659. Rifle divisions (brigades) execute the disengagement and separation from the enemy by relying on their own reserves and specially assigned units [chast']. To this end the latter firmly hold one of the covering lines and receive the division (brigade) main body, subsequently becoming its rear guards.

660. Fragmentary combat orders are issued for the disengagement.

Senior commanders and their staffs provide on-the-spot direction of the troops' disengagement and their withdrawal.

The headquarters first echelon departs only after the withdrawal has been organized and the main body has begun movement.

661. Radio (radio signals), mobile equipment and liaison officers are the primary means of communication for control in the withdrawal.

Special attention is given to providing for communications with rear guards and flank detachments. The communications axes of senior staffs remain until the rear guards' withdrawal and are removed by instruction of their commanders.

Chapter 12 - Combat in Encirclement and Breaking Out of Encirclement

662. Combat under conditions of encirclement is the most difficult form of troop combat activity and requires great self-control, initiative, resolve and determination.

Units [soyedineniye] which are encircled must wholeheartedly execute their assigned mission.

Units fighting in encirclement divert superior enemy forces to themselves and thus make it easier for our troops to accomplish primary missions on other axes.

1. Opposition to Encirclement

663. The encirclement of troops does not arise unexpectedly. It usually is a result of an unsuccessful outcome of combat on the flanks of the unit itself or in adjacent sectors and the enemy's move to this unit's flanks and rear.

The bold and timely organization of opposition to encirclement is of decisive importance.

Opposition to encirclement is achieved by:

--Continuous and deep ground and air reconnaissance;

--Reliable support to the flanks, boundaries and rear of friendly troops, the maneuvering of antitank assets and the emplacement of obstacles covering the most important approaches to exposed flanks and the rear;

--The bold, swift and decisive defeat of enveloping enemy forces employing army (corps) second echelons, division (brigade) reserves, tanks, and the maneuver of artillery and aircraft fire.

Enemy groups which are enveloping or have penetrated and are attempting to execute an encirclement must be contained from the front and themselves attacked decisively in the flank and rear with support of concentrated artillery fire and aircraft.

Counterattacking groups must be reinforced from sectors of the front not under attack or which are weakly attacked.

664. Timely assistance at the initiative of adjacent units and commitment of the senior commander's reserves can not only prevent an impending encirclement, but also put the enveloping enemy in the position of the one encircled.

Penetrating enemy units [chast'], especially at boundaries with adjacent units, must be attacked simultaneously from two directions.

Counterattacks by adjacent units against the outer flanks and rear of the enveloping enemy groupings in combination with decisive actions of the troops being encircled can lead to total destruction of the enveloping enemy.

665. When there is a threat of encirclement it is necessary:

- To strengthen ground and air reconnaissance on the most threatened axes and prevent enemy reconnaissance in every way;
- To ensure the capture and holding of the most important tactical areas, lines and points on routes of the enveloping enemy;
- To assign strong mobile and antitank reserves, locating them on the most threatened axes;
- To prepare massed artillery fire and maneuver on the most threatened axes;
- To organize coordination with adjacent units for joint elimination of the threat at hand and uninterrupted communications with the senior commander over an alternate path (especially by radio);
- To draw up first echelons of trains to the troops and establish a rigid regime for the expenditure of ammunition, fuel and food;
- To select and secure areas for aircraft to drop supply cargoes;
- To evacuate the sick and wounded and excess property in advance.

2. Combat in Encirclement

666. Troops conduct combat in encirclement for holding a specific area.

Encircled troops must assure themselves freedom of maneuver and stability of the combat formation. The concentration of encircled troops in too narrow a space covered by enemy artillery fire must be resolutely averted, and the

enemy must not be given an opportunity to split and defeat in detail the combat formations of encircled troops.

Encircled troops organize an all-around defense.

667. Stability of the combat formation in encirclement is achieved by:

--Defense of the tactically most important areas and local features which have mutual fire support;

--The presence in the depth of strong mobile general and antitank reserves and reserves of combat engineers with means of obstruction;

--Organization of obstacles and an antitank defense which are especially powerful on axes of expected enemy attacks;

--Organization of fire providing for flexibility of maneuver, surprise and strength of fire pressure;

--Swiftmess and concealment of friendly troop regroupings on threatened axes and prompt replenishment of expended reserves;

--Cover of the main troop grouping and its maneuver against air attack;

--Organization of shelters for the troops against enemy weapons and aviation and the thorough camouflage of friendly troop positions;

--Organization of reliable control;

--Organization of prompt aerial delivery of replacements, ammunition, fuel and rations.

668. Reserves must have great mobility and the capability of executing counterattacks against penetrating enemy units in any direction.

669. The mission of artillery is to repel any enemy attempt to attack the combat formation of encircled troops from any direction. To this end the artillery must be ready for the rapid concentration and transfer of massed fire and for maneuver by movement.

Ammunition and fuel economy is of special importance in this instance.

670. Tanks are employed in an encirclement for joint actions with counterattacking units [chast'].

The fire of tanks dug into the ground and from ambush may be widespread.

Fuel economy acquires great importance.

671. Aviation performs the following missions while actively cooperating with encircled troops in destroying the attacking enemy:

--Performs reconnaissance in the interests of the troops in encirclement and provides communications with the senior commander;

--Delivers strikes against the enemy's main grouping and tanks;

--Isolates the area of encirclement from the approach of new enemy forces and reserves;

--Combats enemy aircraft by operating from airfields located outside areas of the encircled troops;

--Delivers ammunition and other supplies to the troops and evacuates the wounded.

A portion of attack and fighter aviation may operate from landing strips in the vicinity of encircled troops.

672. Command and control under conditions of encirclement is accomplished by brief fragmentary combat orders.

Continuity of communications is assured by the wide use of light tanks, armored vehicles, mounted messengers and all kinds of signaling (especially radio signals) and, with the senior commander, by radio and using aircraft.

673. The success of combat in encirclement depends chiefly on the conduct of the encircled troops themselves. Assurance of high troop combat effectiveness is a deciding condition for success of combat in encirclement. A shortage of forces must be made up for by vigorousness of actions, staunchness and stubbornness in combat, the art of maneuver, and skilled use of surprise and stratagem.

The personal example and heroism of commanders and fighting men, mutual support and comradely help are a guarantee for successful conduct of combat.

674. The senior commander assists troops in encirclement by:

--Organization of a breakthrough to the encircled troops for a link-up with them;

--Persistent expansion of the breach formed as a result of this penetration to a width exceeding the effective range of mortar and artillery fire;

--Organization of coordination of attacks by encircled troops with an attack from outside to eliminate the enemy carrying out the blockade.

3. Breaking Out of Encirclement

675. Breaking out of encirclement is accomplished only by order of the senior commander.

Breaking out of encirclement requires thorough and comprehensive reconnaissance of the penetration axis and development of a precise plan of action.

676. The success in breaking out of encirclement depends on the decisiveness and boldness of the penetrating troops' actions and on staunchness of the covering units [chast'].

677. Reconnaissance must establish the grouping of enemy troops and the sectors of the ring of encirclement most weakly occupied by them, and it must promptly detect the approach of new enemy forces to the area of combat actions.

678. In organizing a breakout from encirclement it is necessary to determine:

- The sector or sectors and axes for penetration;
- Forces and resources for accomplishing and supporting the penetration and their missions;
- Time and methods for executing the penetration;
- Forces and resources for securing the flanks of penetrating troops and their missions;
- Feints in other sectors;
- Measures to ensure concealment of the preparation and surprise of the penetration;
- Procedure and sequence for conducting mass demolitions;
- Procedure and sequence for the withdrawal of units [chast'] covering the penetration;
- Methods of control and communications.

679. The best time for breaking out of encirclement is at night or under conditions of poor visibility (fog, blizzard), but conditions of the situation often also require breaking out of encirclement during the day.

Vigorous feints must be undertaken and thorough camouflage of the penetration must be performed when breaking out of encirclement.

680. The combat formation for breaking out of encirclement consists of troops executing the penetration, security units, and a reserve.

At least half of all forces and the bulk of artillery and tanks are assigned for executing the penetration. Strong screening forces counter the closing of the broken ring of encirclement. These screening forces must be reinforced or relieved at the first opportunity.

Security units remain at their positions and hold them without giving the enemy an opportunity to narrow the ring of encirclement or to wedge into the combat formation.

681. A breakout from encirclement is executed by delivering an exceptionally bold and crushing blow against the enemy on the chosen axis by the bulk of infantry, artillery, tanks and combat aviation.

Breaking out of encirclement in small groups is prohibited.

In a night breakout the troops together with tanks observe the strictest of discipline and order and suddenly attack the opposing enemy.

The infantry clears itself a path by bayonet and grenade. Only point-blank fire is authorized.

The bulk of artillery proceeds in combat formations of the attacking infantry.

In a daytime penetration the attack is preceded by artillery and air preparation.

Tanks supported by artillery and aviation attack together with the infantry with the primary mission of annihilating enemy infantry and neutralizing enemy weapons hindering the friendly infantry's advance.

Tanks which have penetrated, supported by infantry and artillery, develop the penetration toward the flanks, attacking the enemy from the rear and destroying his counterattacking units [chast'] and reserves.

682. The breakout of units [chast'] through the gap which has formed must be executed quickly and in an organized manner. Unit flanks are secured by special screening forces sent out from troops which have broken out of encirclement.

The withdrawal of security units is accomplished with the extensive use of obstacles and by special order (signal) following the main body which has broken out of encirclement.

The procedure and sequence of the withdrawal must be planned carefully.

683. When breaking out of encirclement the rear units and establishments concentrate behind the penetrating group. Available transport is used to evacuate the wounded and sick. In necessary instances the transport must be freed of cargo and the unloaded property destroyed.

As a rule, chiefs of services must be located in the area where their subordinate rear units and establishments are working and personally direct their withdrawal.

Responsible commanders are sent to locations of the greatest concentration of transport (road junctions, defiles, crossing points).

The deputy division commander for the rear directs the withdrawal of rear units, establishments and subunits by means of individual orders, usually issued via liaison officers.

Chapter 13 - Employment of Combat Aviation Units [Soyedineniye]

1. General Principles

684. Combat aviation consists of mixed and homogeneous air units [soyedineniye].

685. Combat aviation units are intended for:

- Coordination with ground troops and the Navy;
- Conducting independent operations.

The primary missions of combat aviation are to cooperate with ground troops in combat and to neutralize enemy aviation.

686. Coordination of combat aviation with ground troops may be tactical or operational.

Tactical coordination consists of joint air actions with ground troops to destroy enemy personnel, weapons and control entities on the battlefield.

Operational coordination consists of aviation's cooperation with ground troops in developing tactical success into operational success by neutralizing reserves, destroying technical means of combat and bringing pressure on enemy supply routes and control entities.

Independent operations by air units are conducted under plans approved by the high command or front command. Operations conducted on assignment of the high command are executed primarily outside of operational contact with actions by ground forces, while operations conducted on assignments of the front command are a part of the front operation.

687. Aviation gives ground troops assistance in combat by disrupting enemy control through concentrated strikes against command posts and communications centers, by the neutralization of enemy weapons and personnel, by destruction of his supplies and means of transportation, and by demolishing manmade installations and railroad and highway beds.

In executing missions of giving assistance to ground troops in combat, the selection of objectives and time of action rests with the combined-arms commander, while the choice of method and means of destruction is made by the air commander.

688. Success of combat employment of combat aviation units [soyedineniye] is achieved by surprise of the attack, by concentration of efforts against the most important objectives, by continuity of actions during the day, at night and in bad weather, and by vigorousness of actions and the bold initiative of every commander of a unit [soyedineniye], subunit and individual crew.

689. In assigning missions to aviation one must consider the intensity of the flight personnel's efforts and the availability of aircraft flying life and ammunition. The greatest intensity must be required of aviation in a period of decisive battles.

690. Combat missions usually are assigned to air units for the day of combat or for an operation phase. In some cases missions may be assigned for a sortie.

In his decision the front (army) commander indicates for aviation:

- Overall objective of actions and mission of the combined-arms unit [soyedineniye] by tactical (operational) phases;
- Combat missions of aviation: what it must do where and when for assistance to ground troops; the authorized sortie intensity;
- Location and direction of displacement of the combined-arms commander's command post or staff;
- Procedure for communications between the combined-arms staff and the air unit staff;
- Procedure for ground troops to mark their position in combat.

The issuance of warning orders for aviation is of exceptional importance for the purpose of its timely preparation for a sortie.

691. The air unit [soyedineniye] commander controls combat actions of the units [chast'] from his command post or from the combined-arms unit commander's command post through his own staff.

When air units [chast'] coordinate with ground troops on the battlefield, control of the units in the decisive periods of combat is exercised by air commanders from the command posts of combined-arms unit [soyedineniye] commanders.

In addition, the air unit [soyedineniye] staff assigns a liaison officer with a radio and mobile equipment to the combined-arms commander's command post throughout the period of combat. The liaison officer must provide the air unit [soyedineniye] commander with uninterrupted communications and prompt information about all changes in the ground and air situation.

692. The staffs of armies and staffs of air units [soyedineniye] set up *departure points* near their locations for ensuring the prompt appearance of aircraft over the battlefield.

The primary purpose of departure points is to transmit to the aircraft authorization or prohibition to head for the target and brief orders in case of a sharp change in the situation and the mission. To this end they are provided with means of communicating with the aircraft in the air and wire communications with the combined-arms commander's command post.

693. Communications of the combined-arms unit [soyedineniye] with aviation is accomplished:

- By using radio equipment of aviation and the combined-arms staff;
- By signals and marks laid out at the departure points, and by radio signals;
- By wire communications between the combined-arms commander's staff and the air unit [soyedineniye] commander;
- By a communications aircraft;
- By the personal presence of the air unit commander at the combined-arms commander's command post.

2. Reconnaissance

694. Aerial reconnaissance is conducted by combat aviation:

- For the combined-arms units [soyedineniye] in executing combat flights simultaneously with the accomplishment of combat missions or by subunits especially assigned to conduct reconnaissance;
- For itself using single aircraft or air subunits, or simultaneously with the performance of combat missions.

Every flight over the enemy positions must be used to collect data on the air and ground situation and for weather reconnaissance.

695. The staffs of air units [soyedineniye and chast'] organize reconnaissance on the basis of missions received from higher air and combined-arms staffs.

Air staffs immediately pass all information obtained from the interrogation of captured crews to the front staff, while combined-arms staffs, after familiarizing themselves with the content of documents discovered aboard downed enemy aircraft, immediately pass these documents to the air unit [soyedineniye] staffs; if crews of the downed aircraft were captured the prisoners are sent for interrogation to the air staff, or command personnel of the reconnaissance service are summoned from the air staff for their interrogation.

696. Aerial reconnaissance must be conducted continuously during the day, at night and in adverse weather conditions.

Continuity of reconnaissance is achieved by repeated reconnaissance flights.

When there is heavy opposition by enemy fighters, reconnaissance subunits of sufficient strength operating under fighter cover are assigned for reconnoitering targets.

Reconnaissance sometimes is assigned to fighters.

Scouts immediately pass on important information obtained in flight by radio in the clear, encoding only the names of populated points.

After returning to his airfield the pilot-observer immediately briefs the regimental commander or chief of staff on the information obtained and the latter immediately pass on this information by wire communications or radio first of all to the army commander personally or to the army chief of staff.

3. Coordination of Aviation with Ground Forces

697. The plan of combat actions of air units [soyedineniye] with ground forces is drawn up by the combined-arms unit staff together with the air unit staff.

The operational timetable indicates the time and objectives of air actions, number of aircraft, flight altitude, front overflight sectors, departure point locations, signals for mutual recognition of ground troops and aviation, and radio coordination signals.

698. Pattern bombing is employed to neutralize enemy personnel and rifle and machinegun fire plans on the battlefield. In this case aviation operates in combat waves consisting of from one squadron to a regiment, flying in a common combat formation; every subunit receives a strictly limited area for neutralization.

Point targets on the battlefield are attacked by small subunits of attack and diving aviation.

In employing bombing from level flight and medium altitudes and in the presence of easily visible friendly troop signal markings, aviation is capable of destroying strongpoints, artillery positions and other installations located 500-1,000 m from the positions of friendly troops without fearing their harm.

Combat aviation must remain as long as possible over the battlefield. To this end it executes bombing by dropping bombs not in volleys, but from several runs.

If time is available, a sketch map is compiled for each bomber unit [chast'] operating on the battlefield, on which bombing targets and areas are accurately plotted.

Permanent emplacements are demolished from a dive using heavy-caliber bombs.

699. The targets of air operations are studied carefully from the air and from ground observation posts by the commanders and navigators of squadrons and regiments operating on these axes.

Daytime operations on the battlefield by bomber and attack aviation must be reliably covered by fighters.

Subunits of attack and diving aviation and field artillery are employed to neutralize antiaircraft artillery fire.

Night operations are carried out for the purpose of exhausting the enemy with continuous raids by small groups and individual aircraft.

700. Air operations against enemy reserves are conducted by echeloned strikes of bombers and attack aircraft under fighter cover.

701. The attack of motor transport on enemy supply routes is carried out day and night.

In operations against troops and motor transport on the move, higher results are achieved by divebombing and strafing attacks from low altitude using bombs, cannon-machinegun fire and other kinds of attack aircraft weapons.

702. Fighter aviation provides cover for ground troops.

Cover on a march is carried out by ground alert and by sortie in response to air observation post signals or by air alert. When patrolling in the air the patrols are staggered in 2-3 tiers by altitude depending on the height and nature of clouds. Strength of patrols is set by the air unit [soyedineniye] commander. The patrol make-up is reinforced when troops are moving in defiles and at crossings.

Cover on the battlefield is carried out by patrolling in the air. The greatest massing of fighters is carried out in the attack by the beginning of the infantry's move into the attack, and in the defense when conducting a counter-preparation and in organizing a general counterblow.

A reserve of fighters which the air unit [soyedineniye or chast'] commander could use to influence the course of aerial combat must remain in his hands in all cases of combat against enemy aircraft over the battlefield.

703. When mobile units [soyedineniye] are committed to a penetration, air units [soyedineniye] coordinate with them, being subordinate to the front commander. During actions in the operational depth a portion of the aircraft is resubordinated to the commanders of these units, which achieves closer coordination between air and mobile units.

704. Coordination of combat aviation with mobile units is achieved:

--By the air unit commander's clarification of the situation and missions of the mobile troops and by proper direction of subordinate units [chast'] against the most important targets;

--By bringing airfields, primarily fighter and bomber aviation airfields, closer to the operating area of the mobile units;

--By organizing the communications of mobile unit staffs with the airfields;

--By having a liaison officer from the air staff with communications equipment located with the mobile unit commander.

705. During mobile unit actions in the operational depth it is necessary to seize and organize landing strips on enemy territory for fighter subunits, liaison and command aircraft, and transport aviation.

706. The neutralization of enemy aviation is achieved by:

- Friendly air strikes against enemy airfields;
- Destruction of enemy aircraft in aerial combat;
- Blocking enemy airfields from the air.

707. Strikes against airfields represent the most effective form of neutralizing aviation. Thorough reconnaissance of the location of enemy aircraft at airfields and the delivery of strikes at the moment when the bulk of aircraft is at the airfields is necessary for success.

Strikes against airfields are executed during the day by attack aircraft, fighters, short-range bombers and divebombers, and at night by long-range and night bombers.

708. Fighters perform aerial combat and the blocking of enemy aircraft at airfields.

709. Success in aerial combat is achieved by:

- Boldness, valor and fearlessness of flight personnel who strive to find and destroy the enemy in the air no matter what;
- High proficiency of the flight personnel in flying and firing;
- The ability of supervisory personnel to create a numerical superiority over the enemy during combat.

710. Sealing off enemy airfields from the air means that our fighters are continuously over the enemy airfields and destroy enemy aircraft when they make an attempt to take off.

Execution of this mission is assigned to the best fighter pilots.

4. Coordination Among Air Units [Soyedineniye]

711. With the operations of several air units [soyedineniye] or the units [chast'] of different units [soyedineniye] on the same axis or against the same objective, coordination among them is organized by the senior air commander. He is obligated to:

- Distribute forces by targets and missions;
- Determine the time and procedure for joint actions of the air units [chast'];
- Organize the struggle against enemy air defense weapons;
- Establish communications among interworking air units [chast'] on the ground and in the air;
- Arrange for the air units [chast'] to provide mutual information on the situation;
- Check the understanding of missions by all commanders and establish supervision over their execution.

712. During joint actions with other air arms, bomber aviation units [soyedineniye and chast'] are the main attack force; other air arms supplement and support combat actions of the bombers.

Fighters support the actions of bomber aviation by:

--Covering the operating area of bombers and attack aircraft, clearing the sky of enemy fighters;

--Accompanying bombers and attack aircraft to the depth of the fighters' tactical radius of action;

--Covering the bombers' take-off, rendezvous, landing and overflight of the front to and from the target;

--Neutralizing enemy aircraft at airfields and antiaircraft artillery in the operating area of friendly bombers.

Fighters also are employed for bombing to strengthen the bombers' attack.

Attack aviation operating jointly with fighters is the primary means for destroying the target, while the fighters support its action.

Attack aviation, in immediate coordination with bomber aviation, hits targets invulnerable to bombers and neutralizes enemy air defense weapons.

5. Disposition of Air Units [Soyedineniye]

713. An air unit is given an airfield complex consisting of several operating, alternate and dummy airfields for its disposition.

Alternate airfields are intended for maneuver, for the landing of units and subunits in case occupied airfields are disabled, and for receiving reinforcing units [chast'].

714. The distance of combat aviation airfields from the front depends on the nature of terrain, the situation and missions being accomplished.

Fighter aviation is located at airfields no further than 50 km from the front line.

Attack aviation is located at a distance no greater than 75-100 km.

Short-range bomber aviation is located no deeper than 100-150 km, and long-range bomber aviation is located at a depth of more than 250 km from the front line.

715. In an offensive the combined-arms commanders must assist aviation in locating and organizing landing strips. Airfield maintenance units [chast'] follow directly behind the troops and prepare landing strips.

716. When aircraft are disposed at airfields it is necessary to organize antiaircraft and ground defense, antichemical protection, thorough camouflage, and the dispersal and shelter of equipment, combat supplies and personnel.

Chapter 14 - Troop Movement

1. March Movement (the March) and Its Security

717. The chief objective of a march in all instances is to bring troops to a designated area promptly and in full readiness for combat.

The success of a march depends on its organization, support and troop involvement.

The troops always must be ready to make marches over long distances.

718. Marches should be executed primarily at night or under conditions of limited visibility. The night march is the customary form of movement for large cavalry units [soyedineniye]. In a day march the troops' air cover, camouflage and antitank defense acquire special importance.

719. Marches are divided according to their objective into *marches to the front* and *retrograde marches*; either can be a flank march.

Marches can be *normal* or *forced* according to the degree of exertion of troop efforts.

720. Organization of a march in anticipation of a clash with the enemy is subordinated to the commander's concept.

During the day units [soyedineniye and chast'] execute movements in dispersed march formations ensuring constant readiness to repulse enemy aviation and tanks, mutual support, flexibility of maneuver and speed of deployment.

Organization of the march far from the front depends on the prescribed times of arrival in the designated area and the conveniences and safety of movement.

In this instance the columns should be made up of combat arms with the same average rate of march and units [chast'] should be given an opportunity to move independently.

721. Troops execute a march in march formation which, depending on the size of the military unit [soyedineniye], can consist of one, two or more march columns proceeding along parallel roads and crosscountry routes.

A march column is broken into *serials* by depth for purposes of convenience, concealment and safety of movement against attack from the air.

The breakdown into serials is done with consideration of the proposed deployment of troops for combat and organization of antitank and antiaircraft defense.

The permanent organization of units [chast'] should not be disrupted without special need in breaking columns into serials.

Artillery, tank and special units and subunits can make up separate march columns or serials, or they can be included as part of infantry or cavalry serials.

722. Military units [soyedineniye] are given a zone of terrain with consideration for the presence of roads for movement and maneuver. It is desirable to give a division (tank unit [soyedineniye]) at least two routes.

723. The grouping of forces in a march formation is determined by the mission and situation.

The breakdown of a march column into serials and the composition of serials are determined by the mission and composition of each column.

Distances between serials are set at:

--Up to 1,000 m between rifle and cavalry regiments and artillery battalions with mechanical traction;

--Up to 500 m between rifle battalions and artillery battalions with horse traction;

--Up to 1,000 m between tank and motorized battalions.

The lateral dispersal of a unit [soyedineniye] march formation is determined by the width of the zone of movement and the presence of roads and crosscountry routes in it.

The size of intervals between columns in a march formation must provide for the possibility of mutual support, rapid regrouping and convenience of deployment.

Measures for warning and combating the surprise attack of the ground and air enemy are taken within each march column and serial.

724. One must strive for speed in the deployment of march formations.

This is achieved by:

--Using the greatest possible number of routes (roads, crosscountry routes);

--Having only the artillery, wagons and vehicles proceed along the road, with the infantry and cavalry proceeding along shoulders or crosscountry routes;

--Reducing distances between serials and within serials when there is little likelihood of an air attack.

725. The rate of movement of troops on the march depends on troop involvement, the condition of roads, time of year, time of day and weather.

The average rate of movement during the day is:

--4 km/hr for rifle units [soyedineniye], and 5 km/hr with the soldiers' load lightened;

--7 km/hr for cavalry units [soyedineniye];

--10 km/hr for bicycle units [chast'];

--12-20 km/hr for tank and mechanized units [soyedineniye and chast'];

--20-30 km/hr for motorized and motorcycle units [chast'];

--4-8 km/hr for units [chast'] with tractor traction.

Speed is reduced when moving at night.

726. Depending on the missions, a day's march of the troops can be normal, 8 hours of movement, or forced, 10-12 hours of movement.

A normal day's march:

--Of rifle units [soyedineniye] is 30 km;

--Of cavalry units is up to 55 km;

--Of bicycle units [chast'] is up to 80 km;

--Of tank and mechanized units [soyedineniye and chast'] is up to 100 km;

--Of motorized and motorcycle units [chast'] is up to 150 km.

A lengthening of the day's march in a forced march is achieved by increasing the time of movement. In this case an additional long halt is necessary for rifle units [soyedineniye].

A day's forced march:

--For rifle units [soyedineniye] is up to 45 km;

--For cavalry units [soyedineniye] is up to 75 km;

--For bicycle units [chast'] is up to 100 km;

--For tank and mechanized units [soyedineniye and chast'] is up to 150 km;

--For motorized and motorcycle units [chast'] is up to 250 km.

727. The following are designated for preserving troop strength and the equipment:

--Short halts: 10 minutes after 50 minutes of movement for rifle units; 10 minutes each for cavalry units, the first after 2 km of march and subsequent ones every 1½ hours of movement; up to 20 minutes every 2-3 hours of movement for tank, mechanized and motorized units;

--Long halts: 3 hours for rifle units; up to 4 hours for cavalry, tank, mechanized and motorized units; long halts usually are specified at the beginning of the second half of the march; long halts are not specified when moving at night, but a day rest is scheduled.

Long halts are set for the cavalry only during forced marches.

Day's halts are set for all combat arms every 3-4 days of movement during normal marches and every 2 days during forced marches.

728. All steps are taken to preserve troop strength in organizing and executing a march.

The troops must be assured of sleep and the distribution of food, water discipline must be followed, and one must monitor the condition of the men's feet, the fit of gear, and condition of horses and equipment of combat and auxiliary vehicles.

It is prohibited to assemble more than a battalion in one place before the beginning of a march, or more than a squadron in the cavalry. Every unit [chast'] is given an initial point or line and a time for passing it.

729. Strict order must be observed on a march.

Movement is made on the right side of the road. The left side of the road is used for passing and oncoming traffic. Infantry and saber subunits of the cavalry can move along the shoulders.

Tank and mechanized units [chast'] and artillery with mechanical traction move primarily along separate roads, and as separate serials if necessary. If there are railroads available in the direction of movement, tanks must be moved by rail for a march greater than 75 km.

At night and when the troops approach the battlefield it is advisable to designate separate roads for one-way traffic.

730. Defiles and troop crossings are passed without a halt.

Passage through a long defile should be conducted by serial, not permitting a concentration of troops at the defile.

A commandant is assigned for controlling traffic at crossings, in defiles and when passing through cities; a team of controllers and communications equipment is placed at his disposal.

The screening of troops against air attack when passing large defiles and crossings must be planned in advance, when organizing the march, both by the army and by the military command.

When columns meet and cross, the senior commander establishes the order of passage for the military units[chast'] with consideration for their combat missions.

731. The troops leave the road for a long halt. The artillery is situated together with the infantry (cavalry) units with which it proceeded. Tank and

mechanized units and artillery with mechanical traction are situated separately under cover of the infantry (cavalry).

The areas for a long halt are reconnoitered in advance. Long halt sites must meet the demands for rapid deployment, repulse of possible enemy ground and air attacks (primarily his tanks), shelter, and camouflage.

732. To calculate and organize the march it is necessary:

- To consider the distance from the ground enemy;
- To select and reconnoiter roads, plan crosscountry routes and prepare guides;
- To take steps for repair of roads and bridges, removal of obstacles on the route and for constructing crosscountry routes, and to organize traffic control;
- To calculate the route's length and the rate and time of movement, and to plan locations for halts;
- To evaluate the entire route from the standpoint of a possible attack by enemy aircraft and tanks and to decide on support measures and countermeasures;
- To distribute roads (crosscountry routes) among military units [soyedineniye]; to establish the composition of march columns (serials), initial points, phase lines, the time for crossing them, and areas for long halts; and to designate rest areas (night halts) for the units [soyedineniye];
- To establish methods of communication.

733. The march is controlled by tactically important lines designated for divisions (brigades) every 2-3 hours of movement and for regiments every 1-1½ hours of movement. Lines are crossed by the heads of main body columns at the designated time.

734. On receiving an order for the march the division (brigade) commander issues warning orders to give the troops time to prepare; in them he indicates the starting time for the march, the direction, and the probable length of the passage. An order is issued after this.

735. In a march to the front troops are secured by:

- The advance guard from the front;
- Flank detachments or flank guards from the flanks;
- Rear detachments or rear parties from the rear;
- Local security, by dispatching [one word partially legible, possibly "out-posts"] and patrols to all sides.

A column consisting of a regiment or higher is secured by an advance guard in a march along a separate road, and a column of less than a regiment is secured by a march security detachment.

736. The strength and composition of the advance guard is determined by the mission, the likelihood of a clash with the enemy, the size of the column being secured, time needed for its deployment, terrain conditions and time of day.

In all instances the bulk of combat engineers is assigned to the advance guard with the primary mission of assuring continuity of the column's march.

737. When a division proceeds in a single march column, in regimental serials, the division's [one word illegible, probably "security"] is an advance party. Other regimental echelons send out only local march security.

When a division moves in two or three march columns, each column proceeding along an independent route sends out its own advance guard of up to a reinforced battalion. A regiment proceeding behind the lead regiment along the very same route sends out only local security.

738. The distance of the head of the main body column from the tail of the advance guard depends on the situation and averages up to 5 km for combined-arms units [soyedineniye], [one word illegible, probably "up to"] 6 km for cavalry units and up to 8 km for tank and motorized columns.

A tank or motorized unit [chast'] proceeding as an independent column sends out only an advance party consisting of a reinforced tank or motorized company to a distance of up to 8 km.

739. An advance guard at regimental strength sends out [two words partially legible, probably "for its own"] security: [two or three words illegible] of up to a reinforced battalion (squadron) to a distance of [one numeral illegible] km and flank parties with a strength of from one [one word partially legible, probably "platoon"] to a company.

An advance guard of less than regimental strength sends out an advance party of from a platoon to a reinforced company and flank parties of up to a platoon to a distance of up to 2 km, and in tank units [chast'] up to 3 km.

In addition, in all instances advance guards send out local security. An advance detachment sends out an advance party and flank parties.

All march security subunits are reinforced with antitank weapons and combat engineers with mine detectors.

Independent steps are taken in each column serial in case of an unexpected enemy air or ground attack, especially by tanks and motorcycle-mounted submachinegunners.

When a column stops for a long halt march security halts at lines favorable for defense and continues to perform security.

740. *Forward detachments* reinforced by tanks, antitank artillery and combat engineers should be sent out to seize favorable lines, points and road junctions and to hold them until the arrival of the division (brigade) or tank unit [soyedineniye] main body.

The strength of a forward detachment depends on the mission assigned it. It can be from a reinforced company (squadron) to a reinforced battalion (two squadrons).

741. The main body column sends out flank parties or detachments to a distance up to 3 km for flank security.

When moving in the mountains and when defiles are present on the flank, fixed flank parties are sent out from the main body column in the directions most accessible for enemy attack. They take up points favorable for defense and let the protected column pass.

The rear party covers the column rear, maintains order in its rear and usually moves 1 km behind the column, and at a distance up to 5 km in the tank troops. A rear party sends out patrols to the flanks and the rear.

742. In a retrograde march the column is secured by:

- A rear guard in the direction of the enemy;
- Flank detachments or parties toward the flanks;
- An advance detachment or party ahead along the withdrawal route;
- Local security.

When a military unit [soyedineniye] withdraws in several columns, each column organizes security on its own. The army commander and division (brigade) commanders regulate actions of the security units [chast'], indicating the lines at which rear guards must delay and the time periods for holding them.

The rear guard is reinforced by artillery, tanks, armored vehicles, means of antitank defense and antichemical protection, and combat engineer units [chast'].

The distance of the rear guard from the tail of the column main body must be at least 4 km in rifle units [soyedineniye], up to 8 km in cavalry units and up to 10 km in tank units.

743. A rear guard at regimental strength sends out for its own security a rear detachment of up to a reinforced battalion (squadron) and flank parties to exposed flanks; a rear guard of less than a regiment sends out rear and flank parties. In addition, in all instances the rear guards send out local security.

The rear detachment sends out outposts from itself.

Flank security units are sent out in a retrograde march on the very same basis as in a march to the front.

Roads adjacent to withdrawal routes are firmly covered and blocked to counter parallel pursuit, especially by the enemy's tank and motorized units [chast'].

Advance security units [chast'] in a withdrawal remove obstacles on the main body's movement route and repel an attack by the enemy's enveloping units [chast'].

744. In a flank march toward the enemy a column is secured by:

- Flank advance guards, flank detachments or flank parties toward the threatened flank;
- Advance guard in the direction of movement;
- Rear detachment or outposts from the rear;
- Local security.

In a retrograde flank march a column is secured by:

- Flank advance guards, flank detachments or flank parties toward the threatened flank;
- Rear guard from the rear;
- Advance detachment or outposts in the direction of withdrawal;
- Local security.

The strength, composition and distance of flank advance guards and parties are determined by the situation and composition of the protected column.

Flank advance guards and detachments proceed parallel to the main body's movement, while parties may be sent out in succession to occupy specific points and hold them until a prescribed time.

Flank advance guards and detachments send out outposts and patrols toward the enemy.

745. Air defense and antichemical protection of the march are organized above all for giving the main grouping cover from the air and chemical support.

Air observation posts proceed with security entities. A portion of the posts can be fixed, sent out in advance for observation under cover of reconnaissance and security subunits. These posts perform duty to a certain time, after which they join their units [chast'] in succession.

Antiaircraft batteries on the march move by leapfrogging.

When it is impossible for antiaircraft artillery batteries to overtake columns, they are moved forward in advance under cover of advance detachments for

securing defiles, crossings and large populated points. A column's air defense on the march is organized by batteries of small-caliber antiaircraft artillery, by antiaircraft machineguns and by small arms proceeding as part of the units. In this case the small-caliber antiaircraft artillery pieces and antiaircraft machineguns fire from short halts at the road shoulders or near the roads.

When passing defiles and large populated points, their fixed and all-around air defense is organized in advance.

At the air alarm signal all antiaircraft weapons make ready for action. Without slowing movement, the troops take steps against air attack.

746. To repulse a tank attack, at the signal "Tanks":

--Antitank guns and antitank rifles immediately take up positions ahead of the infantry;

--All artillery of the columns quickly takes up firing positions for repelling the tank attack;

--Tanks and armored vehicles mounting guns take up a line ahead of the infantry which permits greeting enemy tanks by fire from the halt;

--Infantry, motorized units [chast'], cavalry and organic transport quickly take advantage of the nearest shelters and make ready for action;

--Combat engineers quickly emplace mines ahead of and on the flanks of the artillery's firing positions.

After repelling a tank attack troops quickly take their places in the columns at the "Assemble" signal and continue moving, while combat engineers remove the emplaced mines.

747. Aviation determines the appearance of enemy tanks in good time, attacks them and, conducting observation, continuously informs the troops about the tanks' movement.

748. March camouflage ensures that the army command's plan is kept secret and protects troops from losses on the march.

March camouflage is achieved by:

--Concealment of the march from enemy reconnaissance;

--Leading the enemy astray.

Concealment of the march is facilitated by:

--Movement at night and in bad weather;

--Use of natural masks, the terrain, and forests above all;

--Dispersal of march formations laterally and in depth;

--Vigorous struggle against enemy aerial reconnaissance;

- Strict observance of camouflage discipline on the march and at halts;
- Successful conduct of measures to combat enemy secret agents in the zone of impending movement.

Leading the enemy astray is facilitated by:

- A sharp, preplanned change of the force grouping during a march;
- The movement of simulated march columns in false directions;
- Radio deception;
- Conduct of other measures to misinform the enemy's air, ground and covert reconnaissance.

The plan of actions to lead the enemy astray is drawn up by the army command and executed only with the knowledge of the front commander.

749. Communications on the march is achieved by wide use of mobile equipment and the use of radio signaling. Communications equipment is distributed among columns.

Communications with reconnaissance units, the security force, air observation posts and aviation is accomplished primarily by radio.

750. For a *night march* it is necessary to reconnoiter the direction of movement while it is still light, organize traffic control, and take steps to repair roads and lay crosscountry routes.

Ensure that the personnel do not fall asleep at short halts.

Prior to a night march the troops must be given sufficient time for rest during the day.

A march at night usually is executed without long halts.

Troop units [chast'] move in a more concentrated manner at night. Distances are shortened and the strictest march, sound and light discipline is observed.

Every commander must not permit his unit or subunit to break off from the units moving in front.

The distance of security units is reduced and local security is beefed up.

It is prohibited to open fire at night without authorization of the company (squadron, battery) commander.

Tanks, armored cars and all vehicles must proceed with blackout headlights.

751. A *march in the forest* is supported by strong reconnaissance, all-around security and precise traffic control. All roads, clearings and trails leading

away from the route must be reconnoitered. The movement of serials in the forest is executed at abbreviated distances.

Separate batteries, special units [chast'] and a portion of the combat train are attached to battalions and companies in support of combat readiness during a deployment.

Security units must be strong enough to negotiate obstacles, destroy major ambushes and conduct a successful struggle with enemy tanks on their own.

The advance guard draws into a small forest no earlier than reconnaissance units or the forward detachment takes the exits from the forest; the main body draws into the forest when the advance guard exits on the opposite edge of the forest.

When moving in large wooded areas the exits from a forest into open areas and large meadows are first seized by forward detachments.

The difficulty of observing the sky in the forest requires reinforcement of the air observation service.

752. Under winter conditions a snow cover deeper than 30 cm hinders troop movement. The importance of night marches increases in connection with the short day. Steps are taken against frostbite. Roads are marked with stakes.

A day's march must be completed in the woods or in places protected from the wind and supplied with fuel. Troop rest is assured by all-around security.

753. During march movements *in the mountains* the march schedule is made by time; a route profile is compiled on the map.

The rate of movement along vehicular roads with a slope up to 10 degrees is 2-3 km/hr. With slopes greater than 10 degrees the calculation is performed according to the vertical interval: 300-350 m/hr ascent and 600-700 m/hr descent.

The march is made by small independent serials. The distances between them are set based on the figure of up to 15 minutes of movement.

Halts of up to 3 minutes after 15-20 minutes of movement are made on steep ascents in addition to short halts.

Steps are taken on steep slopes to brake the equipment and wagons.

The people's gear should be lightened during forced marches in the mountains. The duration of a long halt is increased to four hours.

Long halts are arranged before an ascent and near sources of water. Troops at halts are disposed along the route outside of populated points. Packs are removed from animals.

754. The distance of march security from the main body during a march in the mountains is determined by the need for advance occupation of commanding heights along the route of movement of the main body column. Forward detachments are sent out from the columns to seize commanding heights, passes, exits from gorges and road junctions.

The main body moves from line to line. Securing the flanks of a march formation is of especially great importance in the mountains. Fixed flank security is sent out in succession and in advance for occupying commanding heights on the flanks.

After letting the entire column pass, the flank security joins its tail.

755. A march on the desert steppe is supported by deep air and ground reconnaissance of the forces and disposition of enemy troops, by the reconnaissance and marking of crosscountry routes, and by a strong all-around security. The possibility of offroad movement permits dispersing the march laterally; such movement does not require each column to be supported by file leaders.

If the delivery of water cannot be assured, troop movement routes and the size of a day's march are set depending on the presence of water sources on the movement route or the possibility of installing wells and increasing their capacity.

Transport proceeds at the tail of its columns. If the transport proceeds as a separate column, a covering force is assigned for it. The use of aviation for screening troops and transport is of great importance.

Commanders must be concerned with preserving the soldiers' strength and must keep a strict watch on observance of water discipline.

756. When rifle troops are moving to a distance of two day's marches or more, the use of combined marches is possible for the purpose of gaining time.

The dismounted movement of troops alternates with their transportation in vehicles in a varying sequence in combined marches. At times it is possible to have the simultaneous movement of one unit [chast'] in dismounted formation and another unit of this same large unit [soyedineniye] in vehicles.

2. Motor Transportation

757. Motor transportation requires careful organization, precise traffic control and camouflage.

758. The distance over which troops are transported depends on the mission, size of the unit [chast' or soyedineniye] being transported and condition of the roads.

It is advisable to transport:

--A rifle battalion and artillery battalion over a distance of more than 30 km;

--A rifle regiment over a distance of more than 50 km;

--A rifle division over a distance of more than 75 km.

Rifle battalions and companies without wheeled vehicles also can be transported over shorter distances.

759. Motor transportation of a unit [soyedineniye or chast'] is accomplished in the very same formations and alinements as in a route march.

Depending on the presence and quality of roads, the division (brigade) is transported over one, two or three roads. Troops transported along one road make up a motor column.

A motor column is divided into serials. A serial usually includes a reinforced battalion with attached combat engineers. Reserve vehicles proceed at the tail of each serial. Distances between the heads of serials are established at 20-30 minutes in time, distances between vehicles at 25-50 m, depending on the condition of roads, rate of movement and visibility conditions; the distance is up to 100 km on steep ascents in the mountains. Division and antitank artillery is distributed among the serials. Depending on the situation, tanks proceed along a separate road or as an independent serial in front of or at the tail of the column. Armored cars are employed above all for reconnoitering roads and the terrain lying ahead and for column security.

760. The rate of movement of a motor column is:

--20-30 km/hr during the day;

--10-15 km/hr at night with blackout headlights.

A normal day's march by a motor column is 120-150 km, and a forced day's march is 200-250 km.

761. The following are designated to preserve troop strength and the equipment:

--Short halts of 15-20 minutes after every 2 hours of movement;

--A long halt of 2-3 hours after 6-8 hours of movement.

762. The following must be planned in organizing motor transportation:

--A calculation of the need for transport and its distribution for transporting the troops;

--March formation;

--Combat security measures;

--Preparation of loading and unloading points;

--Reconnaissance and preparation of routes;

- Organization of traffic control;
- Preparation of transport and its material-technical outfitting;
- Organization of control, communications and the rear.

763. The commander of a transported division (brigade) is responsible for all organization of the movement. During the time of movement the commander of the motor transportation unit [chast'] is subordinate to the division (brigade) commander and is responsible for technical preparation, conduct and support of the movement and for proper use of automotive equipment.

764. Every battalion (including artillery battalion) is assigned an independent *loading point* (averaging $1 \times 1\frac{1}{2}$ km).

The loading point consists of loading platforms, motor transport assembly (waiting) areas, concentration areas for the units [chast'] to be transported, and approach and exit routes. Traffic control, communications, antiaircraft and antitank defense and antichemical protection are organized in the loading area. All work is carefully camouflaged.

765. During the day the loading of a rifle battalion requires 40-45 minutes, and that of an artillery battalion up to one hour. At night these time periods increase $1\frac{1}{2}$ times.

766. Security during motor transport movement is organized on the very same basis as for the route march of motorized units [soyedineniye or chast'].

767. Air defense of a motor column on the march is accomplished by:

- Placement of air defense weapons in the column and the advance deployment of antiaircraft batteries and machineguns in the most dangerous sectors of routes;
- Appropriate organization of the air observation service;
- Covering the movement by fighter aviation.

768. Antitank defense of a motor column on the march is provided by the distribution of antitank guns and guns of division artillery along the column and the inclusion of armored cars and tanks in the column.

769. Antichemical protection of a motor column on the march is provided by the organization of chemical reconnaissance, special vehicular equipment (canopies), and the placement of chemical decontamination equipment in vehicles and column serials.

770. *Unloading points* are selected, organized and supported in accordance with the requirements indicated for loading points. After each serial is unloaded the motor transport immediately is taken aside to its designated assembly area in order to free the roads in the unloading point.

The unloading of a rifle battalion requires 15-20 minutes during the day and an artillery battalion requires 30-40 minutes; these time periods are increased an average of 15 minutes at night.

771. Distribution of the organic combat train of the units being transported must give each serial an opportunity to begin supplying ammunition and giving medical and veterinary aid immediately after unloading.

772. If routes or crossings are destroyed by enemy aviation, the serials continue movement, using bypass routes and crossings.

If there are no bypass routes or if the damage is insignificant, the serial (battalion) immediately begins repairing roads and bridges with its own resources.

Considerable road and bridge repairs are made by resources of special road and bridge construction units [chast'], by instruction of highway transport service entities of fronts and armies which organize the motor transportation.

773. Traffic control is beefed up when moving along mountain roads. Additional control posts supplied with telephone communications are put out at chokepoints and at long halts for the time of troop movement.

3. Rail and Water Movements

774. In organizing movements by rail and water routes it is necessary to consider the time for preparation of the transport, the number of trains (vessels) which can be assigned for a given movement on the days and at the time necessary for its accomplishment.

775. Loading-unloading stations (wharfs) or areas are designated for troop loading and unloading; each area includes a number of railroad stations (wharfs) and is provided with appropriate loading and unloading devices.

Troops unload at stations (wharfs) prescribed by the movement plan. A change is made in unloading points only with permission of military transportation entities and the staff which plans the movement.

Loading and unloading must be done quickly and secretly, with the territory of the railroad station (wharf) immediately freed of cargo and the troops moved to the planned assembly area.

When motor roads are present a troop movement also can be made in a combined (mixed) manner. In these instances only the heavy equipment is transported by rail and the rest by motor transport. The plan for combined movement is drawn up so that equipment transported by rail arrives at the destinations in time periods assuring combat readiness of the unit.

776. On receiving a movement order the unit [soyedineniye or chast'] commander must:

--Check the echelon-by-echelon calculations of personnel, horses, equipment and other authorized property and send his representatives to the nearest military commandant of a railway sector (ZKU) with updated data of the serial-by-serial calculation;

--Check the readiness of equipment and property for movement and assign serial commanders;

--Establish the sequence for dispatching serials;

--Reconnoiter approach routes to the marshaling areas and to loading stations (wharfs) and plan air defense measures;

--Issue the movement order based on the movement plan received from military transportation entities.

777. Troops being moved by rail must precisely follow the rules prescribed for troop movements, be constantly vigilant, keep military secrets, safeguard military and railroad property and, by precise fulfillment of military discipline in the serial, assure the timely and safe passage of troop trains over the railroads.

Servicemen proceeding by rail must not interfere in the work of railroad personnel, and especially not give them orders and thus hinder their performance of official duties.

All questions about movements should be resolved through the military commandants.

778. Air defense of troop loading and unloading points is organized by instructions of the commanders of troops being moved. All available means (antiaircraft artillery, machinegun units, fighter aviation, armored trains) are used for air defense of loading and unloading points.

Commanders of units being moved must organize air defense of the serials en route using all means at their disposal (antiaircraft mounts, machineguns, rifles).

Commanders of serials en route must have air defense weapons in constant readiness.

779. Military units [chast'] must have their prescribed individual and unit reserves along when being moved by rail or water.

En route messing is accomplished from military food supply points or field kitchens of the unit being moved.

Chapter 15 - Disposition for Rest and Its Security

780. Troops are disposed for rest in bivouac outside populated points, by billeting in populated points, and by billets and bivouacs--a combination method.

781. The location of disposition for rest must ensure accommodation of troops concealed from enemy ground and air observation; an opportunity for rapid departure and deployment into combat formation; convenience of defense in case of an enemy attack; and the best conditions for troop rest.

When disposed for rest in the rear of friendly troops:

- Near the enemy, the demands of combat readiness are the first priority;
- At a great distance from the enemy, conveniences of accommodation are the priority.

782. To give troops the best conditions for rest when disposed for a halt it is necessary:

- To indicate the areas of disposition for rest (night halts, day's halts) in advance and send out billeting parties;
- Not to allow troops to wait on the road before disposition for rest;
- Not to allow displacement of units [chast'] disposed for rest;
- To select areas for rest which provide conveniences from an administrative standpoint and are satisfactory in the medical and veterinary sense;
- To secure troops against unexpected enemy ground and air attacks.

783. The unit [soyedineniye] commander issues an order for disposition for rest in which he indicates:

- Unit [chast'] rest areas;
- Composition and missions of bivouac guard subunits;
- Reconnaissance missions;
- Measures of antiaircraft and antitank defense and of antichemical protection;
- Operating procedure for a surprise enemy attack day or night;
- Special measures for ensuring combat readiness.

The order must be given to unit [chast'] commanders at a long halt.

784. In disposing troops for rest it is necessary to cover artillery, tanks, and special and transport units by the disposition of the infantry and to set up local troop security, antitank and antiaircraft defense and antichemical protection in each populated point or bivouac area and draw up a plan of action in case of attack by enemy ground forces, especially his tank and motorized units [chast'].

With a threat of surprise attack by enemy tank units [chast'], a portion of antitank defense weapons should be moved up to firing positions in the vicinity of troop locations or troops should be located in the immediate vicinity of organized firing positions.

785. *Billeting officers* are sent out in advance from each unit [chast'] for assignment of quarters when located in a populated point and for assignment of locations when located outside a populated point. One of them is designated as senior.

The billeting parties include medical and veterinary physicians, chemical specialists and combat engineers.

On arriving at a location the senior billeting officer must inspect the medical and veterinary condition of the area, distribute the bivouac or billeting area among subunits, and select locations for headquarters, communications centers and medical and other establishments.

It is prohibited to make signs designating the unit name and number.

Billeting officers meet their units and subunits as they approach the rest area and lead them to their locations.

786. Troops at rest must observe the prescribed order and measures of camouflage against enemy air observation very strictly and must keep military secrets.

787. A garrison duty officer and duty subunit are appointed in each garrison when disposed for rest, sentries are posted, patrolling is organized and water sources are assigned. A security force is posted at sources of water supply.

Fire protection is organized.

When troops are disposed in an area which has just been abandoned by the enemy a thorough examination of the area is made in order to detect individual enemy soldiers or small parties in hiding, delayed action mines, and whether or not water sources and abandoned food products have been poisoned.

788. Locations along the course of rivers are designated for use in the following order: for drinking water and food preparation, for a watering place, for people and horses to bathe, for filling vehicles, for washing clothes and for washing vehicles.

789. The assembly of resting units in response to a combat alert is accomplished in the order prescribed by the garrison commander. Assembly points are designated for no larger than a battalion and, as a rule, in covered locations outside of populated points.

790. It is necessary to be located in a dispersed manner outside of populated points, using local features for cover. The location must be dry. A

straight-line location of units must be avoided when disposed for rest. Slit trenches should be dug for defense against tanks and for protection against enemy aircraft.

791. Resting troops are protected by a bivouac guard.

The bivouac guard's missions are:

- To keep enemy reconnaissance away from the location of resting troops;
- To warn troops about an air, tank or chemical danger and prevent a surprise enemy attack;
- In case of an enemy attack, to delay him while the resting troops prepare for action.

792. The strength and composition of the bivouac guard are determined by the distance from the enemy, the mission and size of the military unit [soyedineniye], the width and depth of its disposition, time needed for deployment, and conditions of terrain and visibility.

The bivouac guard is organized by the division (brigade) commander, and by the regimental (separate battalion) commander when disposed across broad fronts.

793. The bivouac guard consists of bivouac guard detachments, separate bivouac guard outposts and separate outguards.

From a reinforced company to a reinforced rifle battalion is assigned to a bivouac guard detachment; from a rifle platoon to a reinforced rifle company is assigned to a separate bivouac guard outpost; and one or two reinforced rifle squads are assigned to a separate outguard.

A bivouac guard detachment consisting of a reinforced battalion receives a security zone which is divided into company bivouac guard sectors occupied by bivouac guard companies.

The bivouac guard company sends out bivouac guard outposts, each consisting of a reinforced rifle platoon. One of the bivouac guard outposts is designated the main outpost; the company commander is located there.

Separate bivouac guard outposts and bivouac guard outposts of a company bivouac guard sector post outguards of rifle squad strength, they put out listening posts, and they send out patrols; outposts put out posts for their local security.

Separate outguards and outguards put out sentry posts consisting of a sentry and junior sentinel for their security.

Chemical scouts are attached to the bivouac guard.

In addition, the troops put out local security in all instances.

For local security resting troops put out separate outguards and send out patrols for surveillance of the intervals between outguards.

794. The distance of the bivouac guard from protected troops must be such as to protect the troops against enemy mortar fire, to have time to give a warning about tank and chemical danger, and to support the troops' deployment into combat formation by its actions.

The outpost line, which is the forward edge of defense of the bivouac guard, must be up to 4 km distant from the resting troops and run along a line convenient for defense, screened by antitank obstacles and providing a good field of view toward the enemy.

Bivouac guard subunits must be reinforced by antitank defense weapons.

795. A bivouac guard is posted both to the front and toward exposed flanks, and at times also to the rear. It must block all roads over which enemy mobile units can approach the area where resting troops are disposed, and also, when it is a short distance from the enemy, all approaches convenient for his attack.

796. Bivouac guard detachments and companies, separate bivouac guard outposts, and outposts are given a security zone, a defense line in case of enemy attack, and a line up to which they must conduct reconnaissance.

Separate outguards and outguards are given locations, zones for observation and zones for conducting fire.

A reply and password are established.

The width of the defense zone for a bivouac guard detachment at battalion strength is up to 5 km, and that of a bivouac guard company and outpost consisting of a reinforced company is up to 3 km.

797. Bivouac guard outposts and separate bivouac guard outposts organize separate strongpoints for defense.

The intervals between outposts are under surveillance by patrols and listening posts. Special attention is given to organizing antitank defense: natural antitank barriers are used, antitank mines are emplaced and very simple anti-tank obstacles are set up on the most likely routes of enemy tank movement; antitank rifles and antitank guns echeloned in depth are put out.

An air observation post is put out with each main bivouac guard outpost and separate bivouac guard outpost.

798. A rifle division is secured by bivouac guard detachments or separate guard outposts, and a rifle regiment by separate outposts and separate outguards or only by separate outguards.

799. Tank units [soyedineniye] organize an all-around bivouac guard.

When disposed on exposed flanks or in an assembly area, bivouac guard outposts of at least platoon strength are sent out on the most important axes. Intervals between outposts are secured by patrols and armored cars.

When disposed in the friendly rear, patrols are sent out to a distance of 5 km from the protected troops. Each patrol is given a sector in which it performs security duty.

800. To secure troops at rest after a march, march security is transformed into bivouac guard or is replaced by a newly assigned bivouac guard.

When movement is renewed the bivouac guard remains in place until march security units pass the security line; after this the bivouac guard closes up and joins the tail of the main body column.

In a withdrawal the bivouac guard performs duty until march security deploys on its designated line. After this the bivouac guard closes up and joins the main body column after crossing the line at which the march security has deployed.

801. Communications of the bivouac guard is maintained as follows:

--For a bivouac guard detachment or separate bivouac guard outpost with the commander of protected troops by radio, telephone, mobile equipment and signals;

--For a bivouac guard detachment with outposts or with company bivouac guard sectors by telephone, messengers and signals;

--For an outpost with the outguards by signals and messengers.

802. Local security is beefed up for the night, combat readiness is increased, the duty unit [chast'] is reinforced and very strict light discipline is observed.

803. The disposition of troops for rest during forest operations is supported by all-around local security and patrols. Bivouac guard usually consists of separate bivouac guard outposts. Ambushes located on axes of a likely enemy attack must be widely used.

Units [chast'] of special combat arms are disposed under cover of infantry (cavalry) or together with it without fail. Bunching should be avoided. Fire protection measures receive special attention.

804. Under winter conditions areas protected against the wind and provided with fuel should be chosen for disposition for rest.

The troops dig dugouts for people and arrange huts and sheds for animals and equipment.

Troops are located in populated points in a favorable situation. In case of a shortage of spaces, medical establishments and staffs are accommodated in houses first of all. Subunits are assigned spaces in an amount assuring the alternate warming of soldiers.

A bivouac guard is supplied with skis.

805. During mountain operations troops usually are disposed for rest by bivouacking in wooded areas near water sources. A bivouac guard is sent out in advance to occupy commanding heights and narrow passages.

806. In the desert steppe troops are disposed for rest by bivouacking near wells and in oases.

All-around reconnaissance and security is sent out.

Artillery, tanks and trains are located in the center under cover of infantry, with a portion of the artillery and tanks at firing positions.

The thrifty use of water and fuel is given special attention. Sentries are posted at wells (cisterns); water distribution to subunits is according to prescribed norms. Teams are assigned to collect fuel.

Chapter 16 - Organization of the Rear and Logistical Support

1. Control of the Rear

807. The mission of the rear is the nourishment and supply of troops, medical and veterinary services, restoring equipment and losses, organizing rear routes and regulating traffic on them, organization of order in rear areas, their defense, and evacuation of all kinds.

Prompt and uninterrupted troop logistical support is one of the deciding conditions for success in combat.

The unit [soyedineniye] commander directs troop logistical support and bears full responsibility for this.

808. In making a combat decision the commander must give consideration to the capabilities of the rear, promptly assign it missions and deadlines for their execution and indicate the following: ammunition and fuel consumption norms, sequence of supply, areas and times for deployment of rear units and establishments, and the procedure for evacuation, use of local resources, security, and defense of the rear.

809. The unit [soyedineniye] chief of staff always must be knowledgeable of the rear situation and of troop logistical support and monitor the work of the rear. In necessary instances he briefs the unit commander on his considerations for organization of the rear in impending combat.

810. The chief of staff must promptly inform the deputy commander for rear about all changes in the combat situation and about the main combat instructions.

811. The order for the rear is drawn up by the deputy unit commander for the rear.

The order for the rear is signed by the army commander (unit commander), the military council member, army chief of staff and deputy army commander for rear (deputy unit commander for rear).

812. In organizing the rear, the deputy unit (army) commander for rear sets the times and procedure for supply and evacuation, allocates roads, takes steps for their repair and proper operation, and organizes combat support of the rear, communications, and traffic control in his rear area.

During combat the deputy unit (army) commander for rear assures continuity of control of the rear and monitors its operation.

The deputy unit (army) commander for rear must promptly inform the unit (army) chief of staff about the condition of the rear, the main instructions issued for the rear, and all changes in the rear situation.

813. The supply of troops with all kinds of allowances, evacuation of the wounded and sick, and repair and evacuation of equipment is the responsibility of appropriate chiefs of combat arms and services who bear full responsibility for this (each in his own specialty).

2. Organization of the Rear, Supply and Evacuation

814. The military unit [soyedineniye] rear consists of special units [chast'], subunits and establishments which accomplish supply, delivery, repair and evacuation; and a rear area set aside for their accommodation and work.

815. A rifle division rear area is bounded to the front by the boundary with regimental rear areas, on the flanks by boundary lines with adjacent divisions, and to the rear by the boundary with the army rear area.

816. The depth of rear areas is 8-12 km for the regiment and up to 30 km for the division. Overall depth of division and regiment rear areas is up to 45 km.

817. An army rear area is limited in the direction of field troops by the boundary with the division rear, to the flanks by boundary lines with adjacent armies, and to the rear by the boundary with the front rear.

818. Tank and cavalry units [soyedineniye] and reinforcing units [chast'] have no rear areas of their own during operations within boundary lines of combined-arms units [soyedineniye]; their rear units and establishments are located and function in the rear areas of the combined-arms units.

819. Boundaries between regimental and division rear areas are indicated in the division order for the rear, and those between the division and army rear areas are indicated in the army order for the rear.

820. The following are set up in the army rear area to provide troops with supplies:

--An army base located in the vicinity of an army regulating station, which is the army railroad supply point of origin;

--Supply stations (wharfs) and unloading stations set up at the points where rail (water) and ground supply meet.

821. The army base consists of army field depots with transient stocks for the entire army.

822. Supply stations are opened figuring one for each 2-3 rifle divisions.

As a rule, tank and cavalry units [soyedineniye] are based at supply stations of rifle units, but in some instances separate supply stations also may be opened for mobile groups.

The following usually are deployed at each supply station: field army depot sections--artillery, food, fuel and lubricants, advance field evacuation point, and field veterinary hospital.

823. Unloading stations are opened in place of or next to supply stations under conditions of rapidly developing mobile operations.

Cargoes normally are delivered to an unloading station by freight relays (one, two or several cars) directly to large units [soyedineniye] and separate units [chast']. The issue of cargo at an unloading station usually is accomplished from the wheels, with transloading to motor or animal-drawn transport.

824. Delivery of supplies to the troops is accomplished from supply stations or unloading stations.

In necessary cases the delivery can be done directly from the army base.

825. In the army rear army resources are used to organize military motor roads from an army base and army supply and evacuation routes from a supply station and unloading stations for delivering freight to the troops and for evacuation.

Supply and evacuation routes in the division and regimental rear are organized and equipped by resources of military units [chast' and soyedineniye], using army resources if necessary.

826. A division distributing point is organized at the point where division and regimental echelons meet; it accomplishes the following:

--Receipt, storage and issue of loads to division units;

--Receiving evacuated property from units and sending it to division and army repair shops and army field depots depending on the nature of the repair;

--Organization of load transfer work.

Following distribution and appropriate documentation, the loads are transferred to regimental transport (if they are not proceeding further to the troops without transfer of load).

827. The division commander indicates the deployment area for the division distributing point.

The chief of the division mobile depot is chief of the division distributing point.

828. Loads are delivered to the troops by motor transport of military units [soyedineniye] when troops are up to 45 km away from unloading stations (supply stations, army bases). If necessary, organic transport is reinforced by army transport resources.

In necessary cases ammunition delivery by army and division transport is directly to battery firing positions and regimental ammunition points, and that of other loads directly to the regiments.

The delivery of all supplies is to division distributing points without transfer of load. When troops are more than 45 km from the unloading stations the delivery of loads is by army or division transport alternately or in parallel to the division distributing points.

When troops are more than 150 km from unloading stations an advance army base (sections of army field depots on the ground) is deployed at the boundary between division/regiment and army rear areas with resources of the army chief of rear.

The delivery of loads from unloading stations (the army base) to an advance army base is by army resources and further on by army and division transport to the division distributing points.

829. Delivery of fuel and lubricants from the army field depot (section) is made to the division distributing point, where a division refueling point is organized to which units [chast'] send vehicles for refueling or send container transport to obtain fuel.

Motor transport units replenish their mobile fuel reserves directly at army field depots (sections).

830. Fodder in bulk and fresh vegetables are procured from local resources.

831. When tank units [soyedineniye] are up to 100 km from unloading stations they deliver supplies with their own resources. If the distance is greater, army (front) transport resources are assigned in addition.

832. Separate routes for supply and for evacuation are designated where possible for purposes of concealment, convenience and dispersed movement.

Separate supply routes for motor, animal-drawn and tractor transport are assigned when there is a well-developed road network.

833. Delivery of supplies for mobile groups of forces operating in the depth of the enemy disposition is by motor transport with appropriate cover or by air.

834. Evacuation of all kinds of weapons and property is accomplished by the higher unit [soyedineniye] to its rear area and by empty transport heading for the rear to pick up loads.

835. Arrangements for collecting weapons, combat equipment and property, both captured and left behind by friendly forces, their prompt evacuation to the rear, and repair is a very important duty of the unit's [soyedineniye] chiefs of combat arms and services.

836. A well-organized inventory is of special importance for the preservation and economy of supplies in combat.

A supply inventory must be kept in any situation. Commanders at all levels and chiefs of appropriate combat arms and services are responsible for the status of accounting for all supplies, including captured property.

837. Disabled vehicle collecting points are set up for collecting disabled vehicles and organizing their repair by mobile repair shops:

--For units [chast'], at a distance of up to 10 km from the front line;

--For large units [soyedineniye], at a distance of up to 15 km from the front line.

A disabled vehicle collecting point is set up on supply and evacuation routes at covered locations that are convenient for making repairs.

3. Medical Service

838. Medical aid, evacuation and treatment are accomplished as follows:

--In a battalion by a battalion medical platoon which organizes manual evacuation of wounded from company areas and medical assistance for them. The battalion medical platoon sets up a battalion medical post at a distance of up to 1½ km from the front line. Medical transport posts are moved up to the companies from the battalion medical post for evacuating the wounded from company areas to the battalion medical post.

--In a regiment by the regimental medical company which deploys a regimental medical post up to 5 km from the front line and which evacuates the wounded from battalions.

--In a division by the division medical battalion, which deploys a division medical post up to 10 km from the front line and evacuates the wounded and sick from regimental medical posts.

839. Evacuation from division medical posts is to first line mobile field hospitals set up in the division/regiment rear at a distance of up to 30 km from the front line, or directly to second line mobile field hospitals (advance field evacuation points) which are set up in the army rear.

Persons with communicable diseases are sent to hospitals for communicable diseases set up in the area of the division/regiment or army rear.

840. Wounded and sick whose combat effectiveness can be restored in a short period of time and those who cannot be evacuated because of a serious condition are left for treatment in the division/regiment and army rear.

841. Field dressing and mess stations are set up in the division/regiment rear, between the main stages of medical evacuation, with resources of the division medical battalion or mobile field hospital with an increased extension of evacuation routes, especially in winter.

842. The evacuation of wounded and sick from special units [chast'] (tank, artillery, mortar and so on) is to the nearest medical posts of combined-arms units [chast' and soyedineniye].

4. Veterinary Service

843. Evacuation and treatment of horses is accomplished:

--In the regiment by the regimental veterinary hospital, located at the regiment's rear boundary;

--In the division by the division veterinary hospital located near the division rear boundary;

--In the army rear by the evacuation veterinary hospital and the field veterinary hospital.

The evacuation veterinary hospital evacuates horses from divisions to the field veterinary hospital for treatment or evacuation to the front hospital.

844. Sick and wounded horses which can follow the troops and do not require lengthy treatment remain in the units and are not evacuated to the rear.

5. Security and Defense of the Rear

845. Security and defense of the division/regiment and army rear is organized by the deputy unit [soyedineniye] commander for rear.

846. Rear units and establishments usually organize and carry out security and defense of their positions with their own forces and resources.

847. The commanders of military units [chast'] and chiefs of rear establishments and units located in rear areas must have a defense plan for their installations under any circumstances; all unit (establishment) supervisory personnel must know this plan.

848. The appearance of small enemy detachments and groups in the rear area must not stop the work of the rear in any case.

Under these conditions the deputy unit commander for rear must take all steps to destroy enemy groups and organize the maneuver of transport resources and stocks by changing the supply axis.

849. The dispersed location of rear units and establishments, construction of shelters and their careful camouflage are one of the primary air defense measures.

All personnel of rear units and establishments must be able to combat descending enemy aircraft by employing volley fire from rifles, as well as machine-guns and antitank rifles.

850. All rear units, establishments and subunits must be able to combat enemy tanks using hand and antitank grenades, machineguns, rifles, antitank rifles, mines and other means. Supervisory personnel must make skilled use of natural barriers for an antitank defense and must arrange obstacles (obstructions, digging up roads).

The best protection against tanks for rear units and establishments is their disposition in areas inaccessible to tanks and a combination of camouflage with active means of defense.

Chapter 17 - Partisan Actions

1. General Provisions

851. The partisan movement is an armed struggle by the masses of people in temporarily occupied territories against foreign invaders in defense of their Motherland and independence.

852. The strength of the partisan movement lies in this movement's deeply popular patriotic nature and in the desire by peoples of occupied territories to overthrow the yoke of hated invaders.

The nationwide nature of the partisan movement gives rise to diverse forms of partisan struggle in the city and village. One of the main forms of the partisan movement is the armed struggle of partisan detachments for the purpose of joint actions with the Red Army in defeating the enemy and clearing him from Soviet soil.

853. The primary missions of partisan actions are:

- Annihilation of enemy garrisons, staffs, establishments and troop detachments, officers and men traveling alone, the security force of depots, establishments and transports, foragers, and various parties and agents for confiscation of grain, cattle and property from the populace;
- Destruction of enemy supply routes (blowing up bridges, damaging railroad tracks, arranging train wrecks, attacking motor and animal-drawn transport), destroying enemy serials with personnel, equipment, fuel and ammunition, and depriving the enemy of an opportunity to supply the front or to evacuate pillaged people's property to his home area;
- Destruction of depots and bases with weapons, ammunition, fuel, rations and other property, and the destruction of garages and repair shops;
- Destruction of communications lines along railroads, highways and dirt roads (telephone, telegraph, radios), destruction of communications equipment, and annihilation of the staff of communicators;
- Attacking enemy airfields, destroying aircraft, hangars, and bomb and fuel dumps, annihilation of technical flight personnel and airfield security forces;
- Annihilation or capture of political figures, generals, major enemy officials and traitors to our Motherland working for him;
- Destroying or burning down power stations, boiler plants, water supply systems, industrial enterprises and other installations of military economic importance;
- Giving information to Red Army units [chast'] about the disposition, strength and movements of the enemy.

854. The independent partisan detachment is the basic organizational and combat unit.

Detachments are formed in the enemy rear from the male and female population capable of bearing arms and ready to fight the enslavers selflessly and to the last.

Each person who joins a detachment takes the partisan oath of allegiance to the Motherland.

855. The strength of a detachment can vary depending on conditions and terrain. It must not be so large that the detachment becomes unmaneuverable, easily detected and poorly controlled. New detachments should be formed in case of a large influx of partisans.

856. The partisan detachment's internal organization depends on the detachment size and its operating conditions.

At the head of the detachment are the commander, deputy commander for political affairs and chief of staff.

857. Partisan movement staffs exercise overall direction over partisan detachments.

858. Partisan detachments are armed and supplied chiefly with weapons and ammunition captured from the enemy. In necessary instances the supply of arms, ammunition and explosives can be done by Red Army units [chast'].

The supply of rations comes from local resources. Supply depots and bases are set up in advance in well covered locations and are kept strictly secret.

Depots are replenished basically with captured materiel. Detachments must have reserve bases without fail.

859. Partisan detachments operate independently. In some instances depending on the situation they can be operationally subordinate to the commander of a military unit [soyedineniye or chast'] operating in the enemy rear in the immediate vicinity of the partisan detachment's operating area.

2. Combat Actions

860. Distinguishing features of combat actions by partisan detachments are:

- Stealthy appearance and surprise attack on the enemy's most vulnerable spots;
- Being informed about enemy intentions, disposition and movements, based on intelligence and extensive contact with the local populace;
- Wide use of ambushes, military ruses, stratagem and camouflage;
- Fighting by brief destructive blows from short range, with attacks never repeated at one and the same location;
- Extensive use of combat actions at night;
- Rapid withdrawal after an attack to prescribed assembly areas along previously designated routes.

861. The interworking of partisan detachments with Red Army units includes:

- Observation and reconnaissance of enemy troop strength and the location of his defense works and minefields;
- Target designations to combat aviation and long-range artillery;
- Destruction of enemy lines of communication and disruption of the work of his rear and control in connection with an operation being conducted by our forces;
- Informing the command element of Red Army units about results of our aviation's bombings of important installations (bridges, airfields, stations, depots, rail junctions), about axes of probable tank approach and axes inaccessible to tanks, and about sites for a possible landing of aircraft and drop of assault forces.

862. The detachment commander must have a plan of combat action under all existing conditions.

863. While operating in the enemy rear partisan detachments organize and carry out continuous reconnaissance work in the interests of the Red Army and the partisan movement.

Partisan detachments must show steady concern for their own reconnaissance, engaging partisans and the populace for performance of this mission.

In addition to conducting operational, tactical and combat reconnaissance, partisan detachments organize and conduct agent reconnaissance and continuously perfect methods of conspiracy, communications and direction of the agent network.

864. The missions of all forms of partisan reconnaissance include:

--Continuous watch over the locations and movements of troops and supplies by railroads and dirt roads; identification of the quantity and nature of combat equipment, direction of movement and time of departure; determination of the procedure and strength of security for troop trains and transport;

--Precise determination of the location of troops and staffs, their designation and the numbering of establishments and entities of occupation authorities;

--Reconnaissance of enemy airfields, determination of their location, the number and types of aircraft permanently or temporarily based at a given airfield, airfield equipment, auxiliary and special vehicles, stores of fuel and oils, as well as airfield security on the ground and in the air;

--Organization of reconnaissance of cities and large populated points to determine the number of troops in garrisons (strength by combat arms, designation, numbering, command element); air defense; military depots and workshops of military industry; and the location of the highest military and civilian administration;

--Clarification of where defense lines already have been constructed and what kind, their organization in the engineer sense, armament, organization of communications, and the presence of garrisons there;

--Monitoring the results of Red Army aviation bombings and fixing them accurately;

--Capturing orders, reports, operations maps and other enemy documents at every opportunity;

--Identification and exposure of enemy agent and sabotage activities on Soviet territory and in partisan detachments.

The partisan detachment command immediately passes on the results of its reconnaissance work to directing bodies of the partisan movement.

865. Partisan detachments establish and maintain continuous communications:

--Among detachment subunits;

--Among adjacent detachments;

--With the partisan movement headquarters;

--With the staffs of units in whose zone they are operating.

All accessible means are used for establishing communications: foot messengers, messenger pigeons, dogs, radios and aircraft.

Reports are passed in cipher.

866. Partisan detachment base locations and rest areas are chosen in inaccessible terrain well covered from ground and air observation.

The detachment must change its rest and base locations as often as possible.

The radius of actions of partisan detachments depends on the nature of terrain.

867. A detachment organizes all-around security and reconnaissance to prevent a surprise enemy attack and to make ready for action promptly.

868. The combat formations of partisan detachments must provide for the detachment's concealed movement over any terrain and convenience of control in combat.

869. During a detachment's movement highways and dirt roads are carefully reconnoitered by observation. The detachment crosses open terrain by dashes from cover to cover.

At the appearance of enemy aircraft fighting men take camouflage measures and at the commander's instruction the detachment either ceases movement or moves in dispersed formation.

870. Ambushes are arranged at locations providing good camouflage and a good field of fire from short range against the moving enemy, and which have cover against fire and concealed withdrawal routes. The strength and weapons of an ambush depend on enemy forces and the assigned mission.

An ambush lets the enemy come to close range and opens point-blank fire against him, dispersing it along the entire column.

An attack against moving enemy tanks is made from ambush at spots hindering the tanks in deploying to one side of the road.

The ambush lets a tank column come to within short range, tosses grenade clusters and Molotov cocktails at the tanks and brings them under fire with antitank rifles. Roads are mined in advance.

An ambush annihilates moving motorcyclists silently by stretching a wire across the road or by a surprise attack on the motorcycle or motorcyclist.

When the enemy pursues an ambush it withdraws in a direction away from bases to an assembly area previously given it.

871. An attack on enemy lines of communication requires good preparation. The attack must be preceded by thorough reconnaissance of the attack target, its layout, concealed approaches to it and communications equipment which the enemy has. The attack must be conducted with all decisiveness, swiftly and suddenly.

872. The main attacks against railroad tracks are made on open lines in various places: in deep cuts, on slopes, curves and deep fills. An attempt must be made to see that every damage to the railroad bed causes a train wreck.

Disruption of rail movement also is achieved by damaging and destroying various installations on the railroad tracks: bridges, culverts, block signalling, switches, frogs, water distribution points and hydrants, water pumping stations, turntables, and station facilities.

873. Communications centers are captured and destroyed first of all in attacks on railroad facilities.

A detachment is broken into three main groups for an attack: a combat group, which silently removes the security and destroys communications centers; a demolitions group, which directly carries out the destruction at the given installation; and a reserve group.

Each fighting man must know his role and duties in the impending actions precisely and clearly.

874. The groups are disposed in ambushes when attacking railroad trains with enemy personnel. The detachment nucleus must calculate its position so that it is at the middle of the train at the moment of the wreck. Groups with machineguns and submachineguns are located on both sides of the bed at the end of the train, choosing their positions so that it is convenient to fire along the cars. Fire is opened up and ceased at a command or signal from the detachment commander.

875. Destruction of stations must be prepared in advance, for which the detachment commander must indicate:

- Station sectors against which an attack is planned;
- Composition of the demolition group for work in the sectors and the installations to be blown up;
- Location of explosives and firing accessories;
- Amount of explosives and where to place them on the installations; sequence of actions or signal for setting off the explosion;

--Time for completion of work, location of teams during the explosion, and assembly time and place.

When a station is seized teams are sent to a distance up to 3 km to both sides of it with the mission of destroying tracks and communications lines.

876. When attacking headquarters there must above all be thorough reconnaissance and an accurate determination of the location of the headquarters, weapon emplacements, guard rooms, officers' quarters, fuel bases or enemy motor transport depots. It is necessary to determine the locations of outposts, guards, listening posts, and patrol routes and learn the enemy passwords.

When headquarters are captured all documents are removed and property which cannot be used by the detachment is destroyed.

877. In an attack on a populated point the detachment commander familiarizes himself with the populated point's location and approaches to it and draws up a detailed plan of action in which he:

--Assigns fighting men for silent annihilation of the bivouac guard at spots where the detachment infiltrates;

--Precisely sets the beginning of actions, which usually are conducted at night, so as to withdraw into the forest at dawn (if the mission has not been assigned to hold the populated point);

--Establishes signals for the beginning and end of actions, assembly area after combat and assembly area of individual fighting men in case of failure; assigns fighting men for manual evacuation of wounded;

--Establishes communication procedures, indicates his location and appoints deputies.

878. In an attack on enemy airfields and landing strips the precise location of aircraft, approaches to enemy machines and approaches to fuel and ammunition dumps are determined. In drawing up the plan of attack special attention is given to the destruction of the security force located in barracks or tents. The cover for groups working to destroy machines and fuel must be reinforced. The covering force must divert to itself all fire of the security force located in guard rooms or barracks.

It is also possible to destroy and set fire to hangars, machines, bomb depots and fuel storage areas by firing antitank rifles, firing armor-piercing incendiary rifle bullets, by grenades, mines, burning mixtures and thermite compounds.

879. The destruction of enemy depots and bases is accomplished primarily by burning.

[Two pages missing.]

[Chapter 18 - Joint Actions of Troops with the Navy]

[One or more paragraphs missing.]

[Beginning of paragraph 883 missing.] to know the situation on shore and at sea and the actions of friendly units [soyedineniye or chast'].

884. The assault force can have as its objective the encirclement and destruction of units [chast'] on the enemy maritime flank and the performance of independent tactical and operational missions.

The strength and composition of an assault force depends on its assigned mission.

885. Concealment and swiftness of actions are the most important conditions for an assault force's success. The landing time is set depending on the assault force's missions and the situation. The sea passage and landing are best accomplished at night. With good visibility, the passage and especially the landing require strong air cover. An alternate landing point is planned in case of heavy enemy opposition.

886. The fleet gives troops the fullest and most powerful support in the period from the beginning of the assault landing to commitment of the assault force's artillery:

- By neutralizing enemy weapons and personnel in the coastal zone by ships' fire;
- By neutralizing enemy artillery operating out of the depth;
- By the strafing and bombing actions of naval aviation;
- By destruction of enemy underwater obstacles near shore;
- By covering the troops being landed with smoke screens from ships and aircraft;
- By organizing a landing base and supporting its activity until the troops shift to ground lines of communication.

Capture of the coastal zone (beachhead) to a depth securing the force being landed against effective enemy artillery fire is decisive in the battle to land. The beachhead must give the assault force an opportunity to complete the landing and shift to execution of the subsequent mission.

887. The landing operation plan must cover:

- General mission of the operation;
- Immediate and subsequent missions of landing troops;
- Reconnaissance of the situation at sea and on land in the landing area;
- Time, place and order of concentration of landing troops and means of transportation and measures to screen the concentration;

- Procedure for landing troops to board vessels; air and sea support of the landing;
- Procedure for the assault force's sea passage, local security and cover from the sea and the air;
- Landing procedure and its support from the sea and air;
- Organization of fleet fire support to the landed force;
- Organization of supply of the force by sea and securing of lines of communication;
- Procedure for reverse boarding of troops on means of transportation in case of the landing's failure;
- Organization of communications in all phases of the landing operation.

888. As a rule, overall command in the battle to land rests with the naval commander, who is the landing commander.

According to the landing operation plan which has been drawn up, the landing commander clarifies the place, time and method of landing based on the primary (subsequent) mission of the landing force with consideration for terrain conditions and the situation at sea and in the air.

The landing unit [chast'] commander no longer is subordinate to the landing commander when the landing has been completed and the troops are fully ready to perform the subsequent mission. This moment is determined by a report from the landing unit commander to the landing commander.

889. With completion of the landing the ships assigned for support continue fire support to the landing force by executing requests from the landing force commander, or they depart from the landing sites.

890. Guns of fleet ships are used for fire support under the plan of the commander of the military unit [soyedineniye] artillery.

Shipboard guns are employed chiefly to hit targets inaccessible to ground artillery, and for flanking enemy positions.

Shipboard guns should not be assigned missions requiring a large expenditure of rounds.

Coordination between ships and supported troops is assured by reliable control and the specific assignment of fire missions; a system of prearranged signals is established for controlling fire and for mutual recognition of troops and ships; liaison officers are sent to the supporting ships from the military units.

891. The fleet covers ground troops against fire and assault forces from the sea by its vigorous actions and by employing fixed resources--minefields and coastal artillery.

In all cases the troops take independent steps to defend their coastal flanks; the steps are coordinated with naval actions.

892. An enemy assault landing is repelled by troops or garrisons of coastal fortified areas in close coordination with the fleet and aviation.

To this end it is necessary to:

--Coordinate troop and fleet reconnaissance plans and organize a continuous exchange of intelligence;

--Coordinate plans of action of ground forces and the fleet and organize their mutual notification;

--Move ground forces and mobile coastal artillery units [chast'] up to threatened areas;

--Locate mobile reserves with tanks at road junctions and on threatened axes for their actions against possible landing points;

--Compile a general plan for employment of land-based and naval aviation, unit artillery and shipboard guns for striking the enemy landing force at sea, on the approach to shore and on shore.

893. Overall command in repelling an enemy assault force must be unified and, by advance instructions of the front commander, it rests with the military or naval commander depending on the situation.

The naval commander is in charge of joint actions of naval and ground units [chast'] directly in combat during an assault landing until the enemy lands on shore, when the military commander takes over tactical control, announcing this by his own signal, and naval units shift to his subordination or support him depending on the prearranged procedure.

The military commander is responsible for preparation to combat the assault force on shore and the naval commander is responsible for preparation to repulse the landing of an assault force on shore; the procedure for subordination to the latter or for his support by ground units for the time this mission is executed also has to be determined in advance.

Chapter 19 - Joint Actions of Troops with Naval River Flotillas

894. The employment of river flotillas consisting of warships of various kinds, armed vessels and aviation, and in some cases coastal defense units [chast'] is possible on river and lake water routes.

River flotillas usually are employed in coordination with ground troops.

895. River flotillas have great mobility, powerful gun and machinegun armament and the capability of putting their weapons into action quickly and firing on the move.

Thanks to mobility and armor protection, armored river ships (monitors) can close with the land enemy under rifle, machinegun and mortar fire and hit him point-blank.

Floating river batteries which are part of a flotilla ordinarily are armed with powerful long-range artillery and operate from indirect positions against the depth of the enemy disposition.

896. River ships are vulnerable from the air and need a joint organization of air defense with ground troops.

To support their maneuver, river ships need the neutralization of surprise artillery fire from enemy short-range batteries located along their path by the fire of ground artillery or strafing actions by aviation.

Underwater obstacles, especially mine obstacles, constrain and delay the actions of river flotillas and restrict their maneuver.

897. River flotillas can accomplish missions in isolation from the ground troops and from their own bases and can penetrate deep into the enemy disposition.

898. River flotillas perform the following missions:

- Cooperation with ground troops by maneuver and fire during their actions along a water route, or in defense of an assault crossing of rivers;
- Penetrations along a river independently and jointly with the troops for deep and close envelopments of enemy coastal flanks;
- Covering friendly flanks against their deep and close envelopment by the enemy along the river and along the opposite bank;
- Defense of rear areas against an attack by enemy river forces;
- Attacks (raids) on enemy coastal points and rear areas;
- Support of water movements.

899. River flotillas are a resource of the front command. They are attached in operational subordination to an army. Flotilla forces and individual ships can be attached to a division or be assigned for its support.

Ground units [chast'] can be attached to a river flotilla in a local operation by the flotilla. In this case overall command rests on the flotilla commander.

The army (corps) and division (brigade) commander assigns a mission to his attached flotilla (or a portion of it) or he places demands on units of the river flotilla supporting him with regard for the considerations of the commander of the flotilla (or a portion thereof).

The flotilla commander must participate in development of the troops' plan of actions involving use of a given system of water routes and with measures

influencing navigating conditions (placement of obstacles, construction and destruction of bridges, construction and destruction of dams and locks).

900. A condition for success of joint actions by troops with a river flotilla is continuous, close contact between their commanders.

Contact is best achieved with the joint location of command posts.

When command posts are located separately an exchange of liaison officers between staffs is mandatory.

Communications of ground troops with river flotillas is organized by instruction of the senior commander.

Signals are established for mutual recognition of friendly troops and ships.

901. Troops assist a river flotilla in reconnoitering the ground and river enemy, in security against attack from shore, in combating enemy forces, in actions against enemy bases and in support of the flotilla's deployment.

Antiaircraft and antitank defense and antichemical protection are organized jointly by coordinating troop units and the flotilla.

902. Logistical support of a river flotilla's combat activities is organized by the commander of the military unit [soyedineniye] to which the flotilla is attached.

903. A flotilla's secretly prepared and suddenly executed penetration into the enemy rear with the landing of an assault force can considerably facilitate the encirclement of enemy flank units [chast'] as friendly forces advance along the river.

A flotilla penetration must be supported by troop actions against ground flanks of the enemy's river position.

The penetration and passage to the landing site are done in the darkness so as to begin the assault force's actions against the enemy flank and rear at dawn. A passage and landing in daylight are covered by aviation and supported by fire of unit artillery deployed to neutralize enemy batteries hindering flotilla actions.

904. River flotillas with friendly aviation give troops who are overcoming a water line the following assistance.

In the period of preparation for the crossing:

--Participate in reconnaissance of the river, shore terrain and enemy defense system in the crossing area;

--Clear the near bank of forward enemy units;

--Assemble and secretly deliver crossing equipment to the crossing site.

During the crossing they:

- Neutralize enemy weapons on his forward edge;
- Move forward infantry units to the enemy shore aboard warships and support their actions by fire;
- Destroy enemy minefields and other underwater obstacles;
- Cover troops who have crossed against enemy attacks from the flanks and against an attack by enemy river forces;
- Divert the enemy from the axis of main attack by actions against sectors under attack;
- Maintain communications with troops who have crossed until unit communications have been established, and they move unit staffs and combat supply across;
- Support the forced withdrawal of troops who have crossed to the enemy shore;
- Cover the crossings and organize a rescue service during the crossing.

905. In defending a water line flotillas perform the following missions:

- Destroy enemy crossings and crossing equipment;
- Perform river security;
- Assist troops in reconnoitering the enemy and in combating his artillery and infantry weapons;
- Break enemy communications along the water route;
- Operate against enemy shore units;
- Support the defense's flanks by fire, maneuver, and emplacement of minefields.

906. The guns of ships assigned for fire support are employed under the plan of the artillery commander of the military unit [soyedineniye] to which the flotilla or a portion thereof has been attached. The plan must specify cooperation of ground artillery with the river flotilla's guns.

It is most advantageous to employ the guns of river ships against targets observed from the river.

6904

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