MEMORANDUM FOR: The Director of Central Intelligence

SUBJECT : USSR GENERAL STAFF ACADEMY LESSON:
Soviet Operational Art

1. The enclosed Intelligence Information Special Report is part of a series
now in preparation, classified TOP SECRET, prepared in 1985 for use in the
Voroshilov General Staff Academy.

2. this document should be handled on a strict need-to-know basis within recipient agencies.

Richard F. Stolz
Deputy Director for Operations

ALL PORTIONS CARRY CLASSIFICATION AND CONTROLS OF OVERALL DOCUMENT

DECLASSIFIED UNDER AUTHORITY OF THE
INTERAGENCY SECURITY CLASSIFICATION APPEALS PANEL,
E.O. 13526, SECTION 5.3(b)(3)
ISCAP APPEAL NO. 2012-026, document no. 17
DECLASSIFICATION DATE: May 14, 2015
Withheld under statutory authority of the Central Intelligence Agency Act of 1949 (50 U.S.C., section 403g)

Distribution:

The Director of Central Intelligence
The Director of Intelligence and Research
   Department of State
The Joint Chiefs of Staff
The Director, Defense Intelligence Agency
The Assistant to the Chief of Staff for Intelligence
   Department of the Army
Director of Naval Intelligence
   Department of the Navy
The Assistant Chief of Staff, Intelligence
   U. S. Air Force
Director, National Security Agency
Deputy Director of Central Intelligence
Deputy Director for Intelligence
Director of Soviet Analysis
Director of Scientific and Weapons Research
Summary:

The following intelligence report is a translation from Russian of the text of a lecture at the Voroshilov General Staff Academy on Soviet operational art. The text is a fairly well organized standard textbook treatment which touches on a few of the themes of current interest in Soviet operational art, such as integrated planning of nuclear and nonnuclear scenarios in operations and the effect of the introduction of precision-guided weapons on the preparation and conduct of operations. The paper opens with a brief history of Soviet operational art, followed by a discussion of the role, tasks, and general principles of the theory of Soviet operational art, the principles of the preparation and conduct of operations, and the problems of their application in the present-day context.

End of Summary
SOVIET OPERATIONAL ART

Operational art, as a major component of Soviet military art, [word illegible] on the basis of the theory and practice of our Soviet Armed Forces. The experience of Soviet operational art took shape in the First and Second World Wars, and [word illegible] in the Civil War and Great Patriotic War. Soviet operational art is constantly changing, improving, and being enriched with new [word illegible].

A major factor influencing the content and development of operational art is the leadership exercised over the Armed Forces by the Communist Party and the government [two words illegible], and their constant and careful attention to the problems of strengthening the defense capability of our country. In addition, the development of operational art is influenced by a number of other factors, the main ones of which are [three words illegible], scientific and technical progress, the state of the country's economy, the level of [technical] equipping of the troops, the state of combat readiness and training of the troops, the state and orientation of the development of the armed forces and of the probable adversary's theory of military art, the special features of the theater of military operations, the [word illegible] of the troops and practice of the allied armed forces [two words illegible].

A large contribution is being made [to the development] of Soviet operational art through the current development of the theory of the preparation and conduct of combined-arms, fleet combined-arms, joint and independent operations, which is being developed in the course of operational-strategic and operational exercises. In order to accomplish the assigned tasks, the operational command is now [two words illegible] of all branches of the armed forces, branch arms, and special troops within the context of a [one or two words illegible] operation. A modern operation is thus [given] a combined-arms nature, which is understood as [three words illegible] operation of a large set of [several words illegible]. In Order No. 00200 the Minister of Defense focuses the attention of commanders and staffs on [line illegible].

This lecture will address the [main] issues of Soviet operational art, the main stages of its development and the main issues of theory.

Main Stages of the Development of Soviet Operational Art

Objective preconditions for the origin of operational art were created by the development of the productivity of society and by changes in its social and political structure, as well as in the state of armaments, organization of...
troops, and methods of conducting military operations. [Two lines illegible] organization, armaments, strategy and tactics [word illegible], depending on the level of production achieved at a given time and the quality of [word illegible] materials.

[Unknown amount of text missing.]

In the postwar period in the Soviet Armed Forces operational art developed on the basis of the study and assimilation of the experience of the Great Patriotic War and Second World War as well as the improvement of armaments and military equipment, particularly tanks, aircraft, and artillery.

The fourth stage of the development of Soviet operational art began in the 1950s, and was characterized by radical changes related to the advent of fundamentally new weapons with tremendous offensive capabilities. This stage is linked to the advent of nuclear missile weapons, the equipping of the Soviet Armed Forces with nuclear missile weapons from the strategic echelon to the tactical echelon, the introduction of electronic means, and the complete motorization and mechanization of the troops, which increased combat capabilities immeasurably, brought about substantial changes in the organizational structure, and necessitated further development of operational art.

The scientific and theoretical foundations of Soviet military [word illegible] improved on the basis of the intensive development of military science and art. Changes in the nature of modern operations, the increase in their scale and scope, the substantial increase in the complement of forces and means participating in an operation, the highly dynamic nature of operations, the complexity of the tasks being performed [two words illegible] substantial changes in [end of line illegible].

[Unknown amount of text missing.]

General Principles of the Theory of Soviet Operational Art

Soviet operational art encompasses the theory and practice of the preparation and conduct of combined-arms, joint, and independent operations. [Line illegible.] ... theory and practice. [part of line illegible] practice, in order to [word illegible] Soviet operational art, the theory and practice of preparing and conducting combined-arms, joint, and independent operations of formations of the branches of the armed forces.

The theory of operational art is a strictly scientifically validated system of knowledge about military actions at the [operational] scale in all spatial spheres. The practice of operational art includes the activities of commanders,
staffs, and troops (forces) of formations to prepare and conduct joint and independent operations. It makes sense to speak of theory, and it makes sense to speak of practice. Sometimes theory outstrips practice, and sometimes practice lags behind theory. There should, of course, be a [word illegible] close [theoretical] [two words illegible] between the two, and theory should not get too far ahead of practice if it is not supported by a material base. Soviet operational art encompasses both the general principles of the theory of operational art as well as the theories of operational art of the branches of the Armed Forces (the Strategic Rocket Forces, Ground Forces, Air Forces, Air Defense Forces, and Navy).

What tasks are performed by the theory of Soviet operational art?

1. Soviet operational art studies the laws, nature, and content of modern operations. Before the war we spoke a great deal about the nature of a future war and the nature of future operations. For the most part [our assessments] were correct, that this would be a war of motors, with extensive utilization of vehicles, tanks, motorized troops, etc. The organizational structure of the forces and the employment of all the branches of the armed forces in an operation are determined by the views on the nature of war. Research on the issues of the laws and nature of modern operations is naturally a key task of the general theory of Soviet operational art, and of the theories of the armed forces branches, because it will affect the nature and method of utilization; for example, of formations of the Ground Forces, combined-arms armies, tank armies, air armies, [independent] armies. [Line illegible] will affect the organizational structure of the armed forces [and of line illegible].

2. The methods of preparing and conducting operations, the role and place of formations and large units of armed forces branches in the operations. These issues [word illegible] [under] the general theory of Soviet operational art. The Minister of Defense is currently focusing a great deal of attention on the preparation and conduct of [word illegible] operations. The attention of commanders and operational staffs is directed to the fact that it is now necessary to cut down the prolonged period of planning an operation to a shorter period of time. A front operation [two words illegible] now in two or three days. Even four to five days is written in the "Principles", but in the [latest] orders the Supreme High Command, the senior political and military leadership have concluded that four to five days for planning a front operation is unacceptable given the present nature of combat and the nature of the [word illegible] modern operation. Attention is directed to the fact that front and army commanders and staffs spend a lot of time doing work for themselves, that is, they work at headquarters planning an operation, while the troops are left to their own devices, with no tasks assigned to them in peacetime. We are losing the benefit of the experience of the Great Patriotic War, when chiefs assigned tasks to the troops, and then [three words illegible]. [In addition to] planning, [line illegible]. This includes the preparation and conduct of...
operations, [word illegible] combined-arms operations, joint operations, and independent operations, and the methods of employment of formations of all the branches of the armed forces -- what tasks to assign, how to employ fronts, combined-arms armies, tank armies, etc., in an operation, as well as formations of other branches of the armed forces. This includes methods of using nuclear and conventional weapons to hit the enemy. We have now switched to the concept of a complex of delivery of conventional fire against the enemy [kompleks ognevogo porazheniya protivnika] in an operation.

3. The general theory of operational art and the theories of operational art of the armed services branches study the methods of organization and content of continuous coordination in an operation. [This kind] of operation [two words illegible] combined-arms [operations], in which all or the majority of armed services branches, branch arms, and special troops participate.

4. Comprehensive support (operational, special technical, and rear services support) for the combat actions and [several words illegible] of forces and means, such as reconnaissance, engineer support, and chemical support.

5. Soviet operational art studies the problems of troop control in the course of an operation. A great deal of attention is presently being focused on these issues, particularly command and control which utilizes automated means. [three words illegible] airborne control posts.

6. Operational art elaborates requirements regarding the organization and arming of formations of branches of the armed forces. On the basis of the study of the nature of modern operations and the methods of employment of formations of armed forces in an operation, the question is naturally posed as to what the organizational structure of these formations will be. This question is given a great deal of attention. Soviet military thinking is now coming around to the opinion that combined-arms armies and tank armies, as they now are in terms of organizational structure as compared to the years of the Great Patriotic War, are becoming more and more alike, and that there is no longer a need for both the combined-arms army and the tank army. The present nature of operations is matched by the uniform [yedinaya] army, which [word illegible] one from another only in the number of tank or motorized rifle large units [included in it], the [word illegible] [of tanks]. Now [word illegible] group of Soviet Forces in Germany tank armies which have tank divisions and two motorized rifle divisions. Meanwhile, a combined-arms army has four motorized rifle divisions and two tank divisions. Thus, the complement of branch arms and special troops [line illegible].

A great deal of attention is being given to organization and armaments, that is, the timely adoption of new systems of weapons and combat equipment into operational service which [correspond] to the nature of the modern operation and modern combat. The problem has now arisen of having reconnaissance-strike and...
reconnaissance-fire complexes in service, because the enemy has them, and on the battlefield and in operations the engagement will be won by the side with reconnaissance-strike and reconnaissance-fire complexes, that is, precision-guided weapons systems.

7. The development of recommendations on the operational preparation of the theater of military operations. It should be said that in the line units they lag behind in these matters, and that practical [word illegible] in operational preparation is a weak area. In particular, this is the case in the Far Eastern Theater of Military Operations, where a lot of work has been done over the past 15 years on operational preparation, especially [in] [two words illegible] area. New roads have been built there, including field roads; work has been done on an airfield network for purposes of [two words illegible] aircraft. However, if the idea is large-scale redeployment of troops in the event of a period of threat or the start of a war by the enemy, as far as carrying out a march over long distances, our preparation of the theater of military operations still [word illegible] much better. It is particularly clear that when [line illegible]. The question was posed as to whether a march can be carried out over [71200] km. from the Transbaykal to Mongolia, for instance. These are long marches, involving [word illegible] crossing mountain passes, and these routes are completely unprepared, in the first place. In the second place, there is no water in the wells there in Mongolia. The wells are all clogged up, unequipped, and unprotected. When we equipped [word illegible] part of these wells there in 1945, the troops [two words illegible]; in winter there is ice and in summer large [word illegible] water. Not only for these theaters [part of line illegible]. There are many problems which [line illegible].

5. Operational art deals with the task of the content and methods of operational training of officers and command and control agencies. The General Staff now has a special directorate which deals solely with the operational training of the troops. [There are] operators who only plan the conduct of large-scale operational-strategic and operational exercises and operational and combat training [part of line illegible].

9. The study of the views of the probable adversary on the conduct of combat actions on the operational scale. Operational art and strategy, operational art and tactics work to no avail if they do not account for the enemy. In-depth study of the enemy, the probable nature of his actions in offensive and defensive operations, his weapons, and new phenomena such as AirLand Battle, etc., naturally form a key task of Soviet operational art.

The effectiveness of the practical actions of commanders, staffs and troops to prepare and conduct modern operations [is largely determined by] a correct understanding by them of the major principles of operational art and the skillful implementation of these principles in practice. The principles of Soviet military art and operational art are the fundamental ideas, the key
precepts and recommendations for the preparation and successful conduct of military operations of any scale. However, notwithstanding a certain universality of the concrete applications within the framework of strategy and operational art, there are also many specific [word illegible]. This is natural, because [word illegible] principle for the Ground Forces will be [applied] with one interpretation, for the Air Forces with another, and for the Air Defense Forces with a third. The detailed elaboration of these principles of Soviet military and operational art in the conduct of operations of formations of armed forces branches is therefore a key task of the theory and practice of Soviet operational art. The principles of the preparation and conduct of operations follow from the principles of Soviet operational art; they are therefore virtually identical.

The general [principles of the] theory of Soviet operational art also include the study of the major categories of Soviet operational art, which are: the operation, the engagement, combat actions, systematic combat actions, battle, and the strike. The general principles of the theory of Soviet operational art also study [word illegible] issues of the classification of operations, issues of [word illegible] [control of mixed forces] and means [in an operation] and of comprehensive support for an operation.

The basic documents and the "Principles of the Preparation and Conduct of an Operation" provide an [expanded] definition of the operation. An operation is a complex and [word illegible] category of operational art. The clearest trend in its historical development is the expansion of the spatial dimensions, both laterally and in depth. [Two words illegible] a certain tendency is developing to carry out [several words illegible] of the branches of the armed forces, the development of [line illegible]. Therefore modern operations and combat actions will be carried out with a more pronounced pace than in the Second World War by ground/air and air/sea force groupings. As a result operations of formations of armed forces branches will be characterized by a larger scope, not only laterally and in depth, but also vertically. This is the basis for the definition of an operation. First, it is an aggregate of engagements, battles, and strikes which are coordinated and interrelated in objective, location, mission, and time. Second, an operation is conducted according to a unified concept and plan under the leadership of a combined-arms command for the purpose of [simultaneous], direct accomplishment of operational-strategic and operational missions on a certain strategic [or operational] axis within a prescribed period of time. If we take a strategic operation in a theater of military operations, it includes, first of all, the set of front operations and strikes by strategic nuclear forces. Front operations are the basis for a strategic operation. If we take a front operation, it includes, first of all, the set of army offensive and defensive operations as well as the combat actions of other branch arms and branches of the armed forces.

TS #888644
Copy 9
[Line illegible.] ... as, for example, the front offensive operation can include first-echelon army operations: initial and subsequent offensive [operations], the set of defensive operations [word illegible], army operations on several axes conducted within the context of a front offensive operation. The operation of a front operational maneuver group, the commitment to battle and conduct of operations by the second echelon of the front, and the combat actions of rocket troops, front air forces, front air defense troops, and front reserves are components of the front offensive operation. Airborne landing operations, amphibious landing operations, and the initial nuclear strike of the front are key components of the front offensive operation. As you can see, the content of front operations, in comparison with the period of the Great Patriotic War, [line illegible]. The same is true of the army operation, which consists of combat actions of first-echelon divisions, commitment to battle and combat actions of second-echelon divisions, combat actions of army operational maneuver groups, and the participation of the army in the initial nuclear strike of the front. The army operation has thus come to consist of a large set of operations: engagements, battles, strikes, and [troop] maneuvers which are interconnected in objective, location, and time.

In connection with the advent of reconnaissance-strike and reconnaissance-fire complexes, a key component of front and army operations is the delivery of strikes by reconnaissance-strike and reconnaissance-fire complexes. Previously only the initial nuclear strike was planned; now there is an order of the Minister of Defense to plan the first massed strike by conventional weapons. Everything is planned in the same way as for an initial nuclear strike against top-priority targets for a strike by reconnaissance-strike and reconnaissance-fire complexes, front aviation, and rocket troops using missiles with conventional warheads. The initial massed strike by conventional weapons is planned with the same [word illegible] as an initial nuclear strike of the front, and it is also a key component of front and army operations.

An engagement is a major category of Soviet operational art. It is part of an operation which is also coordinated in objective, location, and time. A front can conduct a border meeting engagement, an engagement to break through the forward defensive line of NATO. For example, an engagement on a large water obstacle, an engagement to defeat the enemy’s operational reserves, etc. In a front one or two armies are put into action for an engagement, which can have up to 200-300 km of frontage. In an army two or three divisions are put into action for an engagement, which can have up to 100-150 km of frontage. Engagements can be combined-arms, air, air defense, and naval engagements.

Combat actions are a form of the operational employment of formations and large units of armed forces branches within the context of an operation on a larger scale or a [word illegible] operation. [Line illegible] front air forces, [word illegible] an operation, can participate only in an operation in a theater of military operations, for example, when they are assigned.
Systematic combat actions. This variety of combat actions is a special form of the operational employment of formations of the Air Forces, Air Defense Forces, and Navy with limited objectives and missions to exert continuous pressure on the enemy, isolate locales on his, and create a favorable situation for friendly forces in (a particular) area. This type of combat actions, as [two words illegible], was employed extensively during the Great Patriotic War.

The battle is the basic form of the tactical actions of troops, naval forces, and aviation. A battle can be a combined-arms, air defense, or air battle.

A strike is a component of operations, engagements, and combat actions and a special form of the operational and combat employment of large units of Strategic Rocket Forces, Ground Forces, Air Forces, and the Navy which consists in hitting enemy troop groupings and ground, air, and naval targets within a period of short duration by exerting powerful pressure on them with nuclear and conventional weapons or troops. Thus, in addition to missile strikes, fire strikes, and strikes by reconnaissance-strike complexes, there can also be troop strikes.

The general principles of Soviet operational art also include the classifications of modern operations. The "Principles of the Preparation and Conduct of an Operation" presently classify operations by type: combined-arms operations, fleet combined-arms operations, joint operations, and independent operations.

Combined-arms operations are conducted with the participation of all or most of the branches of the armed forces, branch arms, and special troops. Combined-arms operations are conducted under the leadership of a combined-arms command for the purpose of accomplishing a large number of [operational] strategic and operational tasks of different types simultaneously. On the basis of this definition, combined-arms operations are [word illegible] as follows: a strategic operation in a theater of military operations, front operations, army operations and corps operations. The development of the theory and practice of the preparation and conduct of combined-arms operations is naturally the focus of a great deal of attention by the theory of Soviet operational art, because combined-arms operations include virtually the entire set of operations conducted by a combined-arms command (commander-in-chief of the theater of military operations, front commander, and army and corps [word illegible]).

In general [part of line illegible] combined-arms and fleet combined-arms, fleet operations, operations of diversified-force flotillas also [word illegible] the same, with a single objective.
A joint operation is part of a combined-arms operation. Joint operations are the first [two words illegible] conducted within the context of combined-arms operations. Joint operations are conducted by formations of one or several branches of the armed forces, branch arms, and special troops to carry out operational-strategic and operational-tactical tasks primarily of a single type. Joint operations include airborne landing operations, amphibious landing operations, antilanding operations, air operations, and air defense operations. Air operations and air defense operations are conducted within the context of a strategic operation in a theater of military operations. Airborne landing operations, amphibious landing operations, and antilanding operations can be conducted within the context of either a strategic operation in a theater of military operations or a front operation and sometimes even an army operation.

Independent operations can be conducted within the context of combined-arms operations or joint operations, generally by an operational formation of a particular branch of the armed forces in cooperation with formations of other branches of the armed forces or independently. Independent operations include operations of the air armies of the Supreme High Command, air defense operations of independent armies or of an air defense district, and certain naval operations of formations and groupings of naval forces.

Operations are divided by mode [no visible] into offensive operations and defensive operations. Soviet operational art naturally devotes a great deal of attention to the development of combined-arms offensive operations: the strategic operation in a theater of military operations, the front offensive operation, and the army offensive operation.

In addition to offensive operations, Soviet operational art also studies the laws of the preparation and conduct of combined-arms defensive operations: a strategic operation in a theater of military operations (this is primarily a [word illegible] of strategy), and within the sphere of operational art, the conduct of front and army defensive operations. The question of front and army defensive operations is the focus of a great deal of attention at the present time. Moreover, in connection with the advent not only of nuclear missile weapons, but also of precision-guided weapons, it is believed that even when conventional weapons are employed, the situation of a front or army can frequently change radically [part of line illegible] offensive and will also conduct [line illegible].

Operations are also divided into initial and subsequent operations: initial front and army operations and subsequent front and army operations (primarily offensive operations). Nevertheless, although Soviet operational art studies both initial and subsequent offensive operations, the main focus of theory and practice is on the preparation and conduct of initial offensive operations, because the subsequent success of a strategic operation in a theater of military operations will depend on the initial front offensive operations.
The Characteristic Features and Principles of the Preparation and Conduct of Combined-Arms, Joint, and Independent Operations

The characteristic features and principles of the preparation and conduct of an operation, which proceed from the principles of Soviet operational art and Soviet military art, are as follows:

1. A high level of combat readiness of the troops.

2. Integration (yedinstvo) of the preparation of modern combined-arms, joint and independent operations to accomplish missions under the various conditions that a future war could possibly start and be waged, with and without the employment of nuclear weapons. You are familiar with the evolution of this matter: when nuclear missile weapons first appeared in the early 1950s, we did not acknowledge the conduct of operations in which conventional weapons alone were employed, but planned only operations in which nuclear weapons were employed. Then the employment of nuclear and conventional weapons began to be covered in separate plans. We have now concluded that we have to plan a single integrated (yedinnyu) operation for the employment of both nuclear and conventional weapons. This principle of the integration of preparation and conduct of an operation means that a single task is assigned to the troops that is the same with and without the employment of nuclear weapons. A single [two words illegible] of advance of troops, a single offensive zone, and a single depth to which missions are carried out are established. The reason for this principle is the fact that we do not know how an operation will begin, whether it will involve nuclear weapons or a period in which conventional weapons are employed followed by a transition to the employment of nuclear weapons, or how long this period in which conventional weapons are employed will last. In Order No. 00260 the Minister of Defense has assigned the task of training troops and staffs for actions in which conventional weapons alone are employed, without lowering the level of troop training for actions in which nuclear weapons are employed.

3. A high level of activity of the troops, resoluteness of purpose, and the large spatial scope of modern combined-arms, joint, and independent operations. Resoluteness of purpose [includes resoluteness] (two words illegible). Line illegible (km), front operations are conducted to a depth of 600-700 km, and the objective of a front offensive operation is to defeat the opposing army group or front of the probable adversary, to defeat the nearest strategic reserves, and to gain control of a line at a depth of up to 600-700 km. The objectives of front and army operations [word illegible], since the spatial scope of a front operation [word illegible] in a zone of up to 500 km to a depth of 600-700 km, with high rates of advance, 40-50 km (per day).
4. Achieving the objective of an operation through the coordinated employment of all branches of the armed forces, branch arms, and special troops of the front and army. Since modern combined-arms operations involve the participation of most or all branches of the armed forces, branch arms, and special troops, the need arises for the coordinated employment and close interaction of formations of all branches of the armed forces, branch arms, and special troops within the context of a strategic operation in a theater of military operations, front operations and army operations.

5. Decisive concentration, massing of forces and means on key axes. This principle [is taken] [word illegible] [from] the experience of the Great Patriotic War. One example was when the 20th Army of the Western Front [first broke through] a sector of the German defense on 10 January 1942 [three lines illegible]. This principle was particularly evident in the Stalingrad operation, for example, when the Don Front [part of line illegible] the 65th and 24th armies. The 65th Army broke through a 6-km sector: two rifle divisions, two tank brigades, five artillery regiments, and five regiments of the RVGK [Reserves of the Supreme High Command]. On the remaining sector there were five rifle divisions. In the final stage of the war the attack groupings of front troops included 50 to 80 percent of rifle troops of the front, 40 to 90 percent of the artillery, and 50 to 100 percent of the tank [word illegible]. For example, in the Yassy-Kishinev Operation, which was a classic example of massing of forces and means on the axis of the main thrust, the front broke through a 10-km sector of the German defense, approximately four percent of the total length of the front. [Two words illegible] concentrated approximately 80-90 percent of the rifle divisions, [number illegible] percent of the artillery, and all the tanks of the front on this [two words illegible] sector. Such were the principles of massing [three words illegible] of commanders to effect intensive massing of forces and means on key axes.

It is clear, however, that under present conditions we can no longer adopt this principle of massing in its entirety and apply it to a modern front, concentrating landing forces, deployment forces, a percentage of artillery and tanks, etc. to break through a 20-km sector. In a special issue of "Military Thought" commemorating the 40th anniversary of victory in the Great Patriotic War, the Minister of Defense states that [greater] use must be made of the experience of the Great Patriotic War, but we cannot mechanically transfer this experience, not even certain principles of the preparation and conduct of operations. The main thing, however, is readiness of purpose, surprise in the delivery of strikes against the enemy and in the employment of [word illegible] forces and means; these are principles which we can use. According to current views, modern densities are [part of line illegible] indirect fire positions, per kilometer of front in a breakthrough sector from 15 to 20 tanks, 12 to 18 aircraft and combat helicopters, and a motorized rifle battalion in the attack echelon. Thus, [more than] 30 tanks and 30 artillery pieces are massed [two lines illegible].
6. Effective engagement of the enemy with nuclear means in an operation. To conduct an operation the modern front can allocate 800-1000 nuclear warheads under conditions of the Western Theater of Military Operations; of these, half of this [word illegible] is allocated to a front operation [word illegible] the initial nuclear strike. On the axis of the main thrust an army can [allocate] 150-200 nuclear warheads, of which 50-60 percent can be [word illegible] the initial nuclear strike.

To hit the enemy with nuclear means the following are employed: front and army rocket troops, heavy artillery of the front, which is not [word illegible] to the army, organic artillery of motorized rifle and tank divisions, [152]-mm howitzers, [word illegible] self-propelled [word illegible], and front air forces. Thus, for example, effectively hitting a Lance battalion of three batteries (the old generation) requires approximately three nuclear warheads of [number illegible] kilotons. It takes approximately 12-15 nuclear warheads to effectively hit an opposing enemy division on the main line of defense and five or six nuclear warheads for a division in the second echelon or reserve. It is particularly [word missing -- ?important] to effect losses of 90-95 percent in hitting the enemy's nuclear attack means: Pershing battalions, Lance battalions, nuclear munitions depots, troop control posts, tactical air control centers, [word illegible] control centers, and now also precision-guided weapons ground control centers and [end of line illegible].

1. Effective delivery of conventional fire against the enemy. Although we devised this new term, "complex of delivery of conventional fire against the enemy," in the Great Patriotic War delivery of fire against the enemy was also [word illegible] [with] these means: because artillery fire, strikes by aviation, [word illegible], mines, explosive obstacles, etc. were planned. Now, however, the complex of delivery of conventional fire against the enemy has a broader, more substantial content, because it includes strikes by operational and tactical missiles with conventional warheads. This became particularly effective when cluster warheads began to be used. In 1973, when [three words illegible] (operational missiles) and [two words illegible] missiles [without cluster warheads] were used, an entire battalion fired, 5-10 missiles; but this was [word illegible]. When special cluster warheads were used the combat capabilities of rocket troops for delivering fire with conventional missiles were greatly enhanced. This includes the delivery of artillery strikes from indirect fire positions, as well as fire of tanks, ATGMs, and [two words illegible] small arms. This includes strikes by army aviation, attack helicopters, and front aviation. A major component of the complex of delivery of conventional fire against the enemy now in the use of strikes by front and army reconnaissance-strike and reconnaissance-fire complexes (front and army RUKs and SUXs).
8. Achieving surprise in actions. We employed this principle particularly extensively during the Great Patriotic War. For example, Marshal of the Soviet Union Zhukov [line illegible]. He said that we have come into an organization where there are patterns. First of all, we did not want to be deceived. For our part, we conducted a serious plan of measures to deceive the enemy. [Word illegible] we were not [certain] that the enemy would not use his own plan against us, that [we would not be deceived]. [Two words illegible] of the enemy a [large] grouping, [4000] tanks, more than 10,000 [word illegible] of artillery, cavalry corps, [word illegible] large units, combined-arms [armies]. All these measures of the [word illegible] plan were carried out. We had no complete guarantee that we would succeed in achieving operational-tactical surprise. Therefore, [line illegible] the enemy could determine not only the axis of our attacks, but he could also guess [word illegible]. We could not count on the enemy being so [word illegible] that he would know nothing of the operation being prepared. Neither the commander nor the staff could give such a guarantee. And although we perhaps did not succeed in completely concealing the entire concept of the operation, the Vistula-Oder Operation was a classic operation conducted by the 1st Belorussian and 1st Ukrainian fronts; the mission was specifically assigned to the [word illegible] depth, but in fact we came out at the Oder [word illegible]. And even [word illegible] Georgiy Konstantinovich said, "Comrade [ illegible], why have you stopped? The tank armies must be sent directly to Berlin!" He responded, "We could certainly send them there. But would they return? That's another matter!" In other words, there was an element [line illegible].

Like many operations, the operation of the 1st Ukrainian Front to take Kiev in 1943 included extensive measures for camouflage, concealment, and deception, and when Yenikho's 3rd Tank Army had transferred from one [front] to another, [line illegible]. It passed completely unnoticed when [word illegible] tank army was switched 30 km to the north. Kiev was taken by an attack from the north. This was a [word illegible] attack which the Germans did not expect.

9. [Bold] maneuver of troops, forces and means and timely establishment of reserves. The application of this principle is at a new stage, inasmuch as [two words illegible] front operational maneuver groups are now being set up; these are tank armies, and in a number of military districts army corps of the Reserves of the Supreme High Command have been set up. These special [organizations] consist of tank and motorized rifle brigades. This lends greater mobility to the [two words illegible] set up to operate in the operational depth of the enemy's defense, cut off from the main forces of the front. They [two words illegible] of a tank army. In combined-arms and tank armies, army operational maneuver groups consist of tank divisions or motorized rifle divisions intended to operate in isolation from the main army forces. [Word illegible] [action, a broad offensive by air is carried out. For example, during recent maneuvers [simulating a] front offensive operation, two drops of airborne divisions, two or three drops of airborne assault brigades, three or
four drops of airborne assault regiments of combined-arms and tank armies, and
two or three drops of motorized rifle battalions were carried out. The total
number of troops landed in the course of the front operation was up to 80,000
men.

10. Fully accounting for and utilizing moral-political and psychological
factors [two words illegible] success of operations and combat actions. This
requires in-depth [knowledge] of the political moral and psychological state of
our troops, organization and conduct of active political work, systematic study
of the moral and political qualities of the enemy, discovery of his strong
and weak points, active countermeasures to his ideological diversions and
propaganda, and exerting a purposeful ideological and psychological influence
on the enemy’s troops and population. The special 40th-anniversary commemorative
issue of “Military Thought” contains an article by General [three or four
words illegible] of the 1st Belorussian Front, who cites some interesting
information on political work in the 1st Belorussian Front: how many [radio
transmissions] [word illegible] to the Germans, how many leaflets were issued,
and how the political workers carried out rear support measures for this
operation, for example, supplying fuel.

11. First, continuous troop control and comprehensive support for an
operation. As the “Principles of the Preparation and Conduct of an Operation”
state, operations and combat actions must receive comprehensive support.
Support is a major duty of commanders and staffs of all [levels]. Three types
of support are currently distinguished: operational support, special-technical
support, and rear services support.

Operational support.

Reconnaissance is a major category of operational support and will be
addressed in greater detail in subsequent lectures.

The purpose of protection from weapons of mass destruction is to create
favorable conditions for the troops for operating under conditions of employment
by the enemy of weapons of mass destruction, strictly speaking, to reduce losses
from nuclear, chemical, biological, and other types of weapons.

Electronic warfare includes the set of measures conducted by the front
commander for reconnoitering enemy electronic systems, taking them out of action
by delivering strikes against them or with special groups, electronic
countermeasures, and electronic counter-counter-measures. This covers various
types of measures, including active measures. It is now believed that if the
enemy employs electronic means, even in peacetime, at exercises the district or
front commander [two lines illegible]. I am speaking on the basis of the
experience of exercises in the Far Eastern Military District. It took us eight
hours to receive a higher message from the 5th Army under conditions of jamming.
[Reception is] in fits and spurts, approximately 15-20 minutes, [two words illegible] agent communications. In fact, the only reception is via wire communications. [But this] is in peacetime [word illegible].

Operational masking is carried out for the purpose of deceiving our actions, the aims of the main thrust, and troop groupings being formed from the enemy, in other words, for the purpose of deceiving the enemy and establishing favorable conditions for troop maneuvers, [such as taking up an attack position], commitment to battle of second-echelon armies, etc.

Other types of operational support include chemical support; topographic and geodetic support, which is now also included under operational support, involves the preparation of topographic and geodetic data necessary for the effective employment of rocket troops and of weapons in general, and even includes provision of troops with the usual maps; and hydrometeorological support, which accounts for the effect of hydrometeorological conditions on the combat actions of troops.

Special-technical support. Special-technical support includes nuclear-technical support, which is the preparation of nuclear munitions by front and army nuclear-technical units and front and army missile-technical bases; missile-technical support, which deals only with the preparation of missiles; technical support, which covers an entire range of types of support (artillery, tank, motor transport, aviation engineer support, etc.); and meteorological support, which is carried out for the purpose of standardization and accuracy of measurements necessary for the effective employment of weapons and combat equipment.

Rear Services Support. The main types of rear services support include logistic, transport, medical, and other types of support for modern combined-arms, joint, and independent operations.

In addition to the increasingly multifaceted nature of operational art as a whole and of each branch of the armed forces individually, there is an increasingly strong tendency for interpenetration of the theory of each branch of the armed forces with the general theory of Soviet operational art. This is due to the fact that under present-day conditions [word illegible] execution of major operational tasks, and is also related to the [word illegible] utilization in an operation of mixed forces, formations and large units of different branches of the armed forces. Operations [have become the main] form of [word illegible] actions not only at the strategic level, but at the operational level as well. Most or all the branches of the armed forces can participate in front and army operations. In addition to naval forces, air forces and front forces and means operating on a coastal axis can participate in naval operations. Research and development on problems of the preparation and conduct of operations are the most massive and complex task of the theory of operational
art and of the general principles.

The material base [word illegible] is constantly being upgraded. Both sides are putting new types of weapon and combat equipment into service in mass quantities, and nuclear weapons and conventional weapons continue to improve [two words illegible] advent of precision-guided weapons systems. Many points of Soviet operational art will apparently have to be revised, especially those dealing with the preparation and conduct of operations. Previously it was believed that the main period in the delivery of conventional fire against the enemy was preparation fire for the attack or advance, and... [Line illegible.]

...[10] percent of [all targets are apparently] hit during the period of preparation fire for an attack or advance. With the employment of precision-guided weapons, this point will probably be revised, because while previously, during a period such as the period of fire in support of movement to contact [ognevye oobspechenye vdvishchenye voysk], only front air forces could deliver strikes, now rocket troops using precision-guided weapons can deliver strikes during this period. Thus, whereas earlier only five percent of all targets were hit during this period, it is now believed that this will the main period and [two words illegible] with crossfire, which will be aimed at [word illegible] from two directions [two words illegible] nuclear attack means, troop control posts, and ground centers of precision-guided weapons systems. New procedures have already appeared [in] [two words illegible] operations; this is already stated in the "Principles of the Preparation["] [line illegible]. As a result of the appearance of new weapons, many points of the "Principles of the Preparation and Conduct of an Operation" are being revised.

The economy, science, and technology are developing vigorously under present-day conditions, which makes it possible relatively quickly to [word illegible] the latest scientific processes which go out into the field, making it necessary to account for changes [three words illegible] armed combat. As a result of the equipping of troops with improved weapons and combat equipment and further changes in the theory and practice of operational art, first of all [word illegible] the problem of increasing the combat readiness of troops to conduct operations and combat actions both with and without nuclear weapons, and issues such as restoring attack groupings to a battleworthy state and actions under conditions of the employment of neutron weapons. There is no means of such a fundamental nature which [can accomplish the same thing] as seizure and landing by airborne landing forces, actions of forward detachments, etc. The importance of theoretical elaboration and practical solution of the problems of comprehensive support of operations, above all reconnaissance, is increasing. Profound knowledge of military theory, particularly the theory of operational art, makes it possible to execute the tasks of [reconnaissance] support for combat actions and operations, [two words illegible] the present situation, the nature of modern operations, the forms and methods of preparing and conducting operations, and the role and place in them of operational, special-technical, and rear services support.