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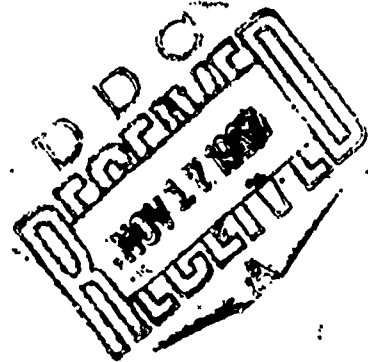
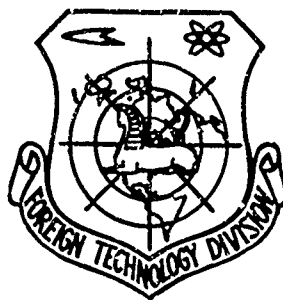
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SOVIET MILITARY SCIENCE

by

S. N. Kozlov, M. V. Smirnov, et al.



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SOVIET MILITARY SCIENCE

By: S. N. Kozlov, M. V. Smirnov, et al.

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S. N. Kozlov, M. V. Smirnov,
I. S. Baz', P. A. Sidorov

O SOVETSKOY
VOYENNOY NAUKE

Vtoroye, pererabotannoye i dopolnennoye izdaniye

Voyennoye Izdatel'stvo
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ABSTRACT: This book will acquaint the reader with the fundamental questions of Soviet military science. In it there is a report on the history of nascence and development of theoretical military concepts, an explanation of the ideological basis of the theory of Soviet military science and the characteristics of the laws which govern modern warfare. The book contains a definition of Soviet military science, its classification and a survey on its structural parts and branches. This second revised and enlarged edition of the book differs, considerably from the first. It contains everything newly introduced into military theory by decisions of the XXII-nd Party Congress and Party program. Three new chapters have been added to the book: conditions and factors, rules and principles of armed warfare, means and forms of warfare, military science and military doctrine. In these and other chapters, the decisive role of nuclear arms in modern war is shown and its effect on changes in means and forms of armed combat. The book has been written for officers of the Soviet Army and Navy and also for civilians interested in questions of military science.

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EDITOR'S PREFACE

This book will acquaint the reader with the fundamental questions of Soviet military science. In it there is a report on the history of nascence and development of theoretical military concepts, an explanation of the ideological basis of the theory of Soviet military science and the characteristics of the laws which govern modern warfare. The book contains a definition of Soviet military science, its classification and a survey on its structural parts and branches.

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INTRODUCTION

Marxism-Leninism assigns scientific meaning to war as a socio-historical phenomenon. It subjects the reasons for the appearance of wars to a thorough theoretical analysis; starting from a correct assumption on its nature, Marxism Leninism investigates all facets of this phenomenon in the specific historical setting, explains the qualitative factors of wars of the various periods and of each war within the boundaries of its own period and studies economic, moral-political and other factors which determine the course and outcome of each war.

Marxism-Leninism asserts that wars did not always exist and are not here to stay forever.

The ideology of the imperialistic bourgeoisie serves to conceal the true causes of wars from the masses, propagates various kinds of reactionary theories and asserts that wars appeared with the human race and will always exist in the social life of people.

According to the so-called biological theory of war, wars are as unavoidable in society as is the struggle for survival in the animal world. It is however known that societal development follows its own specific rules; therefore any attempt at applying biological laws to social development and to such socio-historical phenomena as war is unscientific and reactionary.

The racist theory of war is closely related to and develops from the biological theory. According to that theory, the various races are not equal; some are "higher" and thus are destined by their nature to reign while other "lower" races must submit to them. A constant war is

going on between "higher" and "lower" races. This unscientific reactionary theory formed the basis for the ideology of German fascism. It is at present used by American and West-German racists for the ideological preparation of a new world war.

No less reactionary and unscientific is the explanation given by the so-called Malthusian theory for the causes of war. According to this theory disasters in society are caused by excess human fertility and too rapid population growth which allegedly outstrips the means of existence. Starting from this reactionary bourgeois theory modern neo-Malthusians proclaim war a blessing since it destroys "excess" population and liberates humanity from "useless creatures". The reactionary ideas of the neo-Malthusians are used by bourgeois theoreticians for justifying territorial wars.

Another theory closely related to the Malthusian and racist is the reactionary geo-political theory, and it is just as unscientific. This is based on pseudo-scientific ideas according to which geography is a decisive factor in the life of society and every nation is a growing organism and must continually expand, seize new territory and annihilate other people. Imperialists and their docile lackeys have tried to justify aggressive territorial wars with the help of geopolitics. By proclaiming geopolitics a necessity, the Hitlerite monsters created a basis, long before the second world war, for the seizure of foreign territory by the German imperialists and for their attempt to rule the world.

In our time, geopolitics is in the service of imperialist states which aim at aggression, the subjugation of other people and destruction of countries in the socialist camp. American geopoliticians falsely assert that the geographical location of the USA makes it the dominant world power and that this supremacy requires that they wage war. By means of geopolitics, American reactionaries attempt to justify the pre-

sence of the American military on European and Asian soil as well as the erection of many military bases on foreign soil with which the American imperialists have surrounded the countries of the socialist camp. O

The so-called "ethical theory" is of the same order as these other theories; there is nothing ethical about it. According to this theory, war is necessary for the "moral well-being of the people." The advocates of the ethical theory assert that peace is disastrous and leads to stagnation while war is a blessing leading to progress. The reactionary inhuman nature of this theory is obvious. Territorial wars are notorious. The reactionary inhuman nature of this theory is obvious. Territorial wars are notoriously advantageous for the imperialists. They make tremendous profits in war out of the people's blood and sweat, adding to their riches while the masses who must carry the whole burden of war on their shoulders are ever more exploited and pauperized.

In the last years, the reactionary bourgeois theoreticians have invented a new explanation for the cause of wars. According to this new theory, wars in the world are unavoidable because of the existence of the Soviet Union and other countries of the socialist camp which allegedly make aggressive politics by "exporting the revolution" into other countries. The imperialists have turned communism into a bugaboo which they use extensively in their plans for preparing a new world war. Under the false slogan of defense of a "free world," the protection of "western civilization" from the communist menace, the imperialists of the U.S.A. and other aggressive countries are preparing for war. "Now the slogan 'anticommunism' is again used as a smoke screen," said N.S. Khrushchev, "to hide the claim of one power (U.S.A.; editor) to world supremacy."*

While building aggressive war blocks and continuing the preparation for a third world war, the imperialists also conduct little wars. ()

In the last years, some bourgeois theoreticians have repeatedly voiced the opinion that no future war can be "total" because of the tremendously destructive power of nuclear weapons and that so-called local limited wars are more probable.

The theory of local wars, by which the aggressive imperialists hope to maintain their rule over colonies and semi-colonies and also to restore the capitalist order in countries which have thrown off the yoke of imperialism, serves to deceive the masses and conceal the aggressor's preparations for a new world war. The imperialistic nature of this new theory and its far-reaching goals are obvious — to beat the adversaries one by one. It should be quite clear to the unprejudiced individual that every local limited war may at any moment develop into a general world-wide conflagration in this age of atomic and jet-propelled arms. Appearing before the fourth session of the Supreme Soviet of the USSR, Marshal R. Ya. Malinovskiy stressed that "they talk a great deal in the West about 'limited nuclear war,' the 'tactical use of nuclear weapons,' a 'dosified strategy,' 'scare strategy,' etc., etc. All these 'theories' and presumed 'strategies' reveal the imperialists' fear of the inevitable punishment they will receive if they attack countries of the socialist camp. Such 'theories' are, however, propagated to pacify the masses and to pursue behind this smoke screen their black deeds, the preparation of a new world war."*

While analyzing the various bourgeois theories on the origin and nature of wars we would stress that they are basically the same despite their apparent diversity; they all serve monopol capitalism and reflect aggressive aspirations of the exploitative classes which attempt to justify their expansionist imperialistic policy, alleging that wars are a constant and unavoidable corollary of human society.

Only Marxist-Leninist science gives a correct definition of war.

Considering war as a socio-historical phenomenon, a continuation of policy by forceful means, it shows that the causes of wars find their roots in the socio-economic and political system of the antagonistic ~~class~~ society based on private property of raw materials and the means of production, the exploitation of man by man. Marxism-Leninism asserts that the causes giving rise to war will disappear with the destruction of capitalism.

Marxist-Leninist classics have proven scientifically and historical experience has confirmed the fact that socialist revolutions need not be pushed by way of war, that the ruin of capitalism is inevitable and derives from the effect of objective laws of societal disintegration, from the class war conducted by the proletariat and all those who work for their liberation and the socialist re-building of society.

In analyzing the causes of wars, not only the economic base of wars but all other factors must also be taken into consideration. In respect to the question of whether there will be or will not be war, great importance must be assigned to the ratio of class forces, the degree of organization and the conscious volition of the people. We know that in the last years the ratio of forces on the international scene has changed in favor of socialism. All this had now led to important changes of the situation in respect to the outbreak of wars. Due to the mighty growth of the Soviet Union, the spread of socialism beyond the borders of one country and its transformation into a world-wide socialist system, the development of peoples' national freedom movements against colonialism, the growth of the workers' struggle in all countries wars have stopped being inevitable.

The conclusion drawn at the XX Party Congress that there are no inevitable wars has been completely validated. This conclusion was confirmed at the XXI and XXII Congress of the CPSU and was laid down in the

Program of the CPSU. "In the new historical period," it says in the Program, "the possibilities for active interference by the masses in the solution of international problems has grown tremendously. The people are capable of playing an ever more active part in the solution of the question of war or peace.

...The united forces of the mighty socialist camp, the peace-loving non-socialist states, the international working class and all forces defending the cause of peace can prevent a world war."*

In the last years, the Soviet Union and other countries of the world-wide socialist camp have achieved great success in all fields of the economic and cultural development, the material well-being of the workers and the strengthening of their defensive capacity. As a result of fulfilling and exceeding the seven-year plan of SSSR economic development, as well as the rapid pace of economic development in other countries of the socialist camp, the world-wide socialist system will produce over one half of industrial world production. This will represent a victory of world-wide historical significance for the countries in the socialist camp and their peaceful economic competition with capitalism.

At the XXII meeting, the Communist Party of the Soviet Union determined the tasks in the field of economic development and an increase in the material well-being of the people spread over twenty years. The main economic task of the Party and the Soviet people, as determined by the XXII congress of the CPSU, consists in building the material and technical basis of communism over two ten-year plans. "This means: full electrification of the country and refinement, on this basis, of technique, technology and organization of societal manufacturing in all branches of the economy; all-around mechanization of manufacturing processes, progressively fuller automatization, the broad application of

chemistry in the economy; maximal development of new economical and efficient branches of manufacture, new forms of energy and materials; comprehensive and efficient use of natural, material and labor resources; close links between science and production and a more rapid pace of scientific-technical progress; a high level of workers' culture and skills; a significant advance over the most developed capitalist states in respect to work efficiency; these represent the most important conditions for a victory of the communist system."*

In projecting this important task, the XXII Congress of the Communist Party started out from the consideration that a first-class heavy industry, the basis for technologic progress and economic power of the country, had been created in the Soviet Union. "Henceforward, the CPSU will untiringly tend to the growth of heavy industry and its technologic progress. The main task of heavy industry consists in providing fully for the country's defense needs, in developing branches of the economy for the production of consumer goods, with the aim to improve and fully meet the peoples' requirements, the vital needs of the Soviet individual, and in assuring the development of the country's industrial power."**

Based on the above, the party planned to increase the volume of industrial production about $2\frac{1}{2}$ fold in the course of the next 10 years, exceeding the level of industrial production in the USA; the former should increase no less than 6 fold in the next 20 years and should leave the present total volume of U.S. industrial production far behind.

The rapid rise in the Soviet Union economy will necessarily lead to sharp structural changes in industry, transportation and agriculture. This applies particularly to the role assumed by new branches which assure maximal technologic progress. The greatest share of this rise will be assumed by synthetic material, metals and alloys with new properties.

New types of machinery, instruments and equipment related to automation and electronic technology will be rapidly and widely introduced.

All this has tremendous importance for Soviet military science, for comprehending the new economic, political, scientific and moral-political potential acquired by our country and its Armed Forces for conducting war if this is thrust on us by the imperialist aggressors.

Other decisions by the XII Congress of the CPSU and conclusions in the Party Program also assume great importance for Soviet military science; these refer to questions bearing on the international situation, in particular the comprehensive and thorough analysis on ration and distribution of forces on the world scene, the qualitative changes which the technical means of armed combat have undergone and the conclusions on preventing a thermonuclear world war.

In our country, there are no classes or groups interested in war and in an armament race. The policy of the Communist Party and the Soviet Government, based on the ideas of Marxism-Leninism, is full of regard for the human being. The Soviet Union has never and will never decide to attack other countries, wage war on foreign soil and impose her way of life on anybody by force.

The Soviet Union is building communism, therefore introduces peace-loving external politics into life, strives for general and full disarmament, for the establishment of a durable peace throughout the world and for the prevention of war.

The problem of preventing a thermonuclear world war is a problem of life or death for hundreds of millions of people. It is the fundamental problem of our time. In contrast to bourgeois military science, Soviet military science does not side-step its solution. Paradoxical as it may sound, a military science appeared for the first time in the history of mankind which attempts not only to solve problems of war but

also to contribute in preventing a thermonuclear world war.

The sole source of the danger of a war is imperialism. Imperialists consider aggressive wars as the main means for solving international problems, and the military science of the imperialist states is directed towards this end. The aim of Soviet military science is the creation of the theoretical foundation for military tasks of the socialist state, the strengthening of its defensive force and assurance of resolute counteraction against imperialist aggressors and their attempts to interfere with the great building of communism in our country. Soviet military science has been called upon to promote the creation of means for armed combat and of armed forces such as to make the aggressor desist from unleashing a war or to crush him, should he attempt this.

The aggressive imperialist circles of the USA and other governments attempt to maintain international tension; they do not want to disarm or to liquidate their bases on foreign soil. Moreover, they create new military bases in certain parts of the globe and use their surface and submarine fleet as carriers for nuclear weapons. Western Germany is rapidly increasing the size of its armed forces and equipping them with rockets, is doing its utmost to get possession of nuclear devices and is building military bases on foreign land. War preparations are going on in all countries belonging to the aggressive blocs of NATO, SEATO and others; this creates a threat to peace and safety of the people.

To avoid being taken by surprise, the Soviet people are doing everything to strengthen their defensive forces and raise war readiness of their Armed Forces to a level which would assure the prompt and full defeat of any enemy who would invade our motherland of the socialist camp.

In the decisions of the XXIIInd party congress and the program of the CPSU, the party line has been laid down for further strengthening

O In the decisions of the XXIIInd party congress and the program of the CPSU, the party line has been laid down for further strengthening of the defensive power of our country and its Armed Forces. It says there: "The CPSU considers the protection of the socialist Motherland, strengthening of SSSR defense and the might of the Soviet Armed Forces as the sacred duty of the party, of the whole Soviet people and as a most important function of the socialist state. The Soviet Union considers it its international obligation to assure, together with other socialist states, reliable protection and safety for the whole socialist camp."*

The immediate bearer of a state's military power are its armed forces; to fulfill their tasks they should dispose of suitable weapons and organizations and should be sufficiently well trained. Our Armed Forces display all these qualities. They have first-rate military equipment at their disposal, and their organization, military and political training are fully up-to-date.

N.S. Khrushchev remarked in his speech before the IVth session of the Supreme Soviet of the SSSR in 1960 that "Soviet scientists, engineers and workers have given us the possibility to equip our army with arms such as have never been known to man — atomic, hydrogen, rocket and other modern weapons.

O ...The Soviet Army is now equipped with war devices and fire power such as no army has ever had. I would stress once more," said N.S. Khrushchev, "that we have now so many nuclear weapons, atomic and hydrogen and the corresponding rockets for the dispatch of such weapons into the territory of a possible aggressor, that if any madman would provoke an attack on our country or on other socialist countries this attacking country or countries would be literally wiped off the face of the earth."**

The military power of the Soviet Union, the presence of nuclear rockets played a decisive part in preventing imperialist aggression directed against socialist or other peace-loving countries. The Soviet Union and other socialist countries together with all peace-loving states and peoples of the world now dispose of such power as to bar the imperialist aggressors' path towards unleashing a thermo-nuclear world war. This fact permits socialist countries to develop peacefully and build socialism and communism successfully while the young sovereign states recently freed from colonial slavery can retain their independence and self-determination and eventually liquidate the dismal sequelae of colonialism.

The last years have seen another rise in the military power of the Soviet Armed forces and their technical equipment. Soviet science in the fields related to strengthening the country's defence capacity has overtaken science and technology of the most powerful by creating the material prerequisites, nuclear weapons and various kinds of rockets used for arming army and navy; these weapons possess practically unlimited power and applicability and cannot be compared with any devices for warfare used in the first and second world wars. If we combine all means of destruction applied by human society over the ages, this would represent only a minimal share of the destructive force represented by today's nuclear weapons. It should be sufficient to point out that the explosion of only a single powerful thermonuclear bomb exceeds the explosive force of all military devices applied in all past wars, including first and second world war.

These specific features and potentialities of present devices of armed combat are now being studied by military science under all aspects of armed combat, strategic, operative and tactical, and will obviously lead to fundamental changes in strategy, operative art and tactics. The

introduction of nuclear and rocket weapons into army and navy, the development of new means and forms of warfare has gone so far that a hostile encounter of states could develop into a war which would involve the application of all means for mass annihilation at the disposal of the adversaries.

As we know, the first and second world wars started between countries that were neighbors and had a common boundary. Now war may break out between states separated by many thousand of kilometers and may involve whole continents.

In a modern war, once unleashed by the imperialists, massive nuclear strikes will assume primary importance; they will aim at both objects in the far rear and accumulations of armed forces in the theatre of operations. We must consider that our country and other socialist countries are surrounded by foreign military bases. Our rocketry is thus distributed so as to assure double and triple defense. Our country's territory is very large and affords the possibility of dispersing our rocket devices and camouflaging them satisfactorily.

The Soviet Armed Forces are generally speaking and in the strategic sense rocket troops, but we believe that no one kind of troop can solve all the tasks of war. Starting from the assumption that the successful conduct of operations in modern war is possible only on the basis of combined application of all means of warfare and the concerted efforts of all kinds of armed forces, we have set up these kinds in predetermined numbers and at a suitable judicious ratio in our Armed Forces. We are developing and perfecting land-based troops, navy, aviation and anti-aircraft defense of the country on the new basis.

The use of a large number of motors and various machinery for war purposes, of various technical devices and kinds of arms, particularly atomic and thermonuclear arms and intercontinental ballistic missiles

was responsible for great changes in the art of war and in all branches of Soviet military science.

Soviet military science stands at an important historical turning point, due to the revolution which occurred in warfare, changes in the development of war technology and corresponding ones in the means and forms of warfare.

Modern science and technology are developing at a rapid pace; therefore the appearance of other devices for warfare cannot be excluded.

It thus follows that the development and continuous refinement of military theory must be given extraordinary attention. Theory should anticipate the direction which further development of warfare will take and orient itself in accordance with the requirements of modern war.

The importance of military theory in modern war cannot be overestimated. We know that correct scientific theory continuously linked to practice will ease the way for practice. Under modern conditions, a correctly posed war theory assumes even greater importance in the preparation of the country and its armed forces for repelling the aggressors' attack.

Military theory is very important for the practical guidance of troops in war. The better, more thoroughly and more fully problems of strategy, operative art and tactics have been elaborated the lesser mistakes will be made in war, the greater the victories achieved through full mastery and knowledge in the organization and conduct of battle, operation and war campaign. The success of military operations depends to a large extent on the development of military theory and on the degree to which the troops have mastered its fundamentals during military training.

Military theory based on science permits the correct solution of problems related to the build-up of the armed forces, their technical

equipment, the training and education of qualified military cadres. It helps to select the right means and forms of warfare under various operational conditions. However, this does not mean that it takes but one single correct military theory to provide knowledge on how to lead to combatants in modern war.

Military theory does in no way demean the art of war as a practical creative activity of the commanding staff. This theory is but a guidance for activities; it gives no rigid instructions applicable to all instances of life. It requires from the staffs of all ranks independence and initiative in the solution of practical tasks, high professional skill, creativity and an indomitable will to conquer.

However, without a thorough military-theoretical preparation no highly qualified troop guidance can be accomplished in modern battle and war operations, for practice can never replace theory. This is why the thorough study of military theory and its further development assume such great importance.

The XXIst Congress of the CPSU pronounced the following as one of the most important tasks: the continuous development and perfection of Soviet science and achievement of a higher level. It says in the resolution: "In view of the high achievements of Soviet science in all fields, particularly that of nuclear physics and atomic energy, jet propelled aviation and rocket technology, The Congress considers it necessary to achieve, during the seven-year plan, the even more rapid development of all scientific branches and to undertake important theoretical studies which would assure further scientific and technological progress."*

These pronouncements of the XXIst congress and resolutions of the XXIIInd congress of the CPSU have important bearings for Soviet military science which is being developed to protect the socialist fatherland from intrusion by imperialist aggressors.

The development of Soviet military science rests on the tremendous gains achieved by the Soviet societal and governmental system through its planned economy, the rapid rate of economic development, the moral and political unity and friendship of the people, through the high principles of proletarian internationalism and the burning patriotism of the Soviet people ready to give their life for the Soviet fatherland and for communism.

The Great Fatherland war of 1941 - 1945 has given ample proof of the solidity of our societal and governmental system, our Armed Forces and our military science. In this war, the force and power of the Soviet people appeared in all its greatness, as did that of its army and navy which achieved victory over fascist Germany and imperialist Japan.

The experience of the Great Fatherland war has shown that a high developmental level of Soviet military science has tremendous importance for achieving victory over the enemy. The Armed Forces of the Soviet State, by virtue of their military knowledge, their mastery of the means and forms for conducting war operations on various scales, achieved complete victory over the armed forces of the fascist bloc. Therefore, the military victory of the Soviet Union, combined with other factors, represents the victory of Soviet military science over the military science of fascist Germany and imperialist Japan.

Dogmatism and stereotype are foreign to Soviet military science in its study of the rules of armed combat and the means for its conduct. It is a creative, continuously developing science enriched by newly added data.

Modern war represents a highly complex chain of conflicting phenomena whose knowledge requires the help of many sciences among which also military science; the latter's role in the preparation and conduct of war has grown tremendously.

Science now embodies the powerful union of a great variety of knowledge, the fields of social science, natural and technical sciences. All these are interrelated, and the achievements of one serve as prerequisites and stimulants for the achievements of others. Therefore, military science, too, can develop successfully only on condition of maximal utilization of achievements in other fields of science from which it selects the material for the solution of its tasks and the answer to questions related to the practice of military build-up; modern warfare makes use of a considerable aggregate of human knowledge.

Soviet military science rests on the rock-like fundament of Marxism-Leninism. It correctly describes the nature of modern war, its essence and characteristics, the rules of warfare and aids the military staff to develop more effective forms and means for such warfare against a powerful and technically well equipped enemy. The task of Soviet military science consists in enabling our cadres to understand not only how and which direction warcraft should presently develop but also how and in which direction it should develop in the immediate future.

Soviet military science teaches our staff the art of conducting successful military operations through the application of all means, devices and forms of warfare on the basis of the newest achievements in science and technology. If military science were ever to lag behind modern requirements, this could be very dangerous. Soviet military science is faced with the task of arming our military cadres with the most advanced progressive military theory and thereby prepare them for victorious battle in the defense of the peaceful work of the socialist countries' people.

Under modern conditions, Soviet military science was confronted with certain new theoretical problems. After the Great Fatherland war, there was an acute necessity to evaluate the experience and draw the

necessary conclusions and generalizations. The rapid development of military technology and warcraft requires creative approaches for the solution of new problems and tasks facing the Soviet Armed Forces. It was particularly important correctly to project the path along which military science should be developed and perfected. Cardinal questions such as the character, object and content of Soviet military science require further thorough elaboration. Correct solution and understanding of these theoretical questions is the basis for further development and perfection of military science in general, its components and branches and thus also for the practice of building up, training and educating the Soviet Armed Forces.

The second edition of this book has been considerably revised and enlarged with new material related to the rapid scientific and technologic progress and the revolution in warcraft. The authors do not consider the fundamentals of Soviet military science reported in this book as "up-to-date in the last instance." Many of these propositions require further thorough scientific study, considering the development of war technology, the whole warcraft and also the rapidly changing conditions of modern warfare. The authors would welcome their readers' critical remarks and desires.

Chapter 1

LENIN AND MILITARY SCIENCE

Marx and Engels, the great founders of scientific communism, discovered the laws of societal development and were the first in history to give a true scientific explanation of the nature and essence of war as a sociohistorical phenomenon. They elucidated the relationships between the means of warfare, army organization, its weapons, strategy and tactics and the material living conditions of society, the means of production.

Marx and Engels undertook a comprehensive and thorough study and elaboration of the problems of war and warfare in the interest of the proletarian revolution. They assigned great importance to military theory, the art of war and considered these as necessary weapons of the proletariat in its struggle with the bourgeoisie which used brute force against the workers and forces them to reply in the same way.

The great Lenin enriched and further developed marxist revolutionary theory on the basis of conditions of class struggle in a new historical period. Lenin's importance is reflected in all fields of Communist Party and Soviet State activities, among these also in the field of military development. Lenin left a great and comprehensive heritage in respect to theory; a good part of it is related to fundamentals, concepts and ideas on military problems. Everything that Lenin did, said and wrote on this subject has retained inestimable importance for the Soviet State's military establishment and for our military science.

Lenin knew a great deal about military problems. He created and

headed a party which not only could not avoid taking a stand on military problems but had to study them continuously, for it prepared and led our country's masses in its struggle against the reign of the exploiters and later -- after the great socialist October revolution -- against the armies of the imperialist interventionists and the forces of the internal counter-revolution. The great importance assigned to military problems by Lenin and by the communist party he created may be explained by the specific historic conditions of the struggle against the exploiters, the revolutionary goals the Marxists set for themselves and the practical requirements of the revolutionary struggle they were leading.

Lenin had engaged in the study of military problems right from the start of his revolutionary activities.

Lenin intensified his studies of military problems particularly prior to and during the 1905 revolution. The scope of these problems was rather large and encompassed everything that might in any way be related to preparations for a revolution and the conduct of a successful armed struggle, starting with questions on revolutionary work in army and navy and ending with problems of technique and tactics of armed fight against czarism. Lenin not only studies military writings himself and acquired military knowledge, he also insisted that party members study military matters.

Lenin assigned primary importance to acquainting the masses with military questions and to the conduct of resolute offensive operations. Vladimir Il'ich dealt with the requirement for acquainting the masses with fundamentals in, e.g., his article "On Combining Politics with Teaching," written in June 1905. "Neither in war nor in peace," stressed Lenin, "should we neglect to teach recruits the art of shooting or spread the ABC of warfare in the depth and breadth throughout the mas-

ses."* On the importance of extending military knowledge to the masses, Lenin also wrote in his article "Revolutionary Army and Revolutionary Government;" "Thake warfare," he wrote, "not a single Social-Democrat who is even vaguely familiar with history and has studied the great master of this art, Engels, will doubt the tremendous importance of the military sciences, the tremendous importance of military theory and organization as weapons to be used by the masses and classes of the people for the solution of important historical conflicts."**

In a number of works, such as the article "Defense and Attack," Lenin wrote not only about military instruction but also about military education of the masses.

In many of his works Vladimir Il'ich wrote about the resolute, active, bold, offensive conduct of military operations as a necessary condition for victory in armed struggle. Thus in the article "Provisional Revolutionary Government," quoting a sentence from an article by Engels on the requirement for an "offensive form of activities," Lenin wrote about "bold military offensive" as one of the most important tasks confronting the party of the proletariat in any "serious revolutionary situation." In his articles "Tasks of the Vanguard of the Revolutionary Army," Vladimir Il'ich stressed that a resolute attack constitutes three fourth of the success and that "Everyone of the cadres should understand that in failing to seize today's opportunity for such an operation the cadre would be guilty of an unpardonable lack of activity, of passivity,"*** which is a very serious offense.

We know that after the defeat of the first bourgeois revolution in Russia the Mensheviks declared that there was no need to take up arms. They progressively withdrew from the revolution and attempted to liquidate the illegal revolutionary party of the proletariat; they became frank liquidators. It is thus no wonder that even prominent figures such

as Plekhanov did not study warfare and remained strangers to this art. In full contrast to the Mensheviks, Lenin and the Bolshevik party never lost interest in military problems. Despite the defeat of the 1905 revolution and the necessary retreat, the Bolsheviks under Lenin's leadership pursued a steady, step-by-step course towards preparing another revolution. They used the period of reaction for strengthening party bonds with the masses, reinforcing the party's ranks, gathering and accumulating revolutionary forces so as to be ready for a rapid turn-about from defense to attack as soon as the opportunity arose.

The increase in revolutionary activity, starting in 1910-1914, showed that events were truly moving in the direction of another ripening revolution.

The world war which broke out in 1914 temporarily restrained, during its first evolutionary stage, the oncoming revolution. However, the differences between the working class and the bourgeoisie sharpened in the course of the war, and a revolutionary situation developed in Russia. Among the masses, weary from the hard war, Lenin's slogan, propagated by the Bolshevik party, on transforming the imperialist war into a civil war found increasingly greater acceptance. The questions of war, peace and revolution were closely interwoven.

Under Lenin's leadership the Bolsheviks conducted a continuous struggle towards encouraging in all countries movements against the imperialist war, for transforming the imperialist war into a civil war and for the overthrow of the autocracy and reign of the imperialists. This required giving increased attention to questions related to the war, the army, warfare and the art of war. It was no accident that during these years, when Lenin fought the treacherous policy of the IInd International whose leaders had betrayed socialism and assumed a social-chauvinistic attitude, he elaborated Marxist theory and tactics further in res-

pect to the questions of war, peace and revolution.

1 Lenin's classical work, written at that time, "Imperialism: the Last Stage of Capitalism," had an enormous importance for the understanding of the nature and essence of imperialists wars as well as of those directed against imperialism. In this work, Lenin was the first Marxist to give a profound and comprehensive analysis of imperialism as the highest, last stage of capitalist development. Vladimir Il'ich elucidated the basic laws and contradictions of capitalism and showed that imperialism is a decaying and dying capitalism, "on the eve of the socialist revolution of the proletariat."

Lenin showed exhaustively and fully that imperialism will drive humanity into the abyss of murderous wars and economic disasters, that the world war had sharpened and deepened the crisis of the whole capitalist system, strained the material and moral resources of the people and struck such blows against the ruling class and the economy that humanity was faced with the choice either to perish or to entrust its fate to the proletariat, the most advanced and most revolutionary class, for a most rapid and radical transition to a new, more advanced system of production and a new societal and political system, free from exploitation and poverty, violence and wars. These conclusions represented the thoroughly founded, strictly scientific basis for the revolutionary perspectives and tasks facing the working class and its Bolshevik party.

0 At a time when the social-chauvinists of all countries assumed an attitude which protected the interests of the imperialist bourgeoisie, Lenin, proceeding from the law of the uneven economic and political development of capitalism at the imperialist stage, made a brilliant scientific discovery in respect to the possibility of breaking the chain of the imperialist world front at its weakest link, the possibil-

of a first socialist victory achieved in some or even in just one capitalist country and the impossibility of the simultaneous victory of socialism in all countries. Lenin created a new theory of socialist revolution which contributed to strengthening the Bolshevik party's faith in the victory of the proletarian revolution and heightened the initiative of the masses in their fight against imperialism.

Thus the great importance assigned to military questions by Lenin and the Bolshevik party corresponded to the objective historical laws of the specific period; it was determined by the very essence, the revolutionary content of Lenin's theory of the socialist revolution.

These questions assumed extraordinary importance when Russian workers and peasants, inspired by the Bolshevik party, overthrew autocracy in Russia. Lenin and the Bolsheviks steered a firm course towards passing from the bourgeois-democratic to the socialist revolution, overcoming the opposition of the petty bourgeois conciliatory parties — the Mensheviks and the Socialist Revolutionaries — as well as of capitalist elements in their own ranks. It was only natural that the unfolding of revolutionary events and the approach of the socialist revolution should act to push military questions increasingly towards a place in the first row. This was caused by the growing resistance of the bourgeoisie which attempted to unleash a counter-revolution.

Certain classic works by Lenin on questions of armed revolutionary struggle are specifically related to this period; these are "Marxism and Revolt," "The Crisis is Ripe," "Will the Bolsheviks retain Governmental Power?," "Advice of a Stranger," "Letter to the Comrades," etc.

In summing up the developing Marx' and Engel' statements on revolt and generalizing the experience of the Bolshevik party in this field, Vladimir Il'ich stressed that armed revolt is a specific form of political struggle subject to specific rules. He taught that armed revolt

should, like war, be viewed as an art. On the eve of the Great Socialist October Revolution Vladimir Il'ich formulated with succinct clarity the basic principles and ideas in which the concept of revolt as an art is rooted.

The fact that Lenin developed Marx and Engels' ideas on revolt and crystallized them into a structured system had both a theoretical and an enormous practical importance. It armed the Bolshevik party with clear and succinct rules on how armed revolt must be prepared and implemented. Lenin, referring to Marx, considered the following as the main rules on the art of armed uprising in a revolution:

"1) Never play with an uprising; be fully aware from the beginning that you must pursue it to the end.

2) Greatly superior forces must be assembled in the decisive place at the decisive moment for otherwise the enemy who is better prepared and organized will annihilate the insurgents.

3) Once the uprising has started resolute action must be taken without fail, and we must absolutely move on to attack. 'Defense is the death of armed revolt.'

4) We must attempt to take the enemy by surprise and catch the moment when his forces are dispersed.

5) We must achieve daily successes, small as they may be (we could say hourly if we deal with one town), maintaining "moral superiority"* at any cost

In this connection Lenin also pointed out that Marx, in summing up the lessons of many revolutions and armed revolts, approvingly cited words by "Danton, the greatest master of revolutionary tactics in history," that armed uprising requires "courage, courage and once more courage."

Applied to Russia and to October 1917, this meant: simultaneous,

sudden and rapid attack by armed revolutionary forces on Piter, unfailingly from without, from within, from worker's districts, from Finland, from Revel', from Kronstadt, attack by the whole fleet, the accumulation of forces gigantically superior to the 15-20,000 (or possibly more) "bourgeois guards" (yunkers), the "Vendee armies"* (part of the kossacks), etc.

To bring about this situation, Lenin worked out a practical plan anticipating the following activities: to combine our three main forces, the navy, workers and the revolutionary parts of the army so as to safely seize and hold without regard to losses first of all telephone, telegraph, railroad stations and bridges.

For the execution of this plan, Lenin proposed to divide the most resolute fighters ("shock troops," young workers, equally the best sailors) into small groups which would seize all the important points and participate everywhere in all important operations such as to surround and cut off Piter and seize it by a combined attack by navy, workers and soldiers. The execution of this task, stressed Lenin, required great art and triple courage. Lenin also considered it necessary to organize groups of the best workers, providing them with weapons and bombs for attacking and encircling enemy "centers" (military schools, telegraph, telephone, etc.).

Vladimir Il'ich considered the success of the socialist revolution in Russia prior to the October days, relating it specifically to armed struggle, military operations and the art of their conduct.

Lenin's ideas and principles on activity, purposefulness, boldness, courage, aggressiveness and the great art of conducting armed struggle had enormous importance in all our military victories. They played a great role in the period of preparation and conduct of the Great Socialist October Revolution, in the years of civil war and the Great Father-

land War and have acquired even greater importance for modern wars. These ideas and principles represent a theoretical generalization of revolutionary experience and of highly important aspects of advanced warfare; their spirit and general direction have been embodied and are reflected in many characteristic traits of Soviet military art and in its very nature.

To organize for victory in the Great Socialist October Revolution, the working class and all workers needed a party which would be armed with an advanced revolutionary theory, have solid links with the broad masses, possess great fortitude and heroism, know how to lead the masses in armed struggle and have mastered the fundamentals of modern warfare. Our Communist Party was truly such a party; it had been organized, educated and trained to lead the political, ideological and armed struggle of the masses by the great Lenin who, since he led the party and the whole revolutionary fight, necessarily had to conduct a serious study of warfare and work out problems related to war, the armed forces and military science.

After the victory of the Great Socialist October Revolution, the proletariat and its leader, the Communist Party, were faced with the task of military protection for the socialist state. Even before the socialist October revolution, Lenin had confronted the Bolshevik party and the working class with the problem of protecting the socialist state against an attack by the imperialist predators. In the well-known articles "The Slogan of the United States of Europe" and "The Military Program of the Proletarian Revolution," written in 1915-16, Lenin, as mentioned earlier, indicated that socialism would triumph first in one or several countries while the others would remain bourgeois or re-bourgeois for some time to come. This would not only create conflicts but also provoke direct attempts at armed action by the bourgeoisie of

other countries against the victorious proletariat of the socialist state. Hence, the question of military protection for the dictatorship of the working class was pushed to the fore by the very nature of the theory of socialist revolution.

While bringing Marxism up-to-date for the imperialistic stage, Lenin came to the conclusion that an initial socialist victory in one or several countries with retention of capitalist rule in other countries of the world would require a constant watchfulness and continuous awareness of the danger of an attack by the imperialist states. Lenin therefore called upon the Soviet people to be on constant revolutionary guard and ready to repel the aggressive forces of imperialism at any moment.

But how should military protection of the Soviet state be assured? What organizational form should its armed forces be given? The Communist Party and the Soviet government were faced with this question right after the dictatorship of the proletariat had been established in the country.

A new army, an army of workers and peasants had to be created for the protection of the October victory. Creation of an army of the proletarian dictatorship was something completely new. As Lenin remarked, Marxism had priorly never considered such a problem, not even theoretically. Lenin was the first Marxist theoretically to show and substantiate the necessity for creating a regular army as the only correct, required organizational form for the armed forces of the Soviet state.

Under Lenin's leadership, the Communist Party created a new type of regular army within a very short time, right in the middle of armed struggle against numerous and well-trained enemy forces — it created the Soviet Army. Lenin, the founder of the new socialist state, was also the founder and organizer of its armed forces.

0 Lenin's perspicacious genius and the wisdom of the Bolshevik party, his creation, assured a well-timed transition from the ranks of the Red Guard to an army recruited first on a voluntary basis and from there to the strictly regular Soviet Army based on universal military service. We should keep in mind that the imperative necessity for such a step at that time was by no means realized by everybody. Lenin's strength and that of the Communist Party he headed also consisted in that they clearly foresaw the prospects of armed fight and its requirements at a time when the advocates of other views saw in the Red Guard and later the volunteer Red Army the final form of the proletarian dictatorship state's military organization.

The new type of army, the army of the proletarian dictatorship, could not automatically take over military science from the old-style army, the army of the exploitative states. A new military science was required which would critically review the recent experience of armed struggle and in particular the rich experience of the art of war practiced by the Russian people and retain from this experience all that was valuable and progressive to be applied anew to the study of the most important problems of warfare, based on the nature of the socialist state and its army as well as the requirements of modern war. The socialist revolution radically altered the aims of war, the human composition and the moral spirit of the army.

0 Under the difficult conditions of the Soviet people's fight against interventionists and the White Guards, Lenin carefully studied the experience of the fight of the revolutionary masses and the army, established its general theory and showed convincingly how necessary it was to combine at that time application of the old military science with the enthusiasm of the masses, with new revolutionary creativity and with the training of command cadres from among the working class and

other workers' strata.

As a result of Lenin's conclusion, our party made creative use of the old bourgeois military science and enlisted the services of military specialists from the old army for the Soviet Army; it combined, in the course of the war, the enthusiasm of the masses and their revolutionary creativity with "bourgeois science and technique," with the knowledge and experience of generals and officers from the old army. The party simultaneously accelerated the training of young Soviet military cadres from among the workers and peasants.

While engaging old military specialists for the Soviet Armed Forces, the Communist Party also provided for control of their activity. It introduced the institute of military commissars, the representatives of the Communist Party and the Soviet government in the army.

The commissars exercised constant control over the activity of the military specialists and relentlessly suppressed any attempt at weakening the force and might of the Soviet Army or helping the enemy. Supported by communists in the army, the military commissars undertook a great deal of party-political work in the army and also among the population close to the front. The military commissars proved the soul of the army. They rallied and inspired soldiers and commanders in the execution of their military duty — the protection of the Soviet Fatherland. We would mention, however, that the introduction of the institute of military commissars was viewed by the party and by Lenin as a temporary measure required by the specific historic circumstances. They considered that in principle one-man management should rule in the army.

Talking about the question on the correct meaning of collegiality and one-man management, Lenin repeatedly said that any exaggeration of collective management would be disastrous and that the actual command in the direction of an institution, undertaking or action should be en-

O trusted to one comrade known for his strength, boldness, courage and skill in dealing with practical matters who could be fully trusted. Lenin said that in every case and under any circumstances without exception collective command should be linked to a maximally precise determination of personal responsibility assumed by each man for a sharply delimited assignment.

In the well-known work "Foremost Tasks of the Soviet Regime" Lenin dwelt with utmost insistence on the necessity for an unconditional and very strict unity of will power in directing the common work of hundreds, thousands and ten thousands of people. Lenin pointed out that this was an obvious necessity from the technical, economic and historical point of view and that everyone reflecting on socialism had always acknowledged it as a requisite. But how can this unity of will power be assured? In answer to this question Lenin said: by subordinating the will of thousands to that of one! Lenin stressed that irresponsibility covered by reference to collective rule is an evil leading, in military matters, more often than not to unavoidable catastrophe, chaos, panic, the rule of many and to disorder.

Guided by Lenin's indications, our party rapidly introduced one-man rule into the Soviet Armed Forces as soon as the opportunity arose. The party considers further utmost strengthening of one-man management in the Soviet Army and Navy as a primary, highly important task of our military organization.

D In the years of foreign armed intervention and the civil war, Lenin led the fight of the Communist Party and the whole Soviet people against the imperialist interventionists and interior counter-revolutionaries. All questions on the structure of the Armed Forces, their organization, recruitment, training, education and supply, all the important strategic plans were developed, decided upon and realized by the Bolshe-

vist party under Vladimir Il'ich leadership, based on his ideas, propositions and indications. At that time Lenin headed not only the Central Committee of the Communist Party, the Soviet of People's Commissars but also the Soviet of Workers' and Peasants' Defense which was created in 1918 upon his initiative and guided the work on the mobilization of industry, transport and all the country's resources, all work related to the country's defense at the front and in the rear.

We would specifically stress in this connection that Lenin adhered strictly to the principle of collective leadership in the party; he always studied the experience of the masses and listened to their voice, sought advice from various people and greatly encouraged and promoted the initiative, activity and creativity of the masses and of individual workers, directing all the workers' efforts toward the struggle against the enemy. Lenin considered it necessary to submit all fundamental questions to congresses, conferences and the party's Central Committee for discussion. Under the leadership of the party's Central Committee, all strategic concepts and plans of highly important military operations were drawn up, and their execution was continuously monitored.

Throughout the civil war, Lenin steered the activities of the Soviet war command both at the center and the fronts. He studied the strategic scene daily and was up-to-date on all military operations.

With V.I. Lenin's direct participation and under his leadership, the Communist Party elaborated and solved all of the most important problems of Soviet military organization. The VIIIth party congress discussed military problems very carefully. It sharply condemned the erroneous and harmful views of the so-called "war opposition" which came out against centralization and strict military discipline and against making use of the experience of old military specialists in the army. At

the congress, Trotsky's distorted ideas on the party's military policy were subjected to sharp criticism.

Speaking at the congress, V.I. Lenin criticized the "war opposition" and Trotsky who had neglected party leadership in the army and violated the principle of class mobilization in the army.

The VIIIth party congress unanimously voted on a resolution on military policy.

V.I. Lenin frequently explained that party leadership in all the Armed Forces of our country is the main principle for army organization and activity. It was by no means accidental that while V.I. Lenin lived all important military questions were discussed at party congresses, conferences and Central Committee plenums.

Reports on V.I. Lenin's outstanding military work may be found in many literature sources and in reminiscences by his comrades-in-arms such as S.S. Kamenev, an important military figure, the first commander of the Soviet Republic's Armed Forces in 1919-21; he writes:

"Vladimir Il'ich's leadership in the civil war ... was distinguished by accomplished scientific knowledge on the war throughout the country. This scientific knowledge is particularly valuable now that war is being cast into forms corresponding to the war technology, now that every war causes serious havoc over large regions and the country's population is no more capable of adjusting spontaneously to war ...

The Red Army was under the daily and immediate guidance of Vladimir Il'ich. This leadership was in no way limited only to receiving a daily submitted summary of operations and frequent written reports sent upon his request by the general staff of the RVSR. I repeat that Vladimir Il'ich organized the overall struggle of the country, a struggle in which the activities of the Red Army were only part of the measures taken. Through the multiple channels involved in the struggle Vladimir

Il'ich learned the true situation at the fronts, in the armies and in the specific parts of the front. In thousands of cases Vladimir Il'ich proved better informed on the true situation than the RVSR staff. It is quite clear that Vladimir Il'ich's work such as organizing the struggle by the most direct route would also affect one of the most important links in the defense, the Red Army."*

One of the outstanding traits of this great war leader was his ability for a correct and thorough evaluation of the ratio of battling forces and the strategic setting within which the fight took its course. Lenin possessed such ability in full measure. An example for sober evaluation of the ratio of forces and the strategic situation, the foreign considerable overestimation of one's own forces and underestimation of those of the adversary may be seen in Lenin's activities in the period of the Brest peace treaty with Germany in 1918.

From the first day of the establishment of Soviet rule, the party had promoted the struggle for peace. In the decree on peace adopted on 26 October (8 November) 1917 by the IInd All-Russian Soviet Congress, the Soviet government proposed that the people and authorities of the warring countries arrange for a general democratic peace — a peace without annexations or contributions. However, the governments of the Entente (England, France, U.S.A. and others) did not participate in peace negotiations and persisted in continuing the war against Germany. Lenin studied the situation as it had shaped up and, fulfilling the people's wishes, he insisted upon rapid conclusion of a peace treaty with Germany. This request was based on a thorough analysis of the combined exterior and interior situation and a scientific estimate of the ratio of warring forces. At that time the country's economy was in ruins. The old army, weary and exhausted from the war, could not resist the assault of the German troops while the new worker-peasant army had only

just been created.

Lenin declared that under these conditions a reprieve was needed to save the revolution, strengthen the Soviet authority and create a Red Army capable of protecting the country against aggressors.

On the basis of an objective evaluation of the country's economic, political and military situation and a sober consideration of Soviet state's international position Vladimir Il'ich unfolded, as we know, a relentless struggle against the anti-party group of the "left communists" who called for continuation of the war against Germany, masking their adventurist policy with leftist verbiage on the so-called "revolutionary war." Lenin's and Communist Party's struggle against the "leftist communists" and the adventurist call for carrying on the "revolutionary war" was well grounded; one of the grounds was consideration of the purely military point of view. Lenin's brilliant analysis of this problem is a classic example for correct evaluation of a military-political and strategic situation.

During the years of the civil war and after, Lenin devoted a great deal of attention to higher military education. Lenin's instructions to the chief commissar for higher military educational institutions are of great interest; they show Lenin's concern with the organization of higher military education in the Soviet Republic and his sharp awareness of the necessity for making use to this effect of the experience of the old (Nikolay) military academy. Remarking that the order given by the chief commissar for higher educational institutions to liquidate this academy was incorrect, Lenin proposed on 10 March 1918 that the latter be reorganized; he declared that the liquidation of the Nikolay Military Academy or its transformation into a higher educational institution of the civilian type was in no way consistent with the views of the authorities nor the need of the times. Lenin requested that the

project of reorganizing the Nikolay Military Academy be submitted to the Sovnarkom (Council of People's Commissars).

Upon Lenin's instructions, the Academy of the General Staff was created in December 1918. Academies for artillery, military engineering, the navy, military medicine and military economics were founded later. These military academies were animated by a completely new spirit and were engaged in training Soviet military cadres and in advancing Soviet military science.

Of tremendous importance was also the work undertaken under Lenin's direction by the Communist Party and the Soviet government toward organizing intermediate military education without which there could be no solution to the problem of training command cadres composed of workers and working peasants. As a result of this work, a large network of military courses and schools was created in a short time in which a good number of red commanding officers were trained.

The Higher Military Soviet was created upon Lenin's initiative. He determined the name, tasks and composition of this Soviet. In a cable to N.I. Podvoyskiy of 1 April 1918 Lenin wrote that "The Higher Military Soviet has been set up to head the country's defense and has been charged with the following duties:

- a) assign the army and navy departments the fundamental tasks for the State's defense;
- b) assign the defense departments the tasks for organizing the country's armed forces (army and navy);
- c) link army and navy activities and solve all general problems involving army and navy department;
- d) monitor the execution by the defense departments of the tasks assigned and
- e) gather systematically factual information on all soldiers fit

for duty in the higher military command on the basis of their knowledge and military experience."*

Lenin's approach to any organizational form of the military establishment was creative rather than dogmatic. When the tasks assigned the Higher Military Soviet were basically exhausted and the situation called for new forms of administration, Lenin boldly proceeded to liquidate the former and formed the Revolutionary Military Soviet of the Republic as the most appropriate organizational form of a higher organ for steering the young Armed Forces of the Soviet State.

Throughout the war, Vladimir Il'ich assigned particular importance to the organization of a strong rear. Lenin considered that a strong, organized rear was indispensable for achieving victory over the enemy. Even the best army, even the people the most devoted to the cause of the revolution will be rapidly destroyed by the adversary if they are not sufficiently armed, fed and trained.

In consideration of Lenin's statement, the Communist Party conducted daily painstaking, organizational and political work among the masses directed towards creating and solidifying a strong rear for the Soviet Army, towards turning the country into a single military camp; this proved one of the basic reasons for our victory in the civil war.

In mentioning this side of Vladimir Il'ich's activities, S.S. Kamenev wrote: "The requirement that the whole interior life of the country be subordinated to the war was something absolutely new in war craft; it was precisely this which erased the boundaries separating front from rear and created, if we may say so, a monolithic war organization."**

Lenin's statements on the necessity for drawing the masses as far as possible into the war was also of great fundamental-theoretical, political and immediate military importance. In his letter to the workers on the Eastern front of August 1918 Lenin asked: "Do the military leaders

work with sufficient energy...? Doesn't the 'staff' stifle the live work underneath, that of the masses? Are there sufficient links between military and the masses of the poor?

Is everything being done to lift them up and engage them?"*

Lenin's telegram of 12 August, 1918, deals with the same matter; it was addressed to the Penza Gubispolkom (Gubernatorial Executive Committee). Vladimir Il'ich requested massive mobilization of the poor and explained the necessity for a definite strengthening of Soviet rule in the prefrontal zone.

With the expansion and exacerbation of the war in 1919-1920, Lenin's war activities covered a particularly broad range. In these years, the basic and main task of the proletarian dictatorship consisted in defending the Soviet Republic against foreign military intervention. This required utter defeat of the armed forces of the foreign interventionists and internal counter-revolutionaries which were incomparably better organized and more dangerous than in 1917-18 and acted in accordance with an overall plan drawn up by international imperialism. Lenin's war activities in these years had particular theoretical and practical importance for the defence of the country. Lenin's numerous commands, instructions, orders, letters, theses, remarks, appeals, notes, telegrams, articles and speeches are related to the armed fight conducted by the Soviet people against the armies of Kolchak, Denikin, Yudenich, Vrangeli and the foreign military interventionists, and they portray Lenin as an outstanding political and military strategist, organizer and leader of the Soviet State and of the armed struggle of the Soviet people, having secured military victory by the first socialist state in the world over its internal and external enemies.

Lenin was not only an outstanding military organizer and leader but also a great thinker and theoretician on questions of war, army and

0 military science. He developed and adapted to new historic conditions the basic tenets of Marxism, among these also the teachings on war and army, the Marxist concept of warfare and military science.

Marx and Engels were the first in history to give a strictly scientific meaning to war and army. Lenin as the successor to Marx' and Engels' work was faced with the task of further developing and concretizing Marxist opinions in this field. The Bolshevist party under Lenin's leadership had to work out its attitude towards wars of the new era and had to determine its tactics in connection with these wars; this required a clear, concrete historical understanding of their nature and specific features. Lenin executed this task to the fullest, and this had a tremendous theoretical and practical importance for our party's activities and also for military science.

Soviet military science owes to Lenin in particular the thorough theoretical elaboration of fundamental questions such as essence, character and specific features of modern war, the nature and specificities of modern armed forces. These questions have evidently always occupied the minds of generals and military theoreticians, for military science and warcraft require first of all a correct and clear understanding of the nature of war and of armed forces. Lenin's military-theoretical legacy contains broad and thorough studies related to these questions.

3 The Marxist concept of war and army, one of the sectors of historical materialism, constitutes the scientific ideological and theoretical foundation for Soviet military science; Lenin developed it both in the pre-October and the post-October periods. All of Lenin's work in this field still serves as a basis and a veritable compass for Soviet military science, and now that Marxist-Leninist teachings on war and army have been further developed in the resolutions of our Communist party, particularly in those of the XXIIInd congress of the CPSU, it has been

incorporated in the party program. If we speak about Lenin as the foremost thinker and theoretician on questions related to war and military science we must dwell, first of all, on Lenin's statements on the decisive role of the masses in war. Lenin substantiated with extraordinary thoroughness and precision the famous thesis that wars are now conducted by the people. This thesis was formulated by Lenin as early as 1905 in the well-known article "The Fall of Port-Arthur." He checked it and concretized it based on the experience of the First World War and the civil war. Lenin enriched military thinking with new ideas and propositions in respect to the most general and basic rules for victory in modern war. He established that conduct and outcome of modern armed struggle are fully dependent upon the strength of the rear and the political character of the war, he showed the decisive role of the masses on course and outcome of such a war.

Lenin generalized this historic experience on the occasion of the VIIth All-Russian party conference saying that, historically speaking, that class will win which can carry along the masses.

In the article "Summary of the Party Week in Moscow and our Tasks," Lenin wrote that victory in war will be with those who dispose of more reserves, more sources of power, more support among the masses.

Applying this Marxist guide line on war and victory to our Soviet State, Lenin stressed that we have more of all this than our enemies. We may draw on our forces and continue to draw on them in depth again and again, from amidst the workers and working peasants, from amidst those classes which were oppressed by capitalism and which constitute everywhere the overwhelming majority of the population. None of our enemies, neither the Russian nor the world-wide bourgeoisie, dispose of reserves even remotely resembling ours: they stand on an increasingly shaky ground and their supporters are deserting them faster and faster.

At the conference of railroad workers of the Moscow junction in April 1919, Lenin said that "no people would ever be defeated the majority of whose workers and peasants knew, felt and saw that they were defending their, the Soviet rule, the rule of the working people, that they were defending a cause whose victory would secure for them and their children the opportunity for enjoying the blessings of culture and of everything created by human labor."* In other words, Lenin stated here the thesis that victor will be the one who has the working masses on his side, masses aware that they are fighting a war for their rights, for their, the people's rule.

Lenin considered unity of front and rear as a very important factor and requisite for victory in war. In accordance with this requirement, the Communist Party specifically directed its main efforts towards obtaining and strengthening unity in the country for the purpose of crushing the interventionists and internal counter-revolutionaries by realizing a policy for a solid union between the working class and the broad peasant masses under the leadership of the working class and for uniting the workers of all nations to form a monolithic brotherly family of peoples of Soviet republics with equal rights.

Many of Lenin's pronouncements on centralization, discipline and selflessness as imperative requisites for the successful conduct of a war assume particular importance for understanding the specific features and the character of today's wars and for elucidating the rules which determine victory in modern war. Lenin accordingly explained and stressed that partisanship must be dreaded like fire; stubbornness of individual commanders and non-compliance with central authority leads to disaster.

In his letter to the workers and peasants on the victory over Kolchak, Lenin stated that all laws and decrees of the Soviet authority

must be obeyed not out of fear but out of conscience, that discipline must be upheld and that everybody must help the Red Army as much as he can. Lenin considered the fulfillment of these demands the first, basic and most important duty of every conscious worker and peasant. "Whoever does not help the Red Army fully and wholeheartedly, does not uphold with all his forces its order and discipline," wrote Lenin, "this man is a traitor, a turncoat, a hunchman of the Kolchak people; he must be destroyed without mercy."*

Lenin said that with a strong Red Army we are invincible, but without a strong army we would inevitably fall victims to Kolchak, Denikin and Yudenich.

Lenin summoned the workers to selfless struggle against the enemy; he specifically saw one of the basic reasons for our victory in the selflessness of the workers and peasants who fought the armed forces of foreign interventionists and White Guards. "We were victorious," Lenin said, "because the best men of the whole working class and the whole peasantry showed unprecedented heroism in this war against the exploiters, accomplished miracles of bravery, endured unheard-of privations, sacrificed themselves and drove out the self-seekers and cowards without mercy."**

These statements and demands by Lenin also constitute an important legacy in respect to military organization.

In theoretically generalizing the experience of the war conducted by the Socialist State, Vladimir Il'ich always stressed the cardinal role of the Communist Party in the victory achieved by the Soviet Republic in its armed struggle against the forces of the imperialist states and interior counter-revolutionaries.

Lenin saw the force of the Communist Party, the organizer, moving spirit and leader of armed struggle of the masses, in the following:

In the party's devotion to the cause of the people, its readiness to go to any sacrifice for the sake of victory, in the party's correct policy which corresponds to the interests of the people;

In its unity and solidarity behind the Central Committee, the iron discipline of the party ranks, the skill in uniting, rallying and organizing the masses for struggle against the enemy;

Its ability to create armed forces fit for war, devoted to the people, organized on the basis of modern military science and armed with the newest war techniques;

Its ability for correct guidance of rear and front in the complex and difficult setting of war.

Lenin repeatedly stressed that "only because the party was on its guard, because the members of the party were highly disciplined and because the party's authority united all departments and establishments and because, in obeying the call given out by the Central Committee, as one man marched so did tenths, hundreds, thousands and finally millions, and only because unheard-of sacrifices were made, for this reason only could this miracle which happened happen. Only for this reason, notwithstanding the double, triple and quadruple superiority of the Entente imperialists and those of the whole world were we in a condition to."*

In Lenin's military-theoretical legacy, a good part is taken up by his numerous statements on the role of the economic factor in modern war. In developing and enriching the Marxist thesis on the relationship between war and the country's economy, Lenin gave proof of his profound and comprehensive understanding of the question. He declared that "the links between a country's military organization and its whole economic and cultural set-up were never as close as at present."**

Generalizing the experience of the civil war, Lenin wrote that "in modern war, as everybody knows, the economic organization plays a decisive role."***

In assigning primary importance to the country's economic preparation for war, Lenin declared that "war should be prepared slowly, seriously, starting with the country's economic advance,"* that "without an army and a very thorough economic preparation, it is impossible to conduct a modern war against ... imperialism."**

Soviet military science proceeds from these Leninist guidelines in evaluating the role and importance of economics under present conditions.

Lenin assigned great importance to war technology as the material basis for the army's war power. In his article "From Defense to Attack," he wrote as early as 1905: "We must not ignore the latest advances in war technique. Progress in the application of explosive devices introduced a number of innovations into artillery craft. The Japanese proved stronger than the Russian partly also because they knew much better how to operate with explosive devices. Broad application of very powerful explosive devices has been one of the highly characteristic features of the last war."*** In the article "The Lesson of the Moscow Revolt," Lenin developed Engels' idea and expressed it in a famous formula which showed the close link between the art of war and technology. He stressed that military tactics depends upon the level of military technique.

We would also mention here the acute importance of these and other Lenin statements related to the conduct of war have retained to a very high degree even for the present when armed forces are fully motorized, mechanized, armed with rocket and nuclear weapons and other devices for mass destruction; this presents the art of war with tremendous opportunities for new methods of warfare. Considerations on the role of the factor of morale also take up a good deal of space in Lenin's military-theoretical legacy.

Proceeding from Marx and Engels' statements, Lenin subjected the question on the factor of morale in armed struggle to a profound and

comprehensive analysis and developed it further on the basis of a tremendous amount of historical material and the experience of contemporary wars. He armed military science with splendid models of a dialectic-materialistic approach to problems of the moral factor in armed fight and with the fundamentals of a strictly scientific theory of this problem.

Modern military science thus finds in Lenin's work basic ideas on fundamental questions such as the general character of modern wars, their general laws, the role of the masses in these wars, the importance of the rear, economy, technology, science, the morale of the people and the army in war.

Lenin's gift to military thinking was a thorough theoretical foundation for the indispensability of considering economic and moral circumstances in both, one's own and the adversary's country. Lenin disclosed with uncommon thoroughness the universal laws and factors which determine success in warfare under contemporary conditions and the achievement of victory in such war.

All this played an enormous role in the development of the general basis of Soviet military theory and is of invaluable importance for this theory particularly now that the character and specific features of warfare in the new era as disclosed by Lenin have reached full development.

We would also mention that Lenin's military-theoretical legacy is not limited to the teachings on war and army and the general basis of military science. It also included numerous pronouncements by Vladimir Il'ich on specific questions of warcraft. Lenin has had a great influence on the development of ideas and principles in with Soviet art of war is rooted.

We would stress first that Lenin, as mentioned earlier, considered

war not only as a continuation of politics but also as an art subject to specific, basic laws and one without which no objective opportunities for military victory can be realized, no possibility of victory turned into reality.

Lenin's concept of war as an art is one of the guidelines of our military thinking. In proceeding from this concept, Soviet military theory protects itself from the danger of a vulgar-materialistic, mechanistic, passive-fatalistic attitude towards the objective laws determining victory in war, from the danger of demeaning the role and importance of generals in war, and the human being in general. It permits a correct evaluation of objective and subjective factors in war, the role of the masses, the commanders and superiors, the soldiers and sailors.

The basic ideas which Lenin invariably developed in connection with questions on the art of war is the idea of activity, boldness, courage and aggressivity in armed struggle. We have mentioned this earlier and would only stress that this idea acquires particular importance under modern conditions of warfare. In the article "Lessons of the Moscow Revolt," written in August 1906, Lenin wrote: "The masses should know that they go into armed, bloody, open war. Defiance of death should spread among the masses and assure victory. The assault on the enemy should proceed with utmost energy; attack, not protection should be the slogan of the masses."*

In the presence of conditions and premises favorable for an attack, attack is imperative, and an army would behave criminally, said Lenin, whose action under these conditions would display a passive, defensive character. If conditions for attack exist then it should be executed actively, resolutely, courageously until full annihilation of the adversary. "The adversary should not be knocked out, he must be annihilated," requested Lenin.

0 In the article "The Selections for the Constituent Assembly and the Proletarian Dictatorship," Lenin gave a brilliant analysis of the ratio of class forces in the country on the eve of the Great Socialist October Revolution and showed that to achieve victory it is imperative to dispose "of overwhelmingly supererior forces at the decisive moment and in the decisive place; this 'law' of military success is also a law of political success, particularly in this fierce, boiling class war which is called revolution."*

Lenin's statements on the sharpness of purpose, activity, resolution, courage and an aggressive fighting spirit for conducting armed struggle form the basis of Soviet military science, training and the military education of all the members of our Armed Forces.

Lenin paid particular attention to flexibility and the multiple forms of armed struggle. He did not negate the necessity for defense or even retreat under certain conditions. At the VIIth Moscow Gubpart (gubernatorial party) conference he said: "Were the army, though convinced that it cannot take the stronghold by an attack, to say that it is not ready to retreat to its old position would not take up new ones, not proceed to new means of executing the task — of such an army we would say: he who has learned to attack and has not learned to resist under certain difficult conditions applying here, this one will not finish the war with success. Wars which begin and end with entirely victorious attacks have not existed in world history or if they did they were the exception."**

0 Lenin taught that methods, forms and means of conducting war operations may differ widely. The selection of the methods and forms of war is determined by the historical setting and the specific conditions. Stereotypes and dogmatism are intolerable in warcraft.

It is necessary not only to know but also to apply under certain

conditions those methods and forms of warfare which are used by the enemy. "Everybody will agree," wrote Lenin, "that an army would behave unreasonably or even criminally if it made no preparations to master all kinds of weapons, all means and devices of war which the enemy has or could have."*

This dictum by Lenin has tremendous importance for the art of war, particularly at the present time when warcraft is developing with giant steps. For a well-rounded development of Soviet military science and the victorious conduct of war, bourgeois military science needs to be studied and known rather than ignored.

Knowledge of one's enemies is also indispensable because it affords the possibility for a correct evaluation, avoiding both an underestimate as well as overestimate of their forces and means. Lenin repeatedly spoke about this, and this represents one of the most important instructions to be drawn from the treasures of Lenin's war-theoretical legacy.

In Lenin's work, we shall find no tracts or manuals on military tactics, operational art or military strategy, but Lenin had led the revolutionary struggle of our country's working class and working peasants against the exploiters and had led the armed struggle of the masses on the war fronts in the defense of the socialist State against invasion by the armies of the imperialist states and the forces of the internal counter-revolutionaries, and he has left us guidelines and principles for the successful conduct of armed struggle against the enemies of our socialist Fatherland. These ideas and principle, reflecting the experience obtained in armed struggle, are the very basis of our art of war which, like all of Soviet military science, rests on the solid fundament of Marxism-Leninism as a whole; it also derives immediately from a number of direct statements and propositions by Lenin on questions related to the art of war.

V.I. Lenin's works also contain many fundamental pronouncements relating to problems of military history. In particular, Lenin presented a thorough elucidation and comprehensive analysis of questions relating to the Russian-Japanese war, the First World War, the hostile foreign intervention and the civil war in the Soviet Republic.

The authors do not propose to dwell in this work on all aspects of Lenin's military theoretical legacy and its importance for military science. However, it may be seen from what we said earlier that Lenin was not only the great continuator of Marx and Engels' teachings, the brilliant theoretician and strategist of the socialist revolution, the organizer and leader of the Communist Party and of the first socialist state in the world, the leader of the people, not only the brilliant organizer and leader of the Soviet Armed Forces and of armed struggle of the Soviet State but also an outstanding theoretician and thinker on military questions. Lenin's military-theoretical legacy provides the fundament for Soviet military science.

The splendid legacy left by Lenin in the military as in all other fields helped the Communist Party and Soviet people to endure the difficult trials of the Great Fatherland War 1941-1945 and achieve a victory of world-wide historic significance over fascist Germany and imperialist Japan.

This war was the great test for all the material, moral and organizational forces of the Soviet people. Our Fatherland was assaulted by an evil, cruel and crafty enemy who possessed great material resources and mobilized armed forces which had had almost two years' experience of war in Europe. A great threat hung over the Soviet land. The enemy attempted to annihilate the Soviet State and restore in the SSSR the rule of big land owners and capitalists, to destroy the national statehood and culture of our country's free people, to annihilate physically an

important part of the Soviet people and turn those who survived into slaves of the German imperialists.

Guided by Lenin's legacy and dicta, the Communist Party stepped forward from the very first days of the Great Fatherland War as the moving spirit and organizer of a national war of the Soviet people and their army against fascist Germany and its allies. The Communist party organized and directed will and forces of the Soviet people towards destroying the enemy and turned, within a short time, the country into a single war camp.

The untiring and intense activity of the Communist Party and all its party organizations secured conditions decisive for victory such as a strong Soviet rear, throughout the war. The Party was able to achieve this because it was guided by Lenin's directives, because it untiringly developed and strengthened before and during the war the unbreakable union of working class and working peasantry, the friendship of the people of the SSSR, the moral-political unity of Soviet society and the Soviet patriotism of our people. On this basis, the Communist party raised the level of consciousness and discipline of the workers in the rear in town and country and, supported by the Soviets, the Profsoyuz and Komosomol, by the broad masses, it organized the creation of a mighty war economy which also secured an uninterrupted supply to the front of weapons, ammunition, food and other requirements for achieving victory.

Following Marxist-Leninist tenets that it is the masses who are the authentic creators of new life, of all victories of the Soviet State both at the front of peaceful building as well as that of armed fight, the Communist Party applied all its forces to mobilize and organize working class, peasantry and Soviet intelligentsia with utmost speed for a national war. And the party did achieve this. The righteous war of the SSSR against German Fascism and Japanese imperialism was a true national

war, and its main heroes and originators of victory were our Soviet people and their Armed Forces.

Following Lenin's legacy, the Communist Party considered utmost strengthening of the Soviet Armed Forces as its primary task, for these fought the enemy bitterly over an enormous front stretching from the Arctic Ocean to the Black Sea. Throughout the war, the Party raised the consciousness and discipline of the Soviet combatants, their fighting spirit and soldierly heroism, perfected and developed the art of war.

In explaining to the masses the goals and the just character of the Soviet peoples' war against the fascist invaders, the Communist party developed in the Soviet soldiers such qualities as fearlessness, heroism, readiness to give one's life for the Fatherland. The mass heroism shown by Soviet soldiers in the Great Fatherland War and the victories achieved in this war are inseparable from the enormous, diversified, organizational and ideologic-educational work done by the Communist Party at the front and in the rear.

At the end of the Great Fatherland War, 60% of the members and candidates of the KPSU stood in the ranks of the Soviet Armed Forces. The political organs, party organizations, commanders and political workers, all communists conducted important ideologic, political and educational work among the members of army and navy and by their person example inspired them to heroic deeds.

In the years of the Great Fatherland War, just as in those of the civil war and in the period thereafter, all military work as well as the work of all other departments and institutions was conducted strictly on the basis of the general directives given out by the party through its Central Committee, and was under its immediate control. The Central Committee of the CKSU directed the executive work in Army and Navy performed by the many important figures of the Communist Party and the Sov-

iet State; these were the immediate organizers of armed fight and the bearers of all party decisions and directives to the masses, and they played an important role in achieving victory over the enemy.

The history-making victory of the Soviet Union in the Great Fatherland War represents primarily a victory of the Soviet social and governmental system. It was also a victory of the Soviet Armed Forces, created, nursed and educated by the Communist Party. This is a victory of those who were brought up and educated in the Leninist spirit by the Communist Party, our marshals, generals and officers skilled in the difficult and complex art of leading troops in modern war. This was a victory achieved by the hard work of warriors, the selflessness and heroism of the millions of soldiers and sailors, sergeant-majors educated by the Party in the spirit of loyalty to the Leninist banner and the tradition of the socialist Fatherland. This was a victory of the workers of the rear, the working class, the peasants in the kolkhozes and the Soviet intelligentsia who provided the front with everything necessary for destroying the enemy.

The Soviet Union was victorious in the Great Fatherland War and saved humanity from the threat of enslavement by Hitlerite fascism because our Communist Party was guided by the immortal teachings of Marxism-Leninism, by Lenin's ideas and indications on armed fight. The Party knew how to lift the Soviet Armed Forces to a level consistent with the rigorous requirements of a long and hard war against a strong and crafty adversary who was applying the newest devices of war technology on a massive scale.

Soviet military science played a great role in the victory of the SSSR over the armies of German Fascism and Japanese imperialism. The Communist party was leading the war of the Soviet people against Hitlerite Germany and militaristic Japan armed with the experience it had ac-

guided and theoretically generalized under Lenin's leadership in the years of foreign military intervention and the civil war and, after Lenin's death, in the years of peaceful socialist building. The profound changes which have taken place since that time in our country in the economic, social and political realm, in the development of science and technology, all these have been taken into consideration by the party in developing the Soviet Armed Forces and the art of war.

The Soviet Union achieved full victory in the Great Fatherland war. This is reliable proof of the force and vitality of the Soviet social and governmental system and of Soviet military science whose theoretical basis is Marxism-Leninism and Lenin's military theoretical legacy.

Lenin's ideas have also guided the Communist Party in the organization of the Armed Forces in the post-war period.

The resolutions of the XXth, XXIst and XXIIInd Congress of the CPSU and of the plenums of the Party's Central Committee assume particular importance for the development of the Soviet Armed Forces and Soviet military science in the post-war period; these sharply condemned the cult of personality as sign of an ideology and practice foreign to Marxism-Leninism.

The cult of personality, which had widely spread particularly during the last period of Stalin's life, had belittled and demeaned the role of the Communist Party and the masses, the role of collective leadership in the Party, hindered the development of initiative, activity and creativity in the Soviet people, led to serious omissions and shortcomings in our constructive work, created difficulties in the struggle by the Party and people for the cause of communism and hurt our cause considerably. The cult of Stalin's personality also led to distortions of historic events, to a minimizing and demeaning of the role and impor-

tance of the great Lenin and his work in the history of the Communist Party, the socialist government and the Soviet Armed Forces.

The cult of Stalin's personality which he himself encouraged and propagated also affected a sphere of vital importance such as the military build-up. It impaired all sectors of our work related to strengthening and perfecting the military might of the Soviet Armed Forces and the development of the war potential of the Socialist State. Stalin's cult of personality impeded development of initiative and activity, silenced creative thinking and created a great deal of unnecessary difficulties in respect to the development of Soviet military science.

The cult of personality brought about a situation for the discipline of military thinking and other theoretical disciplines wherein any, even the most insignificant utterance or remark by Stalin would be termed "discovery of a genius" and rapidly canonized into an "important law."

We should equally consider that many shortcomings and serious mistakes are also linked to Stalin's name both in regard to war and to other fields of our theory and practice.

The assertions ascribing to Stalin the role of almost the sole "expert in military matters" during the war of foreign intervention and the civil war must be repudiated as must be that of the role of the "most brilliant general of all eras and people" but for whom the Soviet Republic would have perished under the strikes of its foe. In Stalin's "Short Biography" it has been written, not without his knowledge, that "Stalin was Lenin's main support in matters of organizing and leading the defense of the Soviet country." This is inconsistent with the facts. The historic truth is that the defeat of the armies of Kolchak, Denikin, Yudenich, Vrangeli, the White Poles and the armed forces of the German, Japanese, French, English and American imperia-

list interventionists is the result not of "Stalin's military genius," as this was essentially represented in an idealistic manner in Stalin's "Whort Biography" and in many other publications written many years after the civil war. The interventionists and the White Guards were defeated thanks to the heroic struggle of the Soviet Army and the broad masses of our country, the selfless work of the Communist Party and its Cenral Committee led by Lenin, the brilliant organizer and inspirer of our victory.

It is known that in his answer to E. Razin Stalin presented the matter as if Lenin had not studied and did not know anything about the art of war but requested only that young communists study it and this only during the civil war. "In contrast to Engels," wrote Stalin, "Lenin did not consider himself an expert on th: art of war. He did not consider himself an expert on the art of war not only earlier, before the October revolution, but also later, after the October revolution, up to the end of the civil war. During the civil war Lenin committed us while still young comrades from the Tseka (Central Committee) 'to study the art of war thoroughly.' The reason was, as he explained to us himself, that he had only lately begun to study the art of war."*

Stalin's assertion that Lenin was no expert on the art of war is a slander and misrepresents the historic truth. Stalin evidently aimed at demeaning Lenin's role in the development of military-theoretical thinking, Marxist teaching on war and army, the art of war, the building of the Soviet Armed Forces, the leadership of the Soviet people's struggle against the united forces of the imperialist interventionists and internal counter-revolutionaries. Stalin brought forth no facts or proofs to support his words because none existed. On the contrary, all facts and materials related to this question disprove such evaluation of Lenin's war activity as inconsistent with historic truth.

The many documents and facts characterizing Lenin's multi-faceted theoretical and practical war activities were certainly known to Stalin, and he could obviously have used them for an objective evaluation of Lenin as a military figure of the Socialist State. However, Stalin did not do this. He attempted to increase his authority and his merits in the military field in every possible way, and one of the means for achieving this aim was to to demean and belittle Lenin's authority and belittle Lenin's performance in this field.

In presenting a deliberately incorrect evaluation of Lenin as a military figure, Stalin slighted not only historic facts and Lenin's works but definitely also statements and evaluations by Vladimir Il'ich's comrades well known to Stalin.

One of these witnesses is to be found in a person who was very close to Lenin, N.K. Krupskaya.

N.K. Krupskaya traces the start of Lenin's studies on the art of war back to an early period preceding the 1905 revolution. According to Nadezhda Konstantinovna's evidence, Lenin had engaged, even at that time, in an extensive and very serious study of the art of war and spared neither time nor efforts in this undertaking. "Il'ich not only read, but most carefully studied and reflected on everything Marx and Engels had written on revolution and revolt," wrote N.K. Krupskaya, "he also read many books on the art of war, considered the technique of armed revolt in all its aspects and its organization. This matter occupied him much more than is generally known, and his talks on the strikes of groups at the time of the partisan war, "On the Fives and Tens" were not the chit-chat of an ignoramus but a carefully considered plan."*

Analogous statements by other disciples and comrades of Lenin may also be found. Here is, e.g., the high praise by M.I. Kalinin for Lenin

as a military figure. "Lenin's legacy is great," wrote Kalinin in his article "Lenin on the Protection of the Socialist Fatherland," "equally in the sphere of military organization, strategy and tactics. In the history of the masses' war for their liberation from oppressors, Lenin was the greatest leader; he laid the groundwork for the Soviet regular army, based on the principles of modern science and technology."* Kalinin cited many documents referring to Lenin's military activity and remarked: "Significant additions could be made to the documentary material on the tremendous work performed by Lenin for the protection of the socialist Fatherland. A study of this material would visually prove Lenin's profound knowledge on the art of war, strategy and war tactics. And it could not be otherwise. Didn't Lenin prove the leader of the most revolutionary class, the proletariat? He created the party most determined to fight, that of the Bolsheviks whose practical activity prepared and realized the armed revolt."**

Stressing the great importance of Lenin's legacy for the military sphere, M.I. Kalinin said that "for all of us the study of Lenin's activities is a vital necessity, and this also refers to the army, its commanders and political workers, to help them acquire a better understanding of contemporary events and continually perfect their knowledge of warcraft."***

We could cite more statements on Lenin by many other important figures of our Party and State who knew Lenin well and greatly respected him as political chief as well as organizer and leader of armed struggle by the socialist State against its enemies. We would mention that Stalin himself pointed this out in certain instances as when he repeatedly mentioned Lenin's well-known statement that for every people war is a comprehensive test of all material and spiritual forces and stressed that the Great Fatherland War had supported Lenin's proposition to the

fullest. By just this quote, Stalin characterized Lenin as an outstanding expert on the laws of modern war, for Lenin's formula for war as a comprehensive trial for all the material and spiritual resources of a people represents a profound theoretical generalization of the character, the specific basic features and laws of the wars of our era and a corner stone in the fundament of modern military theory.

Could it be that Stalin, while declaring that Lenin ignored the art of war, was talking not about military theory but about the practice of warfare, the practice of guiding an armed struggle? However, in this case Stalin's assertion can in no way be accepted as correct, for in this sense it is inconsistent with the facts, as shown earlier.

This is how the facts stand. They do not speak in Stalin's favor. V.I. Lenin had engaged in an extensive and profound study and the development of military theory and questions on the practice of warfare. He left us a precious military legacy in respect to the basic, fundamental problems on war, army, military science, as well as guidelines on the conduct of armed struggle.

After resolutely rejecting Stalin's incorrect and harmful evaluation of Lenin as a political figure allegedly ignorant of military matters, we see our task in the continuation of a comprehensive development and thorough assimilation of the rich Lenin legacy in the military field and its much more extensive application as the educational basis for our military cadres, the ideologic theoretical and methodological basis for the further development of Soviet military-theoretical concepts.

In all our work related to the study, assimilation and popularization of Lenin's military legacy, it is obviously indispensable to proceed from Lenin's requirements for a concrete historical approach to questions of war and its conduct, as to any other questions. We would

be more strange to Lenin than a dogmatic, uncritical approach to our military inheritance. Study and application of the treasures of Lenin's military legacy should be highly creative and rather business-like, in consideration of the great and multi-faceted changes which occurred after Lenin's death in the art of war and which are continuing into the present.

Great and complex tasks are confronting the Soviet Armed Forces. The fulfillment of these tasks depends and will depend to a high degree on the further development of our military theory. Stalin's cult of personality, which had widely spread in its time, seriously restrained Soviet military thinking from making full use of the truly invaluable advantages it possesses by virtue of its Marxist-Leninist methodology and the tremendous experience gained in conducting the Socialist Government's armed struggle against the forces of world-wide imperialist reaction. This experience, since it is related to the period of the civil war and foreign military intervention and has been theoretically generalized and included in Lenin's legacy, will never outlive its fundamental ideological essence despite the rapid development of war technology and of warfare as a whole. The Party resolutely stepped forward against the cult of Stalin's personality in general; it thereby removed this impediment and freed the path for the further development of Soviet military theory. The task consists in making the most efficient use of new opportunities and boldly advancing Soviet military theory on the basis of Lenin's brilliant ideas, on the basis of the experience of modern wars and the newest achievements of industry, technology and science.

We must also stress that Lenin's works on military questions as well as other works by Lenin should be the subject of a systematic and thorough study not only by the teachers of academies and specialists in

military science but also by all commanders and political workers of the Soviet Army and Navy. In studying Lenin's immortal works, the Soviet military cadres will raise both the level of their general political schooling and of their knowledge in respect to Marxist-Leninist teachings on war and armed forces, problems of a military science which rests firmly on the great ideas of the Soviet Union's Communist Party and its creator, the great Lenin.

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[Footnotes]

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- 47** V.I. Lenin, Soch., Vol. 33, 74.
- 48 V.I. Lenin, Soch., Vol. 31, p. 76.
- 55 Journal "Bol'shevik," 1947, No. 3, Page 6.
- 56 N.K. Krupskaya, Vospominaniya o Lenine [Reminiscences on Lenin]. Gospolitizdat., 92, 1957.
- 57* Zhurnal "Bol'shevik" [Journal "Bolshevik"], No. 2, 30, 1943.
- 57** ibid.
- 57*** ibid.

Chapter 4

THE METHODOLOGICAL BASES OF SOVIET MILITARY SCIENCE

Maxism-Leninism teaches that war is a continuation of politics by other, particularly, by forceful means, i.e., the means of warfare.

Lenin taught that every war is inextricably linked to the political structure from which it derives. The same politics long pursued by a given state or a class within this state in pre-war times will be inevitably and unalterably continued by this same class in wartime; only the form of action will change.

War is a tool for attaining the political goals which certain states, classes or nations have set themselves, goals that cannot be attained by other means.

Therefore, the essence of a war will be revealed and understood only on the basis of the underlying situation, i.e., the infinitely greater range of social life represented by the realm of political relationships between classes, states and nations.

"Would it be easier to explain a war", said Lenin, "if we did not relate it to the prior politics of a given government, a given system of governments or given classes? We say: if you did not study the politics of both groups of warring powers for a decade so as to avoid seizing on accidental events or isolated instances- if you did not show the link between this war and the preceding politics you have not understood this war at all!"

In this connection, Lenin also repeatedly mentioned that this referred to both external and internal politics which are just different

sides of one and the same politics. Lenin showed that to separate external politics completely from the internal or contrast it with the internal politics represents an essentially incorrect, non-marxist and unscientific formulation of the problem.

The internal politics of a government is essentially the same as its external politics. This assumption has great importance for recognizing the nature of a war. According to V. I. Lenin, it is an old historical observation that "the character of a war and its success depend primarily on the internal organization of the country entering the war, that the war will reflect the internal pre-war politics of the given country. All this will inevitable have its repercussion on the conduct of the war".*

The relationship between external and internal politics should not be oversimplified. While external politics is secondary and depends on the internal politics it may, at specific historical periods, acquire another meaning. This might, e.g., happen during a period of war or even in pre-war times when a sharp exacerbation of international disputes is developing into open warfare between states; then external politics would "again acquire a decisive importance for the internal politics".**

This applies particularly to the decisive role played by external politics during the two World Wars when the fate of nations was decided by the clash of arms - a fight not for life but for death.

Lenin also said that "war is not only a continuation of politics, it is also a summary of and a school for politics.*** During a war, millions of people get acquainted with and join in political action. Their attitude to the war will determine the outcome of a war. Politics conditions this attitude towards war and obtains a certain level of morale in the people and the armed forces which is of tremendous import-

ance in modern war.

Politics thus constitutes the essence of war as a societal-historical phenomenon.

War is a highly complex and multi-faceted socio-historical phenomenon; its analysis and evaluation in a Marxist-Leninist sense first requires elucidation of the class character of a given war, why it broke out, which classes directed it, which historical, political and socio-economic conditions had caused it.

Modern wars are conducted by the people. These embody all the forces and means of the warring countries. Direction of preparations and the conduct of war is a complex and multi-faceted undertaking. As shown by historical experience, preparation for war proceeds on the political, diplomatic, ideological, economic, moral, on the specific military level and on other levels as well.

As the practice of today's capitalist states has shown, every war is now primarily being conducted on a political level, aside from the purely military preparations. In preparing for war, the imperialist states will attempt to create a maximally favorable internal political climate conducive to successful conduct of a war.

The Soviet State pursues a Leninist, peace-loving, strong and persistent external politics based on the principle of peaceful coexistence and economic competition between countries with varying social systems. However, it is constantly aware of the danger that the imperialist might unleash another world war and knows that this must not be neglected. The Soviet State will conduct only just wars aimed at protecting the interests of the people. This is why it has full popular support in war. This support is determined by the existence of the socialist societal and governmental structure and the politics of the Communist Party which reflects the basic interests of the Soviet people. The

Party will mobilize all popular forces for achieving victory over the enemy.

The aggressive imperialist states pursue internal and external politics reflecting the wishes and aims of the exploitative ruling classes rather than of the masses. They conduct anti-popular, unjust, aggressive wars. Therefore, the ruling circles of these states must strive to obtain the support of the masses by deceit and force.

War is prepared on a diplomatic level. To this effect, the state will attempt to solidify its external political position, concluding agreements with some powers and isolating and weakening the position of hostile countries and their groups. Such diplomatic activity of the states will not stop even in wartime; it greatly affects the course of the war and is itself affected by military events.

War is prepared on an ideological level. The warring sides will make use of every means and opportunity for exerting an ideologic effect on the masses (print, radio, movies, literature, verbal propaganda, etc.) and induce a state of morale in which they would support their country in war and withstand enemy propaganda. Propaganda is simultaneously carried on among the enemy's population and its soldier masses with the aim of destroying their morale and fighting spirit.

War is also prepared on the economic level. This consists in comprehensive development of the country's own economic resources, to provide for war, and in damage caused in various ways to the adversary's economy. With the start of armed hostilities and throughout every war, damage to the enemy's economy is brought about by purely military means.

The importance of scientific and technologic superiority has risen tremendously in modern wars. Studies in various branches of science and technology are conducted in all countries with the aim of

perfecting the old and developing new means of warfare. Every warring country will take all necessary measures to achieve comprehensive scientific and technological superiority over the adversary.

From the above, the importance of the scope of problems and questions related to preparation and the conduct of war becomes apparent.

The war itself is conducted primarily by military means and devices, i.e., by the armed forces which are created, trained and used as the main instrument of war. Without armed struggle, i.e., without applying weapons and armed forces, there would be no war.

Military science obviously cannot be concerned with all the aspects of preparation and the conduct of war. Aside from military science, a number of scientific disciplines are concerned with war: political, economic, philosophical, historical, legal, etc. This is perfectly normal if we consider the complex interactions and interrelations; the study of any social phenomenon must be realized by a whole complex of various sciences rather than be sharply limited to just branches of anyone science.

The origin of war, its class and political nature and other questions related to war as a socio-historical phenomenon are being comprehensively studied by Marxism-Leninism. Questions specifically related to the economy in wartime are studied directly by various economic sciences. Scientific and technological problems related to modern war are handled by a series of special sciences. Soviet military science, based on Marxism-Leninism which provides its ideological and theoretical fundament, does not substitute for all these sciences; rather, it studies and applies their data and conclusions for the development of its own theory.

What does military science represent, what is the scope of its problems, what does it include in its studies?

In analyzing the reflection of this question in our military literature, we shall easily distinguish three points of view in respect to the scope of military science.

The first of these conceives of military science as essentially a theory of the art of war. However, only few people adhere openly and directly to this narrow treatment of the scope of military science.

The source of such narrow concept of military science may be found in bourgeois military science. It is known that Clausewitz denied the existence of military science to which, since it is not an exact science like mathematics or physics, he assigned no rank of science; in his opinion it could represent no more than the creative work of an outstanding chieftain, i.e., a subjective military art.

In the old Russian army, many military theoreticians identified military science as the art of war or subordinated it to the latter. "The art of war", it says in the Russian Encyclopedia of Army and Navy Sciences, "has its military science whose tasks are: elucidation of the nature (character, properties) of warfare, the properties of various phenomena and factors of the art of war; elucidation of their interrelations; study of the reasons conditioning the various factors and effects linked to each specific factor; determination of the invariable principles and laws to which war phenomena are inevitably subjected; finally, as a result of this knowledge - instruction on guiding principles for future activities, for creative work in the field of warcraft".*

This definition is obviously worthless as a basis for the scientific interpretation of the concept of "military science".

Many modern bourgeois military scientists also conceive of military science as essentially the art of war. This is easily ascertained by reading the works of American, French, English and German authors. We

need not prove that such narrow concept of military science, limiting it to branches of one art of war, is incorrect. This has long been repudiated by the facts of life. Modern military science cannot be identified with the art of war; the concept of military science is broader than that of the art of war. It is known that, in response to the specific character and features of the wars of our era, military science now includes a long list of disciplines and branches, aside from those specifically related to warcraft; among the former, there are also those related to considerations of the effect exerted on warfare by economic conditions and those of morale in the warring countries.

The narrow concept of military science does in any case neglect the whole historical experience of armed struggle; it attempts to remove itself from the concrete reality of modern wars characterized by the constantly growing influence of economic, moral, political and other factors on the course and outcome of these wars. Such narrow concept of the scope of military science is nothing but an attempt to achieve a so-called "pure art of war" which never was and can never exist in nature.

The narrow concept of military science as just the art of war will inevitably lead to a narrow concept of its laws by detaching them from economic, moral-political and other factors and conditions under which armed combat is conducted and under whose effect victory is achieved.

It is quite obvious that both a narrow concept of military science and a narrow concept of its laws must be rejected since they do not correspond to the specific features of modern wars and the Marxist-Leninist methodology of Soviet military science.

In full contrast to this point of view is another characterized by much too broad a concept of scope and tasks of military science. Those who adhere to this point of view assert that the general rules of

war as a socio-historical phenomenon should constitute the scope of immediate and comprehensive studies by military science. However, such a broad definition of military science would lead to the latter's factual dissolution into a tremendous range of disciplines referring to a great variety of social sciences; military science would lose its boundaries and its specific content, i.e., whatever differentiates military science from other sciences and constitutes its scope would be pushed into the background and would show up only as some insignificant side line.

We cannot agree with such a broad interpretation of military science. We said earlier that war is a continuation of politics by other, forceful means. Therefore, the scope of military science should consist primarily in the study of the rules of armed struggle, the means, devices and forms in which war as an armed struggle is conducted.

It is of course understood that military science (both bourgeois and Soviet) have a specifically political and class character. It serves a specific economic basis, a specific political and governmental system and thus cannot divorce itself from politics. Soviet military science exclusively serves high political aims and tasks, those of protecting the Soviet socialist state against assault by any aggressor.

The politics of the Communist party and the Soviet government pervade all of Soviet military science. Political interests are the main determinants, basic in the development of Soviet art of war and war strategy.

The education of the men in the Soviet Armed Forces proceeds on the political basis of the Communist Party of the Soviet Union. The pursuit of party-political work in Army and Navy is one of the most important tasks of the commanding officers and political organs in the

Soviet Armed Forces.

The above points towards the leading role of politics in the development of Soviet military science, i.e., the politics of the Communist Party and the Soviet State is the ground on which it continuously grows, develops and achieves perfection.

We also consider that if no account is taken of the specific features of armed combat as a specific means of politics we would not understand the essence and specificity of military science. Surely, armed struggle should not be conceived narrowly, should not be limited to some branches of the art of war; but this does not mean that the content of military science should be broadened by including a large number of general problems under study by socio-economic sciences. Such procedure would lead to dissolution of military science into other sciences, efface its boundaries and thereby cause serious damage.

It is known that the study of Marxism-Leninism is basic in Socialist society and provides the guidelines for all sciences, military and non-military. Marxism-Leninism studies war as a whole, as one of the specific phenomena of social life that appear at certain of its developmental stages. Marxist-Leninist theory in particular studies the general rules of war as a socio-historical phenomenon. Military science based on the dialectics of historical materialism and Marxism-Leninism as a whole, studies the immediate problems of preparation and the conduct of armed combat.

Soviet military science is a party-inspired military science. However, this party spirit should not be taken too narrowly. The essence of the party spirit consists in solving all questions of military science on the basis and knowledge of the objective laws governing social development and the art of war from the viewpoint of the people's interest, the politics of the Communist party and the Soviet State.

Military science rests on party resolutions, proceeds from these and develops its own specific military stand in response to party instructions and in the Party's interest. This specifically constitutes its true party spirit.

Lenin repeatedly stressed the specific nature of armed combat compared to other means, forms, expressions and phenomena of politics. He taught our Party to avoid oversimplification in instruction and the use of the laws of political fight as related to armed fight and to oppose their mechanistic application to this sector. In speaking on this topic in connection with questions of armed revolt, Lenin wrote "...Armed uprising is a specific form of political fight, subject to specific laws which call for careful consideration".*

If Lenin considered even armed uprising a specific form of political fight subject to specific laws, how much more would this apply to war between states. The task of military science consists precisely in studying and in making full and skillful use of these specific laws of armed fight.

If it is true that armed fight is a specific form of political fight, then it is also true that military science has a specific scope.

Military science would justifiably lose its independent status if its object were not the specific field of armed fight distinguished by certain specifically inherent features but war taken as a whole in all its aspects.

Guided by Marxism-Leninism we must stress that too broad concept of military science would be as harmful as the narrow concept mentioned earlier.

Why is too broad a concept of military science harmful and dangerous? Mainly because attention and efforts of military science would stray in many directions and would distract it from the fundamental

tasks to be assumed by military science.

V. I. Lenin stressed that life and practice should provide the first and basic viewpoint for a theory of knowledge. We believe that life and the practice of armed fight are prompting us to provide a solution to the question on military science which will not divert (and this needlessly so) military cadres from their primary tasks and distract military science from its specific problems which are the reason for its existence, problems that in themselves are complicated and multi-faceted under modern conditions.

While we consider the too broad interpretation of the concept "military science" incorrect we do not agree either with that broad concept of basic tasks of military science which is related to such opinion on its scope. We consider that military science is called upon directly to investigate not the laws of war in general but the specific laws of armed fight, under the guidance of Marxist-Leninist theory. We believe that broad interpretation of the laws of military science, based on its broad concept, would lead us away from the truth rather than towards it and should therefore be rejected; so should the narrow interpretation of the laws of military science, based on its narrow concept.

There still exists a third point of view on the scope of military science which, in our opinion, will correctly elucidate the question under study. According to this viewpoint, Soviet military science is a system of disciplines devoted to preparation and conduct of armed combat in the interest of protecting the Soviet State from imperialist aggressors. Soviet military science rests on the objective laws of armed fight; it pursues problems related to consideration of economic, political conditions and those of morale in its own and in the adversary's country; it studies arms and technology, develops means and forms

of armed struggle, the fundamentals for build-up, training and education of the armed forces, and problems related to their overall reliability in war. Thus, Soviet military science is that field of science which comprises not only theory on the art of war, i.e., strategy, operative art and tactics, but also questions related to the study and evaluation of economic and moral-political conditions and perspectives in the country and their effect on preparation, course and the results of armed combat; it also deals with a number of other problems.

The thought that military science is not identical with the art of war and that it has a broader meaning than the art of war assumes great importance; this would put an end to the assertion that military science and the art of war are one and the same and thus also reject the old bourgeois interpretation to the effect that military science ranks below the category of the art of war.

Of great importance is also the Marxist-Leninist position on the close link between military science and the economic and moral factors and conditions both in one's own country and in that of the adversary. This enables military science to build its own theoretical conclusions and substantiations on a solid scientific basis.

This stand has also exerted its effect on the correct understanding of the laws of military science. The laws of military science which correspond to the above concept of military science differ from that narrow interpretation in that they convey both, that side of armed struggle related to the means of warfare and of armed struggle as a whole, i.e., to the art of war, and the other side (which, of course, cannot be divorced from the first since they constitute a monolithic entity) which relates to considerations of economic and moral-political prerequisites and fundamentals of armed struggle.

The specific laws of armed fight as such are also part of the laws

of military science. These are objective laws; they are specific only in that they apply specifically to the activities of the armed forces and to what distinguishes these activities from efforts in the rear which also takes part in the war (and this in a decisive measure) but whose tasks and practical activities will naturally differ from the tasks and activities of the armed forces although both are directed towards a common goal - victory in war.

The country's rear is guided by its own internal laws in respect to supplying the front with weapons, ammunition, equipment, food and everything required for assuring successful activities by the armed forces; these internal laws are just as specific as those of armed combat. Therefore, military science must necessarily consider concrete economic laws in developing its devices and plans for the conduct of armed combat.

In recent years, a different kind of studies has been undertaken, related to determining the scope, content and extent of military science. Several works have been published which dealt with specific problems of military science. Military scientific conferences have been organized in many institutes for higher military education and in the army. A considerable amount of material has been gathered which permits a somewhat closer definition of scope of content of military science and determination of links and relationship between military science and other branches of human knowledge.

If we look through the summaries of speeches we cannot but stress that both the too broad as the too narrow concept of the scope of military science are completely unfounded.

We would stress in particular that questions on the origin and nature of war as a political phenomenon should not be confounded with studies of means to conduct war as a specific armed operation. It is

of course understood that these two groups of questions are inextricably linked and it would be perfectly inadmissible to ignore their ~~essence~~. However, as mentioned earlier, this does not mean that all questions on war should be assigned to the competence of military science.

Military science is occasionally conceived as just an overall general theory of "military philosophy" required for "enlightening" military cadres. Is this correct? No, we cannot agree with that either.

We know that military science, like every science, was born from practical requirements and serves the interests of practice, in the given case that of successfully conducting armed combat. Military science therefore has two aspects: one providing the general theoretical foundations for preparing and conducting war and another applied, practical side related to elaborating certain specific stands, principles and rules related to armed combat.

If we thus arrive at determining the scope and content of Soviet military science we must once more stress that military science is more than the art of war. The theory of warcraft is only an important part of military science. In addition to warcraft, military science deals with other sciences such as military history, military administration, military geography and a large number of military-technological sciences concerned with the material basis on which military science is built and exists.

Soviet military science thus represents a unified system of knowledge on the preparation and conduct of armed struggle in the interests of protecting the Soviet Union and other socialist countries from imperialist aggression.

Modern Soviet military science is concerned with the following tasks:

- elucidation and study of the objective laws for the conduct of armed combat;

- development, on the basis of knowledge of these laws, of means and forms of armed combat required for achieving victory over the enemy;

- study of questions and determination of the means for preparing the country's territory and its armed forces for war, as well as of comprehensive provision for war on the economic, political, moral, material-technological and other levels;

- developing the basis for organization, training and education of the troops in consideration of war requirements;

- developing an overall method of military science, its general theory, theory of the art of war, of the sciences of military technology and other sectors and branches.

In thus defining military science we must stress that this is not simply an accumulation, a mechanical mixture of a large number of separate uncoordinated disciplines. Soviet military science is an entity, a system of strictly subordinated disciplines in which the general theory of military science and the theory of the art of war assume primary importance while the other disciplines and branches which are part of it serve and provide for these leading, basic branches of military science.

This is easy to ascertain if we look at the content of modern military sciences and their comparative importance; we shall discuss this in detail in other chapters of the book.

Military science, like any other science, deals with the laws related to phenomena in the field under study. Historic experience shows that armed combat, the development of the armed forces, the means, devices and forms of war develop in a pattern rather than at random. The

assertion that armed struggle knows no regularities and that it is rather like a card game in which everything depends on accident does not correspond to the truth and has been rejected throughout the history of wars.

There is no science without laws. A science in which arbitrary, subjective views substitute for laws, scientific conclusions, generalizations and principles must with good reason be considered a pseudoscience, unfit for use as true orientation and compass in the training and education of men in the armed forces, and for directing armed combat.

Soviet military science bases its analysis of military phenomena strictly on dialectical and historic materialism which constitutes its scientific methodology. In elucidating the objective regularities of armed struggle, determining ways and means for using these regularities, it points the way to victory over the enemy for our Armed Forces. We would pointedly stress that the correct methodological fundament of Soviet military science, its progressive content, conveying true efficiency, would be non-existent without a Marxist-Leninist approach to the problem of the laws governing warfare. The force and vitality of Soviet military science stems primarily from the Marxist-Leninist understanding of the objective laws of armed combat, from the knowledge of these rules and their application to the successful conduct of war.

This is in contrast to the idealistic and metaphysical viewpoint characteristic for the philosophical approach of many representatives of modern bourgeois military thought; in any case these deny or ignore the objective laws of warfare to some degree and follow Clausewitz in considering that warfare is ruled by the elements and by accident. Soviet military science, however, is guided by the position taken by dialectical materialism which states that nature and society develop

according to objective laws. In extending this general formula to the phenomena related to war and army, historical materialism and Soviet military science which is based on the latter have come to the conclusion that development of means and forms of warfare, as well as organization and training of armed forces proceed not arbitrarily but according to rules.

Naturally no objection could be or was ever raised to this conclusion by the Soviet Army's leading staff. None among our commanding officers and military-scientific workers has ever denied the existence of regularities in the field of warfare, the existence of definite laws for military science. The idealistic concept according to which the conduct of war knows no regularities has been subjected to criticism and has been unanimously rejected.

However, knowledge that the course of events is subject to rules is clearly insufficient for drawing the line between idealism and materialism; we still must solve the question of the character of the laws of military science correctly in the materialistic sense since the idealists do not deny the existence of laws in every instance. We may, e.g., find acknowledgment of the rules in tune with idealism in the writings of the philosophers Hegel, Kant, the military theoreticians Leer, Bernhard and many other representatives and followers of idealistic philosophy and in past and present military theory.

The question on the character of the laws of military science, as well as those governing science in general is primarily a question on whether laws exist in completely objective reality in the things and phenomena of the world around us independent and outside of our knowledge or whether they exist only in the people's minds and are no more than the outgrowth of our brain which works out the laws, thus "orders" the external world ruled by chaos.

Some philosophers as, e.g., Kant who was a dualist (he developed simultaneously materialistic and subjective idealistic ideas) assume the existence of an external world independent of our knowledge, but they deny the objective character of the laws, saying that neither nature nor society dictate their laws to the mind - on the contrary, the mind prescribes laws to nature and society, i.e., the laws exist only in the human mind, they are its arbitrary inventions. The materialists however consider that laws do exist independent of knowledge or will of the human being, i.e., that scientific laws have no objective character and that their reflections in the human brain are no different from the theoretical reflection of the laws in the very material world which surrounds us.

In contrast to the opinions of representatives of the so-called objective idealism, the materialists consider objective laws as dynamic laws, not "absolute ideas" or an "absolute spirit", as considered by Hegel, but as of this very material world.

Many idealistic thinkers among bourgeois military theoreticians consider the laws of military science a product of "pure" thought of military ideology or the miraculous intuition of a great commander; these laws would not derive from objective truth but would contain it, they would "order" the chaotic aggregate of accidental happenings which, in their opinion, constitute warfare. This is in contrast to materialistic thinking in military science whose representatives do not create the latter's laws but go to seek them in real war events; they study and generalize military history and the development of present phenomena related to the conduct of war.

Soviet military science thus proceeds from the objective laws of armed combat while military science of the bourgeois nations, essentially built on an idealistic basis, will necessarily either deny their

objective character of ignore them completely.

O On the basis of materialistic dialectics, Soviet military science has solved complex questions such as the relationship between objective and subjective factors in armed combat. This question was the stumbling block for the methodology of bourgeois military science, for it was in no position correctly to state and solve this question.

While rejecting any kind of subjective, voluntary theories which would in some way negate the objective character of the laws of war, Soviet military science refuses to make a fetish of these laws or to consider them as absolute. A fatalistic, passive-observer approach to objective laws which would inevitably condemn a commander to inactivity is alien to our military science.

Soviet military science does not consider the objective laws of armed combat elemental and immutable. It does not declare itself powerless before these laws; it proceeds from the idea that, based on these laws and on their knowledge, it could, under certain conditions, restrict the range of activity of some of these, give full rein to the effect of others and actively use these laws in the interest of victory over the enemy.

O Guided by historical materialism and generally by Marxist-Leninist theory, Soviet military science not only does not deny the tremendous role of subjective factors in the course and outcome of a battle, operation, campaign and war in general. It puts great stress on this role and sees as one of its foremost tasks the comprehensive development, on the basis of objective laws, of modes, forms, methods and means of armed combat whose application would greatly facilitate and accelerate victory and render it maximally effective under the given conditions. Soviet military science singles out a commander's creative initiative as a subjective factor with a rather broad range of action; creative

and organizational ability of military cadres based on scientific knowledge is considered one of the factors decisive for the fate of war operations and of war in general.

Objective laws of warfare are valid for both warring sides. We must consider that war is a two-sided process. We should not imagine a war, campaign, operation or a battle without the participation of both sides. Both sides will attempt to achieve victory in war. Both sides will attempt to make all positive factors for victory operate in their favor.

Thus, certain objective laws exist in warfare which will apply to both warring sides.

Is this true? Yes, it is certainly true. These laws are called objective, because they operate independently of the people's will and cannot be changed like the laws of the judiciary. This is consistent with the Marxist-Leninist materialistic concept of laws, in contrast to the subjective idealistic concept of the "free" arbitrary will of the commander.

Marxism-Leninism conceives of scientific laws as an expression of objective processes which occur independently of the will of men. Men can discover these laws, know them, study them, consider them in their undertakings, use them in the interest of society, but they cannot change them.

If we return once more to our teachers - the founders of Marxism-Leninism - to see how they dealt with the question of victory in war, then we shall find that they related in every case victory to the real objective factors and concrete historical conditions. They said that victory will fall to the one who is favored by these factors and conditions and knows how to use this advantage efficiently in war.

Lenin taught that war constitutes a multi-faceted trial of the sum

total of a nation's material and spiritual resources.

O This means that if at certain times and for some reason a people is in no condition to stand up under such trial then it cannot count on victory.

In characterizing modern war, Lenin said that war is now conducted by the people; this has been completely forgotten since the time when wars were conducted by mercenaries or the representatives of a caste, semi-detached from the people. What does this mean in respect to our question on the common or different nature of the laws of modern warfare for the different sides at war? This means that no side can count on victory in modern war if this war is conducted by the forces of a military caste semi-detached from the people and does not engage the participation of the masses in this war.

Victor will be the side with more resources, more sources of power, more endurance shown by the masses. This Leninist dictum is applicable to every warring country.

Another known Leninist statement also belongs among these general laws of modern war; in every war, victory will in the end be determined by the spirit of the masses spilling their blood on the battle field, and victory has historically belonged to that class which was able to lead the mass of the population.

The existence of objective laws of warfare valid for both warring sides does not exclude, rather it pre-supposes the existence of two kinds of military science, essentially differing in ideas and principles; these are Soviet military science and bourgeois military science which differ by their class nature, their ideational content and their theoretical and methodological bases.

D Soviet military science is a product of the socialist societal and governmental system, modern bourgeois military science, the product of

the decaying and dying capitalist society.

It is known that science, thus also military science, determined by social and political conditions, is party-bound from beginning to end. K. Marx wrote in his "Capital" that while the science of political economics could not yet exist in Germany because bourgeois attitudes were immature it could nevertheless have existed, considering that the German bourgeoisie was not yet a reactionary class; however, at the time the development of bourgeois attitudes in Germany rendered the creation and development of scientific political economics possible the latter could not be realized, for by then the German bourgeoisie had turned reactionary. In a certain sense this would also apply to the military science of the modern imperialist states.

Lenin said that imperialism means all-around reaction. The reactionary, aggressive politics of the imperialistic states is also reflected in bourgeois military science, the weapon in the hands of the reactionary forces.

Direction and aims of Soviet military science are progressive. It serves the interests of the masses, the interests of the socialist state which by its very nature can conduct only just wars. In contrast, directions and aims of bourgeois military science are reactionary; it serves the interests of exploitative classes, the interests of capitalist monopoly which conduct unjust, aggressive predatory wars.

We mentioned earlier the principal contrast and full incompatibility between the philosophical and ideative bases of Soviet military science and those of the military science of the imperialist bourgeoisie; this again is determined not by the personal merits of the representatives of these two military sciences but in the final instance by principal qualitative differences which distinguish socialism from capitalism.

There are also differences in the capacity for knowing and using the objective laws. Nobody would deny that Soviet military science has a much greater capacity to know the objective laws compared to the military science of the imperialist countries. Soviet military science is founded on Marxism-Leninism. It is in no way linked to idealism and metaphysics which interfere with bourgeois military science and prevent it from correctly recognizing and evaluating facts in succession and to the end and detect the regularities at the root of these facts; this also prevents it from applying the correct military means which would correspond to the objective conditions of the modern historical period.

Bourgeois military science has significant limitations compared to Soviet military science (although we had better not underestimate it in this respect). Bourgeois military science is in no position to know many objective laws and objective conditions or apply them if it knew them. This is due to the fact that the reactionary imperialists are incapable of realizing that they are doomed and that the death of the capitalist societal and governmental system is inevitable.

It is perfectly natural that modern bourgeois military science, a product of capitalist society, should in some way reflect its evils and vices. The theoretical stands, conclusions, approaches developed by bourgeois military science often suffer from inconsistency. If bourgeois military science were able to fully know and fully pursue a correct evaluation of the objective laws of modern war then it should be able to say openly that it is impossible to conquer nations of the socialist camp by means of war at the present historical stage; but such military science would be of no use to the imperialist war instigators. Such military science would stop being a bourgeois military science.

The military leaders and military theoreticians of imperialist

countries are certainly well acquainted with the rule that in warfare the moral conditions of both one's own country and that of the adversary must be known and considered. There is hardly a representative of bourgeois military science who would deny that in every war victory will eventually be determined by the spirit of the masses spilling their blood on the battlefield. However, in what way could the bourgeois military leader or theoretician apply this law if he positively knows that in a war against a nation of the socialist camp the moral factor will not be on his side since a war prepared by the imperialist reactionaries against the socialist camp is an unjust war by its very political character, its aims, its whole content, and that this will inexorably create a moral counterweight in the socialist countries; their moral and political potential will be high in any case, and they have an undeniable advantage from the point of view of moral-political conditions, due to the advantages of the socialist over the capitalist system.

Bourgeois military science is thus faced with the problem of being unable to apply this law and some other objective laws in the interests of imperialism. Some military writers of the imperialist nations are seeking a way out of this dead end by proposing another kind of military doctrine which would allegedly give them the possibility to "circumvent" these objective laws and change these laws by applying nuclear, hydrogen, chemical and biological weapons. These bourgeois views are essentially meant to assign more importance to military technique and reduce the role of the masses, the moral factor in war. However, such approach does not correspond to the historical truth which proves that the rapid development of the newest military technology is strengthening the human role in war. Those who uphold these bourgeois views are afraid of the masses, of their revolutionary spirit, and as a result

they create various kinds of voluntaristic, scheming, arbitrary designs and schemata differing only by their degree of recklessness.

These characteristics apply to many essential traits and tendencies in the development of modern bourgeois military science. This was the basis on which the doctrines and plans for the "Blitzkrieg" were created at one time, led by fascist Germany against the USSR. Here are the roots of the reckless spirit characterizing the military work of the many troubadours of modern American imperialism.

Soviet military science is called upon to serve a people which has thrown off the capitalist yoke. Its inception may essentially be traced back to the time when K. Marx and F. Engels, for the first time in history, discovered the laws of social development and studied questions of war from the viewpoint of dialectic and historical materialism and of the revolutionary working class. The actual creation and start of Soviet military science took place after the Great Socialist Revolution in Russia.

We shall dwell in detail in the following chapters on the genesis of Soviet military science. Here we shall stress only the most common traits and specific features as compared to bourgeois military science.

While developing in an independent direction, Soviet military science has creatively absorbed the best from old military science, particularly Russian military science. Military knowledge and past experience were not assimilated mechanically but as a result of critical study and thinking; from old military science we took everything advanced and progressive which retained its meaning under the new conditions. However, the basis for the formation and development of Soviet military science was the experience of modern wars and particularly that of the armed struggle carried on by our country's working people and

its Army and Navy, led by the Communist Party.

Soviet military science was created under the guidance of our Communist Party, its most prominent figures and the new Soviet military cadres educated by the Party and raised on practical work on the basis of Lenin's fundamental ideas; experience gained in the conduct of modern wars was generalized and the latest achievements of science and technology taken into consideration. We mentioned earlier that Lenin, who led the Party and the Soviet state, assigned great importance to questions of military organization and the practice of directing military operations. He formulated highly important rules which were basic for Soviet military science and which generally determined the direction of its further development.

The specific features of Soviet military science are determined mainly by its social-class nature, its political essence as the military science of a progressive socialist state. In the service of the just, progressive politics of the Communist Party which is the basis of socialist state activities and by its very nature does not and cannot conduct aggressive unjust wars, Soviet military science proceeds from the moral and political potential of our State, from the high moral spirit of the Soviet people and its soldiers. It also considers the moral conditions and perspectives of the adversary. A comprehensive consideration of moral conditions undertaken by Soviet military science will prevent under- or over-estimation of its own or the adversary's forces and enable it to find the means and forms of armed combat which would be most suitable for the level of the moral-political conditions.

Soviet military science rests on the advantages of planned development of a socialist people's economy. It equally studies the economic potential of the possible adversary.

Study and comparison of the economic capacity of one's own and the adversary's country supply the scientific basis for our theory of preparation and conduct of war, excludes the danger of divorcing itself from the true material possibilities and slipping down the road to recklessness and scheming in warfare.

As may be seen from the above, the method of Soviet military science differs essentially from that of military science of the capitalist countries. While the method of the military science of the bourgeois states represents a variously formulated metaphysical and idealistic method, Soviet military science proceeds from the position taken by Marxist philosophical materialism and Marxist dialectics.

Guided by the stand of Marxist dialectical materialism on the primary nature of matter and the secondary nature of consciousness, the cognoscible nature of the world, our military science is thereby protected from the various kinds of purely speculative schemes and agnosticism.

Soviet military science, in full agreement with the Marxist dialectical method, considers manifestations of war and warfare not as isolated events but as a unified whole wherein everything is related and interrelated. It considers military events dynamically, as an uninterrupted process of motion and changes wherein the old dies and the new is born. It is known that war between old dying and new growing forms pervades the whole history of military science and the history of warfare.

The accumulation of quantitative changes and their transition to a new quality upon reaching a certain critical level is also an outstanding trait of dialectics in the field of military events. Our military science is aware of the abrupt revolutionary transition from

quantitative to qualitative changes.'

Our military science rests on the laws of dialectical materialism such as those of unity and the struggle of opposites, the law of transition from quantity to quality, the law of negation of the negation.

In its studies, Soviet military science proceeds from the assumption that the struggle of opposites which is present in all phenomena permeated those of warfare from beginning to end.

Guided by the laws of Marxist dialectics, Soviet military science elucidates the regularities of military events and find the most effective means and forms of military operations for assuring victory in armed struggle.

Soviet military science proceeds from an awareness of the unity of theory and practice; it considers that true knowledge is inextricably linked to practice and the activity of people. This does not mean that our military science underestimates the role of theory in warfare; on the contrary, Soviet military science values theory highly, for only truly scientific theory will permit an elucidation of the development regularities and clear the way for practice.

Marxism-Leninism and its philosophic theory have armed Soviet military science, as they did for all other sciences, with the sole correct scientific criterium for truth. The criterium for truth is practice. But what do we understand by practice in warfare? If we want to answer this question we must say that in this respect military science differs significantly from other sciences, for its only true practice is in war. Of course, maneuvres and the various troop instructions are also practice and are an important source for military science in peacetime. However, the final criterium of truth in military science and the final measure of an army's forces and its fighting qualities is war only or rather the final results of war.

Materialistic dialectics is the methodological fundament of Soviet military science which would be inconceivable and impossible without it. Only from this viewpoint can the laws be correctly understood and can the direction be anticipated in which warfare and military science will develop.

Soviet military science has a profoundly creative character. In theoretically generalizing the experience of modern wars, it is continuously developing, attempting to keep fully abreast of new opportunities and conditions arising in connection with economic and political developments, the refinement of war technology, and abreast of the objective regularities and requirements of modern war.

Soviet military science rejects the vulgar-materialistic assumption according to which victory in war will come naturally, automatically. There is no need to prove that victory will not come by itself, that it must be fought for in bitter battle. Victory in war is known to depend not only on economic and moral circumstances, quantity and quality of troops and their military technology but also on the skill for taking advantage of all objective opportunities. The skill to make use of all objective opportunities in warfare for achieving victory depends on the organizational ability and knowledge of the commanding cadres. The higher these skills and the level of theoretical and practical training of the commanding cadres, the fuller will the troops make use of opportunities for achieving victory over the enemy.

The force of Soviet military science rests on its fundament, the great teachings of Marxism-Leninism, the politics of the Communist party, the advantages of our societal and governmental system.

However, it certainly does not follow from the above that modern bourgeois military science would be incapable of anything. We must see not only the vices of bourgeois military science but also its positive

traits. To achieve victory over the enemy we must be well acquainted with both its weak and its strong sides, we must know all the kinds of war weapons, means and devices he has or that he may have.

It is understood and has been mentioned earlier that the reactionary socio-political direction of bourgeois military science serving the interests of monopoly, the unscientific character of its philosophical basis cannot but lower its capability for knowing and correctly applying the objective laws of war on which victory depends; however, life, practice and war experience will introduce corrections and frequently protect bourgeois military science from making incorrect assumptions or drawing erroneous conclusions; this would certainly be the case if it were guided solely by its pseudo-scientific philosophical premises. The result is, naturally, a bourgeois military science which is contradictory, inconsistent and eclectic. However, it is still capable of reflecting to some extent the objective laws of warfare.

This is the sole explanation for the wellknown fact that the means and forms of combat developed until now by Soviet and bourgeois military science are quite similar in many instances or have common features, particularly in respect to special military-technological matters. If bourgeois military science were completely lacking in any ability for scientific knowledge and correct application of the objective laws of modern warfare than obviously these similar or common features in the specific content of bourgeois and Soviet military science would not exist, and these two sciences would be antipodal, not only from the point of view of their party nature, their philosophical and social premises but also from the military-technological viewpoint.

There is no question that great modern wars are conducted by both sides with essentially the same technological war equipment; this largely determined the similar or common features in the specific content of

bourgeois and Soviet military science.

This does not mean that the technical war equipment at the disposal of the army of the capitalist states is the equivalent of the equipment supplied to the Soviet Armed Forces. A study of this question has revealed that arms and technology provided for the Soviet Armed Forces are significantly superior in respect to their tactic-technical properties, efficiency and other indices to the arms and technology used by the armies of the economically and industrially most powerful capitalist countries. Let us just say that Americans themselves have acknowledged the superiority of the Soviet Union in, e.g., the development of rocket technique.

The advantage of the Soviet Armed Forces in respect to arms and technique over the armies of the capitalist countries also entails an advantage in the means and forms of warfare.

However, a constant struggle and competition is going on in science and technology. It should be stressed in particular that never before have natural and technological sciences played such an important and growing role in the course and outcome of war. Under these conditions, there is no army that can afford not to consider advances and achievements in these sciences if it is to avoid falling behind the adversary. The level reached by physics, chemistry, biology and other natural and technological sciences is about the same in all the important countries of the world. This again must necessarily lead to many common or similar features in the immediate content of Soviet and bourgeois military science as related to war technology.

Both, Soviet and bourgeois military also take their lessons from the same war experience. It is natural that each would strive to assimilate and use everything positive contained in this experience. If we talk about the Second World War, then we would say that Soviet mili-

tary science has had much more experience in the immediate conduct of war compared to any other country, but this fact has only spurred the military sciences of other countries in their attempts to assimilate our experience in the conduct of an important war. In the end, the military sciences of all countries will arrive at essentially identical or similar conclusions and positions pertaining to military technology.

Let us also remember the aspect of continuity. Both Soviet and modern bourgeois science have the same predecessor, the old military science. Each has assimilated to some degree from past military science the best and most valuable parts which have retained their meaning. This again must necessarily condition some common or similar features in the concrete content of modern military sciences.

Military science of the capitalist countries certainly has some strong points, particularly now that imperialist reaction has directed military theory towards solving new problems related to the application of nuclear chemical and bacteriological weapons and other means of mass destruction, with the broad application of all modern technological achievements.

Soviet military science also disposes of the most modern technical equipment, and it studies the most effective means and forms of its application in warfare. Equally, Soviet military science has a number of definite advantages over bourgeois military science.

The philosophical system on which Soviet military science rests and from which it proceeds plays a tremendous role in the development of our military science. Marxist-Leninist theory is the basis and source from which Soviet military science draws new forces for its forward surge. Thanks to a correct methodology, Soviet military science is capable of considering in a strictly scientific manner the condi-

ons and factors of armed war and develop more effective means and forms of its conduct.

Based on advanced progressive views, Soviet military science has proved its advantage of the German fascist military science in the Second World War. The advantage of Soviet military science over bourgeois has been retained and is in continuous development.

Soviet military science is superior to bourgeois military science primarily because it rests on an advanced societal system which by far excels the economic organization of the capitalist system.

Soviet military science excels over the bourgeois also from the viewpoint of scientific and scientific-technological potentialities attained as a result of the victory of socialism and the building of communism in the USSR. The favorable conditions for getting a higher scientific education and its vast scope in the USSR, science brought within reach of the broad masses of workers, the development in scientific research work and the continuous solicitude for scientific cadres, broad help by the state to put the newest achievements of science and technology into production, planning in the use of the resources of scientific institutions, all this assures Soviet science a leading role in the world and broadens and raises its potentialities compared to those of the military science of the capitalist countries.

The country of victorious socialism was the first to inaugurate the era of applying atomic energy for peaceful purposes, the first to step into space. Artificial satellites of Earth and sun, powerful space rockets and interplanetary spacecrafts, the first triumphal flights of Soviet people in spacecrafts around the world are a symbol of the creative forces of victorious communism, the pride of humanity. All this is an excellent sign for the industrial, scientific and technological expansion of our country.

Soviet military science excels over bourgeois military science also from the viewpoint of specific military factors. The Soviet command cadres are unquestionably superior to those of the armies of the capitalist countries in respect to theoretical preparation and war experience. There is no other army in the world whose experience can compare with the rich and comprehensive war experience of the Soviet Armed Forces.

Soviet military science excels over bourgeois military science also as regards conditions for the more effective training and education of troops in accordance with the requirements of modern war. Soviet methods of military training and education are based on the advanced, progressive, scientific approach assigning paramount importance to respect for the human personality and the dignity of the soldier-citizen and also to bringing out the peoples' best creative and heroic qualities.

We mentioned earlier that the advantage of Soviet military science over the bourgeois is also determined by the superior moral spirit, the cultural level of the Soviet citizen. The bases of bourgeois morale are individualism, personal gain and thirst for acquisitions. The Soviet, communist morale is based on collectivism, friendship and the mutual aid of people free from capitalist exploitation and oppression. The high moral qualities of the Soviet people may be seen in the building of the communist society. They find their reflection in the Armed Forces of the USSR. The soldiers of the Soviet Army and Navy are devoted true sons of their people. They possess high military morale such as soldiers of the armies of the capitalist states can never have. This is not a matter of the "Russian soul" in the old tradition of the Russian soldiers (although these traditions also play their role), rather it is a new quality of Soviet man, free from the yoke and the

ways of capitalism, a man-creator, active builder of communism, brave and steadfast protector of the people's interests.

These basic important indices are characteristic for the superiority of Soviet military science over the bourgeois.

Soviet military science must continue to assimilate all new scientifically founded ideas and propositions. Only constant forward motion and a progressive development of its tenets will supply the source for its vitality and powerful organizational and mobilizing forces. Marking time or stagnation means ruin for any science and in particular for military science.

To avoid such a state, we must look far ahead and view the development of warcraft in perspective. Bold formulation and the persistent directed study of new problems, a clash of opinions, discussions on important problems of military science are among the main conditions for a continuous progress.

At the end of this chapter we would mention that Soviet military science and the military sciences of other countries in the world-wide socialist camp have a common basis determined by the features of economic and political structure common to all states of the socialist camp, their common tasks for the protection of the socialist achievements of the peaceful building of socialism and communism, from intrusion by imperialist aggressors. The military sciences of the countries of the socialist camp also have a common ideational, theoretical and methodological basis, Marxism-Leninism. In the study and analysis of questions pertaining to military organization, warcraft and warfare, all proceed from the principles of dialectical materialism reflecting the objective laws of development.

However, while remarking on common features we should be aware

that the development of military science in each of the countries of the socialist camp has its specific features deriving from the historical and national features of the specific country. The effect of such specific features on the concrete content of military science may frequently assume important proportions.

The bourgeois military sciences of the various capitalist countries also have common features reflecting the uniformity of social, economic and political structure of these countries. However, the military sciences of the various capitalist countries also have their own features and specific traits reflecting the historical conditions under which each country develops.

If we take, e.g., the bourgeois military science of the end of the 19th and beginning of the 20th century we reveal no secret in stating that, despite common traits and even uniform views on certain basic problems of military theory, Russian and German, French and English military science show significant differences in respect to their concrete content.

From this point of view we are perfectly justified in talking about Russian, German, English, French and other military sciences.

This statement has retained its meaning for bourgeois military science to the present day. While an increased tendency towards further equalizing of military science and military doctrine of the capitalist countries has been observed these last years as well as an increased tendency towards the unification of organizations, arms and training of troops in the branches of the aggressive military blocs such as NATO; nevertheless, a certain difference in the rate of development, its character and the concrete content has been retained for each national bourgeois military science and will apparently be retained to some extent in the future.

0 In respect to the countries of the socialist camp, we would repeat that, despite the common features of social and governmental system, the presence of the one Marxist-Leninist ideology and the same methodological premises, despite the common basis of military science in these countries, each country has its own geographic, national and specific historical features and equally some specific economic and political features and conditions which leave a certain imprint on the military structure of each national army of the socialist camp.

"Marxism-Leninism requires", it says in the Moscow Declaration of 1957, "the creative application of the general principles of socialist revolution and socialist build-up in accordance with the concrete historical condition valid for each country; it does not admit of the mechanical copying of politics and tactics by communist parties of other countries. V. I. Lenin repeatedly pointed towards the necessity for the correct application of basic communist principles in consideration of the specific given nation, the given national state. If national features are ignored by the proletarian parties, this will necessarily lead to their isolation from life, from the masses, and necessarily harm the cause of socialism; the opposite, an overemphasis on the role of these features and departure from the universal Marxist-Leninist truths on socialist revolution and the socialist build-up under the pretext of considering national features will certainly also injure the cause of socialism".*

0 These are the Marxist-Leninist principles which guide communist and workers parties and the governments of states in the socialist camp in building their armed forces and developing military science.

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[Footnotes]

- 63 V. I. Lenin, Collected Works, Volume 24, 366-367.
- 64* V. I. Lenin, Collected Works, Volume 30, 131.
- 64** K. Marx and F. Engels, Collected Works, Volume XVI, Chapter I, page 469.
- 64*** V. I. Lenin, Collected Works, Volume 30, 202.
- 68 Encyclopedia of Army and Navy Sciences, Volume II, page 228 SPB 1885.
- 72 V. I. Lenin, Collected Works, Volume 26, 151.
- 99 Program Documents on the Struggle for Peace, Democracy and Socialism, Gospolizdat. [State Political Publishing House], 1961, page 13.

CHAPTER 3

BRIEF HISTORICAL SURVEY OF THE DEVELOPMENT OF THEORETICAL MILITARY THOUGHT

Military science as a theory developed historically. This means that there had not existed since antiquity any single, universal military science suitable for all time. Experience shows that each historical epoch has its own inherent military theory.

Military science was developed and enriched gradually, in proportion to the degree of change in the material conditions of life, of improvement in technological methods and of increase in the fighting capacities of the troops carrying out the armed struggle, of the accumulation of experience in this struggle. In other words, the development of military science responded to changes in military affairs caused by changes occurring in human society and primarily in methods of production, that is, in the development of productive forces and in a change in industrial attitudes. Radical changes in military affairs in the final analysis always are linked with the development of a new method of production when the conditions of the material life of society, nature and the form of social relationships, the ideas and institutions prevailing in it change.

The uniqueness of military science to an even greater degree than other sciences consists in the fact that it, by responding to the political interests of the ruling classes and by serving the state and its military forces, is directly dependent not only on the material conditions, but also on the politics and on the ideology which are con-

stantly testing their influence on it.

The development of productive forces, as is known, outstrips the changes in the foundation and superstructure, due to which military theory, being closely connected with the superstructure ideas and institutions and at the same time testing on itself the determining effect of the movement of the productive forces develops unevenly. It knows periods of rapid growth and swift movement forward, when all conditions favor its development, as for example, in transitional periods which signify a replacement of the old, obsolete social-economic structures by new, progressive social-economic structures. However, military science can also sometimes lag behind, experiencing a state of stagnation and even decline. Such were, for example, periods in the development of military theory in the early Middle Ages or in Russia in the period of the supremacy of the "favorites" (Biron, Minikh), as well as in the period of the reign of Nikolay I.

Therefore, it would be incorrect to represent the matter in such a way that the dependence of military science on the method of production is of a straightforward nature and that the replacement of one method by another automatically and immediately entails the complete replacement of some theses of military science by others. Each successive stage in the development of military theory is closely connected with the entire previous course of the historical process, it rests on historical experience and the accumulated knowledge, traditions and other factors which also retain their effect under the new conditions. But, as new conditions arise and develop, a sudden break in the development of military science and especially in military art is prepared for and achieved, a leap in its development is prepared for and achieved, that is, quantity is transformed into new quality, old methods and forms of military conflict undergo a radical change, and some-

times are completely discarded. Other methods and forms of military conflict, more appropriate to the conditions of the new stage in the development of society and military technology come to replace them.

Military theory, developing on the basis of laws of materialistic dialectics, does not cease its development within the bounds of one and the same social-economic structure. Here, even over the extent of one structure, changes occurring in military affairs frequently take on a spasmodic character, responding to the development of the productive forces of society and primarily technology. This can be especially clearly seen in the development of modern military affairs. Thus, the appearance of atomic and hydrogen weapons, as well as the development of rocket technology caused a huge qualitative jump in military theory and practice.

In history there is also observed a certain leveling of military ideas and institutions. This is caused by the striving of every, primarily of the large, state to achieve the highest level in the development of military affairs or at least not to fall behind their possible enemies. Therefore, very soon forms of troop organization, methods and forms of their military use, methods of supply and many other questions, resolved in a new way in one army, turn out to be taken up by other armies contemporary with it and become prevalent everywhere.

The armies, most advanced in the level of their development, which successfully resolved their problems in armed conflict, were usually taken as the model in the past. In ancient times, for example, the generals of many countries tried to imitate the military art of the Greek army of Alexander of Macedonia, using its methods of conducting war and battle. Later, ancient Greek military art began to be supplanted by Roman which attained great perfection in the period of

Julius Caesar and other generals. Many military theorists took as an unsurpassed model the military art of the army of the famous Carthaginian general Hannibal and especially his methods of surrounding and annihilating the enemy. The classical "Cannas," revived by Shliffen at the beginning of the 20th century became the obsession of the German general staff. The military art of Napoleon was in the nineteenth century the same universal model. It was made a fetish of and raised to the height of an inaccessible military creation by the military theorists of the past hundred years, especially in France.

Military technology, its quantity and quality, played a most important role in each significant stage of the development of military science. It determined to a considerable degree the general character of armed conflict and of the armed forces, the fighting capacities of the troops, the methods and forms of the armed conflict. More modern military technology gave to the army possessing it greater capacities in the struggle with the enemy. But technology by itself, even the most effective, but which appeared in small amounts, still did not produce radical changes in military art. It only created the possibility for such changes. Essential changes arose when the new technology appeared in significant amounts, when experience in using it was accumulated, when people often first spontaneously, and then consciously used it in war, seeking the most effective methods and forms for this.

Also the quantity and quality of the personnel of which the military forces was composed always showed a decisive influence on the development of military science. The better this personnel was, the higher its morale was, the greater capacities the armed forces had, the higher their military art stood.

A huge role in the development and perfection of military theory was played by the dominating political and legal ideas and opinions

inherent to the ruling classes, their world outlook on which different national characteristics had an influence. The different level of development of military science in different countries even under the same social-economic structure is often explained by this.

Thus, for example, in the eighteenth, as well as in the first half of the nineteenth century, the social-economic structure of Russia was the same as in a majority of the European states (Austro-Hungary, Prussia and others). However, Russian military art and the nature of the military actions of Russian troops stood at a higher level than in many countries of Western Europe.

This difference becomes even more profound and apparent in a comparison of the military theories of capitalist and socialist states which differ in their social-economic basis.

The experience of history shows that a socialist social and political system, since it is more progressive, has a more advanced military science, although this does not mean that modern bourgeois military science in some individual elements may not have certain and at times even large achievements.

Military theory is a guide to action. But only a really scientific materialistic theory is capable of providing the most responsive (to the objective conditions) development of its sphere of application. It is not by chance therefore in the field of military affairs often the objective progressive development of means of war and methods for their use came into conflict with backward theoretical opinions, proceeded empirically and earned its recognition with difficulty.

It is quite understandable that knowledge of war and armed forces, of the ways and means of conducting armed conflict far from immediately acquired a scientific character and obtained formulation in clearly stated theories, on the one hand, which generalized the practical ex-

perience of the past, and on the other - indicated probable and desirable directions in the development of military affairs in the present and future. Each people in accordance with the specific conditions of their historical development introduced their greater or smaller contribution to the development of military theory and the practice of military affairs. In every epoch, some ideas and institutions, introduced by different people, acquired temporary prominence, then yielded this role to others which corresponded more to the changed historical conditions.

Before moving to a survey of the development of military science, its subject and content, it is necessary to emphasize that in a study of all social-historical phenomena, including military, Marxism-Leninism requires recognition of objective principles in the social activity of the popular masses, classes and individual people. Only recognition and knowledge of the objective laws of the development of social phenomena makes it possible to foresee the course of historical events and operate not blindly, not spontaneously, but with knowledge of the matter.

Knowledge of these principles, exposure of the motive forces of the development of social processes under different historical conditions, thorough study of the interdependence and conditionality of all phenomena is possible only through the use of the method of materialistic dialectics.

In a study of war and the army, Marxism-Leninism will give a correct, scientific solution to the problem of the role of the popular masses and individual prominent people in the historical development of certain concrete historical military events, the clarification of the causes of the onset of wars and of the attributes of their character. "Marxism," wrote Lenin, "differs from all other socialist theories

in the remarkable joining of complete scientific soberness in the analysis of the objective state of things and of the objective course of evolution with a most resolute recognition of the importance of the revolutionary energy, revolutionary creation, revolutionary initiative of the masses, — as well as, of course, of individual people, groups, organizations, parties, who are able to discover and realize the link with other classes."*

* * *

In a brief historical sketch of the development of military science, its subject and content, the authors do not intend to present a history of military science. This is a subject for independent scientific research. Our goal is to examine briefly how military science was conceived and formed, how its subject and content developed.

Before moving to a historical review of the development of theoretical military thinking, we should like to make one important remark about the method of investigating theoretical military problems. We believe that typification of wars and their characteristics by periods of development only on a material-technical basis or by organizational forms of military activities in an analogy with the corresponding organizational forms of production (handicraft or shop, manufactory or machine periods) does not make it possible to show the social-class nature of wars. Such an approach does not disclose the specific historical conditions and causes of wars, as well as the theoretical foundations of the recruiting and organization of military forces at this or that historical stage. It gives only a relative definition, outside of the framework of social-economic structures, of the predominating character of the technical equipment of armies and navies by analogy with the organization and technology of production

in general. At the same time, if you examine wars inherent to some or another social-economic structure as a continuation of the politics of ()
some or another class by forcible means, then all these questions obtain scientific clarity.

The nature of war, the composition of the armed forces, their material-technical equipment, as well as the other conditions under which the armed struggle is conducted, its methods and forms depend not only on the quantity and quality of the equipment and its production, but first and foremost on the politics of the classes conducting the war, on the relationship of the popular masses to it. Only such a materialistic, specific historical approach to an evaluation of all the phenomena of war will give a clear concept of why, on one and the same material-technical foundation armed forces, different in character, composition, numbers and moral and fighting qualities, different methods and forms of carrying out military activities could develop, and, on the other hand, create similar types of army organizations and methods of their activities even at different levels of military-technical development.

Thus, in complete accordance with the demands of Soviet historical science which on the basis of historical materialism considers the whole previous development of society as a replacement of social-economic structures with their inherent objective laws, including the area of military phenomena, Soviet military science considers the development of theoretical military thinking of slave-owning, feudal and capitalistic social-economic structures as the basic stages of the development of military theory. Every epoch, as is known, is characterized by its prevailing method of production, by a specific level of development of the productive forces, by special relations of production, as well as the political and ideological superstructure corres-

ponding to this basis. Every structure has its own type of armed forces, wars of particular purpose and character, its own method of conducting armed conflict. It would be incorrect to assert as do, for example, some military historians that there supposedly exist historical periods of war instead of wars of some social-economic period.* Such an assertion promotes the establishment of a view of war as a certain autonomous phenomenon in history, existing and developing by itself independently of the principles of social development, not connected with the fundamental stages of this development.

Professor Ye.A. Razin's attempt to consider not war inherent to specific social-historical structures, but war as "one of the phenomena of a class society"*** is antiscientific. It is known that wars conducted within the framework of some social-economic structure, in spite of the presence in them of common, similar phenomena, have very many different, specific traits and characteristics inherent only to the given historical epoch and concrete conditions of the social-economic structure. Each of the social-economic structures attach to war and to military art that which is typical and particular, which characterizes the war under the conditions of the given structure. Therefore, to speak of war and military art in isolation from social-economic structures is impossible. There never was an analogy, and even more, a direct dependence of the organization of armed conflict on the organization of production. Some organization of production always has had its effect on armed conflict not directly, but through a base, through a system of social relationships inherent to some social-economic structure. There is no such direct dependence of armed conflict on the organization of production at the present time.

Marxism-Leninism requires a specifically historical approach to the study of each individual war. Only by such an approach we shall

learn that in the same epoch different wars can and do happen. Lenin taught that imperialistic wars are typical of the era of imperialism and at the same time he pointed out that these wars, although typical, are not the only ones. Wars of national liberation and civil wars arose in the era of imperialism, and with the emergence of socialist states there were also wars in defense of the socialist Fatherland. "That is why an epoch is called an epoch," wrote Lenin, "because it embraces the sum of the various phenomena and wars, both typical and atypical, both great and small, both peculiar to advanced, and peculiar to backward countries."*

Let us move now to a brief examination of the development of military theory by periods.

As is known, military theory formed and developed over the course of a very long historical period. In ancient times, when social practice, the level of knowledge and the conditions of its dissemination were limited, when there still was no printing, military knowledge was of an extremely restricted, narrow, empirical character and was not distinguished by universality. Thus, for example, the matter stood in the era of the slave-owning method of production. Although at that time experience of armed conflict had already been accumulated, there was still not the necessary prerequisites for its comprehensive scientific generalization. This occurred first of all because a sound and developed ideological and methodological basis, as well as differentiation of scientific knowledge which itself was still in a rudimentary state was absent.

In the slave-owning era, wars between slave-owning states for the purpose of robbing and enslaving other peoples by the ruling class of slave-owners of the stronger states were typical. In this period civil wars also took place in which the slaves stood up against their en-

slavers or in which within a slave-owning society a struggle for power developed among different groups of the ruling class. Wars were also conducted between slave-owning states for supremacy in certain regions, that is, predatory wars. Rome's wars with Carthage were such wars. Finally, slave-owning states conducted wars with so-called "barbarians," that is, with tribal alliances of peoples in a state of pregovernmental societies in the form of a system of military democracy.

Slave-owning production, the natural economy, the muscular strength of the people and animals, manual sidearms, primitive war machines in a limited number were the material and technical base of these wars. In the first stage of their historical development, the armies of the slave-owning states were made up of the slave-owners or of people from among the free workers. They could not have been numerous. The wars took place in the form of brief campaigns and had as the immediate purpose the destruction and annihilation of the enemy's forces in direct armed conflict, as a rule, in a single battle line, on one battlefield. Great importance in the military campaigns of that period was attached to the siege and defense of cities, to the organization of fortified camps. All this predetermined the development of military theory in accordance with the requirements of the armed conflict.

In this era, theoretical works concerning war were hardly distinguishable from general philosophical and historical literature and most often were of the nature of descriptions of various historical events and the activities of prominent generals who became famous for successful military campaigns. These works, although they gave a notion of the military art of ancient people, were a presentation of facts giving the general state of military affairs in some country, and in a majority of cases did not contain deep theoretical generali-

zations and conclusions. Individual questions relating to armed conflict were the subject of study in them.

Nevertheless, from an analysis of these works it is possible to draw the conclusion that some, most general principles of armed conflict had already been discovered and recognized by the writers of that time. Moreover, it should be noted that a rather high level of development of practical military art was characteristic of the slave-owning society and its general foundations were used in subsequent periods of development. The greatest contribution to the development of military affairs in this era was introduced by such states as China, India, Persia and Assyria in Asia, Egypt and Carthage in Africa and Greece and Rome in Europe.

Among the most ancient sources which give an account of individual elements of the theory of military art are the Chinese "seven books" which consist of seven treatises. One of them was written by the military theoretician and general of ancient China, Sun'-Tszy who lived in the VI-V centuries B.C. Sun'-Tszy was a representative of the Chinese slave-owning despotic society in the period of its development when the rural community was breaking down and cities and trade were taking shape and growing.

Guided by accumulated historical material, Sun'-Tszy studied the theoretical foundations of conducting armed conflict under the conditions of that time, showed the contradictory nature of war and formulated some general laws for conducting war. To the subject and content of military theory Sun'-Tszy attributed basic elements which have an effect on war: the moral element, time, locality, activities of the generals, organization of the army, methods and forms of the military activities. He attached extreme importance to a comprehensive approach to war, its economic provision and the morale of the army and people.

○ Sun'-Tszu's treatise on military art was translated into a number of languages. In studying this treatise it is necessary to keep in mind that because of the special historical conditions of the development of China it has undergone repeated modernization; its different variations which date from different epochs are not free of subsequent depositions.

Of other ancient sources which characterize the rise of military theory, the Greek and Roman deserve the most attention.

As F. Engels notes, "the Greek armies are the first about whose organization we have broad and accurate information. It must be said that the history of tactics, especially infantry tactics, begins with them."*

Greek philosophers, such as Democritus (460-370 B.C.) and Aristotle (384-322 B.C.) who glorified wars directed toward the seizure of slaves and the enslavement of other peoples also had a great influence on the development of military theory.

Ancient Greece is rightly considered the cradle of military history. One of the ancient sources which has a relation to the development of military science is Herodotus (484-425 B.C.), the author of the work "History of the Greco-Persian Wars." There are valuable data in this work on questions of the military art of that time. Herodotus' reports remain the only source of information on the Greco-Persian Wars, although many of them, especially those concerning numerical data on the numbers of troops, were refuted by subsequent investigators.

○ Another ancient Greek historian - Thucydides (460-396 B.C.) who lived in the golden age of Athens devoted much effort to a description of the Peloponnesian War, but he did not succeed in carrying out his investigation to the end. Rationalism in thought, critical attitude

toward an analysis of historical information, objectivity and a reliability in presenting historical facts which was greater than Herodotus' are characteristic of Thucydides.

Xenophon (430-355 B.C.) also is one of the military writers and historians of antiquity. He was a man of oligarchic convictions and an ardent opponent of Athenian democracy. Of his military-historical works, "Anabasis" is well known - a composition of a memoir nature, in which the campaign of Kir the Younger, the unsuccessful battle and the retreat of 10 thousand Greeks across Kolkhida to the Black Sea coast and further into Greece is described. Of the other works of Xenophon, we can mention the very interesting "Advice for Cavalry Chiefs," "Advice for Horsemen," as well as the so-called "Kiropedia" in which, in novel form, many opinions on questions of the organization, recruiting, equipping, training and education of troops are presented. Xenophon was the first in history to give a distinctive definition of strategy and tactics, divorcing them from each other.

One of the greatest historians of ancient Greece was Polybius (205-125 B.C.). He lived for a long time in Rome. He wrote a general history which encompassed the history of Greece, Macedonia, Asia Minor, Syria, Egypt, Carthage and Rome in the period from 220 to 146 B.C., in which many questions of war are presented and discussed, and the causes of the subjugation of a number of states and peoples by Rome are explained.

Arrian and Plutarch are historians of a later time, who lived at the beginning of our era. Arrian, in imitation of Xenophon, wrote another "Anabasis" which gives the history of the Asian campaign of Alexander of Macedonia. Considerable space in the writings of Arrian is given to organization of the armed forces of India and to a description of Indian military art. Arrian was a Roman general for some time

and a number of his works were devoted to a description of Rome's aggressive campaigns. Plutarch was chiefly a moralist historian. To his pen belongs a large number of biographies of various public figures of the ancient world, including generals.

It should be mentioned that because of the specific historical conditions prevailing in the ancient world, glorification of the role of generals to whom were ascribed all the achievements in the development of military art, prevailed over ideology in historical military works. To a certain degree, this corresponded to the historical situation which favored the elevation of individual people and their effect on the historical process. Thus, under those conditions, historical accounts were the principal form and at the same time the method of military knowledge.

There were also theoretical military works in Ancient Greece. Among them are the already mentioned above works of Xenophon, as well as the "Tactics" of Eneus and certain others of his works. The "Tactics" of Asklepiodotus and the "Theory of Tactics" by Elian are later works (First Century A.D.). Of the generals of ancient Greece who made a contribution to the development of the art of war, it is necessary to mention Miltiades who led the troops in the battle of the Marathon valley where the Greeks won a decisive victory over the Persians.

The work of the Theban general Epaminondas (Third Century B.C.) was a significant contribution to military theory. Historical sources attribute the first use of irregular distribution of forces in the battle line to him, that is, the principle of massed, concentrated forces.

The Greek campaigns under the leadership of one of the greatest generals of the ancient world, Alexander of Macedonia, had special significance for the development of military theory. He had at his dis-

posal a regular army which was large for that time.

The army of Alexander of Macedonia used all the achievements which were available in the military affairs and technology of its time. The campaigns of Alexander of Macedonia, described subsequently in many historical works, provided much material for the development of theoretical military opinions in later times.

The methods and forms of preparation for and conducting armed conflict in the army of Alexander of Macedonia were very perfected for that time, therefore even a simple description of this campaign served as a significant contribution to the development of military theory.

The next stage in the development of military affairs in the ancient world was the Roman art of war which long remained the model for subsequent generations. Fabian Piktora (Third Century B.C.), who was strongly influenced by Greek historians, is usually considered one of the first Roman historians. He wrote histories of the first and second Punic wars. The material of these works was widely used by Polybius.

Among the greatest Roman historians who possessed great independence in the elaboration of historical military questions and did not follow blindly the Greek examples, it is necessary to mention Callustius Crispus (86-35 B.C.) and Julius Caesar (100-44 B.C.).

Callustius wrote "The Conspiracy of Catline" and "The Yugurtin War." Segments from his "History of Rome" which encompassed the period from 78 to 67 B.C. have come down to us.

Julius Caesar is the outstanding political and military figure of ancient Rome. He was not only an important general but also a well-known military writer. He wrote "Commentaries on the Gallic War" which gave the history of the conquest of Gaul. He also wrote "The Civil War" in which his wars with Pompey are described.

The works of Julius Caesar had a great influence on subsequent

historical military accounts, as well as on the development of military theory. It is known that Napoleon studied his campaigns and widely commented upon his works. The great Russian generals, Suvorov, Kutuzov and others, also thoroughly studied the works of Caesar.

Titus Livius (59 B.C.-17 A.D.) was a great Roman historian. He wrote a history of Rome from its founding to our era. However, this work which was constructed on the uncritical use of the works of preceding authors, is not always sufficiently reliable.

Cornelius Tacitus (55-120 A.D.) belongs among the greatest Roman historians who lived at the beginning of our era. He also wrote a history of Rome (69-96 A.D.) and "Annals" (from Augustus to Nero). The Jewish historian Joseph Flavius lived and wrote in this same period in Rome. He wrote the book "The Judaic War" which was of a nationalistic nature. In about the second century, simultaneously with Arrian, in Rome the historian Appian was also occupied with the development of historical questions. He wrote the work "Roman History," in which much space is devoted to Rome's predatory wars. In the next centuries the historians Cassius Dion Coccean, Ammian Marcellin, Yevnapius and Olym-piodorus, who primarily commented upon previously published historical works, became well known.

It is characteristic of the works of ancient historians that their general histories were still closely interwoven with military history and that the latter was not separated into an independent branch of knowledge.

However, even in ancient Rome, together with historical accounts of wars, there also developed a theoretical military literature on questions of the art of war. Of course this literature was principally based on general historical material, but it approached generalizations and conclusions of a theoretical order considerably more boldly

than the Greek. Frontinus wrote, for example, the so-called "Strategems" which was a survey of all types of military strategems used in the past and known from historical works. Frontinus grouped all these military strategems according to elements of battle (its preparation and conducting), as well as by individual types of battle activities (the defense of fortresses, their siege). The last part of "Strategems" is devoted to questions of military discipline and measures for encouraging it.

In the first century B.C., the work of Onisander, "Manual for Military Leaders" was published which gave much attention to the morale factor. Understanding that the level of the troops' morale depends to a considerable degree on the purposes and nature of wars, Onisander recommended hiding the true purposes of war, describing aggressive, predatory wars as defensive. Questions of the working out of a war plan were first found in this work. Questions of the art of war, the organization of campaign movements, reconnaissance, protection, the organization and conducting of a battle, the leading of troops occupy a large place in the "Manual for Military Leaders." This was one of the first works on the leading of troops.

In the fourth century A.D. works of the famous Roman military theoretician Vegetius appeared. In his book "Brief Presentation of the Principles of Military Affairs" the first attempt in the history of the development of military thinking was made to give a thorough (for that time) systematic presentation of all the branches of military affairs of ancient Rome. Questions of the organization and recruiting of an army, training of troops, conducting of battle and war as a whole, as well as questions of military history, the military art of the army and navy, administration and military pedagogy were examined in this work. All this had great importance for the development

of military theory and was widely used in the middle ages.

0 In the period of the slave-owning social-economic structure, military theory succeeded in arriving at individual generalization and conclusions which approximated knowledge of some of the most general laws of armed conflict. If you take the work of Vegetsius which is the model of the generalization of military experience in the slave-owning period in its final stage, then the conclusion can be drawn: ancient authors distinguish defensive and offensive wars; they pay great attention to the siege of cities, since in that historical period cities were often the object of military actions; they carefully study questions of the organization the contemporary armed forces, their equipment and methods of their use in battles.

Vegetsius emphasized in his treatise the following important point: "Usually in any battle victory is achieved not so much by numbers and untrained valor, as by proficiency and exercise." It can be seen from this what importance he attached to the preparation of troops, their ability to master arms and conduct battle. In his first book Vegetsius noted that the Romans "always won because they were able to choose recruits skillfully, teach them, so to speak, the laws of weapons... to foretell during exercises in the course of camp life everything that might occur in action and during battle... knowledge of military affairs feeds courage in battle... In the time of military actions, a small but trained detachment always achieves victory much sooner, whereas a raw and untrained mass is always doomed to death."* Attaching great importance to the acquiring of knowledge, Vegetsius emphasized many times: "...Let he who desires to obtain a favorable result in the conduct of war be guided by skill and knowledge, and not by chance."**

0 Vegetsius also understood the great influence of morale in war.

He wrote: "The good of the state as a whole depends on the selection of recruits best not only in body, but in soul...."* The author also considered the importance of the quality of equipment. "A legion usually achieves victory not only by the numbers of its soldiers," wrote Vegetsius, "but also by the kind of its armament,"** and he further thoroughly characterized the armament of a legion, including missile machines. Vegetsius also expressed thoughts on the role of surprise. "Surprise frightens the enemy, the expected is worth little."***

The era of ancient Rome, especially during its golden age, abounded in numerous wars which were conducted in the interests of a slave-owning state. The experience of these wars and the creative work of the prominent generals furthered the development of military theory. Among the generals of this era who made a significant contribution to the art of war and military science, the Carthaginian general Hannibal and Julius Caesar should be noted.

It is also important to mention the leadership of Spartacus who was a prominent military expert of his time. Spartacus headed the largest uprising of slaves in Italy in 74-71 B.C., which shook the mighty Roman empire to its foundations. Spartacus' army, which reached 120 thousand men, dealt a number of serious blows to the government troops. From historians' accounts, the slaves fought with great courage in all the battles. But the greater military organization of the government forces and the death of Spartacus at a decisive moment of a battle in Apulia helped the Romans to win a victory over the rebellious slaves.

K. Marx evaluated Spartacus highly. He wrote about him: "A great general... a noble character, a true member of the proletariat of antiquity."**** Lenin called Spartacus "one of the most prominent heroes of one of the greatest slave uprisings...."*****

However, Spartacus' contribution, like that of a majority of other

generals of the people, did not find reflection in the old history of the art of war and in military theory in general since it was intentionally ignored by the military theoreticians of the exploiting classes.

At the beginning of the fifth century Rome fell under the blows of the revolting slaves and "barbarians." The slave-owning Western Roman Empire ceased its existence. The center of development of military theory shifted to the feudalized Eastern Roman Empire - Byzantium. Of the historians of this empire who made a contribution to military science, Procopius of Caesarea, who wrote a history of Emperor Justinian's wars with the Persians, Vandals and Goths, should be mentioned.

The theoretical military work of the Byzantine writer Pseudo-Mavricius "Strategics" deserves special attention. In this work the subject examined was the organization, armament and training of troops, the planning of march and battle formations, the methods and forms of preparing and conducting battle, battle provisions and the nature of conducting armed conflict among different peoples. Pseudo-Mavricius did not divide the art of war into strategy as the art of preparing and conducting war and tactics as the art of conducting battle. All his instructions pertain mainly to tactics, although he uses the term "strategy." Many questions of the tactics of that time are developed quite completely in his work. The author also has very valuable instructions on questions of counter-offensive which was considered at that time an important method of battle actions.

The works of Pseudo-Mavricius are a further development of the theoretical military thinking of that time. They give much theoretical material characterizing the art of war of the Eastern Roman Empire.

In summing up what has been said, it is necessary to note that in examining the theoretical military thinking of great antiquity, we paid

attention first of all to those of its aspects which moved theoretical military thinking ahead and enriched it with new data, principles and conclusions.

It has already been noted above that military science in that period still had not been formulated because of lack of experience and deficient development of an ideological base. Historical military accounts and the biographies of prominent generals were primarily the form of the generalization of military experience. Individual questions of the art of war, primarily of tactics and the organization of troops, were theorized.

In view of the briefness of the presentation, we could not subject the idealistic theories and expressions of the theoreticians and practitioners of the ancient world on military questions to a critical analysis of a different type. And, as is known, there were many such expressions. The idealist philosopher Plato (427-347 B.C.), for example, asserted that war is an ordinary, natural condition of peoples and that there always have been and will be wars. This reactionary theory is used by bourgeois military ideologists of imperialistic states at the present time and serves as a basis for justifying expansionist, imperialistic wars.

* * *

The era of feudalism in Europe, if the transitional period from feudalism to capitalism is included here, encompasses a very long period, approximately from the fifth to the eighteenth century. The wars, and together with them the nature of military art, the composition and organization of the armies and navies and the military theory of the feudal era which have been studied by historians, primarily pertaining to European experience, cannot be considered as a single and unchanged

whole for the entire period. Over the course of the centuries-old existence of this structure, it is possible to distinguish several distinctive periods in the development of military affairs, and together with them, in military theory in accordance with changes in the political structure of the feudal states, in the nature of their politics and the wars conducted by them, in the level of development of the economics and military technology and in the nature of the recruiting and organization of armies and navies.

The limited (in goals and scale) internecine wars of the feudal lords, directed toward expanding the feudal domains, that is, the seizure of lands and serfs, were typical of early feudalism, especially the period of feudal parcelling out of land. The absence of firm, stable governmental structures, characteristic of this period, as well as of large armed forces and of a broad economic and cultural exchange, limited the development of military affairs, which were primarily in the form of individual tournaments of knights and of feudal militia limited in composition, armament and numbers. But along with this, a struggle against feudal parcelling out of lands and oppression was carried out. For example, in the form of religious wars in which the militias of the cities dominated at that time, which were more or less considerable in their numbers and in their capacities to conduct armed battle, took active part.

Later, the nature of the wars changed with the consolidation of monarchic power and the formation of absolutist states. With the development of the handicraft and then the manufactory method of production, the material economic base of war broadened. With the formation of centralized states and the growth of commodity-monetary relationships the possibility and necessity arose for the creation of regular, at first mercenary, professional armies which gradually began to ac-

quire a national character. Noting these changes in military affairs, Engels wrote: "...The general downfall of the feudal system and the growth of cities led to changes in the makeup of armies... Feudal armies ceased to exist, new armies began to be formed from the numerous mercenaries, to whom the decay of feudalism gave the freedom to serve those who would pay them. Thus something similar to regular armies arose; but these mercenaries, people of all sorts of nations, whom it was difficult to keep in order and who were not paid very accurately, committed very great excesses. Therefore, in France King Charles VII created a regular army from the local natives. In 1445 he recruited 15 ordonnance companies* (compagnies d'ordonnance) of 600 men each... These troops can be considered as the first regular army of the new time."**

A change to new methods and forms of military activities was found principally in the middle of the eighteenth century when new material conditions of preparing and conducting wars began to appear with sufficient strength. Within the framework of the feudal social-economic structure, the basic prerequisites for a leap in the development of military affairs grew ripe. This leap was achieved in full measure in the period of bourgeois revolutions which signified the downfall of the system of feudalism in a political respect and the bringing of the new economic relations into accord with the attained level of development of the productive forces of society.

Theoretical military thinking and the art of war in the era of feudalism developed differently among different peoples. In Western and Southern Europe, a decline in military affairs is observed initially in the period of early feudalism. The disappearance of comparatively large masses of troops from the battlefield and their replacement by a knightly militia, few in numbers, bearing all the evils of

"feudal freebooters" - anarchy, lack of discipline, absence of any hard and fast organization - promoted stagnation in military affairs and inhibited the development of scientific knowledge. Of the sources of that time having some significance for military science, it is possible to find only various chronicles, including chronicles of the crusades.

The military science of that period corresponded on the whole to the structure of the feudal society: to its parcelled out land-ownership, to the low level of development of the productive forces and to the weak state system. The knightly army is the unique reflection of the characteristics of feudal society in military affairs. The supremacy of the knightly cavalry in Europe lasted for several centuries. Wars in this era were of an extremely limited character and did not pursue decisive objects. Sieges of castles lasted for years. Large battles were few in number. In the largest of them near Buvina (1214) only about 5000 men took part. The art of generalship of that time was of a low level because there were no objective conditions for its development. In individual cases when a large knightly militia was gathered, as for example in the eighth campaign of the crusaders, in which up to 10,000 knights participated, their leaders proved to be unprepared for their generalship.

This does not mean that there was no movement forward in military affairs within the limits of early feudalism. First of all, individual military skill of the knights attained a certain perfection. The technology of armaments improved. But the art of conducting battle and war on the whole remained at a low level. Military theory hardly developed at all.

The creation of troops from city and crusade militia, and later - of regular mercenary armies of absolutist states and the use on an ever

increasing scale of firearms began a new stage in the development of the military science of feudal society.

While in the countries of Western Europe the dark middle ages prevailed, and a decline in the sciences and military affairs took place, in other countries its rapid development was observed, for example, among the Arabs, Mongols and in ancient Russia.

We are separating the development of theoretical military thinking in Russia into a special section, and in this chapter we shall dwell briefly on the contribution which the Arabs and Mongols made to the development of military theory.

The Arabian state was dominant in a military respect in the seventh century. Over the course of several dozen years the Arabs subdued a whole series of ancient states. In the period of the greatest flowering of the Arabian caliphate, the territories annexed by the Arabs exceeded the Roman Empire. Besides the Arabian Peninsula and Asia Minor, the Arabs possessed Central Asia and Transcaucasia, Northern Africa and part of Southern Europe. Their army included primarily large masses of cavalry which was divided into heavy and light. They had both an infantry and a navy. The troops also had missile machines, including the simplest models of flame-throwers and firearms.

Having become conquerors, the Arabs adopted the culture of the peoples which they had subjugated, also continuing to develop their own culture. They made considerable progress in the development of science and art.

Sources from which information might have been obtained about the development of theoretical military thinking in the period of Arab supremacy, unfortunately, have been insufficiently developed. Historical chronicles are the principal sources.

An Arabian scientific military treatise written at the beginning

of the fourteenth century by Hassan-ar-Rammah is worthy of note. Methods and means of siege (sapping and demolition, rams and ballasts) are considered in this work, the use of saltpetre and other combustible and explosive substances for military affairs are mentioned.

Artificially created as the result of huge conquests, the Arab state did not represent an economically whole organism and therefore quickly disintegrated. In its place several states were formed in which the development of the art of war continued along its own special paths.

At the beginning of the thirteenth century a union of the Mongols who lived on the broad spaces of the steppes and the desert of Eastern and Central Asia took place. In 1206, Genghiz-Khan was proclaimed head of the Mongol Empire. The huge cavalry, organized according to a decimal system, which he created, carried out predatory, devastating campaigns, pillaged and destroyed foreign lands.

Of the generals of the Mongol state who left their trace on history, it is necessary to mention Genghiz-Khan, Subedeus and Batyus.

Tamerlane who lived from 1333-1405 belongs among the Central Asiatic generals who had the greatest effect on the development of military theory and military affairs in the countries of the Near East. The Mongols had a local influence on the development of military science, methods and forms of armed conflict. Certain methods which they used were adopted in part in armies which had large numbers of cavalry. In other countries the development of military theory continued on its own path.

A significant contribution to military science in this period was made also by the Czech general Jan Zhizhka. He created a large army on the basis of a people's militia. The skill of Zhizhka's Czech army exceeded by far the military skill of knightly troops.

A noticeable change occurred in the development of theoretical military thinking during the Renaissance. Great changes took place in the economy of the European countries in this period. Along with the natural economy, handicraft and trade developed more and more. Within the framework of a feudal society, elements of a new, bourgeois structure were born. The Renaissance was characterized by great geographical discoveries. A sea route to India was found, America was discovered. Great successes were achieved in the natural sciences and arts. Firearms appeared in Europe in the fourteenth century.

Of the theoretical military works of this era, it is necessary to mention "Treatise on the Art of War" by the Florentine, Machiavelli, in which he substantiated the principle of the historic character and regularity of the development of the art of war. Machiavelli was a prominent political, governmental and military figure and an eminent military writer. He introduced the idea of the creation of militia army of citizens instead of a mercenary army and secured its accomplishment. Such an army of infantry and cavalry was created. The question of the organization of troops is allotted much space in Machiavelli's work, here chief attention is given to the infantry. In discourses on the role of strategy and tactics in war, Machiavelli advises striving for active, decisive effects, at the same time he indicates that it is better "to smash the enemy on the head than on the stomach." His recommendation on the construction of battle formations, on reserves, as well as on questions of the moving of troops and their material supply are of great interest.

An important turning point in the art of war in the late feudal era took place in connection with the bourgeois revolution in the Netherlands and their battle for liberation from the Spanish Empire (1566-1609). This was the first bourgeois revolution in the world, sig-

nifying the appearance of a new social-economic structure -- capitalism.

The significant economic development of the Netherlands which became the center of trade and commerce in Europe, as well as the high morale of the people who fought for their freedom from feudal and foreign oppression lay at the basis of the high level of development of the art of war in this country.

One of the prominent military figures of the Netherlands who was able to understand and use the principles of the new era was Moritz of Orange. He did much work to bring the organization of the troops into accord with the new conditions. The army of the Netherlands had all the features of a regular army and differed advantageously from other mercenary armies. A new battle formation was introduced in it: instead of the square columns, accepted in European armies, the troops were formed in lines. Each line consisted of several ranks. In 1668, an officer of the Dutch army, Boksell published a work entitled "Dutch Military Training." In this work, the author correlated the training and battle practice of his army, gave the bases of its organization and preparation.

The work of Moritz of Orange on the training and education of officers of whom he required good military knowledge and personal training of the soldiers subordinate to them also had very important significance.

The Swedish general, Gustaf-Adolph, was another outstanding representative of this period. He created a well trained regular army, rearmed the artillery, developed new systems and battle formations which provided convenience of the troops' operations and control of them.

The success of the Swedish army in battles which were conducted by Gustaf-Adolph is explained not only by the fact that solid organi-

national principles lay at its foundation, but also by the fact that Sweden at that time, having overcome feudal scattering, represented the only national state with a sufficiently powerful economic foundation for that time.

In the period of the English bourgeois revolution (1642-1649), Cromwell made a considerable contribution to military affairs. He created a regular army, looked after its high moral qualities and with a firm hand implanted discipline and order. Cromwell's revolutionary troops invariably surpassed the royal troops in their fighting capacity.

French military art was in its prime in the second half of the seventeenth century. Of the French governmental and military figures, Luvua, who reorganized the French army and its material security in a radical way, should be mentioned. The commissariat was considerably improved, a five-transitional repeating rifle system was introduced. Considerable development in fortification was also obtained. A corps of military engineers appeared. The French military figure and engineer, Voban, made a particularly great contribution to military engineering and military affairs on the whole. He improved military engineering by developing a bastion system of construction of fortresses and developed methods of seizing them.

The limited goals of the wars of that time and the high cost of maintaining the troops, their dependence on supply bases also had an effect on the methods of conducting military activities. Instead of decisive offensive actions in strategy and tactics, methods and forms of troop maneuvers directed against the communication systems which joined the troops with the stores from which they were supplied were developed.

Of the military leaders of this period, the French Marshall Tou-

raine, the Austrian generals Eugene of Savoy and General Montecuculi should be noted. Many generals have studied their battle experience and have been guided by them. A characteristic of Touraine's strategy and tactics which attracted the attention of his contemporaries was skillful maneuvering for the purpose of creating favorable conditions for battle, concentrated movement of the troops and powerful strikes at the enemy. In the area of tactics, Touraine held to the old principle of irregular distribution of forces along the front and he reinforced that wing on which the fate of the battle depended. Touraine did not have a pattern in military actions. Thus, in defiance of existing opinions, in a battle at Zintzheim, he placed the cavalry not on the flank, but in the center where the country was better, and achieved success.

Eugene of Savoy, French in origin, served in the Austrian army. He contributed to the development of military science chiefly through his campaigns in Italy (1706). An example of his skillful conducting of battle was his correct choice of the operating line drawing the enemy to the flank and rear, uninterrupted battle for seizure and holding the initiative in his hands. The Austrian General Montecuculi took part in a number of wars and after their conclusion wrote several works on military themes. His work "Notes on War" contains a number of interesting remarks from a historical military viewpoint as well as in the field of tactics.

These works were primarily of a descriptive character. They did not signify the formulation of military science as a well-composed system of knowledge, and were as if preparatory materials at a stage in the course of which experience was accumulated, conclusions were correlated and scientific military knowledge was formulated on a foundation of increased economic capacities connected with the formation of

a capitalistic method of production and a change in the political goals of wars conducted by bourgeois states.

* * *

The establishment and formulation of military science as the sum of knowledge about war, military affairs and the art of war took place only in the eighteenth century. The growth of productive forces, the expansion of the economic base, the strengthening of the state system and the growth of new capitalistic relations were the principal prerequisites for this. At this time economic and cultural exchange among countries and peoples had become stronger. A number of wars were conducted for partitioning the world and for the seizure of colonies. On the basis of a developing economy the possibility emerged of creating strong regular armies, at first staffed by means of recruitment and then by recruit conscription. The general level of knowledge about nature, the discovery of a number of basic principles showing the general connection between phenomena, their unity and historical development caused the possibility of the development of a comparative historical approach to such phenomena of public life as war and military affairs. It is true that this method was primarily of a metaphysical nature, it did not rest on a correct understanding of the true dialectical nature of social phenomena, but nevertheless furthered empirical knowledge of many principles of military affairs.

Follar, Giber and Moritz of Saxony were prominent military writers of this era. The subject of study in the works of these military writers was chiefly the art of war and the area of tactics. The authors attempted to sum up previous historical experience, to compare it with the experience of the ancient world and to draw the appropriate conclusions. They examined all military questions chiefly by tactical

scales. Tactics was the chief content of their scientific works.

Giber was occupied with the study of linear tactics and its use in the French army. He wrote the book "Experience of Tactics." Studying the military art of Friedrich II and admiring him, Giber at the same time found weak points in the military art of the Prussian king.

Giber fought for high maneuverability of troops, relieving them from the nonmobile artillery, and for improvement of the organization of the infantry. However, he was never able to renounce the five-transitional magazine system although its requirement of troop maneuverability and mobility differed from the rules of conducting military actions based on the principles of this system.

The French marshall, Moritz of Saxony, was an advocate of a change to military conscription, the creation of prepared command cadres, their education and training. In tactics, his requirements came down to the wide use in the infantry of columns and bayonet charges and of close order attacks in the cavalry. Moritz of Saxony paid much attention to the morale element and to a study of the psychological factors in the actions of people in war.

The Prussian king and general, Friedrich II, had a certain effect on the development of the military science of that time. Expressing the predatory interests of the Prussian junkers and trade capital, he carried out a number of wars which made it possible to annex considerable territories to Prussia. Friedrich II paid special attention to strengthening of discipline in the army and its training. But the Prussian system of army organization and the training of troops was deformed. The soldier was turned into a trained, obedient animal. A disciplinary system, drill and full dress parade flourished in the army.

Friedrich II wrote a number of works in which the reactionary strategy of Prussian absolutism and serfdom was expressed. As Engels

points out, he brought linear tactics to perfection -- the only form of battle which suited the quality of the armament of that time, and above all -- the quality of the mercenary army with extremely low morale of the rank and file.

For a long time the ideas of Friedrich II captured the minds of Prussian militarists even after the crushing defeats which the Prussian armies suffered from the Russian and French troops in wars at the end of the eighteenth and the beginning of the nineteenth centuries.

The numerous wars of the eighteenth century, as well as the rapid development of all the sciences and social and political ideas on the foundation of the developing capitalistic method of production vitalized military theoretical thought. In the eighteen-eighties, the Englishman Lloyd, who served for many years in a number of European (including the Russian) armies, wrote a small book -- "Political and Military Memoirs." This book was an introduction to his long-planned fundamental work "History of the Seven Year's War." This book is considered by bourgeois historiography as a fundamental work on the theory of strategy as the science of war.

Lloyd actually did great work in this direction. He generalized and theorized in the form of a specific system the strategy primarily of the dynastic wars of his era and established some general principles of war. The value of his work lies chiefly in the fact that, by responding to an urgent objective need, he tried to work out the principles of a general theory of war as a means of politics. Lloyd was one of the first writers to clearly emphasize the connection of war with politics, as well as the significance of the moral-political factors and national characteristics to the art of war. Lloyd's strategy is the strategy of the five-transitional magazine system. Lloyd developed the concept of a line (direction) of actions in an operation which

represented a path from the base magazine to the goal.

Bulov was another prominent military writer of this period. His work "The Spirit of the Latest Military System" was published in 1799. In addition, he made studies of the Thirty Years and Seven Years Wars and wrote descriptions of Napoleon's campaigns in 1800 and 1805. Bulov correctly understood the relation between politics and strategy. He indicated that "political strategy is related to military strategy in the same way as the latter is to tactics," that is, military strategy is subordinate to politics and carries out its plans.

In his work "Spirit of the Latest System," Bulov presented twenty principles of strategy in which he proceeded from the existing five-transitional magazine system. He gave a substantiation of operational lines based on a geometrical principle. Parallel, divergent operational lines and lines included in an obtuse-angled triangle figure in his work. He also gave the foundation of a base encompassing the arc of an enemy base, worked out variations of a retreat along parallel and eccentric operational lines and introduced a number of other hypotheses.

Bulov gave a definition of strategy and tactics. By strategy he meant the science of movements occurring outside of the enemy's field of vision. Tactics, on the other hand, is the science of battle movements within the enemy's field of vision. Strategy governs the troops on a march, before battle, tactics - in the battle. Of course, such a definition was still far from science.

Bulov's "geometrical system" was the reflection of a speculative and metaphysical stage in the development of the art of war, but nevertheless it found its followers in the Austrian, Prussian and certain other European armies. However, in such armies as the Russian and French, it was hardly practiced.

It can be noted that rationalist thought, cultivated by the bour-

geoisie, also found its reflection in military theory. The latter rests on direct experience, is of a practical nature and at the same time is concerned with the general principles of war and military affairs.

The French bourgeois revolution caused a radical upheaval in military affairs at the end of the eighteenth and beginning of the nineteenth centuries. It opened a new era in the development of the art of war, an era of the establishment and affirmation of new concepts, methods and forms of armed conflict. At this time, the principles of bourgeois military science were laid down. In this era the political goals and the nature of the wars, which in the interests of liberation from a feudal-serf-owning structure in a number of countries poured out in a fight against a foreign state for the sovereignty and independence of national states, primarily changed. In these wars, the temporary coincidence of the interests of the broad masses of the people with the national interests of the bourgeoisie, historically put forward as the ruling class, imparted a common national character to the goals of the wars. A prerequisite of the new method of conducting war was, along with the economic possibilities of France and the political aspirations of its ruling class, the mighty awakening of the broad popular masses who fought for the ideas of the revolution with enthusiasm. The introduction of troop conscription which made it possible to continually make up losses in war and to create new armies had particular significance for the creation of a popular army. At the same time, war industry began to be created and the arsenal of armaments increased.

The personnel of the army changed in a radical way. The mass of the soldiers were yesterday's citizens. They knew what they were fighting for. The democratization of the officer corps, the introduction in the first years of the revolution into large units and formations of

an institute of commissars who were representatives of the government and its controllers, played an important role. From among the masses of soldiers and officers, the people brought forward their new generals who understood the spirit of the times, the problems and capacities of the people and used them skillfully. V.I. Lenin pointed out: "Both within the country the French revolutionary people then displayed for the first time a maximum of revolutionary energy unprecedented in the course of a hundred years, and in the war at the end of the eighteenth century they showed the same gigantic revolutionary creative work, recreating the whole system of strategy, breaking all the old laws and customs of war and creating, in place of the old troops, a new, revolutionary popular army and a new conduct of war."*

The success achieved in the development of philosophy and methods of knowledge which developed in the period which preceded the bourgeois revolution, as well as in the course of it, played an important role in the establishment and formulation of bourgeois military science.

Thus, with the victory of the French bourgeois revolution, military science obtained a new economic base, a new political, philosophical and methodological foundation and a more progressive ideology for its development. The large number of wars which were conducted in this era furthered the accumulation of experience and attracted inquisitive minds to its correlation, investigation and comprehension. The new organizational structures which arose in the wars of the French revolution and were perfected in the subsequent wars of Napoleon were of great importance to the development of military theory.

The divisions which appeared somewhat earlier and which had at first more administrative than military significance, chiefly acquired the role of tactical units of arms of the service. Because of this, the division became the principal battle unit. Army corps capable of car-

rying out independent tasks in separate directions were created. The organization of the artillery which in several battles was massed in large groups numbering hundreds of guns, was improved. A cavalry capable of conducting various battle activities and of swift attacks in close order was created. The supply system was completely reorganized and the army chiefly changed to allowances from local resources achieved by means of requisition which promoted an increase in its mobility.

In the field of strategy, the military art of the French revolution was characterized by decisiveness of purpose and boldness of action. A decisive battle is the chief goal of a general and the troops led by him. The types of maneuvers became extremely varied. Evasions and outflankings were widely practiced in the military theater and on the battlefield. A loose order of riflemen in combination with columns was widely practiced in tactics.

Napoleon was one of the most important generals of this period whose creative work made a great contribution to the development of military theory. Skillfully using the material and moral capacities engendered by the revolution and being therefore considerably stronger than his Western European antagonists defending the interests of absolutist feudal monarchies, Napoleon conducted wars with decisive goals. He set as goals of each military campaign the destruction of the enemy's armed forces and the complete submission of his will. This submission was achieved by the utter defeat of the enemy's armies, the seizure of territories of the enemy states and the spreading of governments welcome to him, transformed into vassals of the French Empire.

In contrast to the preceding era when in Western Europe the art of generalship came down to the ability to maneuver for the purpose of evading battle, in Napoleon's era decisive battles acquired greatest

importance.

0 Napoleon conducted battles with massed blows of his "fists." During the battle of Jena in 1806 he strived to concentrate on "battalion square of 200,000 men." The main thing by which Napoleon was guided here was a striving for one shattering lightning blow to put an end to the enemy's army and to bring him to capitulation.

Napoleon's strategy was characterized by great skill of conducting military actions by internal operational lines, by which he boldly maneuvered his army, in turn falling upon first one, then another adversary, as well as by striving to resolve his problems by a blow to the enemy's communications, by gaining the rear of his main forces and by subsequent attack of the enemy's most vulnerable places. This type of action compelled the enemy to enter into battle with a reversed front, placed him in an extremely unfavorable position and, as a rule, produced good results.

In a majority of cases Napoleon brought the battle to a decisive end. The troops which he led, particularly the masses of light cavalry, pursued the enemy to its complete destruction.

Napoleon's tactics were in complete accord with his strategic aspirations and intentions. He valued highly troop mobility. His troop marches were completed rapidly. While the artillery and transports moved along the roads, the infantry in platoon columns proceeded along the sides of the roads and by cross-country tracks.

0 Before a battle, Napoleon usually concentrated his whole army in reserve orders. He used not only frontal strikes in battles, but also widely used the possibilities for evasion and outflankings of the enemy's battle position for the purpose of applying blows to the flank and rear.

Napoleon had the ability to concentrate large groupings in narrow

sections for breaching the front of the enemy's battle order. He always detached the most minimal forces in the secondary direction. The massed attacks of Napoleon's troops, prepared for by concentrated artillery fire, always surprised the unsettled troops of his enemies in Western Europe. However, in Russia, especially in the battle of Borodino, he encountered an army upon which such attacks had little effect. The Russian army itself could attack not worse, if not better than the celebrated Napoleonic army.

Napoleon had the ability to lead troops on the battlefield most skillfully. It is true that he underrated his own general staff, but the commanders of corps and division received specific orders from him and functioned in their sections more independently than the generals of the enemy's armies. Friedrich II with his methods of control could not be raised higher than the level of a corps commander and chiefly carried out tactical leadership, while Napoleon led as Commander-in-Chief, carrying out strategic guidance of the forces scattered on a broad front, as for example, in Russia. At the same time Napoleon nevertheless restricted the initiative of his marshalls, converting them to executives obedient to his will. Not wishing to weaken the possibility of personal control of the army and not fully relying on the abilities of his marshalls, he preferred to have one army where the enemies troops were reduced into three armies, as, for example, in Russia. The objective conditions of armed conflict already had made new demands on army leadership. The phenomena of operations had arisen. Napoleon evidently underestimated the new developments on this question.

The Napoleonic art of war which was successfully used in wars against Western European states, however, did not stand the test in Russia, in battle with the Russian army. The latter proved to be more prepared for a long intense struggle than Napoleon's army. Resting on

popular enthusiasm and support, the Russian army drove Napoleon's troops outside the boundaries of Russian soil and inflicted severe damage on them. Nevertheless, in spite of the damage in the war with Russia and later in the struggle with a coalition of European states, Napoleon's military skill was canonized by Western European military theoreticians and captured their minds up to the first world war when the belligerents were convinced by bitter experience that Napoleonic ideas and principles were not applicable to the new historical conditions.

In addition to his generalship activities which served as the material for special study by many military writers, Napoleon also left a number of written works. Of the military historical works by Napoleon, his "Commentaries," published in 1867 in six volumes, should be mentioned. Examination of the campaigns of Julius Caesar, Touraine and Friedrich II takes up much space in his works. Seventeen notes on Ron's "On the Art of War" are given in volume VI. In addition, Napoleon's huge correspondence and official letters were published in 1858-1870 in 32 volumes. It has significance for the study of military history, but requires a critical approach and analysis since Napoleon juggled and distorted the historical truth to justify his mistakes. Napoleon's works are not really of a scientific nature. The author's idealistic world outlook, his misunderstanding of the true causes of historical processes and objective principles shine through. Napoleon examines the actions of generals of the past from the viewpoint of the opinions of his era which, certainly, is far from scientific. A doctrinaire attitude and voluntarism is characteristic of him.

Correlating the experience of the wars of the French bourgeois revolution began at the end of the eighteenth century and was particularly widespread after their conclusion. These military theoretical

studies caused much animation in the field of military knowledge and furthered the development of bourgeois military science. It is possible to state bluntly that the latter was created primarily on the foundation of investigations of Napoleon's art of generalship.

One of the first and most well-known military theorists and propagandists of Napoleon's military skill was General A. Jomini. Before 1813 he served in the French army, made several campaigns with it, was the governor of Vilna and Smolensk and then went into the Russian military service. Jomini's first military historical and theoretical work was his "Treatise on Large Battle Operations," published in 1805 in four volumes. In this work a critical study of the wars of Friedrich II is given. Later, his new fifteen volume work "A Critical Military History of Revolutionary Wars" was published. He wrote the work "Napoleon's Political and Military Life, Recounted by Himself to a Tribunal of Caesar, Alexander and Friedrich. Napoleon's campaigns are described in this work. A new work by Jomini "Essay on the Art of War or a New Analytic Portrayal of the Most Important Combinations of Strategy, Large-Scale Tactics and Military Politics" was issued in 1830.

The military art which Jomini expounded consists, according to his ideas, of three parts. The first is strategy, by which Jomini meant the science of troop leadership in the military theatre. The second is tactics, that is, the maneuvering of the army on the day of battle, the various formations in which it is necessary to lead the troops into battle. The third is logistics or the practical art of moving armies and the techniques of conducting battle actions.

Jomini gave much attention to the development of principles of war, the most important of which he considered to be decisiveness as the basis of achieving the set goals. In discussing strategy, Jomini wrote: "My proposed system is to have the greater part of one's forces

act offensively at the most important point, and at the secondary points to hold defensive positions at strong points or using a river as a cover until a decisive blow is inflicted and the operation for the complete destruction of the most important parts of the enemy is concluded; then the possibility is created for directing one's efforts toward the other dangerous points."*

Much space is given in Jomini's works to questions of a system of offensive and defensive operations, to the selection of strategic points ("keys") and operational lines and to the creation of strategic reserves. He also criticizes the method of conducting systematic trench warfare, calls it the old method and contrasts the new, mobile warfare with it.

Jomini believed that the art of war can and must have its own scientific theory based on the recognition of a number of invariable principles which have existed for ages and were manifested in the activity of great generals. Skillful application of these principles must bring victory, ignoring them - defeat.

Thus, Jomini raised individual principles of war and military affairs to an unvariable category, suitable for all time, and thereby deprived the theory which he created of a genuine scientific foundation.

Upholding the "eternal" principles of war, Jomini at the same time rejected theories "based on the false concept that war is a positive science, all of whose operations can be reduced to faultless calculations."**

In spite of the great shortcomings of Jomini's military theory, his ideas emphasizing the importance of military theory, which propagandized the notion of a battle as the most important act of war, found many followers in all armies of the world, including the Russian.

The Russian Military Academy brought the General Staff up on Jomini's ideas for a long time.

However, his essays were subjected to criticism. One of the most prominent writers who rose in opposition to some of Jomini's positions was Major General Medem, Professor of Military History and Strategy of the Russian Military Academy. Medem, in particular, came out against Jomini's doctrinaire passion for actions on internal operational lines which was characteristic of the Napoleonic military art. Medem correctly pointed out that the direction of actions is dictated by the specific conditions and cannot be invariable. He also came out against the half-way policy of Jomini who asserted that the influence of politics on strategy is limited only to the moment the decision is made and that in the course of war strategy does not depend on politics.

Another military writer who reflected in his works the effect which the Napoleonic wars had on military science was Generalissimo of the Austrian army Archduke Charles. He correctly understood and evaluated the new methods and forms of war and battle used by the French army. Placing himself at the head of the Austrian army, he began to train and educate the troops in the spirit of maneuverability, introduced loose order, taught the conducting of warfare for local objects. In 1805-1806 Archduke Charles wrote regulations and directions for troop commanders, in which all these new opinions were reflected. In the guide "Principles of Higher Military Art" he wrote that the large goals of a war can be achieved only by decisive actions. Here it was also pointed out that the most important skill of a general is to be able to correctly determine the time and place of the decisive blow and skillfully carry it out.

Archduke Charles divides wars into offensive and defensive, preferring in all cases the former to the latter. There are indications

in his manual concerning the composition of an operative plan. But in the recommendations on this plan fear for its communications and stores was nevertheless expressed, and excessive caution shines through the instructions. These characteristics of his generalship also found reflection in his practical military activities.

Archduke Charles also gives instructions in his regulations on the order of conducting offensive and defensive war, on position in defense and attack. Here he says that there can be an infinite number of choices of position. Each position requires a different grouping of forces, a different disposition. He writes: "The task of a wise general is the appropriate use of the general rules of the art of war and a skillful approach to the various circumstances and positions in which he finds himself."*

Another work of Archduke Charles bears the title "Principles of Strategy." He defines strategy as the science of war. Tactics, in his opinion, is the art of war. Strategy determines the decisive points which must be seized. Tactics teaches how to arrange and use troops, as well as how to guide them at strategic points and how to move them along operational lines in order to achieve the strategic goal. Tactics is subordinate to strategy. However, they are closely linked.

In setting forth the fundamental principles of strategy, Archduke Charles gives much attention to military geography. Being well acquainted with it, he was excessively carried away by geographic factors and overevaluates them. To him belongs the idea of the so-called strategic and tactical "key points," by whose seizure certain strategic and tactical problems will supposedly be resolved. The theory of strategic and tactical keys at first received certain distribution, but later it was correctly set aside as insufficiently scientifically well-founded.

Thus, in the theoretical military works of many authors who lived in the period of the establishment and rapid growth of capitalism, along with the development of questions of tactics as the science of battle and strategy as the science of conducting military actions, a general theory of armed warfare begins to be developed. In this general theory, the formulation of which responded to practical necessity and the level of accumulated knowledge, the general principles of armed conflict, its goals, means, methods and principles for victory over the enemy are considered. However, all this was presented in the form of generalizations of historical experience and conclusions having absolute significance and validity for all time. Such a presentation was inherent to the metaphysical method of the learning of that time and, naturally, could not have real scientific value.

The development of bourgeois military theory, its subject and content are also closely connected with the name of the well-known German military writer, Clausewitz. Clausewitz served for a long time in the Russian army and took part in battles against Napoleon. Clausewitz was a well-educated person for his time. He studied Hegel's philosophy which had a great influence on him. To Clausewitz belong a large number of works, chiefly military history, as, for example, "The Italian Campaign of Napoleon Bonaparte," "1799," "1812" and others.

In his military historical works Clausewitz incorrectly, in a distorted light, represents the Russian army. In the victories of Peter I and Kutuzov he sees the influence of only some climatic factors. He did not understand the greatness and talent of the Russian people and the Russian generals. One of his works which left deep traces on bourgeois military science is the unfinished essay "On War." V.I. Lenin believed Clausewitz to be one of the greatest military thinkers of that time. The most important idea, clearly expressed by Clausewitz,

was the idea that war is not an independent, isolated phenomenon, that war is nothing other than a continuation of politics, only by other, namely violent means. In defining war as a continuation of politics, Clausewitz understood politics in his own way. He did not succeed in discovering the social and class nature of politics. Proceeding from the Hegelian idealistic theory of the "super-class nature of the state," Clausewitz understood politics only as a relation between states and not a relation between classes within the state and recognized in it a super-class character.

Being one of the most prominent bourgeois military theorists, Clausewitz denied the possibility of the existence of a positive military theory. He considered war as the reign of chance and demonstrated the impossibility of learning the "secrets of war." Clausewitz advocated subjectivism in military affairs, assigning the decisive role in war to the general, whose talent and genius alone are supposedly capable of providing a victory. Clausewitz did not understand the role of the popular masses in the historical process and in this respect he did not rise above his predecessors.

In his works Clausewitz paid principal attention to questions of the art of war. He recognized decisive battles and destruction of the enemy's manpower as the most important means of achieving the goals of war. Clausewitz was for conducting active and decisive war. He recommended concentrating large forces to inflict blows on the enemy and recognized the possibility of achieving the goals of war by one strategic effort which required one strategic echelon to assemble all their forces and means.

Clausewitz saw an interdependence between offense and defense. Moreover, he groundlessly considered defense as the most powerful method of war. This erroneous point of view, naturally, did not receive

universal recognition. Clausewitz understood considerably better than many of his predecessors the content of strategy and tactics, but here he also made an error when he proceeded from the incorrect opinions of Friedrich II. He subordinated strategy to tactics, saying that tactics should be given preference in battle since strategic successes arise from tactical ones. This position was correct for his time since the outcome of a majority of wars actually was decided on the fields of decisive battles. This theory was widely reflected in German military art and found application in the military actions of the German army both in the first and second world wars when historical conditions ceased to correspond to it.

Of Clausewitz's other military ideas, the idea concerning the ruthlessness of war, the necessity to conduct war without any restrictions, which the German army actually did in its wars, should be mentioned. Clausewitz gave much attention also to a study of the material factors which make for victory or defeat in war. However, he considered these questions from an idealistic viewpoint. There is much material for reflection in his works. However, it is necessary to keep in mind that these materials are based on experience of wars of another era and were written in another historical situation.

The significance of Clausewitz's work "On War" is that it was one of the first most elaborated works on a general theory of armed conflict. It gives a definition of war as a continuation of politics, sets forth a doctrine of war based on an idealistic world outlook. In connection with the fact that a doctrine of war and a philosophy of war had not been worked out, Clausewitz independently attempts to resolve this problem. Therefore, in his work a doctrine of war, a general theory of military science and a theory of the art of war are actually combined.

In the first half of the nineteenth century a book written by the German military theorist Villizen, "Application of the Theory of Large Scale War to the Russian-Polish Campaign of 1831" was published. A considerable part of this work was taken up by questions of strategy, from which the author excluded the whole element of politics and the practice of military affairs and attempted to create a military theory by purely speculative means. Villizen defined strategic activity in war one-sidedly as the supplying of one's own army and deprivation of supply of the hostile army. Moreover, Villizen attached great importance to combat and battle, without which strategy is deprived of the possibility of resolving the tasks facing it.

Archduke Charles, Napoleon, Jomini and Clausewitz together with other military figures and writers of that time laid the foundations of bourgeois military theory as a science and placed under it a certain scientific basis, although it suffered, as has been indicated, from important shortcomings, methodological deficiency, narrow-mindedness and contradiction.

Bourgeois military science did not develop as a single universal theory. Its development actually went in two main directions. Jomini and Clausewitz were the most brilliant spokesmen of these directions. Having an idealistic world outlook as a general principle and taking Napoleon's military art as the ideal, these ideologists differed in an evaluation of the possibilities of the existence of military theory as a science. Jomini is known in military science as a spokesman for the so-called positive direction, who asserted the possibility of creating a military science stating the principles of the art of war as guiding principles for actions in war. Clausewitz and his followers in substantiation of their opinions often referred to the existence of certain eternal and invariable principles. At the same time they thought that

war, as has been noted above, is the reign of chance and that therefore there cannot be talk about any scientific theory of military art and military science in general. The art of war, according to Clausewitz's notion, is a field of subjective creative work, of a general's inspiration. Therefore, it is called an art and cannot be a science. Here Clausewitz notes that the concepts "military art" and "military science" have been used synonymously.*

In speaking about scientific theories of war, Clausewitz noted that "they aspire to specific values, whereas in war everything is indefinite and clearly variable quantities are taken into account."** He indicated that the very nature of the subject of investigation - military art - makes the creation of a positive scientific system absolutely impossible. His conclusion is "the theory must be a consideration, but not a doctrine."***

The works of the spokesmen of both directions of military thought, although one-sidedly and inconsistently, nevertheless reflected to a greater or lesser degree objective principles of armed conflict which furthered the development of military science. There were supporters of both directions in different countries. Supporters of the first direction primarily were members of the French and Russian theoretical military schools, and of the second - the Prussians.

Up to the nineteenth century the subject of military science was examined diffusely and it included everything that pertained to war, to the ways and means of conducting it, to the building of armed forces, military science was understood collectively, after Jomini and Clausewitz the subject of military science became mainly military art and a general theory of bourgeois military science began to be formulated. There also existed the point of view that military science is the theory of military art which itself is only the practical activity

of generals.*

We have named a number of military figures and military writers who laid the foundations of bourgeois military science, but its development is not exhausted only by their works; it continued during their work and in succeeding years. Among the bourgeois military figures and writers who made a significant contribution to the development of military theory in the West there are the German authors - Verdi du Vernu, Mol'tke (senior), K. Gol'ts, Sherf, S. Shikhting, A. Shliffen, G. Del'-bruck, F. Bernhardt and the Frenchmen - J. Leveia, P. Foch, Granmezon, and the naval military theoreticians - the American, Mekhen, the Englishman Colomb and others.

The work of these theorists took place under different historical conditions, in particular, in the period when Germany and Italy achieved national unification, within whose framework on the basis of overcoming feudal disintegration and foreign domination, the growing productive forces obtained scope for development along capitalistic lines. Having attained these goals in just wars, the national bourgeois states began to conduct predatory, unjust wars for the division of the world. Along with such wars as the Austro-Sardino-French (1859), the Austro-Prussian (1866), the Franco-Prussian (1870-1871) and the civil war of the capitalistic North with the slave-owning South in America, the bourgeois countries conducted a number of aggressive campaigns in America and Asia. In this era there appeared in the historical arena a new, most progressive class - the proletariat, whose revolutionary struggles shook all the edifices of the capitalistic system more and more. However, the experience of the revolutionary battles of the proletariat against the bourgeoisie was consciously ignored by the bourgeois military theorists although it seemed quite evident that it was impossible to underestimate the effect of this experience on the

development of military theory.

It is impossible to evaluate the importance of any military theorist to the development of military science without taking into account the characteristics of the historical period in which he lived, just as it is impossible to study and understand military science outside the specific historical framework and tasks which it would be called upon to serve at one or another stage of historical development.

The German general and military theorist Verdi du Vernua, whose work relates mainly to the beginning of the second half of the nineteenth century, also made a specific contribution to military science. He developed the applied method of studying the art of war, in contrast to Villizen's speculative method. Verdi tried to teach an understanding of the general principles and foundations of military affairs in particular cases and examples. He introduced war games on maps which with considerable changes exist today. Verdi du Vernua wrote a large number of works on strategy (11 books) and tactics (10 separate works). In strategy, Verdi du Vernua took into account the scales of new wars which might arise. He was interested in questions of naval strategy and colonial wars. In his studies he turned to the military art of antiquity many times.

Verdi du Vernua's works on tactics in the majority of cases are based on well-known principles and are of the nature of commentaries.

Mol'tke was the most important representative of German military theoretical thinking of the second half of the nineteenth century. In this period capitalistic society experienced rapid growth in all areas. Mol'tke lived and wrote in the era when the railroad and telegraph appeared, when the numbers of armies grew considerably, and in armed conflict new phenomena which gradually acquired the form of operations began to appear more and more clearly. Mol'tke tried to interpret the

new things which arose in military affairs in the area of leading and using large masses of troops which are moved along different routes but which are concentrated for joint actions in one strategic group.

A collection of his statements on questions of military affairs, "Military Lectures,"* and a number of military historical works which are of an empirical character are well-known. As the leader of the general staff, Mol'tke was the creator of Prusso-German strategy which he defined as a "system of supports." In the conduct of war he demanded independence of strategy from politics.

Bourgeois historiography grossly exaggerated Mol'tke's role and services, especially his strategic skill. But he indeed stood at a high level. Engels wrote about Mol'tke's strategy in the period of the Austro-Prussian war: "...The strikingly bad strategy of the Prussians overcame at Sadova the even worse, surprising as it is, strategy of the Austrians...."***

A bad example of Mol'tke's strategy is also the plan of war on two fronts, against Russia and against France, which he first worked out in 1888. This plan, which was supplemented many times by Mol'tke's successor Shliffen, failed at the beginning of the first world war. Nevertheless, Mol'tke was thoroughly acquainted with many new questions of military affairs. He correctly defined the role of the railroads and telegraph in the wars of his time. He correctly evaluated the role of science and technology in war. But nevertheless he underrated certain problems of military science, as, for example, the efficient use of cavalry in battle and operations and the skillful maneuvering of artillery in battle. Mol'tke underestimated the role of fire and required the conducting of attacks with compact, close-order columns.

All this does not give military science the right to allot Mol'tke a special place in its development and to call the period 1860-1891

the "era of Mol'tke," as has been done by bourgeois historians.

The German general von der Holts wrote the work, "Armed People" (1883), in which he was one of the first military theorists in the West to try to interpret the principles of the new era connected with the changed character of armies due to universal military service.

General Sherf wrote the work, "War Studies." Sherf was an advocate of the Napoleonic art of war. He divided the art of war into three parts: into elementary tactics where automatism and indisputable rules prevail; teachings on battle, or applied tactics which is guided by general foundations and principles and teachings on battle in which the general's will and general principles prevail.

Sherf's strategy also consists of three parts. The first part is concerned with questions of the use of strategy in the goals of war and the achievement of peace; the second with the use of armed forces and all the means of the country for conducting war and the third with the use of armed forces in battle. Sherf's opinions also are of an idealistic and conservative nature.

General Shlichting wrote a work in three volumes, "Principles of Modern Tactics and Strategy." The first volume is devoted to questions of training, that is, what and how to teach troops for war. It considers the characteristics of battle, the role of the troops and the principles of their training. The instructions on the necessity of using the tactics and regulations of the German army which were already outdated at that time is characteristic of this work. Shlichting comes out sharply against the existing principle: "new arms - old tactics." He demands sharp changes in tactics in accordance with the increased fire power and in the character of the artillery.

The second volume of his work is devoted to questions on the theory of strategy. In it Shlichting contrasts his strategy with the Na-

poleonic and in working out its principles rests primarily on the teachings of Clausewitz, Mol'tke and the experience of the Austro-Prussian and Franco-Prussian Wars. His strategy does not go beyond the limits of preparing and carrying out operations and is devoted to a study of battle actions on large scales and battle. To Shlichting belongs the development of the principles of moving several separate armies in the theater of war and their concentration for battle in one region. In tactics Shlichting paid great attention to the development of questions of encounter battle. The author based the origin of this battle on the experience of the Franco-Prussian War of 1870-1871 in which the increase in the range of artillery fire required the troops to deploy at a greater distance from the enemy than before and enter into battle from a march. Later his views on encounter battle were adopted with some change in other armies.

Shliffen was the follower and continuer of Mol'tke's ideas on the German general staff over the course of a long period of time. He wrote the works, "The General" and "Canons." In the first of these Shliffen fights for the division of a general's work. In his opinion, the modern general cannot lead by himself, a collective of generals is needed in order to cope with political and strategic leadership in modern war. In the book "Canons" on the experience of the famous battle conducted in 216 B.C. by the Carthaginian general Hannibal, Shliffen propagandizes the theory of conducting battle and battle actions by means of surrounding and destroying the enemy's main groups. This position found clear reflection in the German art of war. Shliffen was the author of the 1914 plan of war and to him belongs the idea of evading the French flank through Belgium.

French military theory, one of whose leading spokesmen was G. Bonnal, held quite the opposite opinions in this period. The German

military school gave wide initiative for actions, within the limits of the regulations, it is true, while the French, and after it the English military school, were advocates of the strictest centralization and rigid planning of battle actions.

Bonnall introduced the theory of a defensive offense or "offensive defense." He denied the idea of encounter battle, did not understand the origin of the elements of operative skill, thereby ignoring new phenomena in armed conflict.

He believed that there are only large and small scale tactics. Large scale tactics, according to his views, is the art of conducting operations. In order to secure centralized direction and unity of actions, Bonnell required unanimity of opinions in the area of strategy and tactics, reducing the latter to specific principles which would be clear and understandable to all. On the whole, Bonnell's school was of a backward nature and did not take into account the new things which had entered the military art of that time in connection with the development of military technology and the other objective conditions of armed conflict.

The French general Levalle was a follower of "positive strategy" and "positive tactics." He, like Villizen, tried to isolate strategy from politics, and reduced the content of strategy to the preparing and conducting of operations, but on the whole his opinions were a step forward in the history of the development of bourgeois military science. Levalle asserted that the principles of military art do not have an absolute value, but are changeable and not firm. He came out against "rules" of military science which were drawn up in certain generals' statements without consideration of the time, place and circumstances. Levalle taught that such rules, being applicable in some circumstances, in others only inhibit matters and hinder the development of military

theory. As Levalle pointed out "plain common sense" is not enough in war. In war everything seems simple, but indeed war is complex, difficult to understand and requires huge knowledge and great intellectual development of the general.

Emphasizing the importance of scientific knowledge of war, he wrote: "In our era there is a tendency toward general industrialization, including armies. The scientific aspect prevails everywhere, and consequently, it cannot be absent in military operations."*

Levalle came out against the primitive reduction of the art of war to a trade, demonstrating that hack-work in military affairs is the worst mediocrity, not capable of anything. He demanded continuous perfection of officers and generals, believing that only this will make it possible for them to be up to the mark and to show high military skill in war. Levalle recognized the great effect of the element of morale on war which generals must take into consideration, and he also worried out about the creation of a high spirit of morale in the troops. In the field of tactics he expressed a number of new thoughts and criticized Jomini who represented Napoleonic strategy and tactics as the latest and highest achievement of military science. Levalle firmly advocated recognition of military science and the possibility of the development of a positive scientific theory.

On the borderline of the nineteenth and twentieth centuries, capitalism moved to its highest and last stage - imperialism. Imperialistic (especially typical of this era), unjust, predatory wars arose, directed toward redivision of the world, already divided among the imperialistics. Moreover, national liberation and civil wars took on a wider scope in the era of imperialism.

Of the military historians and theorists of the beginning of the twentieth century in the Western European countries, it is necessary

to mention Delbruck who, although an idealistic in world outlook, in examining the military events of the past made many valuable generalizations and conclusions. His works, "The Greco-Persian and Burgundian Wars" and "A History of the Art of War in the Framework of Political History" had considerable value for bourgeois military science. F. Mering, in studying the history of wars and military art, believed this work of Delbruck's to be "the most serious work of the historical thinking of bourgeois Germany of the last hundred years...."* He notes the positive features of the historical method of study used by Delbruck, his honest and serious approach to historical material, however, not free from the defects inherent in a bourgeois scholar, an apologist for German imperialism.

Of the prominent military theorists who emerged on the eve of the first world war, Bernhardt in Germany and Foch and Grandmaison in France should be mentioned. The Prussian general, Bernhardt, wrote the work, "Modern War." In it the author investigates the conditions of conducting war in Europe, its regularities and fundamental principles, and studies the "constants and invariables." Mass armies and the possibilities of military art in connection with the growth of a new military technology were subjected to his investigation. In his work, Bernhardt mainly reflected the opinions of the German military school on the eve of the first world war. He recognized that war and military phenomena "are controlled by certain laws, that there exists a certain, invariable relationship between the form of the actions and the result and that certain actions always have the same result...."*** However, Bernhardt understood the laws metaphysically, considering them eternal and invariable.

Bernhardt paid much attention to questions of leading armies in war. By studying the nature of the organizational system of troops ex-

isting at that time and their recruitment, as well as weapons, he came to the correct conclusion that modern war will be the war of mass armies. He also correctly noticed the new phenomena in battle, emphasized the changes in the character of the general army battle in connection with the development of the artillery, of small arms and especially of machine guns, he demanded changes in battle formations and understood the question of field works.

Foch wrote the works "The Principles of War" and "The Conduct of War." In them the following questions are investigated: the goals of war, its causes, the means of war, the development of a plan of war, measures to be carried out in wartime, grouping of forces in war, the assembling of forces before the beginning of war, the order of conversion to operations and management. Foch, using Verdun's applied method, tried to create a military doctrine for the French army which would completely satisfy the requirement of the new war.

Taking as a principle the position that a future war between France and Germany would develop between the Rhine, Maas and Belgium, Foch attempted by means of reasoning to study a whole series of strategic questions, to explain certain decisions of the German command in 1870 and how the contemporary circumstances differed from the Franco-Prussian war. Foch subjected Moltke's opinions on war and his basic positions on strategic leadership to criticism. Foch extolled the Napoleonic art of war even more than his predecessors and represented it as the highest degree of perfection.

Foch's theory, which was constructed on one of the particular cases of the Franco-German War, expressed his admiration for the Napoleonic art of war and the attempt to fit the situation to doctrinaire conceptions. Many tenets of this theory hardly differ from Bonaparte's views. As might be expected, a majority of Foch's theoretical proposi-

tions on the nature and forms of war, operations and battle later (in the first world war) did not find any confirmation.

Grandmaison was the founder of a well-known opinion of the French general staff, which was expressed in a few words: "Offense, offense, offense at any price." Grandmaison demanded that in every action in war, in spite of everything, lay the imprint of the offensive spirit. The alternation of offensive and defensive actions is the death of any offense, asserted Grandmaison. To provide for the success of an offense, he recommended the introduction of all forces and means into the matter, he fought for all forces and means to be concentrated in one strategic echelon from the beginning of a war. But this theory proved to be untenable from the first days of the war of 1914-1918.

The naval military writers, A. Mekhen and F. Colomb, are known for their works in this field of naval military theory. Mekhen wrote the book, "The Influence of Naval Power on History." This work reflected the predatory, colonialist aspirations of the USA and at the same time responded to the interests of the imperialistic politics of England, Germany, Japan and other countries. Mekhen's ideas were adopted by all the principal imperialistic states and their naval schools. To him belongs the theory of the decisive importance of naval military power in history and theory of supremacy on the sea. Mekhen's opinions are of a reactionary nature and are not scientifically based. He considered war at sea and the battle for supremacy of the seas in isolation from the general conditions of war and armed conflict on land.

The British admiral, Colomb, published in 1891 the book "Naval War, Its Fundamental Principles and Experience." In his work Colomb chiefly investigated questions of naval military art. His fundamental concept is that under modern conditions it is impossible to win a war

on the sea without having won supremacy on it. "Naval supremacy," "possession of the sea" - is the principal purpose of the actions of naval forces in war. However, Colomb, like Mekhen, constructed his theory without consideration of other decisive factors of war, in particular, armed conflict on land.

Mekhen's and Colomb's theories "about possession of the sea" were not confirmed in practice either in the first or second world wars. "To possess the sea" proved to be impossible in practice even for the most powerful navies of the world. Other, weaker navies, "not possessing the sea," nevertheless conducted successful battle operations on the sea, and the development of aviation inflicted a final defeat on theories of the "great navy" and placed under doubt the question of the suitability of the modern above-water battleship for conducting war at sea.

In summing up what has been said it is necessary to note that in recognizing the nature of war and battle in the period immediately preceding the first world war, bourgeois military science took a new step forward. However, the idealism, metaphysics and doctrinarism predominant in it did not allow bourgeois military thinking to uncover more or less deeply the principles of war and to foresee correctly the characteristics of armed conflict on the eve of the first world war.

* * *

Along with the development of bourgeois military science in the midst of capitalistic society in the second half of the nineteenth century, the foundations of a new military science began to be laid which considered military phenomena from a materialistic point of view, in the interests of the working class which had moved forward in the historical arena as the chief motive power of society, fighting for the

freedom of the workers from capitalistic servitude, for the establishment of a dictatorship of the proletariat. There appeared a new doctrine - Marxism, as the scientific ideology of the proletariat.

Karl Marx and Friedrich Engels, great teachers and leaders of the proletariat, accomplished in the middle of the nineteenth century the greatest revolutionary coup in science. They popularized the principles of dialectical materialism in area of social phenomena, and discovered the laws of the development of society. They were much occupied by a study of military matters and saw in military theory a powerful weapon for the proletariat in its struggle with capitalism. They correlated the previous experience of all revolutionary uprisings and especially the experience of the European revolutions of the end of the eighteenth and the greater part of the nineteenth century.

The classics of Marxism, having disclosed the laws of social development, accomplished a revolution in the understanding of war as a social-historical phenomenon. They raised in a new way questions of the role of the popular masses in war and of the nature and significance of armed forces. They gave only the correct, scientifically based theory of the origin and essence of war and taught that every war should be considered as a concretely historical social phenomenon.

The emergence of Marxism into the historical arena also had an effect on the development of theoretical military thought. Along with the idealistic, bourgeois understanding of military affairs and military theory, a new materialistic understanding of war and military science grew and developed.

Marx and Engels disclosed the most important principles of the development of military affairs and showed the dependence of the methods of conducting war on the economic foundation, on the development of production. "Nothing depends as much on economic conditions," wrote

Engels, "as the army and the navy. Armament, staff, organization, tactics and strategy depend first of all on the degree of production at the given moment and on the means of communication."* The founders of scientific communism pointed out that the new productive forces will also be the precondition of each great new improvement in military affairs.

Marx and Engels divided wars into defensive and aggressive. By defensive wars were meant progressive and liberating wars and, thus, just wars, and by aggressive - predatory, reactionary, unjust wars.

A special role in the development of military science belongs to F. Engels, a brilliant thinker, a fighter for the ideas of the socialist revolution, an innovator in military affairs. Engels was the greatest military theorist of the proletariat revolution. He gave much attention to the development of questions connected with the origin and development of the army and its role under contemporary conditions. Engels demonstrated that the army in a class, antagonistic society is the apparatus of oppression of the working and exploited masses. There are no armies which stand outside of politics, every army fills its specific, class political role. Engels also attached great significance to the morale factor in war. Moreover, he pointed out many times that a high spirit of morale alone is insufficient for victory. It is necessary that the army be well supplied technically, well trained and educated. Engels pointed to the decisive role of the popular masses in the conduct of a just war of liberation and recommended the use in this case not only of the usual methods of war, but revolutionary war partisan operations.

Questions relating to the general principles of military science and the art of war occupy a large place in Engels' works. He wrote the articles: "The Army," "The Infantry," "The Cavalry," "The Artillery,"

"Fortification," "The Navy," "Battle," "Attack," "The Rifle," "The History of the Rifle," "Company Drill" and a whole series of others. In these notable articles Engels, using vast historical material, gave a profound analysis of the methods and forms of armed conflict and showed the basic principles of the development of military affairs. He correctly defined the role of the objective and subjective factor in war. Engels emphasized that the role of the general in war is always limited by the specific historical material conditions. Victory in war, Engels taught, is the result of the combined effect of objective and subjective factors and not only of the art of generalship alone. Moreover, Engels always paid much attention to the art of generalship, believing that it is impossible to win without it. Using materialistic dialectics in disclosing the principles of the development of methods and forms of war, Engels pointed out that the proletariat after seizure of power creates its own army, its own military art.

Together with K. Marx, F. Engels worked out the theory of armed revolt of the proletariat which had been developed by Lenin under new historical conditions and put into practice by the Bolshevik Party in the victorious October armed uprising.

To Engels also belongs a large number of works on contemporary wars in which an example of the use of dialectical materialism in evaluating military phenomena is given.

A notable Marxist military historian of that time was Franz Mar- ing in whose works a materialistic understanding of certain events of wars of ancient and modern history is presented.

Marxist views, since they were diametrically opposed to the ideal- istic concepts of bourgeois military science naturally could not be accepted by it.

* * *

The first world war was a drastic historical test of the basic principles of bourgeois military science. In this war, the leading concepts of bourgeois military art were a complete failure. Based on the methods and forms of armed warfare of the past, they proved to be unsuitable on the battlefields of the first world war. German military science, which on the eve of the first world war claimed the leading role, did not meet the test. The war, which the German military school considered as a transient campaign, was transformed into long, protracted, trench warfare which required colossal material means and huge, unprecedented human sacrifices. The war of 1914-1918 graphically showed the whole weakness of bourgeois military science, the complete unsoundness of its main theoretical principles. Bourgeois military science proved to be powerless to foresee and explain all those phenomena which characterized armed warfare under the new historical conditions.

Under the new conditions, war became a battle not only of armies but of people. On account of this, the importance of the morale factor and of the relationship of the popular masses to the war increased to a decisive degree.

War acquired the character not only of a military conflict, but also of economic competition manifested through armed warfare and having a huge influence on its course and results. The mass character of armies and their armament, the huge scope of battle operations in space and time, the gigantic expenditures (losses in man power, technicians, the huge expenditure of ammunition, etc.) — all this by far exceeded the usual notions of bourgeois military science and required it in the course of the war to reexamine its established views on the

nature of war.

The forms and methods of military operations changed considerably. But bourgeois military science did not foresee the effect of the use in massive numbers of rapid-firing weapons: machine guns, magazine rifles, field works of different caliber.

In the course of the war, the brief maneuvering period of military operations was replaced by prolonged trench warfare. The necessity arose for breaking through an incessantly intensifying defense. In spite of a huge expenditure of effort and means, of the unprecedented massive numbers used, surmounting of the enemy's defense did not receive any complete formulation in the way of methods worked out for achieving a decisive result. The development and broad use of the new means of war such as war gases, aviation and tanks was required, which, in combination with a changed composition, organization and armament of the infantry and artillery, permitted at the end of the war an approach to the creation of new methods and forms of battle operations which responded to the changed conditions.

The first world war began as a maneuvering war. However, after a short maneuvering period in which the belligerents tried to realize their prewar theoretical opinions and plans, a period of prolonged deadlock set in, from which each belligerent tried to find a way out by conducting aggressive operations. But all these attempts brought great disappointments and a majority of them did not succeed since in the bourgeois art of war there were no theoretically based and practically worked out methods and forms of breaching a stabilized defense and of developing a successful offense in depth. Instead of correctly evaluating the available means of battle and developing on this basis new forms for their use, as took place on the Russian southwestern front in 1916, the western military theorists directed all their ef-

forts toward a search for new means of overcoming the stabilized deadlock.

The creation of such means as, for example, chemical warfare, aviation, and tanks took up a lot of time. The training of troops in their use also required a long time. Only by 1917-1918 was it possible to cite the first successful attempts at a tactical breach of the entire stabilized front. The development of tactical progress in operations in the first world war was never worked out because of the absence of correct methods of using the available means of war. The Russian troops of the southwestern front came closest to solving this problem. General A. Brusilov, who commanded this front, displayed true innovation in organizing a successful offense. As a result this offense received the name "Brusilov's breach." This was one of the most brilliant, skillful and effective operations of the first world war. However, as a result of poor strategic leadership, insufficient supplies and general shortcomings of the Tsar's army, this operation was not completed.

In spite of its complex and contradictory character, the war of 1914-1918 left the deepest traces on military science. This was the first world war in human history, in which armies of many millions battled and used in massive numbers various new technological means of war. This war was the first large war whose experience was used in the development of a theory of world wars. It showed that the subject of military science under modern conditions broadened even more and encompassed not only the methods and forms of conducting war, but also the means of conducting it and the conditions under which it is prepared for and conducted. Military science in the period of the first world war should have considered the *economic and moral and political factors* affecting the course and outcome of the war. It began to en-

compass a huge number of phenomena related to the preparation and conducting of battle, operations and war as a whole. The borders of military science had clearly expanded.

Military art in the course of the first world war developed continually, primarily purely empirically, it is true. The belligerents were able to form, hold and provide with everything necessary the massed, technically equipped armies of many millions. Principles of moving them were worked out. Strategy received a considerable push in its development. There could not have been a decisive battle as an event having decisive strategic importance in this war. In order to achieve the political and military goals in the war it was necessary to carry out not one or two decisive battles, as previously, but a whole series of campaigns consisting of various types of operations on land and sea. A new branch of military art - operative skill, the elements of which began to arise in wars of the nineteenth and beginning of the twentieth centuries - received further development. Particularly great changes occurred in tactics which in the course of the war underwent many changes. The troops learned and used various methods of organizing a consolidated stabilized defense and its breach, new methods of artillery preparation; methods of using aviation, tanks, chemical warfare, etc., were found.

The experience of the first world war and the new phenomena of armed warfare which arose in the course of it served as a basis for the further development of theoretical military thought.

After this war several new theories arose, each of which in its own way evaluated the lessons of the war and the role of the individual types and kinds of troops in it. In a number of imperialistic countries there arose almost simultaneously theories, uniform in their class essence, of "small professional armies." The spokesmen for these theories

were G. Zoldan in Germany and D. Fuller in England. These theories were sharply reactionary in their political essence since they were based on fear of the popular masses and moreover on admiration for military technology. The second world war refuted all these theories. This war required even greater deployment of armed forces than the war of 1914-1918.

The use in massive numbers of a variety of battle techniques in the first world war led to an overestimation of their importance in war. Upon the conclusion of the war in Italy, D. Due's theory of "air war" arose, which was picked up almost simultaneously in the USA (Mitchell), in England (Trenchard) and in Germany (Gelders). This theory promoted aviation to first place as the principal arm of the service, and propagandized the possibility of victory in modern war only with its help, almost without the participation of land forces.

The British military thinker Fuller in the book "Reformation of War" suggested relinquishing massive armies and creating small motorized and tank armies with whose help all the problems of war could be settled. The views of this, as it was called, "garage school of thought," were interpreted and developed in France by de Gaulle, in Austria by Eimansberger and in Germany by Guderian. These views received wide practical use in the German fascist army.

The emergence of such theories as the theory of "air war" of the Italian fascist Due, Fuller's theory of "tank war," etc., was the direct reaction of the imperialistic bourgeoisie to the national character of modern wars. The authors of these theories proceeded from the fact that the chief opponent of the imperialistic aggressors was their own people and the first country of socialism — the USSR, which inspired them by their example. Moreover, these theories reflected the influence of the huge development of military technology which the

bourgeois military theorists made a great fetish of. However, the theory of "air war" like that of "tank war" nowhere acquired the character of a state military doctrine, although they undoubtedly had an effect on the development of bourgeois military science and on the preparation by the imperialists of a new war directed first of all against the Soviet Union.

The development of other views continued along with these theories. In France, for example, stabilized methods of armed warfare were the subject of special study. Many military writers such as Kullman, Bati, and Armango tried not to move away from the experience of the first world war and metaphysically declared that the methods and forms of armed conflict in this war will also retain their importance in the future. They pinned their special hopes on fortified lines. The Maginot Line was the concrete expression of these views.

One of the indications of the great interest of imperialist circles in the new war was the further development of military theory in Germany. In the thirties, Ludendorf - spokesman for aggressive German imperialism - developed a theory of "total war" in which recognition of the general character of contemporary wars in combination with the fascist idea of using any means and methods of conducting it found its reflection. German fascism which fully adopted the ideas of "total war" and endeavored to avoid wars on two fronts, selected "Blitzkrieg" as the principal method of conducting it.

Thus, in the period between the two world wars, the development of bourgeois military theories which acquired various features under the influence of political characteristics continued on the basis of the development of military technology and the experience of a number of "small wars." However, their common basis was class interest and political goals along with certain objective points engendered by the

material conditions of that time.

The second world war had even more significance for the development of military science. It was conducted on a broad military technological base, under conditions of high motorization and mechanization of troops with the use of the latest equipment in unprecedentedly huge amounts.

In the course of this war, tank troops, which developed in the period of the first world war, were used on large scales and resolved important operative problems. Aviation was also used on a large scale and its tasks were also broadened and involved both the support of military actions of the troops on the battlefield and also independent operations on objects of the operative and deep rear. The second world war was a war of armies of many millions which operated on huge fronts and carried out their strikes in great depth. The art of leading the massive armies in this war attained a high level.

Strategy, operative skill and tactics made a new leap in their development. However, bourgeois military science in this war proved to be far inferior to Soviet military science. The superiority of the new military science engendered by the Socialist structure over the old military science of the obsolescent capitalist society was thereby convincingly demonstrated. Understanding that recognition of the defeat of German military science is recognition of the superiority of Soviet military science, bourgeois military theorists try to explain this defeat idealistically, reducing the whole matter to Hitler's miscalculations and errors, to the unfavorable effect of climatic conditions, space, etc. There is no doubt that this was not the point. The victory of the Soviet Union over the fascist aggressors was a completely natural phenomenon. This war showed that Soviet military science was superior to bourgeois military science, that the skill of Soviet soldiers,

officers and generals proved to be higher than that of the Hitlerites, that the Soviet social and state structure was superior to the capitalist structure in a political, economic and military respect. The victory of the Soviet people and its armed forces is the natural result of the development of the Soviet Union after the October socialist revolution and the successes it achieved in the construction of socialism.

The second world war, to an even greater degree than the first, complicated the subject and content of military science. The latter is not now restricted to the sphere of military art, but together with it falls back upon the study of the effect of the economic factors on the fate of armed warfare, examining at the same time numerous military technological problems. Questions connected with the morale factor which has a huge influence on the course and outcome of war, and therefore acquires paramount importance in modern wars, occupy a large place in it. In the second world war, a closer connection of strategy with politics became apparent. Military problems have always resulted from political problems, and the achievement of decisive goals in operations was dictated by political demands. The management of the conduct of war in full measure became the prerogative of the state in the person of its leading state organs.

The development of contemporary bourgeois military science continues on the experience of the second world war, as well as of post-war scientific achievement. Modern military science in capitalist countries is of an extremely contradictory nature. After the second world war, as after the first, a number of "extreme" courses which now made a fetish of atomic weapons arose in bourgeois military science. At the basis of the military strategy of the USA and its satellites is the so-called "global strategy," and atomic and thermonuclear weapons

are being advanced as the chief means of war. Strategic aircraft and rocket weapons of different ranges are recognized as the principle means of delivery.

At the same time, the official military doctrine of the capitalist countries does not relinquish a massive army and navy. Even now, in peacetime, many states, especially the USA, England and France, have an army and navy of large numbers. There are large armies also in other countries of the North Atlantic Military Bloc, as well as in countries of other aggressive unions created under the aegis of the USA. Encouraged and supported by the American, British and French imperialists, the West German revanchists are developing their armed forces at a rapid rate. In the armies of the aggressive imperialist blocs, much importance is attached to rocket and nuclear weapons, aircraft, armored troops and chemical and bacteriological means of war.

The development of bourgeois military science is continuing. But because of its class nature and the depravity of its world outlook and methodological basis, bourgeois military science suffers from narrow mindedness and inconsistency. In its ideological trend, it reflects the reactionary nature of the outdated capitalist structure. At the same time, bourgeois military science reflects certain principles of modern armed conflict and takes into account many of its conditions and factors which influence the course and outcome of war. It is compelled to consider with objective necessity and to develop the art of war in accordance with the change in the nature of war, the quality of armaments, the composition and number of troops, to consider the effect on war of economic, and moral and political conditions and factors.

And at the present time, the imperialists consider war as one of the most important instruments for strengthening its economic and po-

litical supremacy. They are paying great attention to the development of military affairs and military theory, attempting to place at the service of aggressive war all the achievements of science and technology and the entire historical and modern experience of war. In this lies its strength. But bourgeois military science also has its weak points. The main weakness of bourgeois military science is that its ideas and aspirations do not correspond to the ideas and aspirations of the broad popular masses. Bourgeois military science does not have the support of the masses. The antipopular nature of bourgeois military science which is called upon to serve reactionary political goals in unjust wars, the impossibility of using in war all the resources of the countries because of the very existence of a capitalist structure — is the source of insurmountable weaknesses in the theory and practice of military affairs in capitalist countries.

* * *

The characteristics of the economic and political position of the country, the historical circumstances which have often forced the Russian people to defend their honor, freedom and independence in war with numerous enemies, have had an effect on the development of military theory in Russia, as in other capitalistic countries. The Russian state in the period of its emergence and formation repelled the invasions first of the Khazars and Polovets, then of the Byzantines and Tatar-Mongols and later the Turks, Poles, Swedes and Germans. The struggle with external enemies who threatened the very existence of the Russian people was interwoven with the class struggles of the oppressed masses against the feudalists and autocrats. The moral fighting qualities, love of freedom and courage of our people were formed in these unparalleled historical battles, and stable national character-

istics and traditions were laid down.

D Russian military art originates in the most ancient times. It was laid down and developed on the foundation of its abundant battle experience, independently of foreign states. Of course, as is the way of military art in general, *in the two-sided process of armed conflict a mutual exchange of experience takes place, in which the features of the more advanced art become predominant for both sides.*

The military art of ancient Russia stood at a very high level for its time. The successful campaigns of Oleg and Svyatoslav and many others testifies to this. Military naval art was greatly developed. The Russian navy approached Constantinople many times and routed the enemy forces.

Of the early works pertaining to the development of Russian theoretical military thought it is necessary to mention "Lectures" in which Prince Vladimir Monomakh describes his campaigns in a lecture to his sons. The art of war is the principal content of "Lectures": the methods of achieving surprise, the accomplishment of marches, methods of attack, etc. However, in the Russian military art of that period, as in the military art of the West, it is impossible not to note the shortcomings arising out of the feudal nature of the states. The military efforts of the Russian feudal princes were disconnected. The Tatars, taking advantage of this, defeated their troops separately. The people became heavily dependent on the Mongols. The Mongol yoke, which lasted about 250 years, retarded Russia's development for a long time.

D In this difficult period for our people, two Russian generals especially stand out — Alexander Nevskiy and Dmitriy Donskoy, who made great contributions to Russian military art.

Later, as the productive forces of the country grew and the Rus-

sian state acquired a more and more centralized character, Russian military art was developed and perfected. The military problems facing the Russian state were enormous. Russia, surrounded on all sides by enemies, was forced to conduct frequent wars in defense of its independence and to return the land taken from it earlier.

One of the most prominent Russian figures of this period was Ivan the Terrible -- a man of strong will and great intelligence. Peter I highly valued Ivan the Terrible and considered him a model for himself in the struggle for the consolidation of Russia's power. Ivan the Terrible was a great reformer and worked extremely hard on the organization of a regular Russian army. In that period, the Russian army was one of the strongest in the world and had a fine artillery.

With Ivan the Terrible, theoretical military thought began to develop rapidly. One of the military theorists of this period, Ivan Peresvetov, raised and developed many questions of military theory in the form of petitions to the Tsar. Peresvetov introduced the idea of the creation of a regular army. He correctly evaluated the role of firearms in battle. Peresvetov's military program stands much above the proposals of his contemporary Machiavelli. In the same period, there appeared in the Russian army the first manual of sentry and stanitsa service developed by Vorotynskiy.

Russian military art also obtained its development in the creative work of the leader of the peasant's uprising at the beginning of the seventeenth century, Ivan Bolotnikov. The serfs and peasants were the chief force of this uprising. The experience of this uprising was not studied and used by old Russian theoretical military thinking. Bolotnikov and his uprising began to be studied chiefly by Soviet historical military science.

The development of the art of war and theoretical military think-

ing in the period of the military operations of the people's volunteer corps under the leadership of Minin and Pozharskiy deserves special attention. Both heroes played a great role in the defense of the Motherland. They headed the struggle of the Russian people and freed the capital of our Motherland - Moscow - from the foreign invaders. The people's volunteer corps cooperated with partisan detachments who led the struggle with the enemy in the forests near Moscow. The actions of the great Ukrainian general, Bogdan Khmel'nitskiy, are also of great interest to the development of theoretical military thinking. He headed the struggle of the Ukrainian people against troops of the Polish gentry. In battles near Zheltyye Vodi, Korsun, Pilyavets, Zborovo and Batog, Bogdan Khmel'nitskiy and the troops led by him gave many examples of high military skill.

The conception in Russia of absolutism involved the reorganization of the armed forces. In 1560-1580 an army of a new, foreign structure was created which existed in parallel with the strelitzes. The numbers of this army increased considerably. The regiments consisted of Russian men and Russian officers commanded them. The leadership of the Russian army was improved and the matter of recruitment and the officer corps was put into good order. At this time, "Regulations on Military, Gun and Other Matters," by Onisim Mikhaylov, "The Teachings and Craft of the Military Structure of the Infantry" and "Writings on the Naval System" were issued.

Onisim Mikhaylov's regulations correlated the entire previous battle experience of the Russian army and also used the military writings and material from the experience of other armies. The manual has all the necessary instructions for conducting battle operations on various scales, on theaters of war, on battlefields, on the siege and attack of fortresses, on the use of troops. "The Teachings and Craft

of the Military Structure" was in its time a valuable guide. It gave a definition and classification of wars. "Notes on the Naval System" - the first naval manual - also had great significance for the development of Russian military science.

Peter I played a prominent role in the development of Russian military science. He received a high evaluation in history as a statesman and general. Peter I, according to Marx's evaluation, was a "truly great man."* A.V. Suvorov called Peter I the first general of his century.

Peter I fostered a whole galaxy of famous Russian generals: A.D. Menshikov, B.P. Sheremetev, A.I. Repnin, F.M. Apraksin, B.A. Golitsyn, M.M. Golitsyn and many other young officers full of initiative. He began an independent national Russian military school from which emerged and worked fruitfully for the welfare of Russia the great Russian generals and admirals - P.A. Pumpyantsev, A.V. Suvorov, M.I. Kutuzov, F.F. Ushakov. At the same time, Peter I attentively followed the development of military affairs abroad and zealously introduced into the new army which he created everything progressive and advanced.

Peter I was a great military theorist. The subject of his creative works was mainly the art of war, the content of which was of a broad and many sided nature, beginning with the elementary principles of military affairs and ending with battles and war. Peter I was the creator and author of a new "military manual" which presented the generalized experience of all the battles and wars conducted. The manual was the guiding document not only for the Russian army, but also other armies knew it and tried to adopt the principles obtained in it.

The work of Peter I, his art of generalship, as well as the experience of the military operations of the Russian army in the Northern War were the richest treasure house of Russian military art and served

as a basis for its further formulation and perfection.

The Seven Years War was a great school for Russian military art. In this war, the Russian troops inflicted a number of great defeats on the troops of the Prussian General Friedrich II and took Berlin. The vaunted Prussian art of war with which Friedrich II dazzled the dilettants of military affairs in Western Europe suffered a defeat in battle with the advanced Russian military system.

However, steps backward were also taken in the Russian system in comparison with Peter's national military art because of the reactionary activity of Minikh and others. The organization of the troops, their training and education deteriorated. The new manuals issued in 1755 also deviated from the line taken in the manual of 1716. Little was said in them about field service. Overevaluation of fire was characteristic of the new manual, but sufficient attention was not given to bayonet attack. In spite of these digressions, Russian military art continued to stand at a high level. The thunder of Peter's cannons and the glory of the great victories overshadowed the banners of Russian troops and created lasting battle traditions on which young generations of soldiers were raised.

One of the Russian generals of this time who introduced many new things into the development of military theory was Field Marshall P.A. Rumyantsev. He wrote a large number of manuals which have been republished in our time in the form of collections of documents and material. Rumyantsev developed various instructions and also "Ceremony of Service," a kind of manual, which were adopted in all armies. To him belongs the maxim "Toward the building of troops for an attack on the enemy." He expressed many new progressive ideas on the organization of troops. Rumyantsev's views were a continuation of Peter's direction in the development of Russian military science.

The brilliant Russian general, Generalissimo Alexander Vasil'yevich Suvorov, was even more famous and exalted. This famous name is known to every Soviet person and is the personification of high skill, military honor, valor and heroism.

Suvorov was a general who never knew defeat. Even from the most, it would seem, hopeless positions he found a way out and won a victory. Among the notable victories won by him as a general are the battles near Prague (Pol'sha), near the Fokshans and at Rymnika. In all the battles, Suvorov beat down the enemy not through numbers of troops but by their ability. Shturm Ismaila is an example of an accelerated attack and annihilation of a large army shut up in a strong fortress by smaller forces.

Suvorov's Italian campaign, the battles at the Adde and Trebbia Rivers and near Novi, are examples in which continual building up of forces and weapons in the course of battle operations was carried out.

Suvorov's Swiss campaign is an unsurpassed classical example of military art. In this campaign, Suvorov showed high strategic and tactical skill and an inflexible will to win, and the Russian army gave an unparalleled example of courage, physical endurance and persistence in battle with the enemy.

Suvorov introduced a great deal that was new into the theory of military art. He had a correct understanding of the role of soldiers in war and their importance in battle. Suvorov trained and educated conscientious soldiers and officers who understood "their maneuvers" and acted bravely, with initiative and decisively in fulfilling the common goal. "The Science of Winning", which he wrote, became Russian military science's most valuable possession and to this day is used as instructive material for training soldiers.

The growth of Russia's economic power, the growing military-tech-

nological base of war and the presence of a well trained Russian regular army with much battle experience had a determining influence on "The Science of Winning" as well as on the whole subsequent Suvorov art of war. Examples of Suvorov strategy and tactics were well known not only in Russia but also abroad. French generals, including Napoleon, borrowed much from the Russian army and from Suvorov.

The great Russian admiral, F.F. Ushakov, was a contemporary and companion-in-arms of Suvorov. Ushakov's naval skill was high for that time. Like Suvorov, Ushakov considered decisive battle as the principle means of achieving victory and trained his subordinate officers and seamen to have a bold aggressive spirit. He succeeded in concentrating the efforts of the navy in the direction of the main strike and achieved complete annihilation of the enemy. The importance of the famous galaxy of Russian military thinkers and generals of the eighteenth century is that they succeeded in catching the trends in the development of military affairs in their era, subjected to a decisive re-examination the canons of cordon strategy and line tactics and counted on raising the initiative and activity of the performers.

The experience of the peasant's uprising of the second half of the eighteenth century cannot help but be of interest to our military historical science. Led by Yemel'yan Pugachev, he shook the feudal monarchy in the period of the reign of Catherine II. Possessing outstanding organizing abilities and personal military experience, Pugachev in a short time created a large armed force which acted in Povolzh', Bashkiriya and in the Urals.

Pugachev's army which fought against the feudal yoke had a great magnetic force. At its approach the Russian serfs rose up against the landowners and the army grew quickly.

A new contribution to military science was made by Russian mili-

tary skill in the period of the Patriotic War of 1812. In this war, the Russian people defended their Motherland and inflicted a shattering defeat on one of the aspirants to world supremacy - the French imperialist and general, Napoleon, before whose armies the best armies of Western Europe were powerless. In carrying out their liberating mission, the Russian army passed through all of Europe and ended the war in Paris.

The Patriotic War of 1812 was the first war in which huge human masses, whose total number approached a million, clashed. Certain elements of the operations which came to be widely developed in subsequent wars were born in the Patriotic War on the basis of the ripening new material conditions. Operations in the Russo-Japanese and first world wars received such a clear and profound expression that the possibility arose of formulating a new component part of the theory of military art - the art of campaign tactics.

One of the leading generals who headed the struggle of the Russian troops against foreign aggressors was General-Field Marshall Mikhail Illarionovich Kutuzov. He was in the ranks of the Russian army for almost 50 years. At first, Kutuzov served under the command of Suvorov. Like Suvorov, Kutuzov was an advanced thinker and innovator in military affairs: he conclusively rejected all the previous principles of conducting war by methods of cordon strategy and line tactics.

Kutuzov's strategy was distinguished by an extremely profound understanding of politics, by the ability to choose the appropriate moment for inflicting blows on the enemy. In the battle with the strong Napoleonic army, he chose new forms of battle. It would have been impossible to deal with the 600 thousand man army of Napoleon in one battle. A series of battles was necessary to weaken this army, to bleed

it white and then by means of counterattack to utterly defeat and destroy it.

Kutuzov's strategy was distinguished by great ability to prepare for victory under the most difficult, complicated conditions. Even in the period of strategic retreat which he conducted in a masterly fashion, leading the Russian army out from under attack, Kutuzov prepared for the death of the enemy by a skillful maneuver.

Changing to a strategic counterattack, Kutuzov conducted it decisively. He boldly went to meet battles, destroyed the main forces of the enemy in these battles and carried out not only an operative, but also a deep strategic pursuit. He was able to be, when this was necessary, bold and impudent, he knew when it was necessary to retreat. He was intelligent and cunning, decisive and flexible. In comparison with his predecessors, Kutuzov, like Suvorov, was heads above them and was a general capable of embracing a national war on a broad scale and leading large forces in this struggle with great skill.

Kutuzov wrote a huge number of letters and orders which have been published in generalized form in our time and which are of great value to Soviet military historical science.

The Russian art of war stood at a high level at the beginning of the nineteenth century. The Russian army and navy achieved numerous victories over the armies of Friedrich II and Napoleon, as well as over the Turkish army. It stood before the whole world as first class military art which had been created by such prominent representatives of Russian military thinking and generalship as Peter I, Suvorov, Ushakov and Kutuzov. The Russian army came to be the representative of the most advanced military experience which served as the basis for theoretical generalizations not only for Russian military thinking, but also for foreign. Many military theoreticians of the Western countries

like Jomini and Clausewitz served in the Russian army and used its experience in their historical and theoretical works. O

However, the great Russian military inheritance fell into poor hands. The brilliant work and high examples of military skill of the Russian generals Suvorov, Kutuzov and others were forgotten under the reactionary serf-ownership system of Nikolay I with his Arakcheyev regime. Foreign rogues had scope for their activities in Russia. Napoleonic military art which more than once suffered defeat from the Russian art of war came to be advocated as the universal standard, to the detriment of Russian national military art. In spite of this, even in the dark years of Nikolay reaction, military theory continued to develop through the efforts of individual military innovators. The question of whether military science exists and what its subject and content are attracted the attention of military scholars.

Many advanced Russian military thinkers attempted to give an answer to these questions. Thus, for example, Decembrist I.G. Burtsov, in his article "Thoughts on a Theory of Military Knowledge," wrote that military affairs has its own principles and that they are the subject of military science. "Anywhere some activity is observed, a concept about it must have been formed previously in the human mind. This concept must be found in connection with other such activities. The verbal expression of the connection of this concept with its cause and effect is that which we call a *rule*. The nature of the rule is *universality* and *invariability*."* Burtsov also pointed to the "similarity of political sciences with military," noting thereby the uniformity of the phenomena of politics and war and asserting that "for the complete education of a general even military knowledge alone is not enough; all the political sciences which have an effect on the national security, as contiguous to the military sciences, and on the other O

hand, all the moral rules feeding the human heart must be part of the general, extensive theory which directs the actions of true generals."*

Thus, long before Clausewitz, the Russian military theorist, the Decembrist Burtsov, not only pointed out the connection of politics with war, but also determined the necessity for military science not to be restricted to military art but to include other factors in its subject of study.

In the works of N.V. Medem, "Review of the Best Known Rules and Systems of Strategy" (1836), P.A. Yazykov, "Theory of Strategy" (1842), M.I. Bogdanovich, "Notes on Strategy" (1847), N.D. Neyelov, "Outlines of the Contemporary State of Strategy" (1849), A.Z. Telyakovskiy on fortification, and in other books and articles the writings of all the preceding and contemporary military theorists were critically analyzed in great detail, noting their positive contributions to military science and denouncing their deficiencies.

The fundamental principles of military theory had been quite clearly formulated in the works of Russian military theorists by the middle of the nineteenth century. They were presented especially clearly in the work of Colonel A.I. Astaf'yev, "Contemporary Military Art" (the first part of which was published in 1856, and the second in 1861). Astaf'yev believed the subject of military science to be broader than that of military art. In his opinion, all political considerations, of the state administration, of the political economy, geographical, statistical, etc., "which embrace the general question are combined beyond the general's sphere and are the concerns of the government which Strategy should not embrace."**

He stood upon the sure ground of the recognition of the theory of military art as a science. "Today almost without any proof, not paying attention to the meaning, by force of habit we call Military Art that

in which we find the evident consequence of profound philosophical considerations which are expressed in the activities of armies and in military sciences. It is clear that this name not only does not make sense and does not correspond to the subject, but belittles the lofty subject of Military Science, as the property of the mind, to the level of a trade, or its techniques. Henceforth we shall call Military Science that which until now, by force of habit, has been called Military Art.¹⁰

In another place Astaf'yev writes: "By the words Military Science we shall mean all the information pertaining directly to military affairs. It includes in a greater or lesser connection also everything which must enter into Military Science. War is the joint effect of all the forcible measures by which one state compels another to agree to its demands, and in particular, the actions of the troops of one state against another. Consequently, war, in a general aspect, belongs to the state or its government; it entrusts the conducting of war only in particular and directly to the army.

*"Here is that second part of war, whose goal is achieved directly by the army and its resources and must have as its subject Military Science"*¹¹ (emphasis ours - Authors). Such a point of view on the subject of military science, although it was still incomplete, nevertheless was a significant contribution to military science.

The unsuccessful outcome of the Crimean War predestined a certain disregard for Russian military theory, and the effective victories of the Prussian troops which soon followed in the wars of 1864, 1866 and 1870-1871 advanced to first place in Europe the Prusso-German military school whose founder was Clausewitz.

In 1860-1880, radical reform was carried out in the Russian army under the direction of the Minister of War, D.A. Milyutin, directed

toward overcoming backwardness and routine in the army both in an organizational and in an ideological respect.

Milyutin wrote a number of works on military statistics (which was then called military geography) and military history. He was one of the active investigators and popularizers of the military heritage of Suvorov. In the works of a number of Russian military scholars, and primarily in the works of Milyutin, as well as of a group of instructors of the Military Academy (A.K. Puzyrevskiy, D.F. Maslovskiy, A.Z. Myshlayevskiy, M.I. Dragomirov and others) an advanced (in comparison with previous times) method of studying the history of military art in general and of Russian in particular was worked out. National traditions were revived, the historical heritage of the great Russian generals - Peter I, Rumyantsev, Suvorov, Kutuzov and others was widely used.

General M.I. Dragomirov did much in this respect for the Russian army. He did much to revive in the Russian army the Suvorov military heritage, he skillfully propagandized the Suvorov "Science of Winning." Dragomirov's works on the training and education of troops are of some value to military science. In spite of the high level of these works, they have great shortcomings. Proceeding from the incorrect thesis that military art is a "category more volitional than intellectual," Dragomirov did not recognize the possibility of the existence of military science, which, certainly, was quite incorrect. He underestimated the role of rapid firing weapons, and consequently of fire in battle, exaggerated the importance of bayonet attacks and thereby ignored objective conditions in the development of the technology of armed conflict.

Of the military naval theoreticians in Russia at the end of the nineteenth century, it is necessary to mention Vice-Admiral S.O. Maka-

roy who made a great contribution to the development of naval affairs.

In his works, especially on questions of military naval theory, Makarov advanced progressive ideas which continued the heroic traditions of Ushakov, Nakhimov and other Russian naval commanders. He also took into account the changes which had taken place in the material base of war on the sea.

At the end of the nineteenth century Russian military theoretical thinking was under the strong influence of Prussian victories. However, in its development it went its own ways. At this time much attention was paid to studying the nature of war. Some Russian military writers who did not bow before foreign authorities presented this question most clearly and correctly. Thus, A.A. Gulevich, Professor of the Military Academy, wrote: "Now when in wartime whole peoples stand under the banner and the pick of the whole population marches to battle, all the moral, intellectual and physical powers of nations will be elements of the struggle. The close, organic connection which exists at the present time between the armed forces and the people gives in time of war great community to the vital activity of the troops and the population. At the same time, the great numbers of the contemporary armies, in connection with the development of the techniques of military affairs, broadens the size of the demands made on the armed forces and increases the material sacrifices made in wartime by the country."*

Gulevich demonstrated that modern wars inevitably must assume a coalitional and protracted character and that the socio-economic structure of the country plays a decisive role in the fortunes of war. "In order to evaluate thoroughly the military might of any state," wrote Gulevich, "at present it is necessary, more than before, besides studying the conditions of its political and social life, also to pay spe-

0 cial attention to its economic structure, in order to have, thus, the possibility of determining the degree of the adaptability of its national economic organism to the transference of economic adversities and disasters which the impending persistent and prolonged European war will inevitably entail."* He considered that "the state structure must be prepared for war in political, military, financial and economic respects"*** and that "in the same way as in the case of war plans of the mobilization and concentration of armies and plans of providing them with all the necessary types of allowance are worked out, a plan of economic measures must be developed ahead of time."***

Thus, questions of the consideration of the economic factor in war were examined long ago by the most advanced representatives of prerevolutionary Russian military science. With regard to the question of the morale factor, in addition to the views of Peter I, Rumyantsev, Suvorov and Kutuzov, carefully preserved by the best representatives of the Russian army, it also was the subject of special study of Russian military thinking. In 1842 the Russian military writer Yazykov pointed out that "this part of military art (the morale element - Authors) is the most difficult and it seems for this reason it has been studied less than the others." He urged acquaintance with and development of this field of military science.

1 Other Russian authors indicated the necessity of a scientific study of the morale factor. Thus, in the military encyclopedia edited by Leyer, in the article by N.N. Sukhotin, "Military Science," the following was written: "By branching out into individual fields, military science can quite rightfully aim at the creation of a branch specially treating the nature of the spiritual phenomena of war, the more so that, according to the experience of military history and the unanimous testimony of authorities on military affairs, the vast percentage

causing success or failure belong to these phenomena. But up to the present time this branch of military science - *military psychology of man in his various positions in war*, beginning from the blind performer up to the leader of an army of millions, and the *military psychology of the masses*... has still not even been conceived, and in the future only in the history of military art will it find the sole way to self-creation. Then in this new branch of military science the teaching of the element of chance, by the nature of its close contact with the spiritual nature of man will receive its proper place."*

In this period in Russia the unresolved argument about whether military science exists and what its subject should be flared up again. The ideas of G.A. Leyer, an adherent of Jomini's views, which had been predominant in the Nikolay Military Academy reflected the recognition of the existence of military science as a "theory not in the sense of contrived laws (a priori) or rules, but a theory in the sense of laws (a posteriori) taken from life by means of observation and abstraction of general principles from particular uniform phenomena."** Leyer's opponents, among whom were the popular generals Dragomirov, Puzyrevskiy and others, came out against the recognition of a military science. Dragomirov, who disclaimed military science, wrote: "At the present time it cannot occur to anyone to maintain that there can be a military science; it is inconceivable in exactly the same way as sciences of poetry, painting and music are inconceivable...."***

Criticism of Leyer's ideas and proclamation of a negative attitude toward military theory is given also in other military articles of that time. Thus, an author who concealed his name under the initials A.F.N. in discussing Leyer's book "Positive Strategy" pointed out that since exact, unchanging and eternal laws for war do not exist, this gives a basis for asserting that military science in general does not

exist, since science has to do with laws. "A theory of military art," wrote A.F.N. — in the words of General Dragomirov, "can have as the subject of study the properties of military data, it cannot and must not take up the second section (the ability to use them for the achievement of the goal)."

Along with such erroneous notions, the adherents of this trend correctly subjected to criticism the nonhistorical method and metaphysical character, the divorce from practice and the academic scholasticism of the Leyer academic school which saw in Napoleonic military art eternal classical models. Thus, in a pamphlet by A.F.N. it was pointed out, not without foundation: "It is possible to go through a whole course of academic military art with the strategy of the Leyer years included and not have the slightest idea about the latest campaign."

The discussion on military science continued to the end of the nineteenth and beginning of the twentieth century. It became aggravated in connection with the publication by one of Leyer's adherents — Ye.I. Martynov, of the book "Strategy in the Era of Napoleon I and in Our Time" (1894). In it the author attempted to interpret in a new way the principles of military affairs. He wrote that war "causes the full exertion of all the efforts of the nation, not only material, but also moral; in war the strength of its political and social structure is tested; those political and social ideas which are predominant in the society have an effect on war; the wealth of the military means depends on the state of the country's commerce and industry, that is, on the state of its culture; not nearly on such a field of knowledge which could not serve, even to some degree, the destructive goals of war...."

Thus, in his work Martynov again showed with sufficient persuasiveness that the subject of military science cannot and must not be restricted only to questions of the methods and forms of armed con-

flict, that is, to military art, that many conditions and factors on which the course and outcome of armed conflict depend are subject to investigation and consideration. Martynov also indicated the increased importance of technology in armed conflict.

A.K. Puzyrevskiy - one of the prominent Russian military historians - came out against Martynov with a very sharp critical article. He mistakenly rejected the possibility of the existence of a scientific theory for strategy (like military science in general), but here justly reproached its adherents in the person of Martynov for devotion to "eternal and unchanging principles of science" divorced from practice, from life. Along with this correct criticism, Puzyrevskiy, contrary to the truth, denied the influence of, as he writes, "the state of civilization" on the level of military art, entirely connecting it only with the creative work of prominent generals and contrasted spirit and ability to knowledge and technical perfection of weapons, quality - to quantity.

In 1900 the Russian general and military writer I. Maslov again spoke out on the question of the attacks on the principles of military art, or, as they now began to be called "strategic laws." He believed that these attacks undermine the edifice of military science in general. Maslov asserted that "strategic principles, as laws, cannot resemble the laws of nature because their very objects do not resemble each other... Strategic law does not exist independently outside of us." Thus, the author denied the objective nature of the laws of military science and considered them as conclusions of a "purely empirical character."* The author's conclusion came down to the fact that "all the attempts of strategy to stand on the ground of a true science have not succeeded and it is compelled to be satisfied with a compromise established in the eighteen thirties...."*** The author sees this com-

promise in the fact that military theory, invested in rules, was considered as a description of what can be done, but not what should be done (Dragomirov). In defining the subject of military science the author says: "...In the combined branches of military knowledge it is necessary to reject any regulation of the conduct of troops in war, as "incomprehensible to our mind," and to be concerned with a detailed study of the properties of the factors and their combinations. Such a change in the subject of study will place military science on the soil of all the natural sciences, that is why the results of its investigations will probably acquire great value."*

As a result of his study the author arrives at "the existence of two types of strategic laws: some define the connection between the general properties of things, others establish the progressive course of modifications in their properties, in other words, the course of the very progress of military affairs."**

Unfortunately, this discussion on the nature of military science and its laws did not conclude with the acceptance of any one general point of view and the question remained, in essence, open.

In a number of wars of the beginning era of imperialism, and especially in the Russo-Japanese War of 1904-1905, which was followed by the first Russian revolution which dealt a heavy blow to the stronghold of world reaction - Russian Tsarism, many new phenomena were objectively expressed, the possibility of a new technology was convincingly manifested and the importance of the economic and political structure, of the attitude of the popular masses to war, became extremely tangible. But bourgeois military science took insufficient account of these new phenomena.

In Russia, after the unsuccessful Russo-Japanese war and the acute consciousness of the backwardness of the country, discussion proceeded

over the course of a number of years (from 1907 to 1911 and even later, up to the first world war) about whether a Russian military doctrine exists or not. The absence of a developed theory made itself felt and therefore foreign models were imitated: one group of theorists (V.F. Novitskiy, V.Ye. Borisov and others) oriented themselves to the French ideas, while another (A.A. Neznamov, P.I. Izvest'yev and others) - to the Germans. Individual military theorists fought for their own national military doctrine (A.G. Yelchaninov, A.K. Bayov and others). But they held to outdated opinions, they looked backward, not ahead. They idealized the Russian military past and ignored the material factors of armed conflict.

The period preceding the first world war is characterized by intensification of the interest of the Russian bourgeoisie in military questions. In this period, a large quantity of diverse military literature was published promoting the formulation of a military ideology of the ruling classes of the state under the new historical conditions. In the same years the publication of a "Military Encyclopedia" (1911-1915) was prepared and accomplished which was an attempt to collect and systematize diverse military knowledge in order to provide to a wide circle of the bourgeois intelligentsia and officer corps the possibility of a sufficiently complete and thorough acquaintance with questions of war and military affairs in all their aspects.

A definition of military science was given in the encyclopedia which indicated that "military science is concerned with the thorough study of war. It studies: 1) phenomena in the life of societies and 2) the forces, means and methods for conducting battle. The first area of the investigations goes into social dynamics, the second - the technically military, theory of military art."*

Thus, military science was related to the area of the social sci-

ences, it was considered "as one of the branches of the highest and most complex area of human knowledge - sociology." It was further asserted that "military science... must be recognized as a science in the strictest sense," since it is defined "as objectively proved and systematic knowledge about real phenomena from the aspect of their regularity or immutable order."*

Reflecting to a certain degree objective processes of the development of material conditions and generalizing the attained level of scientific knowledge about war, armed forces and military affairs as a whole, the article in the encyclopedia devoted to military science in a number of cases quite correctly noted a number of principles inherent to military phenomena and which are the subject of study of military science. It considers "laws of victory," it is noted that in antiquity "victories had as a basis the superiority of numbers of corporeal forces," while now military art "is directed toward a new basis of victory - the law of the standard of culture, first economic and then political." At the same time, military science is understood as no more than the theory of military art. As its highest stage it has strategy which is the synthesis of the conclusions of the subsidiary (concrete) divisions of the theory of military art. These subsidiary (concrete) military sciences are military administration, tactics, artillery, fortification, military topography, military statistics, military politics, military history, the history of military art, military psychology and others.

The tasks of the theory of military art, as the encyclopedia understood them, are to "establish firmly its fundamental principles, to study the most important elements of the situation and to indicate how the principles are applied in war under the influence of the situation." The encyclopedia established four basic principles of military art:

the superiority of forces, the importance of the spiritual element in war, the significance of chance and surprise. The most important of them is the first. This is the basis of victory.*

Thus, having noted the importance of economic and political factors, their influence on military art, the encyclopedia later returns to its outdated fundamental principle - superiority of forces, meant purely quantitatively.

Thus, recognizing the scientific nature of military theory, the encyclopedia at the same time advocated a methodologically fallacious position. It considered the development of military affairs only as an evolutionary process, it proclaimed the eternity and invariability of the principles of military art as the product of the genius of great generals. The nonmaterialistic methodology and class approach affected the development of all Russian military thinking which, on the eve of the first world war, although it rises to an understanding of a number of fundamental principles of war, it does not bring their cognition to a really scientific level and remains a prisoner of antiquated notions and idealistic delusions.

The first world war was the greatest test for the Russian state and its armed forces. The Russian army suffered a number of defeats in this war caused by the political rottenness of Russian tsarism, the economic backwardness of the country, the poor military equipment of the armed forces and the backwardness of official views in the area of military science and military art. However, even under these most difficult conditions, the Russian army gained victories of great importance, for example, in the battle of Galicia, in the Lodzinskiy operation, in the offensive operation on the southwestern front in 1916, in the Sarykamyshskiy and Erzerumskiy operations. In these battles the Russian soldiers and progressive officers once more showed their high

military qualities, the ability to conduct successful battle operations under the most complex conditions in battle with a strong enemy.

In concluding this section it is necessary to note that the development of military affairs in any antagonistic class society mainly reflects the interest of the ruling exploiting classes.

The classics of Marxism-Leninism have scientifically proved that the army is the most important part of the state and arose together with the division of society into classes, that with the help of the army exploiting states keep the exploited population in check and carry out their expansionist policy. In spite of the fact that in the armies of the large contemporary capitalist states millions of workers are called up as privates, the bourgeois armies do not cease to be the instrument of the assertion and defense of the power of capital, the instrument of reaction, the servant of capital in the struggle against labor, the executioner of the people's freedom. Even in a struggle against external danger, foreign enslavement, against common external enemies, the interests and aspirations of the exploiters and the exploited could not be identical. The exploiters always have remained the exploiters whose interests never could coincide with the interests of the majority of society, with the interests of the exploited masses. Therefore, the military science of any state which is called upon to serve the political interests of the ruling class has reflected its ideology and politics.

The victory of the Great October Socialist Revolution opened a new era in the history of the development of society. In distinction from all previous revolutions which usually ended with the replacement of one class of exploiters with another class, it transferred power to the hands of the working class, it took away from the landowners and capitalists the instruments and means of production and converted them

into public, socialist property and eliminated the exploitation of man by man. The proletariat who hold the power must be for the struggle with counterrevolutionary and imperialist aggression to create their own new worker-peasant army and their own military science.

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[Footnotes]

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- 120* Ibid, page 236.
- 120** Ibid, page 255.
- 120*** Ibid, page 279.
- 120**** K. Marx and F. Engels. Soch., Vol. XXIII, page 15.
- 120***** V.I. Lenin. Soch., Vol. 29, page 444.
- 124* That is, a company of a specific regular composition according to ordinance (decree) of the king. - Ed.
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Chapter 5

THE FORMATION AND DEVELOPMENT OF SOVIET MILITARY SCIENCE THE DEVELOPMENT OF SOVIET MILITARY SCIENCE (1917-1945)

Soviet military science was established in the course of the bitter armed struggle of the young socialist state against the forces of imperialist intervention and internal counterrevolution. It was born and developed together with the birth and development of the Worker-Peasant Red Army.

The proletariat who were in power could not use the old army which by its organization, its purpose and spirit could not be a bulwark of the Soviet state. Therefore, in the first days of the existence of Soviet rule the Communist Party and the Soviet Government carried out a number of most important measures on the demobilization of the old army and the creation of an army of the socialist state.

During the organization of the Red Army great difficulties had to be overcome since this question was quite new for the Communist Party and the Soviet government. We have already said that the classics of Marxism paid much attention to the development of questions of the tactics and strategy of an armed uprising of the proletariat, but they did not raise even theoretically the question of the creation of regular armed forces after the victory of the socialist revolution. Marx and Engels proceeded from the fact that the revolution must be won simultaneously in all or at least in a majority of the large capitalist countries of Europe and that under such conditions there is no longer any need for the creation of a regular army in a socialist state.

Lenin gave a profound analysis of the new era of the development of capitalism in the years of the first world war, he based the new theoretical situation on the possibility of a victory of socialism in one country and the necessity for armed defense of the socialist state against internal and external enemies. However, Lenin and the Communist Party approached the question of the building of armed forces of the socialist state practically in real earnest only after the victory of the October socialist revolution.

Lenin recommended to the Party and the Soviets that they resolve the question of the organization of new revolutionary armed forces in a democratic way, through a Council of Deputies of the workers. On 26 December 1917 the question of a Red Army was considered in the SNK, and on 29 December 1917 the Petrograd Soviet introduced a resolution on its creation. Somewhat later the same resolution was passed by the Moscow, Kazan, Ivanov-Boznesensk, Yekaterinburg and many other Soviets. On 28 January 1918 Lenin signed the Decree of the Soviet of the Peoples Commissars on the formation of the Red Army, and on 14 February - of the Red Navy.

The building of the Red Army and Navy was inseparably linked with the Soviets. "...The first time in history," wrote Lenin, "an army is being built in proximity, in the closest proximity, one may say - in the closest togetherness, of the Soviets with the army. The Soviets unite all the workers and the exploited - and the army is being built on the principles of socialist defense and consciousness."*

The Soviet Army and Navy from the very beginning were constructed on the foundation of Leninist principles. One of them was the principle of strict class selection. Only workers and the poorest peasants were allowed in the army and navy. The principle of volunteering was originally made the basis of their recruitment which provided that the work-

ers and peasants most conscious of and devoted to Soviet power would join the army and navy. However, later this principle was changed, and universal military conscription with a number of restrictions which prevented the penetration of nonworking elements into the army was introduced in the country.

From the very beginning, a system of political education was established in the Soviet Army and Navy which became a powerful factor in the communist education of Soviet troops, party cells were organized and in July 1918 an institute of political (later military) commissars was introduced. In their goals and tasks, class selection, the role and influence of the Communist Party, political education and training, in administrative structure the units and the formation of the Soviet Army and Navy differed sharply from all previous armies and were the armed forces of a proletariat state, until now unprecedented in history. The new political nature of the Soviet Armed Forces responded in full measure to the new order and to the resolution of those grandiose tasks which history placed before them.

The formation of the Soviet Army and its administrative structure took place under conditions of foreign military intervention and civil war. During this time the establishment and formation of Soviet military science took place.

It is quite understandable that Soviet military science, new in its class nature, ideo-theoretical foundations and political trend did not spring up on bare ground. It sprang up on the granite foundation of Marxism-Leninism. It absorbed all of the most important principles of Marx, Engels and Lenin on questions of military theory, it used the experience of the armed struggle of the Paris commune and the Russian proletariat of 1905 and 1917, the experience of the Russo-Japanese and first world wars and especially the experience of the civil war of

1918-1920. The Communist Party and the great Lenin were the founders of Soviet military science.

Soviet military science formed and developed on the foundation of resolutions of congresses of the Communist Party of the Soviet Union and plenums of the Central Committee on military and ideological questions in which the principles of the armed struggle of the Soviet state against its internal and external enemies found reflection.

All the achievements of the old military science which to some degree correctly reflected objective reality, but which were critically reworked in accordance with the character and goals of Soviet military science were the source of Soviet military science. The experience of numerous wars of the past and present, as well as the experience of armed uprisings of the exploited masses against oppressors was its source.

Soviet military science critically reworked the experience of armed conflict of the past, and first of all the rich military experience of the Russian people. The Marxist-Leninist materialistic world outlook and dialectical method, on the basis of which Soviet military science developed, were the stable ideological and methodological foundation which made it possible for it with true scientific truth to reevaluate everything that had been achieved by the military theory of the past and to approach in a new way an evaluation of the phenomena of the present, as well as the prospects of the future development of military affairs.

In the same way that Marxism was a qualitatively whole new world outlook of the proletariat, Soviet military science was a qualitatively whole new system of opinions on questions of preparing for and conducting modern war as the armed struggle of the proletariat and all the working masses in defense of their socialist achievements.

Soviet military science naturally could not be laid down immediately. The period of its formation and development is inseparably linked with the formation and development of the Soviet social and political system and its armed forces.

In the years of foreign military intervention and civil war, the young Soviet Republic was still a solitary island surrounded on all sides by capitalist states. In our country at that time there was still not a sufficient number of trained cadres of specialists from the workers and peasants which were needed for leading the state apparatus, the national economy and the building of armed forces. In the interests of defending the Soviet state from foreign military intervention and white guards and the strengthening and growth of socialism, we had to use the old bourgeois science, experience and knowledge of the old specialists.

Lenin attached great importance to the use of the old military specialists, namely as bearers of the military knowledge of the past. During the organization of the Soviet Army this question acquired special importance and its correct formulation and resolution determined the success of the army's organization. "We want to build socialism," wrote Lenin, "directly from that material which capitalism has left us...."* And Lenin further pointed out that from capitalism "it is necessary to take all the science, technology, all the knowledge, art ... And this science, technology and art is in the hands of the specialists and in their heads."** Lenin noted: "...So that the victory should be complete and conclusive, it is necessary to take everything that is of value in capitalism, to take all the science and culture."***

In fighting for the creation of his own command cadres, V.I. Lenin at the same time demanded that "the task be resolved with enthusiasm and new revolutionary creative work combined with the use of that fund

of bourgeois science and the technology of militarism... without which it (the proletariat - Authors) cannot master contemporary technology and the modern methods of conducting war."*

The fundamental characteristics which created new conditions for the development of Soviet military science were the quite different character and political goals of the war conducted in the name of defense of the socialist fatherland, the different economic conditions and capacities, the different attitude of the popular masses toward war. To this it is necessary to add that one of the fundamental conditions also was the fact that the composition of our army was of a class nature - socially alien elements were in general not allowed in it, members of the working classes absolutely predominated among the commanders. The active, ideological, organizational and political work of the Communist Party in the army was new. All this could not help but have an effect, and it actually did have an effect on the principles of military theory, and especially on practice. The spirit of revolutionary activity, of decisiveness and initiative introduced into military affairs by communist ideology and the organizational work of the Communist Party imparted special progressive traits to all military activity.

A decisive condition for the creation of new methods of preparing for and conducting war, as the classics of Marxism pointed out, is the level of productive forces, that is, the specific level of the technology, economic productive base and the people who use this technology. The revolution immediately and directly changed the class structure of the army and its attitude to war with respect to personnel, while with respect to technology the matter stood quite differently. The technological base was the same or even worse than before the revolution. But this did not exclude the presence in the methods of battle

used by the Soviet Army at the beginning of its existence of a number of fundamental characteristics engendered by the new conditions. These were the maneuverability of its operations, their decisive character and the creative work of the military commanders not connected with the routine of obsolete opinions on the art of war, aggressiveness, the use of large masses of cavalry in the form of cavalry corps and mounted armies, the development of partisan battle at the enemy's rear. One of the tasks of the newly born Soviet military science was to consider and generalize these phenomena. Its other tasks were to study the entire previous experience and theory of armed conflict, especially the latest and instructive experience of the first imperialistic war and all contemporary military conflicts, as well as the state and development of foreign armies and military theories.

The formation of Soviet military science, the first to be constructed on a materialistic Marxist world outlook, took place in the midst of a bitter struggle with hostile opinions, tendencies and influences.

First of all, the obvious and hidden opposition of the spokesmen for bourgeois military science and the opinions of some of the old military specialists who served in the Soviet Army had to be overcome in Soviet military science. Their world outlook and professional opinions which did not correspond to the changed conditions of armed conflict and which were often and directly hostile to its new theoretical principles found support among traitorous Trotskyist elements who had penetrated into the governmental, party and military leadership of the Soviet Republic.

Trotskyists came out not only as apologists for the old military science, but disclaimed military science in general. They announced in the words of their leaders that there is and was no military science,

that war has no need of science, and only the practical military art and skill of generals is needed for conducting it.

Repeating the nihilistic, subjectively idealistic opinions of the bourgeois trends in military theory, the Trotskyists, using Marxist phrases as a cover, asserted that that which is called a theory of war or military science is not a set of scientific laws which explain objective phenomena, but is a set of practical devices, adapted methods and knacks which answer the specific task - to defeat the enemy. Despite the evident facts, the Trotskyists denied the possibility of building a military theory on the basis of the world outlook and method of Marxism. They declared that "it is impossible to construct a field manual with the help of Marxism," and asserted the impossibility of the existence of a special Soviet military art, trying to demonstrate the apoliticalness of military art, its immutability and repetition in all socio-economic structures. The Party decisively rebuffed these reactionary, hostile attacks and did not permit their influence to penetrate into Soviet military science.

Other no less harmful trends which tried to influence the forming Soviet military science were the "ultrarevolutionary" "proletarian cultural" tendencies inciting the complete, groundless negation of the historical heritage and the artificial speculative creation of a new "proletarian" military science in its place. These harmful tendencies were also repudiated.

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The years of foreign military intervention and civil war were the years of the formation and development of Soviet military science, its first stage and first battle trial. This war to the greatest degree was of a complex and maneuvering character. Battle operations were con-

ducted on broad fronts, which extended from the north to the south up to 4000 km, and from the east to the west up to 12,000 km. The fronts which formed did not have the usual stabilized character, they often and rapidly shifted first in one and then in another direction. The troops of the Soviet Army had to conduct armed conflict sometimes even when completely surrounded.

Only a well prepared and trained army led by an experienced political commanders who understood the conditions of civil war and who knew how to use in accordance with the policies of the Communist Party both the armed forces at the front and the high activity of the workers in the rear could win such a war. The party organizations of the military units and subdivisions and the political organs maintained a close connection with the local party and Soviet organizations and were of great help in their work. In the regions liberated from the white guards and interventionists, the army political organs assisted in the restoration of the Soviet and party organizations. Much work was carried out among the workers in regions which had been seized by the enemy. The communists, workers and peasants organized a broad partisan movement at the enemy's rear, raided its troop units, impeded the normal work of the rear institutions, and upon the approach of Soviet Army units inflicted blows on the enemy from the rear. The partisans of Siberia, the Far East, the Ukrainian and Donets partisans, as well as the partisans of the Northern Caucasus brought themselves glory by such a truly huge titanic struggle.

The Soviet art of strategy which was distinguished by its own special character and which corresponded to the characteristics of the given war was born in the civil war. Therefore, it was not similar to the strategic art of the bourgeois armies which participated in the first world war.

The Soviet art of strategy was distinguished by great decisiveness, by the ability to plan and conduct offensive front operations at great depth which in individual cases reached several hundred kilometers (as took place, for example, in the Denikin route or in Belorussia in 1920 during the attack on Warsaw). Great skill was attained in the Soviet art of strategy in the development of operative success and in the carrying out of deep operative pursuit of the routed and defeated enemy by cavalry corps and mounted armies in cooperation with general troop units.

The Soviet art of strategy developed methods of preparing and conducting defensive operations on a large scale with a subsequent change to a counteroffensive.

The tactics of the Soviet troops were distinguished by great flexibility. Heavy machine guns and artillery could be used in battle. Each battle was drawn up as a general military battle, on the basis of the cooperation of all types of troops, also often with the participation of river flotillas. Because of the special conditions of the war, along with field battle, battle at populated points, in forests, mountains and seaside areas received great development.

The Soviet art of war which was developed in the civil war of 1918-1920 as an advanced, progressive art of war, played an organizational role in the victory of the Soviet Army and Navy over the armies of the foreign interventionists and internal counterrevolution.

The Soviet Army with the active support of the workers in the rear defended the great achievements of the October socialist revolution and secured a long respite during which the Soviet people built in our country with the greatest enthusiasm a socialist society.

After the end of the civil war, Soviet military science sustained an intense struggle not only with the Trotskyists who disclaimed mili-

tary science, but also with another defeatist trend which took its cue from the technological backwardness of our country at that time and metaphysically divided the fundamental part of military art - strategy - into a strategy of starvation and a strategy of destruction. This trend, whose ideologist was A. Svechin, and which appropriated the extra-historical scheme of the German bourgeois theorist Delbruck, oriented Soviet military theory toward a strategy of starvation, which depended on evasion of decisive conflict with the enemy and the achievement of organic goals in war. This "theory" which proceeded from the imaginary impossibility of overcoming the economic backwardness of our country and which denied the possibility of the development of an advanced Soviet military science was hostile to the Soviet socialist state. Moreover, the metaphysical division of strategy into two forms had nothing in common with the only correct dialectical, scientific view of the single character of armed conflict, of the necessity of using all its forms and methods in accordance with concrete goals and the conditions of conducting it.

In the works of V.I. Lenin concerning military problems, in the works and speeches of M.V. Frunze, M.N. Tukhachevskiy, S.I. Gusev and other political and military figures devoted to the development of questions of Soviet military theory and practice, a decisive rebuff was given to all anti-Marxist attacks on Soviet military science. In these works were defined the fundamental principles of Soviet military science which had as its goal knowledge and use of the true objective laws of war in the interest of the armed defense of the Soviet socialist state, taking into account the huge and ever growing effect which the military art, the economic and moral and political capacities of the fighting states have on the fate of contemporary war. They pointed out that only Marxism-Leninism gives the key to understanding all the

aspects of public life and consequently of war as a specific social and historical phenomenon.

In the future, Soviet military science continually was developed and perfected in accordance with the changes which military affairs underwent. It was developed and perfected in proportion to the change and growth in the level of the productive, technological and scientific capacities of our country, in the level of the culture and socialist consciousness of the Soviet people. Soviet military science took into account the state of military affairs abroad and the prospects for its development taking into account the conditions, methods, possibilities and character of future war.

M.V. Frunze made the greatest contribution to the theoretical foundations of Soviet military science, as well as to the practice of armed conflict and military building of the Soviet state. A staunch Communist and Leninist, a professional revolutionary, assigned by the party to guide military work, M.V. Frunze proved to be an outstanding general and military theorist, who stood firmly on the ground of a Marxist materialist world outlook. In his orders, telegrams and reports during the period of the civil war, Frunze showed examples of the Marxist-Leninist approach to the resolution of the practical problems of armed conflict, revolutionary creative work and advanced military skill.

The brilliant, well-planned and executed operations under the leadership of M.V. Frunze against Kolchak, the Middle Asian counter-revolution and Vranghel were notable stages in the victorious war of the Soviet people in defense of the achievements of the October socialist revolution.

M.V. Frunze also played a very large role in the building of the Armed Forces of the Country of Soviets in the first period after the

civil war and intervention. He was one of the leaders and organizers of the reform carried out according to a resolution of the party and government in the Soviet Armed Forces in 1924.

M.V. Frunze was aware of the importance of correct military theoretical opinions for the creation of monolithic and powerful Armed Forces of the socialist state. He worked out in detail and tirelessly propagandized the principles of the new Soviet military science and of a progressive world outlook in the field of military affairs. He was the initiator of discussion on the question of a single military doctrine which he defined as the scientific theory of war, believing that only such a theory is a solid foundation of a country's plan of military preparation, of the training of troops and their guidance.

M.V. Frunze clearly defined the goals, character and content of a military ideology based on a Marxist-Leninist world outlook and on knowledge of the objective principles of war and military affairs. He expressed correct, progressive opinions on the character of future war, on the role of technology and human masses in it, on the importance of moral, political and economic factors.

M.V. Frunze emphasized many times in his speeches and works the great importance of political education of the Soviet Armed Forces, demanding unity of military and political education and considering political work as a new weapon which strengthened and increased the armed might of our army to the greatest measure.* He foresaw also that representatives of science would play a great role in the future in war.

M.V. Frunze was one of the first military theorists to work out in detail the problem of the front and rear in wars of the contemporary era, showing what influence a correct understanding of this problem has on strategy, on the readiness of a state for war and on its conduct.

M.V. Frunze correctly evaluated the experience of the first world war and studied several wars of his period (the war in Morocco and others), showing the principles inherent to them and especially the role of the new military technology (aviation, tanks, chemical warfare).

M.N. Tukhachevskiy - one of the first young military commanders of the Soviet Army, made a great contribution to the development of Soviet military science. During the years of the civil war he published the articles, "The Origin of the Civil War," "March Maneuvers and the Organization of Transport in the Civil War," "Engineering Balance of Operations" and others.

In 1919 Tukhachevskiy wrote an original work, "National and Class Strategy," which played an important role in the generalization of the experience of the civil war and the formation of a Soviet military doctrine. A lecture based on this work was read by him at the Academy of the Red General Staff. In 1921 the collection "The War of Classes" was published in which there were articles by Tukhachevskiy which generalized the experience of the civil war. Both these books were in V.I. Lenin's personal library.*

M.N. Tukhachevskiy worked tirelessly on the theoretical development of military questions. He sought to demonstrate that it is impossible to be satisfied with the old bourgeois military science under the new conditions, that we must create our own Soviet military science responding to the tasks of the defense of the socialist state.

In Tukhachevskiy's military theoretical works such as "The War of Classes," "War as a Problem of Armed Conflict," "Questions of Contemporary Strategy," "National and Class Strategy," "The Development of Forms of Leadership," "Questions of the High Command," "New Questions of War," "The Character of Border Operations" and "A New Field Manual" complex problems of armed conflict are investigated. Tukhachevskiy in-

roduced much of value to the development of Soviet military science and military art. He showed the influence of the new means of armed conflict on the methods of conducting battle operations. By studying the technological achievement of the Soviet Union and foreign countries in the period 1930-1937, Tukhachevskiy came to the conclusion that in a future war operations will be of a broad maneuvering character and their tempo and limits will increase.

In the articles, "The Character of Border Operations," and "A New Field Manual" Tukhachevskiy expresses a number of original thoughts on military theoretical problems. He points out that the "old, original notions of the concentration of massive armies along the railroads to the borders and on the massive character of border battles cannot correspond to the actual conditions and means of war which have arisen in the present day."

Considering the development of military technology, and the new means to armed conflict - aviation, airborne troops, tanks, artillery - Tukhachevskiy foresaw the great vulnerability of frontier theaters of military operations, the possibility of the hampering of mobilization in the frontier zone and of the concentration of massive armies at the borders. He drew an important conclusion from this: frontier battle will be conducted not by the main forces of the army, as in previous wars, but by troops dislocated in the border zone. Tukhachevskiy believed that the old system of mobilization and concentration of the main forces in the border zone was outdated and should be replaced by a new armed conflict satisfying the changed conditions.

M.N. Tukhachevskiy believed armed battle to be the chief manifestation of war, but at the same time he emphasized that battle operations do not exclude, and, on the contrary, presuppose the obligatory use in war of economic, ideological and other forms of conflict.

M.N. Tukhachevskiy expressed many original thoughts on the role of man and technology, the morale factor in war, on the importance of political work and troop education, on the role of commanders and leaders in the organization of battle and in the leading of troops.

V.K. Triandafillov was a colleague of M.N. Tukhachevskiy in military theoretical work. He, like Tukhachevskiy, was occupied with the development of theoretical military problems. In 1929 in his report, Triandafillov set forth the principles of deep combat, that is, the simultaneous hitting of the whole tactical depth of the enemy's battle line. This was a brilliant concretization of an idea of Tukhachevskiy that the new modern means of war - long range artillery, tanks and airplanes - make it possible to abandon the old methods of successive seizure of each center of the enemy's defense individually and to change to new forms of simultaneous deep strikes at the enemy.

The theory of deep combat and deep operation was first developed in the Soviet Army and opened a new page in the history of military art

S.I. Gusev and other political and military figures of our country were occupied with the development of problems of Soviet military science. Gusev who was one of the organizers and builders of the Soviet Army, paid much attention to the development of theoretical military problems. In a number of pamphlets and articles, he considered questions of Soviet military science and military art from a Marxist viewpoint. Being an experienced political worker, Gusev gave much attention to the tasks and methods of party political work in the army.

In the pamphlet, "Our Differences in Military Affairs," Gusev subjected Trotsky, the denier of military science, to shattering criticism.

"War is not a science," declared Trotsky, "war is a practical art,

a skill. War is a trade..." Trotsky denied a connection between Marxism and military affairs. He believed that it is not necessary to be a Marxist to study military affairs, it is sufficient to be a military specialist.

Criticizing the anti-Marxist opinions of Trotsky, Gusev wrote: "War is conducted by people, war is part of social phenomena, part of the life of a class society. War is conducted by armies representing the "military mold" of the existing structure of society. This is already sufficient to see that Marxism has the broadest application to questions of war. There is not a single question concerning a scientific evaluation of the social side of war which Marxism could not approach with the same right as to any question of the life of society. Marxism gives the key to understanding social life, and consequently, that part of the life of society which is called war."*

S.I. Gusev also spoke out against Trotsky's incorrect notion of the correlation of science and military art. He wrote that "between science and art there is not that metaphysical borderline which Trotsky attempts to establish. Science develops because of art, art is based on the achievements of science, and this process is endless.

"...Science is the 'continuation' of war; in its turn art becomes a 'continuation' of science. Any art is more or less 'scientific,' any science is not so 'scientific' that it can do without the addition of art. That which in 'examination' is a law, in operation becomes a rule. What in science is a law, in art is a rule.

"The gap between science and art is the gap between the past and the present, between theory and practice. Such a gap is contrary to the spirit of Marxism."**

Attaching great significance to materialistic dialectics in the development of Soviet military science, Gusev continually emphasized

the connection of theory with practice. "Incorrect theory is the foundation of incorrect practice. He who divorces Marxism from military affairs in theory, will also divorce it in practice — and in questions of the political education of Red Army men and in questions of army organization."

The radical reorganization of the Soviet Armed Forces (1924) and the new technological reequipping of them (1931-1935) also represented the corresponding boundaries in the development of Soviet military theory. Thus, up to the nineteen thirties, our military theory was mainly limited to a generalization of the experience of the civil and first world wars. In the thirties, a large number of works were written on the history of the first world war. These were the work of V.F. Novitskiy, A.I. Zayonchkovskiy, B.M. Shaposhnikov, A.A. Kolenkovskiy and others. At the same time, military historical works on the civil war by M.N. Tukhachevskiy, A.I. Yegorov, V.A. Antonov-Ovseyenko, A.S. Bubnov and others were published. There were also many works published on the history of the military art of that period. Many of them played a large role in the development of Soviet military science.

In 1925-1929, the Soviet Armed Forces received new manuals in which the experience of the past war was generalized with great completeness and scientific character and the paths of the future development of military practice and theory were laid out.

In the years of the first five-year plans, radical changes took place as the result of the industrialization of the country, the collectivization of agriculture and the carrying out of a cultural revolution in our country. The most difficult task of the socialist revolution was resolved — the creation of a new, socialist economics. The class makeup of the population changed. All the exploiting classes were liquidated. The friendship and brotherly collaboration between

the socialist nations in the USSR and the moral and political unity of the people were strengthened.

The victory of socialism in our country created new favorable possibilities for the further strengthening of the Soviet Armed Forces which watch over the peaceful labor and state interests of the Soviet people and for the further development of Soviet military science.

At this time, Soviet military theory supported by the practical battle and operative preparation of the troops took a leading place in the world. Foreign military figures paid more and more attention to the theory and practice, the organization and preparation of the Soviet Armed Forces. At this time, V.K. Triandafillov's book, "The Character of the Operations of Modern Armies," and the Field Manual (1936) from which foreign military theorists borrowed much evoked special interest.

The development of the theory of deep battle, and then of operations, the innovatory use of such new means of battle as tanks and airborne troops, the new forms of troop organization and others - all this first found reflection in Soviet theory and practice of troop preparation and with great attention was considered and used by foreign armies.

On the eve of the second world war, Soviet military science emerged as an advanced military theory. However, it was not free from certain shortcomings. Its individual component parts, branches and disciplines were still not completed. This had an adverse effect on subsequent military conflicts and was partly eliminated before the beginning of the Great Patriotic War.

The war in Spain (1936-1939), the wars in the Far East and in Mongolia (Khasan, Khalkhin-Gol) and the Soviet-Finnish War (1939-1940) had a certain effect on the development of Soviet military science.

It is necessary to note that the experience of these wars was not

always used correctly. For example, hasty and unfounded conclusions made on the basis of the Spanish War (supposedly in a future war large tank and mechanized units will not find use because of their strong vulnerability from the air) proved to be incorrect. On the basis of these conclusions great changes took place in the Armed Forces of the USSR: the tank and mechanized corps created in 1932-1936 were disbanded and the tanks distributed among infantry divisions. This had an adverse effect on the battle operations of our troops in the initial period of the Great Patriotic War.

The study and the use of the experience of the Soviet-Finnish War was better organized. A number of organizational measures carried out on the basis of a generalization of this experience made it possible to improve the technical equipment and battle training of the troops.

However, a majority of the shortcomings which showed up in the course of the Soviet-Finnish War were not eliminated up to the beginning of the Great Patriotic War.

"On the eve of the war, Soviet military theory did not consider the possibility of a sudden invasion of large hostile forces (in our country - Authors) and had not sufficiently developed the forms and methods of conducting a *strategic defense*. Meanwhile, one of the most complex problems which the Soviet Supreme Commander-in-Chief had to solve was the very problem of the organization and conducting of a strategic defense."

The Commander-in-Chief suggested carrying out a number of measures such as: the strengthening of the battle readiness of the troops, engineering fortification of defensive boundaries, the deployment of troops close by the borders for the purpose of defending them. However, these measures were groundlessly turned aside by Stalin. As a result, the strategic and operative groupings of the Soviet troops at

the start of the German fascist aggression were scattered over wide areas and at great depth which placed them in a difficult position.

The Great Patriotic War was the most important stage in the development of Soviet military science. It served as a severe test of Soviet military theory and showed all its positive and negative aspects. In the course of the war the undeniable advantages of Soviet military science, of its advanced progressive nature were convincingly shown.

The Great Patriotic War of the Soviet people against fascist Germany was not an ordinary war between two armies, between two states. In this war there was a battle not for the life, but to the death between new social structures - socialism in the person of the Soviet Union and the most reactionary imperialist state with its fascist regime in the person of Hitler Germany. All of the Soviet people, all progressive humanity were interested in the victorious outcome of this war.

The Soviet Army, devoted to the people and supported by them, weathered all the trials of war and emerged victorious from it. The Soviet troops in the years of the war persistently mastered military affairs and skillfully used their weapons under different battle conditions and accumulated battle experience and knowledge. In intense battles with the fascist hordes in the distant approaches to Moscow in the fall of 1941, the Soviet Guard was born - the bearer of advanced military experience. It continued the best traditions of the Red Army in the time of the civil war.

The Soviet rear tirelessly supported the army. It gave it people, provided arms, ammunition, raised its battle spirit. Thanks to the intense work of the toilers in the rear, the battle might of the army constantly increased, its superiority over the enemy in forces and

means of conducting war grew. In the second half of 1942, the rearming of the Soviet Army with first class battle technology was expanded, large units of artillery, airplanes and armored tank troops were created. As the result of titanic military organizational activity by the Communist Party and the Soviet Government the power of the Soviet state continually grew, new reinforcements were poured into a number of field armies which had undergone preliminary military training through a system of universal military training, in voluntary sport societies and reserve units of Soviet troops. The continuous influx of fresh forces and battle techniques made it possible for the Commander-in-Chief to create powerful strategic reserves of troops, officer corps, arms and ammunition.

All this served as a firm foundation for the transition of the Soviet Army to decisive offensive operations against the enemy. The victories of the Soviet troops near Moscow, in the Volga, and then near Kursk had worldwide historical significance. The first of them was the start of a radical turning point in the course of the war, and in the Volga and in the Kursk battle this turning point was conclusively completed. The Hitler Army which suffered an unprecedented defeat was faced with catastrophe. The victories of the Soviet troops in 1944-1945 were of no less importance, as a result of which fascist Germany was finally routed and capitulated.

The successes of the Soviet troops and the defeat of Hitler's army testified to the growth of the Soviet Army's military skill and the organizational abilities of its commanders and to the superiority of Soviet military art over the military art of the German fascist troops.

The command cadres of the Soviet Army grew and became hardened in a military and political respect in the course of the Great Patriotic War and acquired rich experience in conducting modern war

Soviet military science was perfected and developed in intense battles and in grim battle experience.

Some comrades have expressed the opinion that war is only practice, that theory does not develop during war. This is a completely erroneous opinion. On the contrary, in time of war all theoretical propositions and conclusions are subjected to a severe test, new principles are formulated on the basis of a generalization of the experience and previously accepted principles are reexamined and renewed. The theoretically interpreted and enriched experience of individual innovators becomes the property of the broad masses of soldiers, commanders and staffs. The orders and directives, regulations, directions and instructions, the descriptions of battles and operations which come out in time of war are none other than a contribution to the development of theory although they are primarily of an applied character. It is not by chance that special organs of the large staffs intended for the study and use of war experience achieved such a great development in the last wars. It was the same in the past war. Only several weeks after its start, thoroughly scientific evaluations of the shortcomings in the battle operations of our troops, in the use of individual arms of the service and means of battle as well as indications on the most correct use of technology, the conduct of battle and the organization of operations on the land, sea and in the air appeared in the orders and directives of the Headquarters of the Commander-in-Chief and the commanders of the fronts. These guiding documents allowed the Soviet commanders of all ranks and specialties to understand correctly the goals and character of the war and the scope of military operations and to pay attention to that which was new which the war brought to military art and to use most rationally the forces and means at hand.

In accordance with this, in the initial period of the war, the main attention of military science was turned to questions of the organization and conducting of an unsurmountable defense, to the ability to repel massive attacks by the enemy's tanks and motorized infantry supported by airplanes. In the calculation and most complete use of the economic factor in the war, military science in this period was aimed at determining the requirements of the armed forces for different types of armament satisfying the nature and scales of the developing struggle, as well as the intentions of the command.

With respect to the morale factor, military science generalized and studied the morale and battle qualities of our troops and the enemy's troops which came to light from the beginning of the war, analyzed their strong and weak points and developed forms and methods of calculating the effect on war conditions and military operations on the morale and political state of the troops for the purpose of raising its level, of overcoming the "fear of tanks," the dread of encirclement, the threat from the air and inculcating the troops with the necessary understanding of the character of the war and promoted a study of the enemy, its methods and modes of operation. The political organs, the party and komsomol'sk organizations and all the communists played a huge role in this question, and they selflessly and wholeheartedly strived for the necessary results by personal example and Bolshevik words.

When, in fierce decisive battles, the Soviet troops were able to stop the enemy, to weaken and drain its troops and to move to a counteroffensive, Soviet military science provided answers to the problems of offensive battle and operations in which particular significance was attached to the massive use of artillery, airplanes, tanks and other effective means of battle for overcoming the enemy's defense and

the development of rapid advances.

In proportion to the growth of military production and the saturation of Soviet troops in ever increasing numbers with new battle technology, military science began to develop new forms of the organization of formations and units, as well as methods of their battle and operational use in offense and defense, especially in pursuit of a retreating enemy, in the forcing of water obstacles and the development of battle actions in populated areas and in the mountains. The enemy, under the powerful blows of our troops, was compelled to change forms of defense and to move to stabilized actions in order to drag out the war and to consolidate the lines which had been achieved. Taking this into account, Soviet military science worked out new methods of breaching a stabilized defense using for this purpose large groups of infantry, artillery, tanks, airplanes, engineering and other troops as well as the development of the breakthrough from a tactical to an operative one and the destruction of the enemy's defense in short periods at great depth with the surrounding and destruction of the main forces of its defensive groups.

Attentively following the course of the war, foreseeing its development, Soviet military science opportunely generalized the experience and developed the most urgent and promising problems of the war, recommended new forms of troop organization and indicated the directions of the development of military technology and armament.

A close and constant connection with practice, a progressive methodology, the Party spirit and the greatest understanding of their responsibility to the people by the Party and State helped Soviet military theorists in the years of the war to make a great contribution to the matter of victory. At the end of the war, Soviet military theory had been developed and enriched in all of its branches, having

shown its incontestable superiority over bourgeois military science.

Military art received special development. Soviet strategy became more comprehensive. It paid much attention to a study of the methods of conducting modern war by all types of armed forces in various theaters of war in a coalitional war against a strong enemy. The armed forces also grew immeasurably. Military operations were conducted on the land, on the sea and in the air with the help of a huge number of battle techniques. The costs of the war also proved to be great. There was a demand for the creation, accumulation and use of large strategic reserves of all types and purposes.

To achieve the goals of the war a number of campaigns had to be conducted. The war turned out to be long. It became impossible for one person to lead the war. The experience of the war showed that individual strategic leadership had lost its role, in its place came a collective of leaders in which each of the political military figures fulfills his own specific role. The role of collective leadership grew also in the operational section (military Soviets) which did not shake at all the principle of one man management and personal responsibility of a leader of any rank for the affairs entrusted to him.

Continual improvement of the ways and means of conducting war on huge strategic fronts was characteristic of Soviet strategy. It was enriched by the development and use of diverse methods of conducting the war and its campaigns with decisive goals in different theaters of war and at different times of the year. Strategic defense and counter-offense, strategic offense using the most varied forms of strategic maneuvering with the participation of large units of all types of armed forces, wisely and purposefully used in accordance with the growing material and technological capacities of the country led to undivided possession of the strategic initiative which had been lost at the

beginning of the war as the result of mistakes and reverses of the prewar and initial periods.

Operations of groups of fronts and joint operations of land forces, the navy and airplanes emerged and received complete development in the war.

The well thought out, purposeful and decisive use of large strategic and operational reserves invariably brought successes to the Soviet command, sharply changing the alignment of forces in the directions of the strikes and providing swift development of the success of the operations.

The Soviet art of strategy successfully accomplished diverse operations which achieved great operative results as the result of skillful, bold and original schemes and actions. The scale of these operations continually increased both in number of forces and in depth and rate. Operations were carried out both simultaneously on a broad front and successively with their development one after the other in various directions. Frontal operations in a majority of cases were of a sequential nature and deep. Some operations as, for example, the Belorussian and Vislo-Oder, developed at a depth of up to 500-600, others up to 300-400 kilometers.

Soviet troops attained special skill in the breaching of defense, the surrounding and destruction of large groupings of the enemy. The battles on the Volga, Korsun'-Shevchenkovskiy, Kishinev and Minsk are clear examples of Soviet strategic art before which the "Cannas," "Metzes," "Sedans" and other cases of encirclement celebrated by bourgeois military science known from the military history of the past dwindled.

The forms of operational maneuvering attained extreme diversity. Breakthroughs in one or several directions, flanking envelopments and

turning movements were widely used in the operations of the Great Patriotic War. The massing of forces and arms reach great densities: up to 3 km in a division, in artillery - 250-300 guns and mortars, 30-40 tanks, 100-120 airplanes in 1 km of front in the main direction. The operational formation was usually deeply distributed from top to bottom. All the units and formations had strong second echelons.

Control of the troops was of a centralized character. However, the highest instance, as a rule, did not substitute for subordinate commanders and did not suppress their initiative, but, on the contrary, promoted their development in every possible way.

The flexible and active maneuvering of Soviet tactics achieved complete supremacy over the enemy's stereotyped tactics. It showed remarkable examples of the skillful use of all types of troops, the success of whose actions invariably developed from tactical into operational, attaining a huge scale and shattering result.

Soviet military science continually was developed and perfected in the course of the Great Patriotic War on the basis of the great battle experience which the Soviet Armed Forces received in the war.

In the years of the Great Patriotic War, the Communist Party promoted and trained many talented officers and generals. I.Kh. Bagramyan, S.S. Biryuzov, S.M. Budenny, A.M. Vasilevskiy, N.F. Vatutin, N.N. Voronov, K.Ye. Voroshilov, L.A. Govorov, A.A. Grechko, A.I. Yeremenko, G.K. Zhukov, I.S. Konev, R.Ya. Malinovskiy, K.A. Meretskov, K.S. Moskalenko, F.S. Oktyabr'skiy, I.Ye. Petrov, K.K. Rokossovskiy, P.S. Rybalko, V.D. Sokolovskiy, S.K. Timoshenko, F.I. Tolbukhin, I.D. Chernyakhovskiy, V.I. Chuykov, B.M. Shaposhnikov and others showed themselves to be great military leaders on the battlefields. Educated in the ideas of Marxism-Leninism, having firmly mastered progressive Soviet military science, our commanders inculcated the Soviet troops with

high morale and battle qualities, skillfully combined personal courage and bravery with able leadership of the troops on the field of battle. The boundless devotion to the Communist Party and the socialist motherland, the high military readiness, the rich battle experience and political maturity of the commanders of the Soviet Army and Navy were a great strength in the achievement of victory over fascist Germany and imperialist Japan.

Huge credit in the rout of the enemy belongs to the people's avengers - the Soviet partisans, the commanders and organizers of the partisan movement, such as A.V. German, M.A. Gur'yanov, K.S. Zaslونov, S.A. Kovpak, V.I. Kozlov, I.A. Kozlov, M.I. Naumov, P.K. Ponomarenko, S.V. Rudnev, A.N. Saburov, A.F. Fedorov and many others.

The victory of the Soviet State in the war against fascist Germany and imperialist Japan was the natural consequence of the strength and vitality of the Soviet social and political structure and of its great advantages over the decaying and outdated capitalistic structure. This victory was achieved under the leadership of the Communist Party and its Central Committee. In the years of the war, the Central Committee emerged as the battle leader of the party and the people. Almost a third of the members and alternate members of the CC of the party were at the fronts in the war. The eminent party figures K.Ye. Voroshilov, A.A. Zhdanov, D. Z. Manuil'skiy, N.S. Khrushchev and A.S. Shcherbakov were assigned to leading work in the army. Many members and alternate members of the party's CC, the secretaries of the CC of the Communist Parties of the union republics, of the territorial committees and regional committees formed the military soviets of the fronts and armies.

L.I. Brezhnev, N.G. Ignatov, Ya.E. Kalnberzin, A.A. Kuznetsov, V.O. Mzhavanadze, M.A. Suslov and others took part in them.

Resting on the moral and political unity of socialist society, the Communist Party stirred all the Soviet people to action in the Patriotic War and turned the whole country into a single armed camp. It successfully used the advantages of the Soviet social and political structure, organized a well-coordinated military economy, developed military production, guaranteed the superiority of the Soviet Army over the enemy in armaments, battle technology and the art of conducting war. All this provided victory in the war.

After the end of the war, Soviet military science continued to develop and improve. The high economic and political capacities of the Soviet Socialist State made it possible, after the second world war, to reorganize the Soviet Armed Forces in a radical way and to supply them with the latest techniques. The Soviet Union outstripped the capitalist countries of the world in the creation of many new types of weapons. Our army and navy now has available intercontinental ballistic missiles and other missiles of various types and range.

In connection with this, it is of interest to follow how the numbers of the Soviet Armed Forces changed in accordance with the historical stages of their development.

At the end of the Civil War, there were 5.5 million men in the Soviet Army and Navy, and after demobilization of a number of ages and the carrying out of military reform in our army and in the navy by 1927 586 thousand men were left. So it was almost until 1937. However, the aggression of Japanese imperialism in the Far East and the start of Japan's new war against China forced an increase in the numbers of the Soviet Armed Forces to 1 million 433 thousand men.

The threat of war in Europe and then the aggression of Hitler Germany against Austria, Czechoslovakia, Poland and other states caused a still greater increase in the Soviet Armed Forces which, by 1941,

and 4 million 207 thousand men.

D The treacherous attack of fascist Germany on the USSR and the bloody four year war which developed compelled the Soviet government to bring the numbers of its armed forces, by May 1945, up to 11 million 365 thousand men.

When the second world war ended, the Soviet Union carried out demobilization, as a result of which the numbers of our armed forces, by 1948, were reduced to 2 million 874 thousand men. Simultaneously with this, the Soviet government advocated in the United Nations concrete proposals for disarmament, the banning of atomic weapons, the elimination of foreign military bases on somebody else's territories and the withdrawal of states' armed forces from foreign territories.

But the aggressively minded imperialist states did not adopt the Soviet Union's proposal. They intensified the arms race even more. That is why, in connection with an increasing threat of a new war, the Soviet Union again was compelled to increase its armed forces which, in 1955, comprised 5 million 763 thousand men.

The data presented speak convincingly of the fact that only wars imposed on the Soviet Union by imperialist aggressors or the threat of a new war have forced the Soviet state to increase its armed forces.

In the field of military planning, the Soviet government persistently has drawn and is drawing the line so that the numbers of our armed forces in each specific historical segment of time do not exceed the actual requirements for the country's defense. Consistently carrying out Lenin's peace-loving foreign policy, persistently fighting for solution of the disarmament problem, the Soviet Union has completely eliminated its military bases on the territories of other states and, **D** by 1960, had unilaterally reduced its armed forces by 2 million 140 thousand men. After this reduction, the number of our army and navy

comprised 3 million 623 thousand men.

However, the Soviet government has not limited itself to this. Being guided by peace-loving aspirations, resting on the might of our country and entire socialist camp, the Fourth Session of the USSR Supreme Soviet in 1960 passed a law concerning a new reduction of the USSR Armed Forces by 1 million 200 thousand. In passing this law, the Soviet government proceeded from the fact that the military power of the armed forces of a country is determined not only by the number of soldiers under arms, but also by the level of development of military technology and armaments, by fire power and by the means of delivery of the new weapons to the target. In reducing quantitatively the numbers of the armed forces, the Soviet government is not decreasing their fire power. On the contrary, qualitatively the fire power is increasing many fold. The modern armament of the Soviet Army and Navy fully ensures a high defensive capacity of our socialist Motherland.

However, the intrigues of the imperialists have prevented the resolutions of the Fourth Session of the Supreme Soviet on the reduction of the personnel of the armed forces from being completely put into practice. In connection with an intensification of international tension and the increasing threat of an imperialist attack on the USSR and other countries of the socialist camp, further reduction was halted. A number of measures were taken to increase the military might of the Soviet Armed Forces and to strengthen their battle readiness.

At the present time, the battle readiness of the Soviet Army and Navy is at a level of contemporary requirements. The personnel of the army and navy understand their tasks and are able to carry out battle actions in a complex situation. The officers are well prepared for leading the troops in battle and operations. The generals and admirals of the Soviet Army and Navy are continually improving the skill of pre-

paring and conducting operations on the land as well as on the sea and in the air using the most complex means of battle and all types of modern weapons.

Political readiness in the Soviet Armed Forces, especially after the resolutions of the October (1957) Plenum of the CC of the CPSU, has significantly improved. The Soviet Army and Navy at the present time are a first class armed force, politically conscious, devoted to its people, to the Communist Party and the Soviet government.

Soviet military science, its component parts and branches are also developing in accordance with the development of the Soviet Armed Forces and their battle technology. It is being enriched with new data and new conclusions, in studying the experience of the past war, the current battle and operational readiness, the achievements of modern battle technology, as well as by considering the experience of foreign armies. Marxism-Leninism, the resolutions of the Communist Party on military and other questions and the new program adopted by the Twenty Second Congress of the CPSU serve as the guiding principle for the development and perfection of Soviet military science.

The experience of individual kinds of armed forces and arms of the service, the work of the higher military educational institutions of the Soviet Army and Navy, as well as our military press whose role in the development of Soviet military science is difficult to over-evaluate have had and are having a huge influence on the development of military science.

THE DEVELOPMENT OF SOVIET MILITARY SCIENCE AFTER THE SECOND WORLD WAR

In the period after the second world war, Soviet military science underwent serious changes. A revolution took place in military affairs which found its reflection in military theory, in military science, in its component parts and branches. Cardinal changes in the scientific

and technology area, in all socialist production achieved on the basis of the historical resolutions of the Twentieth, Twenty First and Twenty Second Congresses of the CPSU were the powerful accelerator which led to a new leap in the military area, in military theory and the practice of military planning.

The development of Soviet military science in the postwar period can be divided into three stages.

The first stage chronologically encompasses the years 1946-1953. In this period, Soviet military science was occupied by study, correlation and formulation of the huge experience of the past war. In the course of the war, all the parts and branches of military science received further development. However, the accumulated facts and initial conclusions required thorough scientific analysis, theoretical foundation and formulation. The experience and practice were extremely great and varied. It was necessary to investigate everything new that the war produced and to make everything of value the property of military science.

But the cult of personality interfered with the development of Soviet military science in that period. The development of military theory and its individual problems was taken up insufficiently, it was attempted to fit everything new in military affairs to some or another statement by Stalin. Scientific conclusions were replaced by quotations which hindered detailed creative investigation and the development of military science as a whole, its individual parts and branches.

In connection with the thirtieth anniversary of the Soviet Army and Navy in 1948, a number of materials were published in our press in which individual problems of Soviet military science were touched upon. Thus, in a report devoted to the thirtieth anniversary of the Soviet Armed Forces, an attempt was made to give a definition of Soviet mili-

tary science as a subject of investigation. But in the report this definition was given carelessly and incompletely which afterwards caused various interpretations. The very existence of military science whose purpose is to study the law of armed conflict fell from this definition. The theory of military art also was oversimplified in the report. This did much harm to the development of individual problems of Soviet military science and military art.

But, in spite of the difficulty in the development of military theoretical problems connected with the effect of the cult of personality on military affairs and military science, our military cadre persistently continued to study the experience of the Great Patriotic War and the second world war on the whole and those new processes which appeared in military affairs in connection with the production of nuclear missiles.

In this period the theory of military art - tactics and operative skill were subjected first of all to generalization and development. Having demonstrated its superiority over the military art of a strong enemy, the Soviet military art proved to be perfect and classical for the typical conditions which characterized the second world war. In this war, more effective ways of conducting general battle by the efforts of all types and kinds of troops closely interacting among themselves were developed. The role and place in battle of various means of war was determined. New, more perfected forms of the organization of military units and formations answering the character of battle and operations appeared. The most rational battle formations, the sequence of putting forces and weapons into action and efficient management of them were theoretically grounded. All of this corresponded to the principal idea - to annihilate the enemy by means of an unceasing buildup of the force of blows right up to the full completion of its rout.

Tactics was oriented in its basis: in offense - toward the overcoming of a deep multi-banded and multi-stabilized defense, in defense - toward the creation of an unsurmountable solid deep defense. Tactics required a combination of massed strikes with broad maneuvering. The tactical operations of the troops were aimed at the most complex battle conditions. And this was correct. However, in tactics monotonous methods of operations were canonized and a pattern was established which corresponded to the nature of battle in the last war.

Soviet art of operations reached the highest perfection as the result of the extensive and many-sided experience of the war. A clear formulation of the theory of the army and front offensive and defensive operations, their preparation and conducting were obtained. Types of operational units, their composition, numbers and the character of cooperation in operations of different scales were determined. Various types of reserves of the High Command were developed as a means of its influence on the conduct of operations. General principles of the art of operations were developed in conformity with the operations units of land troops as well as the operative skill of other types of armed forces: airforce, navy and the country's antiaircraft defense. The theoretical principles of an operational rear were worked out.

In 1945-1954, a theory of conducting operations of different scales in land and land-sea theaters of war on the basis of the armament, technology and organization of the troops typical of the conditions which existed in the second world war was worked out. This theory was distinguished by sufficient flexibility. And in spite of the fact that it still retained some elements of a pattern, it was a great achievement of Soviet military scientific thinking.

With strategy matters were worse. Here the cult of personality had a particularly great effect. A belief existed at that time that the

area of strategy is directly determined by the high political leadership of the country, is the prerogative of the "brilliant general" and is not subject to any development except his. All this led to the fact that strategy remained a "well hidden secret," the product of one man's creation. This had an adverse effect on strategy itself, on operative skill and tactics.

The study of the experience of the last great war and new phenomena in military affairs promoted the creative development of problems of military theory. Along with problems of military art, general problems connected with the development of the principles of military science which earlier had disappeared from military theory's sight attracted special attention. In particular, much attention began to be paid to the development of problems pertaining to the principles and structure of military science as well as to the role of economic, morale and other factors in war.

The second world war confirmed with great clarity the huge, in the final analysis, decisive importance for the fate of war of the economic structure of society, its state political structure, the attitude of the broad popular masses toward the war, their readiness to make unprecedented sacrifices in the name of victory, as well as the organizational and ideological work of the Communist Party.

Our military academies and other educational institutions, military scientific societies and wide circles of military personnel took an active part in the development of military theory in the postwar period. Discussions were conducted on many problems in the military press and at military scientific conferences. Such problems as the definition of the subject and content of military science, its individual divisions and disciplines, the factors influencing the course and outcome of war, the nature of the laws of military science, the theory

of military economics, military geography, military pedagogy, as well as a number of problems of military art were subjected to detailed discussion. Unfortunately, some discussions were not completed and generalizations and conclusions on military theoretical problems under discussion were not made.

In the nineteen fifties several books were published which considered questions of military science. But on the whole these books had a commentary nature. The articles on questions of military science which were inserted into the second edition of the Great Soviet Encyclopedia were more valuable. But they also suffer from great shortcomings connected with the cult of personality.

In 1951, discussion developed on the place of a theory of military economics in military science. The raising of this question was proper since this problem is among the least developed in military theory. In 1951, P.A. Belov's book "Economic Questions in Modern War" was published. In the same year, P.A. Belov's article "The Place of a Theory of Military Economics in Military Science" appeared in the periodical press. Belov asserted in the article that military science cannot be restricted only to a consideration of the general principles of the development of socialist and capitalist economics. It must study the effect of these principles in their concrete aspect, under specific conditions of war. Military science must consider the economic capacities both of its own country and also of the enemy's country. Therefore, the necessity arose to formulate within the framework of military science a branch of knowledge which would specifically study economic capacities applicable to the solution of military problems. The theory of military economics, asserted Belov, must become such a branch, a component part of military science together with the theory of military art and the theory of the morale factor.

Where should the theory of military economics be put: with military science, with political economics or divide it into a special, independent branch of knowledge, outside of the limits of military science? Discussion developed on this and other questions in the press and in a number of military academies, in which many military workers from the troops and higher military educational institutions as well as comrades directly occupied with the development of economic problems participated. The discussion produced positive results. It promoted a more correct notion of the subject of military science and the range of its problems. Moreover, the discussion gave still more ground for a broad interpretation of the subject of military science.

Following the discussion of the place of the theory of military economics in military science, a discussion developed on military geography, which was to a certain degree a continuation of the preceding discussion. It helped to correctly define the limits of this scientific discipline and its place in the framework of military science. Military geography was defined as the branch of military science which studies the contemporary state of political, economic, natural and military potentialities and conditions of various countries, theaters of war and individual regions from the viewpoint of their influence on the preparation and conduct of war.

In this same period (1952), the question of the role and place of military technological sciences in the system of military knowledge was first brought up for discussion. The discussion of this question interested the military scientific community. It is known that with the appearance of rocket borne nuclear weapons military technological sciences acquired extremely great importance and this found its reflection in Soviet military science.

A discussion took place on Soviet military pedagogy which showed

the necessity of laying a solid scientific foundation under the practice of educational work and the training of the personnel of the armed forces. Unfortunately, the discussion was not completed.

After the publication in 1953 of Stalin's work "Economic Problems of Socialism in the USSR" a discussion developed in the military press on the nature of the laws of military science. The discussion of this important question began with the publication in the press of Major General N.A. Talenskiy's article "The Question of the Nature of the Laws of Military Science." But this discussion was of an abstract nature and did not make a noticeable contribution to military science.

In the same period, the situation concerning constantly acting factors in war was widely discussed in the higher military educational institutions and in the military press. But the very raising of this question was of a scholastic nature: the factors were often considered in detachment from concrete historical conditions, outside of space and time. Some authors attempted to raise the constantly acting factors to a basic law which predetermines the course and outcome of any war.

In spite of shortcomings, the conducted discussions, and the broad consideration of individual military theoretical questions undoubtedly made a definite contribution to the development of the problems of Soviet military science. But in works issued at that time: N.V. Pukhovskiy's "On Soviet Military Science" (1953); I.V. Maryganov's "The Progressive Character of Soviet Military Science" (1953); M.V. Taranchuk's "Constantly Acting Factors Deciding the Fate of War" (1954) - some attempts were made to present only the most general questions of Soviet military science. And Soviet military science itself was interpreted quite broadly in these books. It was actually identified with the Marxist-Leninist teachings on war and the army. At the

same time, the authors of these works voluntarily or involuntarily judged just the special military technological side of military science, underevaluated the importance in its subject of military art and other military disciplines.

In this period, in connection with the generalization of the experience of the Great Patriotic War, great attention was paid to the development of the problem of the morale factor in war. This problem has always attracted the attention of military science, especially Soviet, since the teachings of Marxism-Leninism, its inspirational, organizational and mobilizing role testified in the best way possible about the great importance of the morale factor in all forms of political struggle and social activity.

The Communist Party has always attached great importance to the mobilization and strengthening of the morale factor. In the years of the Great Patriotic War, it carried out tremendous organizational, ideological, mass party and educational work among the personnel of the Soviet Armed Forces. It is not by chance that after the war the problem of the morale factor received new theoretical development in a number of military theoretical works. For example, at the end of 1946, a book by Professor M. Leonov, "The Morale Factor in Modern Wars," was published. In it the author briefly traces the role of the morale factor in the history of wars and shows how military theoretical thought considers and explains the question of the morale factor in war. In 1953, a pamphlet by P. Kashirin, "The Role of the Morale Factor in Wars," was published.

The authors of these works correctly assert that military science cannot engage in a comprehensive study of the morale potential or in the methods of realizing it in the interests of war since it is guided by that which other sciences give to it about society. Even the most

general principles characterizing the dependence of the course and outcome of war on the morale potential were not discovered and worked out by military science but by Marxist-Leninist teachings about war and the army.

In spite of the fact that many problems of Soviet military science in this period received further development and were enriched with new content, on the whole Soviet military theoretical thinking nevertheless lagged behind in the study of new conditions and factors of armed conflict connected with the appearance of rocket-borne nuclear weapons.

It became possible to overcome this lag only as a result of a struggle with the cult of personality and its consequences. It is necessary to state that in military affairs the correct approach to the overcoming of the consequences of the cult of personality was not found immediately. The vivifying effect of the Twentieth Congress of the CPSU was needed to find the necessary paths and methods which had to be followed in order to purify military science from all that was deposited and accumulated in the years of the cult of personality, to free the methodology of military knowledge from erroneous postulates.

From 1954, the entire battle training of the Soviet Armed Forces began to be conducted with consideration of the use of atomic weapons. From this time, Soviet military theoretical thinking began intensively to develop new questions of the conduct of war connected with the development of rocket-borne nuclear weapons. This period was the beginning of the second postwar stage in the development of Soviet military theory.

The practice placed before military researchers important theoretical problems connected with the changed nature of modern war. In this period, several new instructions and precepts on the study of nuclear

arms and their use in armed conflict were issued. Theoretical scientific articles devoted to the conduct of battle actions in nuclear missile war began to appear in the periodical press. Urgent problems of Soviet military science began to be examined from new points of view.

In 1959, an article by the authors of this book, "The Question of the Nature of Soviet Military Science, Its Subject and Content," was placed in the periodical press. Fundamental problems of Soviet military science were touched upon in this article: the definition of the subject of military science; the nature of the laws of military science; the place and extent of the study of the economic and morale factors in military science; the content and classification of military science; the connection of military science with other fields of knowledge and others.

A number of new questions connected with the development of individual problems of military theory arose in the course of the discussion of these questions in higher military educational institutions and in the press. In addition, the question, what is war, was subjected to discussion. And this was not accidental. It is known that only a scientific representation of war will make it possible to determine correctly the subject of military science and its content.

It would seem that among Marxist-Leninists such a question cannot cause any doubts and should not be the subject of discussion. However, the discussion showed that there are different points of view on this question which has been studied so long. They proved to be two. And both proceeded from a Marxist position: war is a continuation of politics by other, forcible means. The adherents of one point of view asserted that war is only armed conflict. In accordance with this assertion, they considered as the subject of military science war as a whole, they meant by this only armed conflict. Since armed conflict is

the sum total of methods of using means of violence, by which is meant purely military means, armed forces, then they saw as fundamental to the content of military science only the methods of armed conflict, that is, military art. Hence, it followed logically that military science is the science of war, of the methods and forms of conducting it. Such a statement of the question narrowed the concept of military science, reduced it, in essence, to a theory of military art.

The adherents of the other viewpoint, which the authors of this book also hold, considered that armed conflict is the specific content of war. However, the concept of war is not exhausted only by armed conflict and the methods of conducting it. War is a broader concept, representing not simply the replacement of some means of political conflict by other means. Modern war affects all aspects of the life of the fighting countries. In the course of armed conflict as a unique phenomenon of public life the fighting states continue to use other means of influence on the enemy - political, diplomatic, ideological, psychological, etc. In the course of the war, continuous competition of the fighting states takes place in the economic area. The outcome of the war, a military victory, depends not only on the methods and forms of the armed conflict, but also on many other factors. Here the main and determining course of the war undoubtedly remains the armed conflict, but other factors have a greater or lesser influence on it. It is not precluded that some of these factors can, at certain stages of the war, acquire fundamental, and sometimes decisive importance.

War, as we spoke of it in the second chapter, is a complex social-historical phenomenon. It is studied by many sciences: political, philosophical, economic, historical and military. Military science studies the essence of armed conflict, its principles, it is concerned with the determination of methods of achieving victory by military

means. At the same time, it considers other factors which influence or can influence the course of the war and the achievement of victory. Here military science does not investigate independently war in all its aspects since other sciences are occupied by this. Military science uses the data necessary to it, obtained by these sciences.

However, military science is not restricted only to a study of the laws of armed conflict, its essence and the development of methods and forms of conducting it, that is, to military art. It also studies the forces and means of armed conflict with its characteristic quantitative and qualitative certainties and the conditions under which armed conflict is conducted, and evaluates them as factors affecting the course and outcome of war. Military science is not identical with the theory of military art; its content encompasses a number of scientific theories and disciplines and on the whole comprises an orderly system of knowledge about armed conflict, its principles, means and possibilities, the conditions of conducting it and the methods of achieving victory.

The discussion about the nature of military science, its subject and content undoubtedly played a positive role in the development and refinement of all the problems of military science and promoted a more correct notion of it.

The resolutions of the Twentieth, Twenty First and Twenty Second Congresses of the Communist Party of the Soviet Union, the new program of the CPSU, the reports and speeches of N.S. Khrushchev which set forth fundamental positions on individual military theoretical questions, on further strengthening of the defensive capacity of the Soviet state and on increasing the power of our armed forces played a huge role in the development of Soviet military science and its component parts. All this served as a basis for broader and bolder investigation

of many problems of Soviet military science, especially those connected with the revolution in military affairs.

The high level of development of the productive forces of the Soviet Union, its economics and rapid scientific and technological progress increased the defensive might of our country. The Soviet Armed Forces - the direct expression of the military might of our country - were armed with thermonuclear weapons, missiles of all ranges and other newest battle techniques. Similar reequipment took place to a greater or lesser degree in the armies and navies of a number of other states. All this introduced profound changes in the development of military affairs.

The massive introduction of nuclear missiles and other latest battle techniques required reorganization of the armed forces. A new arm of the service was created - strategic missile troops. Previously existing arms of the service also received nuclear missiles: land forces, antiaircraft defensive troops, the air force and the navy.

The new powerful means of armed conflict changed its character, course and results. They compelled a new evaluation of the factors of space and time.

Military science had to discover the essence of these new phenomena in armed conflict, the emergence and development of which expressed a revolution in military affairs. The essence of these new phenomena of armed conflict evidently consists in the fact that with the appearance of missile-borne nuclear arms war acquires an unprecedentedly destructive character, it becomes global and fantastically brief.

The task of Soviet military science is to give a comprehensive deep analysis of the basic features and characteristics of nuclear missile war, to disclose its characteristic principles, to show trends in the development of the means of armed conflict, the methods of its

conduct, the forms of the organization of the armed forces.

D The theoretical development of the problems of Soviet military science in the period 1955-1960 reflected the new processes connected with the revolution in military affairs which took place as a result of the wide introduction of nuclear weapons and missiles as the principal means of delivering nuclear charges into the armed forces. Theoretical military thought investigated and analyzed the new phenomena of armed conflict, correlated them and made scientific conclusions. In the same period, the formulation of a new Soviet military doctrine took place. The fundamental principles of Soviet military doctrine were formulated by N.S. Khrushchev at the Fourth Session of the Supreme Soviet of the USSR in 1960.

In these years, the third period after the Great Patriotic War in the development of Soviet military science began.

The Institute of Marxism-Leninism under the CC of the CPSU in 1960 completed the publication of the five volume "History of the Civil War in the USSR" and they began to publish the six volume fundamental work "The History of the Great Patriotic War of the Soviet Union. 1941-1945." There is a section in the first volume of this work which gives information on the state of Soviet military science on the eve of the Great Patriotic War.* Soviet military science in the prewar years developed rapidly and achieved a rather high level, having considerably outstripped bourgeois theoretical military thinking in a number of questions of military art.

Y In 1960 a new edition of the textbook "The History of the Communist Party of the Soviet Union" was published in which many principles of Soviet military science are disclosed and their further development under the leadership of the CPSU are shown.

In 1959 the "Military Historical Journal" began to be issued again.

A number of articles and reports were published in it which moved theoretical military thinking forward and truthfully disclosed the most significant military historical events of our Motherland and its armed forces. Resting on historical experience, the journal conducted a number of interesting discussions, the most important of which must be considered the discussion on the character of the initial period of the war.

At the end of 1962 a pamphlet by the Minister of Defense, Marshal of the Soviet Union R.Ya. Malinovskiy, "Vigilantly Standing on Guard of Peace," was published. In it is given a scientific interpretation of the fundamental principles of Soviet military doctrine and the stages of its development under concrete historical conditions up to our day are shown. Along with this the pamphlet considers the fundamental questions of Soviet military science and its most important part - military art, as well as the tasks facing them which follow from the program of the CPSU and the resolutions of the Twenty Second Congress.

The book "Military Strategy" published in 1962 played a large role in the development of Soviet military theory. This book was written by a qualified author's collective under the guidance of Marshal of the Soviet Union V.D. Sokolovskiy. A second, revised and supplemented edition of this work was issued in 1963.

In 1963 a third edition of a book by a collective of authors of the V.I. Lenin Military Political Academy, "Marxism-Leninism on War and the Army," was published in which cardinal questions of this teaching are interpreted. Many questions of Soviet military science are examined in a number of sections of the work and its development under modern conditions is shown, the objective character of the laws of armed conflict is disclosed.

O In addition to the works named, many other books and pamphlets were issued in this period which considered certain theoretical military problems. A number of articles and reports were published in the military periodical press on questions of Soviet military science in the light of the new tasks resulting from the revolution in military affairs and from the principles of Soviet military doctrine.

Thus, Soviet military science in the contemporary period continues to develop uninterruptedly on a new foundation, on the basis of conclusions and scientific theoretical principles arising from the nature of nuclear missile war.

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[Footnotes]

- 202 V.I. Lenin. Soch.[Works], Vol. 29, page 47.
- 205* V.I. Lenin. Soch., Vol. 29, page 51.
- 205** Ibid., page 52.
- 205*** Ibid., page 55.
- 206 Ibid., page 133.
- 213 See M.V. Frunze. Izbrannyye proizvedeniya [Selected Works]. Voenizdat [Military Press], 1950, page 242.
- 214 See "Krasnaya zvezda" ["Red Star"], 16 February 1963.
- 217* S.I. Gusev. Grazhdanskaya voyna - Krasnaya Armiya [The Civil War and the Red Army]. Voenizdat, 1958, page 188.
- 217** Ibid., page 196.
- 218 S.I. Gusev. Grazhdanskaya voyna i Krasnaya Armiya, page 200.
- 220 Istoriya Velikoy Otechestvennoy voyny Sovetskogo Soyuza. 1941-45 [History of the Great Patriotic War of the Soviet Union. 1941-45]. Vol. 2. Voenizdat, 1961, page 611.
- 247 See Istoriya Velikoy Otechestvennoy voyny Sovetskogo Soyuza. 1941-45. Vol. 1. Voenizdat, 1960, page 436-451.

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[Transliterated Symbols]

CHK = SNK = Sovet Narodnykh Komissarov = Council of the
People's Commissars

Chapter 5

THE SUBJECT AND CONTENT OF SOVIET MILITARY SCIENCE

GENERAL STATEMENTS

By the subject of military science is meant the sum total of various material and spiritual phenomena of armed conflict which is studied by military science in the interests of knowledge of the specific nature of war, its laws, as well as for the purpose of working out practical recommendations necessary for leading it and achieving a victory in the war.

The subject and content of military science are inseparably linked. The subject and content of military science were not always the same. Depending on the historical era, they had different expressions. In primitive society there were no wars and there were no regular armed forces. With regard to armed conflicts, they did not have the character of wars. They were individual, small, brief skirmishes which cannot be called wars since there were no classes and states or armed forces, and these very skirmishes were not caused by the character of the social relationships which existed at that time.

Wars appeared with the establishment of a class society and the formation of a state in which the ruling classes created armed forces as an instrument of their internal and external policies, an instrument of their conquest, pillage and enslavement of other peoples. When a class society appeared and wars began to arise, there was still no military science, and there could not have been.

It appeared much later, when people had accumulated sufficient

experience and a store of knowledge, had learned to study, generalize and to use skillfully the obtained experience of knowledge in the interests of achieving practical goals in war.

Contemporary history dates the formation and development of military science approximately from the eighteenth century, when in connection with the general development of political, economic, natural sciences and military affairs, as well as with the accumulation of much military historical experience, the possibility arose of bringing together the knowledge which existed separately on questions of the preparation and conduct of war into a military theory which explains the nature and conformity with law of armed conflict and which allows on the basis of this theory preparation of the country and its armed forces for war and the development of certain forms and methods of armed conflict.

Nevertheless, even in the earliest era of the emergence of wars, as experience of battle actions was accumulated, mankind strived to preserve it in tales, legends, written historical evidence, etc.

The subject of military science in all times was, certainly, armed conflict. However, armed conflict in ancient times was studied mainly from a historical viewpoint. The factual events of some wars were primarily and mainly described and remembered. In the far historical past, people were still not able to make thorough investigations, conclusions and generalizations of military experience. Only as they acquired experience and knowledge did they move from simple methods of using the historical heritage to higher ones, that is, to the study, investigation and generalization of the experience of wars, extracting from it lessons useful for the future. These extracts and lessons from the experience of armed conflict also served as a subsequent foundation for the formulation of military science.

Thus, *the first subject of military scientific knowledge was the history of wars and of military campaigns.*

Military history is one of the oldest branches of military knowledge, growing under modern conditions into an independent branch of military science. However, people could not be restricted to the historical aspect of the study of armed conflict alone. As the material base of war became complicated and new techniques appeared, descriptions of types of arms and techniques used in war which were initially very simple and primitive began to appear in different countries and among various peoples.

The production, mastering and use of battle equipment and arms in war developed very slowly in ancient times, like other processes in the development of human society in general.

But gradually weapons became complex. Along with the soldiers' personal weapons - swords, spears and bows - weapons for collective use developed - battle chariots, catapults, ballistas and others. The production of weapons, the study of their tactical-technological properties and use in battle required scientific investigation.

Military equipment - the material basis of military art - thus also always was the object of knowledge of military science. Since techniques continually grew and improved, their use also became complex.

Besides equipment, *people and wars were the object of knowledge of military science.* In the initial period of the development of the first class society - the slave-holding state - there was no regular army, a militia made up of slave owners took its place. A militia army was created only in time of wars and was disbanded upon their conclusion. Militia armies had a whole series of peculiarities. They were morally stable, but could not brag about high battle training, traces

of a communal-tribal system could still be seen in their organization.

Gradually, from the experience of past wars, specific organized groups began to be formed, made up of troops who carried out battle operations, and also learned, moved and broke up camp. As the material-technical factors and generalizations of the experience of past wars grew, troop organizations became more and more complex. Small groups began to be combined into larger ones. Sotnias (companies), cohorts (battalions), legions and other organized units appeared, which had a purely tactical significance. In every country they had their own names and differed in their properties.

Thus, *troop organization came to be the subject of military scientific knowledge*. The study of the most expedient forms of troop organization, arms and equipment in various types of subunits, units, formations, and other higher forms in the interest of the most convenient carrying out of battle operations and war as a whole became the content of this branch of military knowledge. Its content increased continuously.

The progress of military techniques, the complication of the content and scale of battle operations inevitably caused the continuous development of methods and forms of armed conflict. The system of the soldiers' position in battle, the most advantageous battle orders, the methods and forms of battle operations began to be studied. Rudiments of knowledge on the conduct of battle, troops movements, arranging them in place and so forth appeared, which later developed into *tactics as the science of battle*. The desire to be protected from the injurious effect of weapons and to conduct battle operations under more advantageous conditions led to the development of different types of defense installations which caused the appearance of a science of fortifications. A *science of the art of conducting war as a whole* also gradu-

ally began to be formulated. Thus, military art and its chief content - the methods and forms of armed conflict, the use of battle techniques and masses of men in battle - became the subject of military scientific knowledge.

In proportion to the development of state organizations - the growth of productive forces and further class stratification within the state - a new armed organization emerges - the regular army.

Regular troops required well organized training and education. The need for the creation of various types of regulations of "military affairs," manuals and other guiding documents regulating the life of the soldiers arose.

Various small works on questions of training and education were issued even in ancient times. Various instructions and manuals connected with the battle training and education of the troops existed in many states in different historical eras. As military science developed this knowledge was combined into a system whose principal content was questions of the training and education not only of the individual soldier, but also of subunits, units, formations, large operational units, organs of administration and the rear.

With the introduction of universal military service, the regular armed forces began to acquire the character of mass armies. Earlier "war nourished war" and the armed forces of one side often lived on the spoils and resources of the other side on whose territory they waged war, while subsequently the matter changed radically. It began to be impossible to maintain mass armies only at the expense of the other side, especially in arms and ammunition. The problem of the material and technical provision of war and battle operations became very complicated and required the mobilization in war of large economic and financial resources of the country.

Military science began thus to encompass questions of troop supply. Without this supply coming to the front in huge amounts, the soldiers could not wage war. The supplying of these masses with military equipment and everything necessary for conducting battle began to be of a systematic character. The position of contemporary military science that the rear of the armed forces is inseparably linked with military art and comprises one of the divisions of the theory of the latter, was thus laid down historically.

With the increase in the extent of armed conflict, with the involvement in war of all the forces, means and resources of the state, the economics of the country began to acquire more and more importance. *Victory in war now began, to a considerably greater degree than previously, to depend on economic capacities, and calculation and use of the effect of economic factors began to be obligatory for modern military science.*

The condition of the moral spirit of the personnel of the armed forces, their readiness, coordination, discipline, steadfastness, the desire to fight and win in war always have served as the subject of special attention of generals beginning from deep antiquity. The moral spirit of the army and people in modern wars in which broad popular masses participate attracts attention to a still greater degree.

Therefore, *calculation of the moral factor and its use in battle and operations and in war as a whole belong to the subject and content of military science.* "Military science," as Marshall of the Soviet Union R.Ya. Malinovskiy notes, "certainly cannot disregard political, economic, geographical, national and other factors which have a huge effect on armed conflict. It considers and evaluates them in the interest of victory over the enemy... However, military science itself does not study these factors, but uses the data of other sciences."*

It is possible to see from this brief survey that the subject and content of military science was laid down historically, gradually and hence not accidentally, but completely regularly, under the influence of the demands of life and practice, under the influence of social development and in the course of it as armed conflict became complex and knowledge of war was accumulated. The subject and content of military science over the whole course of its development became complex and increased in extent, embracing a greater and greater number of phenomena.

How should the subject and content of Soviet military science under modern conditions be understood? This question is very serious and requires deep, detailed study. It has already been noted above that as military affairs developed and improved, the subject of military science became broader and broader. However, up until recently its subject was considered to be chiefly the methods and forms of armed conflict, that is, questions of military art. With regard to the other sciences entering into military science, as well as questions connected with the calculation and use in war of economic and moral and political capacities, they often were put in second place and did not always occupy their proper place in military theory.

The experience of the last two world wars showed with particular clarity that such a narrow understanding of the subject of military science is incorrect. We have already stated in the second and fourth chapters of this work that military science is a vast field of knowledge and therefore cannot be identified with the theory of military art. And although military art is the most important part of military science, a number of other parts and branches playing an important role in the investigation of phenomena of armed conflict and military affairs as a whole together with it are a part of military science.

In an examination of the subject of Soviet military science it is necessary to emphasize that the economic, political and moral capacities of some state certainly are determining factors with respect to its military capacities. The number and quality of the personnel of the army and navy, their arms, the possibilities of supplying them with everything needed, the level of preparation, the state of the moral spirit - all this and many other things are the product of the social and political system of the given country, of the political and economic level of its development and the character of the productive relations, of the political essence of the war, of the degree of development of the culture of the people, of science and technology, of the historical characteristics of development and national traditions which have been laid down, etc.

However, the possibilities of victory by themselves, even being most favorable, do not guarantee victory in war, they have to be realized through armed conflict, for the conduct of which armed forces exist. Their chief purpose is the rout and annihilation of the enemy's armed forces and the elimination of its capacities for conducting military operations. However, the defeat of the enemy's manpower and equipment alone is insufficient for complete victory in modern war. History knows many cases when armed forces suffered catastrophic defeats. So it was, for example, with the Russian army near Narva at the time of the Northern War of 1700-1721 or with the English expeditionary army in the Western European theater of war in 1940 at Dunkirk. The British army was completely routed. The English evacuated from Dunkirk by sea to their own territory only remnants of their defeated army, leaving behind all the equipment for the enemy. But losing one or several battles still does not mean a complete defeat in war.

The experience of history tells us that, even if the armed forces

of one side suffered a severe defeat, but the principal economic bases and sources of supply survived and, more important, the will of the people for battle did not break down, then the side which suffered a temporary defeat can again reestablish armed forces and, continuing the struggle, achieve victory.

An example of this is the experience of the second world war. In 1941 Hitler's army suddenly attacked the Soviet Union, having a large number of mobilized, well trained divisions, armed to the teeth with battle equipment. Possessing a temporary advantage, the Hitler hordes then inflicted a severe defeat on our troops in the border regions and compelled them to retreat into the depths of the country, abandoning villages and cities. But the country's principal sources of supply for the war were preserved. The Soviet people and its armed forces, inspired by the Communist Party, not only endured the enemy's onslaught but also gained the victory over them.

Here is another example. Japan's strikes on Pearl Harbor in 1941 inflicted a great defeat on the American navy. But the economic and material base of the USA was not affected by this defeat. The losses were quickly recovered and the US Navy both was and remained one of the strongest navies in the second world war.

This is why the content of battle operations of the troops conducting the armed conflict are not only battles and operations or nuclear strikes for the purpose of inflicting defeats directly on the enemy's armed forces, that is, on manpower and equipment, but also strikes on the most important objects of the enemy for their withdrawal from the system and the deprivation of the enemy's capacities to feed the war, to supply the armed forces, to restore the defeated and destroyed, and also for the purpose of undermining its moral state and will to further battle.

An armed conflict, that is, the use of armed forces for the purpose of inflicting material damage on the enemy and suppressing his moral potential thus plays the principal, decisive role in war, since only it can guarantee the rout of the enemy's armed forces and direct weakening of its economy, the seizure of its territory with all the political and economic centers located in it which supply the war and consequently secure victory. *Armed conflict which makes up the principal content of war is therefore the main subject of investigation of modern military science.*

Armed conflict is conducted by armed forces under specific concrete conditions of space and time and depends on the economic, moral, political and strictly military potentials of the country. These material and moral-political conditions and factors which determine the general character of the armed conflict form specific links and interconnections and engender specific objective principles.

The study of these principles, the development and formulation of the principles and rules of armed conflict following from knowledge of them is the subject of Soviet military science.

Since armed conflict is conducted by troops using various means of battle, under various conditions and with various methods and forms, the subject of military science also investigates such most important categories as the armed forces, means of battle, conditions and capacities of conducting armed conflict, methods and forms of military operations and war as a whole. The armed struggle and its result depend on the economic and moral-political capacities of the fighting states. Therefore, questions connected with the study and calculation of the effect of economic and moral-political factors on the course and outcome of the armed conflict also are part of the subject of military science.

Soviet military science cannot help but be interested in the military historical past of our Motherland, as well as of all humanity. Historical experience always proves to be valuable in a consideration of the practical tasks of the present day. It confirms that in any war there are elements of past wars, although not one war, not one operation is like another. *The history of wars and military art*, being one of the main branches of military science, studies the experience of past wars in order to uncover and become more deeply acquainted with the principles of armed conflict, to draw generalizing conclusions and in order by considering all the achievements of science and technology, to develop a military theory satisfying all the requirements of modern wars.

Marxism-Leninism teaches, and practice confirms, that knowledge is born from experience. The study of the past and present promotes scientific foresight, the formation of a true scientific world outlook and the successful solution of practical problems.

War is a great skill. To conduct war skillfully, using expediently the forces and means, to achieve a victory over the enemy with little blood and in a short time can be done only by prepared, well trained and educated troops. Especially high qualities are required of the troops of a nuclear missile war. The use of diverse and complex battle equipment requires thorough military-technical knowledge of the commanders.

The mastering of new techniques in the process of battle training has begun to bear a complex character. Earlier, before the first world war, the techniques were comparatively simple, while now they include a great number of different subjects taken up by the troops. The introduction of military equipment throughout the military organization has made the methods and forms of battle operations more complex, and

this, in its turn, is reflected in the battle training of the troops.

It is only possible to train troops properly under modern conditions on the basis of scientific data. Only with the help of a detailed and scientifically based theory of the training and education of troops is it possible to have a reliable and faultless instrument of victory - which are well trained armed forces as one of the chief elements providing victory in war.

Therefore, the study and generalization of the experience of battle training of troops and the operational readiness of the commanders and staffs, as well as the development of methods, forms and means of battle and operational training is part of the subject of military science.

These are what seem to us to be the subject of military science. It should be emphasized that these topics go beyond the bounds of military art alone. Inevitably, because of the complication of military affairs, military science includes a whole series of different branches of knowledge directed toward the guaranteeing of a victorious armed conflict.

THE GENERAL THEORY OF MILITARY SCIENCE

In the development of every science the statement of the general theoretical principles has special importance. In them the most important theoretical principles from which this science proceeds in its further development are made concrete.

In the brief historical survey of the development of military theory given in the third and fourth chapters we have already indicated the paths of the formulation of the general principles of military science which found reflection in the works of various military writers of the past both abroad and in our country. Here it is necessary to dwell in more detail on the characteristics of the development of the

general theory of military science, its parts and branches.

Clausewitz's work "On War"* occupies an important place in the development of bourgeois military science and its general theory, as has already been emphasized. It gives a definition of war, its goals and methods. Clausewitz, in studying military theory, points out the character of the subdivision of this theory. He sorts out elements of strategy, its general foundations and the principles of strategic leadership in the wars of his time. In complete accord with the definition of the role of tactics in the armed conflict of his period, Clausewitz pays much attention to the investigation of battle and its character.

Clausewitz's work "On War" played a large role in the development of bourgeois military science. In it an attempt was made at a scientific, philosophical study of war and its individual categories. In this work a general theory of armed conflict is set forth, as the author presented it, which generalized the experience of the wars of the Napoleonic era, in which he directly participated. Many of Clausewitz's theoretical positions, as is known, were highly evaluated by the classics of Marxism-Leninism. V.I. Lenin considered Clausewitz to be one of the most profound writers on military questions. Thus, in his work "Socialism and War" Lenin wrote: "War is a continuation of politics by other (namely: forcible) means." This famous saying belongs to one of the most profound writers on military questions, Clausewitz. Marxists have always justly considered this statement as the theoretical basis of opinions on the significance of every given war. Marx and Engels always examined various wars from just this point of view.***

Lenin pointed out that Clausewitz's ideas "were engendered by Hegel." Lenin's notes on Clausewitz's book "On War" are presented in the Twelfth Lenin collection which contains both direct evaluations of

some of Clausewitz's statements and Lenin's remarks and judgments on questions and problems of war. The greatest importance of Lenin's notes of Clausewitz's work "On War" is that here we are dealing with an example of the creative study and solution by Lenin of military theoretical questions on the basis of materialistic dialectics.

A general theory of armed conflict was also developed in the old Russian military science. Military theorists and writers of the nobility and bourgeoisie attempted many times to give the general scientific foundations of a theory of armed conflict and to discover the principles acting here. In the eighteen twenties in Russia a work by I. Burtsov "Thoughts on a Theory of Military Knowledge" was published in which opinions were stated on a number of general questions of military theory and an attempt was made to classify it.

Leyer, Mikhnevich* and certain other military theorists of the past attempted in their works to give the principles of a general theory of armed conflict, and its philosophical premises constructed mainly on idealistic concepts. Military science, as is known, at that time was identified with military art. Therefore, the theory of strategy was then considered as a general theory of military science. Leyer, for example, called strategy the philosophy of military affairs. Mikhnevich in his work "Military Science and the Degree of Accuracy of its Conclusions" characterizes military science as the science of war, proceeding in his opinions from a so-called positive philosophy, at the heart of which lay, however, an idealistic concept. He attached decisive importance to the purely military factors of achieving victory in war, in particular, to a plan of war.

Since the time when the works of Clausewitz and other bourgeois military theorists appeared, the most profound economic and social-political changes have taken place in the entire world. The very ma-

terial-technological base of war and military science itself has changed sharply. Theoretical military works created on the basis of experience of past wars and especially wars of the eighteenth to nineteenth centuries now, naturally, have become obsolete and cannot be placed at the basis of a modern theory of armed conflict. The idealistic world outlook on the basis of which the works of the bourgeois military theorists were created also prevents this.

Soviet military science opened a new stage in the development of a general theory of armed conflict. As has already been noted, Soviet military science from the moment of its establishment decisively developed not only a modern theory of military art but also the general foundations of military science. In this it rested on the teachings of Marxism-Leninism on war and the army, on dialectical and historical materialism.

M.V. Frunze in his time indicated that a general part exists in military theory in which a range of general ideas of military affairs is set forth.* The second world war, and especially the Great Patriotic War, had a huge influence on the development of a general theory of Soviet military science. In the postwar period it is not by chance that military scientific thought with even greater persistence and depth is continuing to work out the general principles of military theory, reexamining them taking into account the accumulated experience and those changes which have taken place in military affairs. The value of military experience is evident and there is no need to belittle or strike it out. However, under contemporary conditions it is necessary to interpret theoretically everything new which has been brought into military affairs with the development of missile-borne nuclear weapons. Cardinal new solutions are emerging, capable of answering the questions: what can modern armed conflict in all its dimen-

sions be - strategic, operational and tactical; what do the methods and forms of armed conflict seem to be in essence and what is the role of individual types of armed forces and arms of the service in them; what are the new conditions and factors and how is the role, place and importance of previous factors changing in the new circumstances; how is the subject of military science changing in the final analysis. (7)

The necessity for further development of the general theory, that is, of the general principles of military science is dictated by the fact that now, under the conditions of modern wars, a number of problems are arising which the old military science did not know.

Differentiation, as well as integration of military disciplines, the development of new disciplines, complication of the content of military science as a whole, and the increase in its content are causing the acute necessity to combine basic conclusions and principles characteristic of all military knowledge within the framework of a single, general theory of armed conflict or, in other words, into general principles of Soviet military science.

A general theory gives the starting points by which all the parts of military science are guided. Making up the general theoretical foundation of the whole edifice of military science, it connects all its parts and branches into a single system.

Proceeding directly from Marxist-Leninist teachings on war and the army, being guided by the principles of Marxist philosophical materialism and the dialectic method, the general theory of Soviet military science is concerned with such fundamental questions as *the nature and character of armed conflict, the subject and content of military science, its sources, methodology and the classification of its component parts.* 0

Questions connected with the study of the laws of armed conflict

which has extremely great importance for the development of the principles of Soviet military science occupy a large place in the general theory of military science.

Here the general theory of military science, as we said earlier, proceeds from that position of Marxism-Leninism that there exist objective, not dependent on the consciousness and will of the people, laws of armed conflict and that the principles of military science are only the theoretical expression of these objective laws. Here this theoretical expression of the objective laws of armed conflict is also provided in military science first of all by its general theory which is called upon to study them.

In investigating the nature of armed conflict Soviet military theory correctly points out that armed conflict as a whole, military campaigns, operations and battles yield to scientific study and generalization, they are not those areas where the elements and blind chance prevail. On the contrary, historical experience shows that the development of methods and forms of armed conflict and the processes of conducting it do not proceed chaotically, but regularly and in a definite order. These regularities reflect the objective processes of war and are caused by objective reasons which arise as the result of the interaction of various conditions and circumstances of which the armed conflict is made up.

We have already said earlier that the laws are of a general character and have an effect on all the spheres and areas of armed conflict. Thus, for example, the laws of historical materialism show the dependence of the development of military affairs on social and economic conditions and the spiritual life of society. For military science these laws are basic.

At the same time, as has already been noted, armed conflict has

its own specific laws which develop both on the basis of its dependence on general, material conditions and also as the result of the interaction of various causes and circumstances inherent to armed conflict itself. Laws peculiar primarily only to armed conflict proper are manifested just through the given dependence, and these have important significance for military science since through them the specifics of military phenomena are disclosed.

Let us take for an example the law of the unity of armed conflict which is discussed below. This law expresses the unity, integrity and interdependence of modern armed conflict on the land, on the sea and in the air. It is derived from that indisputable fact that military operations in our time are conducted by the combined efforts of all types of armed forces and arms of the service, but the chief and determining role belongs to the strategic missile troops, if you are talking about a world war. The main requirement of this law is the combining of all means, methods and forms of armed conflict, the skillful use of missile, land, sea and air forces taking into account their strategic, operational and tactical properties and their interaction.

These and other laws of armed conflict learned in the course of historical experience and revealed as the result of a scientific investigation of the trends in the development of the means and conditions of war indicate their great role and importance in the formulation of specific positions, principles, and rules of military science and military art which are then taken as the basis of the development of certain methods and forms of armed conflict.

At the same time we must emphasize once more that the laws of armed conflict are not of an eternal and unchanging character, they develop and change in the course of historical development. Military science investigates the content and manifestation of certain laws in

a historical light and shows that along with more general laws characterizing armed conflict as a specific social-historical phenomenon, each specific era has its own laws for attaining the goals of war.

Nuclear missile war, about whose characteristics and distinguishing features we have already spoken, inevitably engenders its own laws which differ essentially from previous notions of armed conflict even of the time of the second world war. This pertains both to the general characteristics of armed conflict, its scope and the methods of conducting military operations and also to the characteristics of conducting operations and battles. The conditions of interaction, battle and operational supply are becoming qualitatively new. The importance of the time and space factor in all dimensions - tactical, operational and strategic - is changing especially sharply. This is reflected first of all in the methods and forms of armed conflict and, consequently, finds its own new expression in the laws of armed conflict.

Let us take as an example the law of the determining effect of strategy on operational skill and tactics. Earlier this law found its reflection only in the fact that tactics was obliged to match its efforts and goals to the orders of strategy which it served. The achievement of specific tactical results was important not in itself but only to the extent of their conformity with operational and strategic goals. At the same time, the strategic result was attained as the result of the accumulation of specific tactical and operational results directed by the strategic leadership and corresponding to the general strategic plan. Such a regular dependence is continuing now, but only with a qualitatively new feature which has resulted from the modern development of the means of armed conflict.

Now strategy has the possibility of achieving its goals not only through the sum total of tactical and operational actions leading to

the achievement of specific results, but directly. This possibility is provided by the agencies of massive destruction and their delivery to the planned targets. More than that, the very effect of strategic nuclear missile strikes directly and immediately determines the conditions, course and results of all other efforts and the scales of modern armed conflict. This new law of armed conflict has been engendered by the revolution in military affairs. This is a qualitatively new possibility of military strategy which it never had before. All this indicates that the guiding role and the direct effectiveness of strategy in contemporary military art under the conditions of nuclear missile war is sharply increasing. This is expressed in the fact that military strategy now is not content only with the role of the organizer and planner of a system of operations. It has acquired the qualitatively new capacity of directly carrying out powerful strikes of strategic importance, of achieving decisive results in the rout of the enemy in a short time.

A general theory of military science has, thus, as a task the investigation and determination both of general and specific laws of armed conflict, the establishment on the basis of knowledge of objective laws of the basic factors determining the achievement of victory in war.

A general theory of military science chooses the principal direction in the development of the general problems of military science, the character of their research for all the component parts of military science, establishes the interconnection and interdependence among them and formulates its general principles. Such problems as the correlation of the objective and subjective in military affairs, the role of people and technology in modern war and the most general theoretical questions of military construction are also considered in the general

theory. It is concerned with the study in general form of the characteristics, conditions, means and possibilities of armed conflict, considers the economic, moral and properly military factors affecting the character, course and outcome of war, determining at the same time those directions in which it is necessary to study and use the economic, moral and military possibility for achieving victory over the enemy. It is understood that, in addition to the general theory of military science, the economic, moral and military factors are considered by all other branches of military science, but in conformity with the specific character of one or another of them and in a more concrete system.

The calculation by military science of *the economic capacities* of the fighting sides rests on the fundamental position of Marxism-Leninism on the determining role in armed conflict of objective material conditions, the method of production of material wealth, on the indisputable conclusion of Marxism-Leninism that in modern war under all equal conditions of the conflict the political and economic organization of society and the level of their development have decisive importance.

By the economic potential of a country military science is meant the sum total of the economic capacities of the country. The level of the economic potential of some country always depends on the social and political structure, the concrete quantitative and qualitative indices of the achievements of industrial production and the entire economy as a whole. Knowledge of the economic potential of one's own country and its skillful use in the interests of achieving victory over the enemy as well as knowledge of the strong and weak points in the enemy's economy for the purpose of calculating their effect on the course of the war and the application of effective strikes on the en-

enemy's economic targets is a necessary condition of correct leadership in modern war.

The calculation and evaluation by military science of the economic potential of one's own country and of the enemy in the interests of the war and the development of military affairs has a very many-sided character. A general theory of military science is interested first of all in the capacity of the country to supply the needs of the armed forces over the whole course of the war. It studies these problems for the purpose of bringing into complete conformity the tasks, methods of armed conflict and organization of the armed forces with the real material capacities of the country. It examines the interconnection of the economic potential with the military and moral potentials, the scientific methods of determining the requirements of the armed forces for material and technological means in the period of preparing for the war and in the course of it. Calculation of military economic potentials within the framework of a general theory of military science also includes investigation of the methods and forms of undermining and disorganizing the enemy's military economic power.

Based on the principles worked out by military science on these questions, the strategic leadership specifically considers the economic capacities of its own country and that of the enemy in the planning, preparation and conduct of the war and its campaigns. The commanders of the units and formations consider the material and technological capacities in operations and battles on a scale which is determined by the limitations of the units which they command and the requirements of the operations and battle.

A general theory of military science does not consider the practical problems of the conversion of the country's economy along military lines, of the broadening of military production and expanded pro-

duction in time of war, etc., since this enters into the competency of the economic sciences and is resolved by state and economic planning organs.

Together with the determining role of objective material conditions in the course and outcome of armed conflict, the conscientiousness and organization of the popular masses, their attitude toward the war, the state of morale of the armed forces, that is, the sum total of the specific moral capacities, as has already been indicated, have great importance.

The essence of the investigation of this area of phenomena consists in the discovery of the principles acting here which determine the effect of *moral values* on the fighting qualities of the armed forces, the preparation and conduct of military operations and armed conflict as a whole as well as the possible paths, methods and ways of strengthening and increasing the moral spirit of one's own troops and undermining it among the enemy's troops.

Moral potential in war expresses the capacities of the country, its people and armed forces to endure and overcome all the burdens and strains of the war and to bring it to complete victory. The level of the moral potential very much determines whether the state will gain a victory in the war or suffer a defeat. This level itself depends first of all on the attitude of the broad working masses to the existent social and political structure, to the policies of the state, the goals of the war, on the degree of patriotism of the people, their general culture, consciousness of social duty, the character of the historical traditions and the conditions of social life.

Soviet military science, being guided by Marxism-Leninism, believes that a just, liberating character of the goals in war unites the people and the armed forces, inspires them to heroic battle and

creates the most favorable conditions for conducting a victorious war. The unjust, predatory nature of the wars conducted by imperialists deprives them of the possibility of using in full measure the moral strengths of the people and army, compels a search for various artificial methods for maintaining their moral spirit and makes successful conduct of the war difficult.

Under all, even the most favorable, conditions, a moral spirit is not created by itself. In order to provide a high moral potential of the country and a high moral spirit of the troops conducting the armed conflict, continuous systematic organizational and political educational work of the party, various mass organizations, state organs and our military cadres is needed. More than that, an existing moral superiority can be reduced to zero if it is not evaluated correctly or in time, taken into account, used and converted from a possibility to an actuality on the battlefields. "...Only under conditions of a first-rate organization," V.I. Lenin taught, "can our moral strength be converted to material strength."*

Not only do some social and economic factors act on the state of the people's moral spirit, but also the military successes or failures of the troops. A successfully conducted attack which brings great political and strategic results inspires the people and the soldiers, rouses them to still greater exploits and heroism. Failures and defeats have a negative effect on the moral state of the population and armed forces. Prolonged retreating operations in whose prospects no gleams of hope are seen have a particularly disorganizing effect on moral spirit. Not all states and not every armed forces have the ability to sustain the great tension connected with failures, defeats, prolonged retreats and losses of large territories. Many states of Europe did not withstand the blows of the enemy in the last war and capitulated.

However, the Soviet people and its armed forces, led by the Communist Party, coped with the severity of the defeats and failures inflicted in 1941-1942. They found in themselves the strength to stop the fascist hordes, to seize the initiative from the enemy's hands and then to move to a strategic offense which ended with the complete rout and destruction of the adversary on his territory.

The importance of the moral-political factor increases still more under conditions of modern war. The use of new weapons, the complication of the methods and forms of armed conflict, the increase in the scale of military operations in modern war require the presence of high moral qualities both among the troops directly conducting the battle operations and among the whole population of the country.

In considering the decisive importance of the moral-political factor in war, the general theory of military science helps the strategic leadership to use concretely the moral capacities of its country and to know the enemy's capacities in the planning, preparation and conducting of campaigns and war as a whole. It helps the commanders of the operational units and tactical units and formations in the preparation and conduct of operations and battles to such an extent and in the forms which are inherent to one or another scale of armed conflict.

It is necessary to dwell especially on questions of party political work in the Soviet Armed Forces which, as is emphasized in the resolutions of the October plenum of the CC of the CPSU in 1957, is the most important condition of the development, strengthening and maintenance of a high moral spirit, of socialist consciousness, determination and discipline of the troops. Conversion of the moral capacities of the armed forces into one of the decisive factors of victory is achieved with the help of party political work. Permeating the entire life and activity of the troops in peace and war time, party political

work is organically combined with the organizational activity of the command and political cadres and is the most important lever of the party's influence on the armed forces. In party political work in the armed forces the richest experience of the organizational, political and ideological work of the Communist Party of the Soviet Union is used.

An increase in the role and influence of party organization in the army and navy is the basis of the military policy of the CPSU. As emphasized in the party's program, the basis of the foundations of military building is the guidance of the armed forces by the Communist Party. The party pays unremitting attention to increasing its organizing and guiding influence on the whole life and activity of the army, airforce and navy, to rallying the personnel of the armed forces around the Communist Party and the Soviet government, to strengthening the unity of the army and the people, to educating the troops in a spirit of boundless devotion to their socialist Motherland, in a spirit of courage, bravery, heroism and battle cooperation with the armies of socialist countries, of readiness at any moment to defend the building of communism in the Country of Soviets and in all other countries of the socialist camp.

In characterizing the decisive role of the party in the development, strengthening and use of the moral forces of the people, N.S. Khrushchev notes that "the party has a foundation stronger than the state organs. It arose and exists not as the result of any obligation of a legislative order. Its development was evoked by obligations arising from the political opinions of the people, that is, from a moral position. And humanity will always have need of moral factors."* This position has great importance for Soviet military science since in modern war the role of the moral factor increases immeasurably.

Party political work in the armed forces has its own history, theory, methodology and practice. Therefore, it is extremely necessary in the future to develop and broaden our knowledge in the area of the theory and practice of party political work. For this it is necessary to create scientific works on questions of the theory of party political work in the armed forces both in peace and in war time.

Besides the importance and role of economic and moral factors, the general theory is deeply concerned with questions of military potential proper. By military potential is meant the military capacities of the state, its ability to have a completely modern armed forces, supplied and provided with everything necessary for successful conduct both of nuclear missile war and any other wars and the achievement of victory over a strong enemy. In our time, a country's defensive capacity is determined not so much by how many soldiers are under arms but by how many people wear military greatcoats. If you ignore general political and economic factors, then a country's defensive capacity, to a decisive degree, depends on what fire power and what means of delivery of the means of defeat are at the country's disposal.

Hence it follows that the military potential of a country is determined first of all by the fire power of the armed forces supplied with nuclear missiles and other weapons, their qualitative condition and battle readiness. It is also necessary to consider in the military potential the degree of military training of the conscripted contingents, their numbers, period of possible mobilization, concentration and readiness for battle operations, the quantity and quality of the commanders in actual service and in the reserve, the level of development and general state of military science and technology and a number of other indices satisfying the requirements of modern war.

It is important first of all for military science to consider and

develop those aspects and elements of the military potential which are directly connected with the state and development of the armed forces, with the future direction of military building on the basis of all the achievements of science and technology, on the basis of the available progressive trends, of rapid development and mastering by the armed forces of new techniques as well as the development of methods and forms of modern armed conflict.

In considering the correlation and dependence among the economic, moral and military potentials, the general theory emphasizes that the economic and political-moral capacities of some state of course are determining with respect to its military capacities. These capacities can be correctly determined when not only the armed forces alone but the economic and moral potentials of the country are comprehensively considered.

The calculation and evaluation of the various conditions under which modern armed conflict can be conducted and the factors influencing the course and outcome of the war occupy a large place in the general theory of military science. We have already characterized above the most common factors in which the effect of the economic and moral-political capacities of a state in war is reflected. At the same time, it is necessary to emphasize that Soviet military science considers and evaluates all the factors and their combination. Thorough investigation of the conditions and factors of armed conflict has especially great significance for military science. Therefore, we shall examine these questions more thoroughly in Chapter 6 of this work.

One of the fundamental questions being resolved by the general theory is *the question of the classification of military science*.

The classification of military science, that is, the exposure and determination of its component parts, is inseparably linked with the

development and differentiation of military knowledge, consequently with the development of the subject and content of military science which were laid down historically. The scientific classification of military knowledge which has developed on a specific material basis and under concrete conditions of armed conflict has promoted the formulation of military science.

Classification of military science has very great importance for the study and investigation of questions of armed conflict. Engels in "The Dialectics of Nature" in giving a characterization of the classification of sciences emphasizes that the classification of the sciences, each of which analyzes the individual form of the subject's movement, is at the same time classification, division and arrangement according to the inwardly inherent sequence of these very forms of the subject's movement.

The necessity of classifying military science is due to the fact that military science studies very complex, diverse phenomena of armed conflict. A fruitful study of these phenomena naturally cannot be conducted in a general situation, but is attained by breaking up the problem into specific directions, branches or parts which provides, as experience teaches, the greatest completeness and depth of scientific investigations. The entire history of science, including military, shows that without breaking up accumulated knowledge into specific directions and branches, without the establishment of a strictly specific system and coordination, it is impossible to analyze carefully the available facts and to complete the investigation with scientific conclusions and generalization, on the basis of which one or another science is formulated.

Classification of military science is also necessary in order to disclose most clearly and definitely its basic content, to explain

what in it is central and controlling and what has subordinate, auxiliary importance. Classification has not only theoretical but also great practical and organizational importance for the development of military science as a whole and of its sections and branches connected with military building and with the problem of the preparation and conducting of modern armed conflict.

A modern classification of military science must correspond to just that breakdown and division of military phenomena which takes place in objective reality. It must reflect the general, fundamental and essential features of military science and at the same time disclose with the necessary detail the parts of which military science consists.

From all this it follows how important it is to have a scientifically based classification of military science as single system, a clear determination of its main component parts, as well as the establishment and demonstration of the interconnections in military science and also of military science and its individual parts with social, economic, technological and other sciences, considering the uniqueness of military science as the frontier science between the social and natural sciences.

It is necessary to note that classification of military science is not an easy matter. Earlier we said that military science is a complex science. It tests on itself the effect of social-political and scientific-technological progress, being more tangible than any social science. It is sufficient to say that many military-technological sciences have only appeared and are actively developing in the postwar period which reflect the use in military affairs of nuclear energy, missile weapons, electronics and on the basis of it, automation, radio, cybernetics, etc., which it is impossible not to consider in a modern

classification of military science.

Military science, in analyzing armed conflict, its means and methods, reflects in its classification the diversity of the phenomena of this conflict in all their specificity.

The classification of military science, like its subject and content, has not remained unchanged, but, naturally, has changed with the development of the means, conditions and possibilities of armed conflict. It was enriched and developed historically.

At the beginning of the eighteenth century, military knowledge was considerably differentiated, and at the end of this century, it was formed into a number of individual parts of military science: strategy, tactics, artillery, fortification, military history and others. At the beginning of the nineteenth century, questions of military geography and military administration began to be developed widely. At the beginning of the twentieth century, the theory of operational art was born which found its most complete expression and formulation only within the framework of Soviet military science. In this same period and later, various military-technological sciences began to develop intensively, reflecting the swift general technological progress and the radical changes in the material basis of armed conflict.

Under contemporary conditions, the preparation and conduct of war are studied by the most varied fields of science. With regard to military science, it now, more than any time earlier, has differentiated its knowledge. A breakdown into a large number of different, more or less independent sciences has taken place. Moreover, quite new sciences and individual theories have developed in it. This has been caused primarily by practical problems, dictated by life, by the appearance and development of new means of armed conflict and by the rapid progress of science and technology. Such a regular process must

be considered as the most important trend in the future development of military science.

It is commonly known that the chief goal of military science is the determination of the military-technological character of modern wars, the paths and methods of conducting armed conflict and the achievement of victory over the enemy. The struggle of the armed forces of the fighting sides is the decisive process of the war which comprises its specific property in comparison with other methods and forms of battle, peculiar to social development. Therefore, armed conflict, as the specific aspect of war, is military science's center of attention. Through armed conflict and in its course each of the sides realizes all the available possibilities for the achievement of victory. The task of military science is to disclose on the basis of thorough investigation the principles, character, essence and properties of armed conflict, the methods and forms of conducting it on one or another social and military-technological basis, taking into account the modern means of war.

The principles of war as armed conflict, the general theoretical principles connected with an evaluation of various military phenomena, the investigation of the general conditions of armed conflict, the effect of economic and moral factors on the course and outcome of armed conflict, theoretical examination of the principles of the preparation and conduct of armed conflict, as well as its supply - all this finds reflection in the general theory from which its original data and other parts of military science are derived.

The general theory is the basis of Soviet military science. Just as the new achievements and discoveries of science and technology change or extend our ideas of specific phenomena in nature and society, so the general theory of military science reflects the changes taking

place in the field of armed conflict, enriches military science with new conclusions and gives the possibility of foreseeing its future development. And this pertains not only to the character of the changes themselves, but also to their correct scientific reflection in all branches, parts and disciplines of military science in accordance with their profile and specific character. New correlations among all the parts of military science are achieved and its further differentiation, about which we have already spoken above, takes place in the same way.

In connection with the increasing complexity of modern wars, the increase in their scale, as well as the broadening of the extent of military affairs, it is necessary to develop further the general theory of armed conflict taking into account the development of nuclear missile weapons and other new means of war.

The theory of military art, which studies the methods and forms of preparing and conducting military operations of various types and scales and war as a whole, is also a part of military science. *Military historical science, the theory of the training and education of troops, military administration, military geography and military technological sciences* are also components of military science.

Thus, contemporary Soviet military science includes the following basic parts and branches:

- the general theory (general principles) of military science;
- theory of military art;
- military historical science;
- theory of training and education of troops;
- military administration;
- military geography;
- military technological sciences.

Here it is necessary to keep in mind that all these component

parts and branches of military science are inseparably linked and play a definite role in the development and solution of general questions of armed conflict.

The general theory of military science which comprises its foundation has decisive, basic importance for all military science. All the parts, branches and disciplines are guided by its principles and conclusions. At the same time, a discipline such as military geography with all its importance and significance in military science is of an auxiliary nature.

The theory of military art, as the most important part of military science, is directly concerned with the methods and forms of armed conflict, and, naturally, all the other military sciences are guided by its conclusions and principles.

Military historical science as a part of military science is important in itself, but nevertheless it fulfills an auxiliary role both for the general theory of military science and for the theory of military art.

That is why, in an analysis of the content of military science, an obligatory requirement is the necessity of determining the correct correlation of the basic parts and branches in its makeup and their scientific classification, without which it is impossible to demonstrate their actual role and place, tasks and boundaries of the investigation of various phenomena within the framework of a unified military science.

The general theory of military science gives a general, theoretical picture of the system of military knowledge, demonstrates and shows the principles acting here, while the other parts, branches and disciplines of military science develop and concretize them, disclose the inner links and interlacings in the more particular manifestations.

The revolution in technology, including military, in the equipment of the army, navy and airforce which is taking place at the present time is placing before the theory of military art many new problems and demanding their appropriate development.

Such branches and disciplines of military science as the military technological sciences, the theory of the training and education of troops, military historical science, military administration and military geography, about whose content and role in military science we will speak in more detail in the following sections, reflect once more that diversity and complex interlacing of the various conditions, factors and features which is peculiar to military phenomena.

In the divisions of military art, military technological sciences, the theory of the training and education of troops, military administration and military art practical questions connected with the training of the troops, with the battle training of the armed forces both in peace and war time and with their building, organization and maintenance are worked out.

Military technological sciences of various types are especially important under contemporary conditions. The military technological sciences have the closest connection with military science and are developed on the basis of its requirements. Each military technological science, as well as all of them as a whole, serves military science and primarily military art. This general interconnection of military science with the military technological sciences is very many-sided. But the military technological sciences also have a certain independence in their development. The independent development of the military technological sciences, like that of all other sciences, is naturally dependent on the general progress of scientific technological knowledge.

The military technological sciences not only investigate the problems of equipment but also promote the production of this equipment and moreover on massive scales capable of satisfying the requirements of modern war. At a sufficiently high level of development of the military technological sciences and with the existence of an appropriate technological-economic base the question can always be solved more easily and rapidly not only with planning but also with the production in sufficient amounts of the necessary battle equipment (armament). Questions of the development by the military technological sciences of technical methods of the battle use of the equipment (armament) are also connected in a similar way.

The interconnection of military art and the military technological sciences is expressed primarily in the fact that the latter, resting on the technological-economic base of the country and the technological progress of production, tries to find new battle equipment, designs and creates them, investigates their possibilities and works out technical methods of exploitation and battle use.

Military art on this basis finds new concrete methods of their tactical, operational and strategic application. Naturally, of course, there is the reverse effect when military art places before the military technological sciences the task of developing new battle equipment or adapting existing ones to new methods of their use. However, military art usually formulates this task in the most general form. The entire technical specifics of the resolution of this task is carried out independently by the military technological sciences. A very important feature which increases the importance of the military technological sciences for military art is the possibility of using mathematical methods of investigation and electron computer techniques for solving many questions of military affairs, including the investigation

of processes of military phenomena which take place in armed conflict, their simulation, as well as of automation of the operation of weapons and the control of equipment and troops in the course of armed conflict.

THE THEORY OF MILITARY ART

The methods and forms of armed conflict used under concrete conditions of a battle situation naturally represent an especially practical area of the activity of military personnel. The most complete achievement of the goals of armed conflict with smallest losses and costs depends on the skill of the military personnel and on the art of the military leaders. Thus, military art is the reflection of the practice of leadership of armed conflict.

The theory of military art is the most important part of military science which is concerned with the study of the methods and forms of military operations of various scales, the conduct of armed conflict on the land, sea and in the air. The theory of military art is a guide to action for the commanders of the Soviet Armed Forces on the preparation and conduct of various types of military operations and the use in them of various types of armed forces and arms of the service.

Soviet military science believes that true *military art reflects the objective principles of armed conflict*, thanks to which its theory is scientific and is a component part of military science. Only thorough knowledge of the objective laws inherent to armed conflict, both general for different historical conditions and specific for one or another historical period, makes it possible to find and use the most rational methods of conducting it.

At the same time, Soviet military science believes that the application of the theory of military art to practice requires not only knowledge, but creative ability, skill and mastery, that the methods

and forms of preparing and conducting armed conflict are subject to conscious creative elaboration, development and perfection. In this sense, military art makes up the practical activity of the various levels of command and in its theory takes into account the great importance of the subjective factor.

Soviet military art is continually moving and developing. A continual battle takes place in military art between the old which is dying off and the new which is being born. The old methods and forms of conducting war under the influence of changing conditions and possibilities are disappearing and changing. New methods and forms are developing which, the more effective they are, the more completely and accurately they reflect the changed objective conditions and requirements of modern war. The strength and vitality of Soviet military art lies in the fact that it serves an advanced social structure, uses the means of armed conflict in the fundamental interest of the workers who have broken the fetters of capitalism and are building a communist society. Naturally, all this has the most direct influence on its development and at the same time speaks of the class nature of our armed forces who are the carriers of Soviet military art. "...For the first time in the history of world conflict," V.I. Lenin pointed out, "elements have entered the army who bring with them no bureaucratic knowledge but who are guided by the ideas of battling for the liberation of the exploited."*

In characterizing the active, offensive features of Soviet military art, M.V. Frunze noted that "the red commanders have introduced into the army boldness, initiative and decisiveness. ...These properties of maneuverability, decisiveness and aggressiveness were connected not only with the objective conditions of the military operations, which no one denies, but also with the fact that elements saturated

with the active ideology of the working class are at the head of the Red Army."* For just this reason Soviet military art has always been and is active and aggressive.

The technical revolution in military affairs is being accompanied by the working out of new theoretical opinions in the field of military art. As Minister of Defense Marshall of the Soviet Union R.Ya. Malinovskiy emphasized in his speech at the Twenty Second Congress of the CPSU, the radical reorganization of the armed forces required revisions of the theory of military art. Such material prerequisites as the introduction of nuclear missile weapons into all branches of the armed forces, the creation of strategic nuclear missile facilities, the introduction into military affairs of electronics, cybernetics and various technological facilities were the basis of this revision.

The appearance of new weapons has always caused changes in the methods and forms of conducting military operations. But these changes have not taken place immediately. The experience of military history indicates that these changes set in only when the weapons have been perfected and more or less widely introduced into the armed forces, when their specific properties and characteristics have been sufficiently fully understood. As the productive forces, science and technology develop, the possibilities of the mass production of new means of armed conflict in the necessary quantities increase, the time from the moment of the appearance of the new weapon until its mass introduction into the armed forces decreases sharply and its effect on the character of armed conflict, on its methods and forms increases. The clearest illustration of this is nuclear weapons and missile technology which now indeed are having a revolutionizing effect on the methods and forms of armed conflict, on the role and organization of the armed forces and branches of the service.

The characteristic features and properties of modern armed conflict find their manifestation in the military technological training of military personnel, in battle training and military skill, in the ability of military personnel to solve creatively and independently questions of the organization and conduct of military operations of various scales, in knowledge of the enemy's capacities and his methods of battle, in the ability to show reasonable initiative and to act in conformity with the concrete situation.

Nuclear missile war inevitably gives rise to new methods and forms of military operations and qualitatively new content is introduced into the old which has been found from the experience of past wars. Consequently, the understanding of armed conflict at the present time differs essentially from the old notions of it. As has already been noted, this pertains to the general characteristics of armed conflict, its scale and the means of conducting military operations, and to the characteristics of conducting operations and battles, independent and joint operations of varieties of armed forces and arms of the service.

The spatial scale of military operations is increasing unprecedently. The forms of cooperation and battle and operational supply are changing. Armed conflict is acquiring a focal character and can be actively conducted in the absence of continuous fronts. The importance of encounter battles and operations using various types of landings is increasing. The conditions and ways of controlling troops in all types of military operations will be qualitatively new.

Offense remains the principal method of armed conflict under modern conditions. Only a decisive offense with the massive use of all means of battle on the basis of their interaction and the use of the specific capacities of each of them with the decisive role of nuclear missile weapons can achieve a victory. Along with this, the maneuver-

ability of defensive operations which remain auxiliary and subordinate methods of conducting armed conflict is increasing and the dynamics of the transition from defense to offense is intensifying.

In the development of methods and forms of military actions, the theory of military art takes into account the continual development of the technical means of war. It proceeds from the fact that the modern means of war are creating extremely complex, intense situations of battle operations in which such factors as the suddenness and rapidity of the operations, the activity and decisiveness, boldness and initiative, audacity and flexibility, ability to maneuver forces and equipment on the fields of battle and outside them are capable of playing a huge role.

Soviet military art, correctly evaluating the role of various types of armed forces and arms of the service, attaches great importance to their cooperation in armed conflict. Considering strategic missile troops as the main type of armed forces, military art takes into account also the fact that land forces, without which a conclusive rout of the enemy and the seizing of its objects is inconceivable, will play a large role in armed conflict, in the achievement of complete victory in war. The theory of military art cannot help but take into account also both the general and the specifically important significance in armed conflict of troops of the country's antiaircraft defense, of the navy and airforces. Each type of troops will conduct armed conflict with the enemy by its own means, methods and forms.

Previous types of armed forces and arms of the service have already undergone profound qualitative changes. They have been supplied with modern means of war, are completely motorized and are capable of conducting active military operations at great depth both independently and in cooperation with all other types of armed forces and the most

important of them - strategic nuclear missile troops.

In connection with this, the appropriate divisions connected with the use of one or another type of armed forces are being singled out and are being subject to comprehensive development in Soviet military art.

Soviet military art as a scientific theory is divided into *strategy* which studies the conditions of the preparation and conduct of war as a whole and its campaigns, *operational art* the subject of which is operations and *tactics* which is concerned with the study of battle. All these three component parts are mutually connected and mutually dependent. Not one of these parts can independently encompass all the characteristics, conditions, means and methods of preparing for and conducting war, operations and battle. Each part of military art investigates with a sufficient share of independence only the area of the phenomena pertaining to its subject, supplements each other and promotes, thus, a common solution of the problems as a whole facing military art. However, the guiding role among all these parts of military art belongs to strategy since a particular success in war is subordinate to the general goals and results, as a result of which the achievement of tactics are important not in themselves but from the viewpoint of the achievements and requirements of operational art or under specific conditions - directly of strategy. The achievements of operational art can have an effect on the course and outcome of war only in the case when they correspond to the goals of strategy and its interests. Thus, all the parts of military art closely interact, but strategy plays a guiding role in this interaction.

Strategy. The theory of strategy has a long history of development over the course of which its content has changed and been enriched. Bourgeois military science attempted many times to undertake

the development of its principles. However, it did not succeed in doing this. The majority of bourgeois military theorists such as Lloyd, Bulov, Jomini, Villizen, Mol'tke, Leyer, Mikhnevich, Shliffen, Foch and others restricted themselves to outlining individual schemes and positions, but they did not give solutions of the questions as a whole, and could not give them.

Not going into the distant past which, certainly, also is of great interest for military science, we should like to dwell only on an examination of the question of the evolution of strategy within the framework of the historical period closest to us.

Let us take the historical segment of time when the military science of the old feudal society began to change and gradually yielded its place to the new bourgeois military science. For the military thinking of the end of the seventeenth and all of the eighteenth century, the development of military art in Russia which found clear expression in the creative work and practical military activity of the prominent Russian generals - Peter I, Rumyantsev, Suvorov and others - is of great interest. The Russian strategy of that time differed considerably from the Western European strategic ideas first of all in a more correct and profound understanding of the essence and tasks of strategy itself. It correctly took into account the capacities and needs of the state and the requirements of war, it was bold and decisive and provided successful conduct of war with enemies of the Russian state.

In Western Europe, because of the general historical conditions of that time, the methods of conducting war were very distinctive. The most characteristic features of Western European military art of this period were: limited goals of war (which received the name of "arm-chair") and campaigns, the length and lack of results; cordon strategy

and linear tactics; war of attrition, the striving by means of maneuvering to occupy an advantageous position with respect to the enemy's army; indecisive battles without pursuit or with limited pursuit. A reflection of the experience of "armchair" wars were the strategic precepts of Lloyd and Bulov who, with all the differences between them, were theorists of a strategy of limited goals.

The bourgeois French revolution of the end of the eighteenth century signified that leap in the historical process as a result of which the general course of development of social attitudes in Western Europe took a different direction: the period of the decomposition of feudal society was replaced by a period of the consolidation of bourgeois society. In speaking of the wars of the period of the French bourgeois revolution, Lenin noted that the French revolutionary people, having demonstrated revolutionary creative work, changed the system of strategy and created a new, revolutionary army.

The appearance of massive national armies, their comparatively high mobility, the broad and decisive goals of war evoked different methods and forms of battle. Napoleon, for example, attempted to inflict powerful and crushing blows in order in the course of a brief campaign to break the enemy's resistance with one general battle, to destroy his armed forces and so quickly end the war. General battle in which it was attempted to achieve a decisive victory over the enemy became in Western Europe the crown of military art. As is known, Napoleon, by using these methods of military operations, achieved outstanding successes in Western Europe, but in the aggressive campaign in Russia in 1812, Napoleonic strategy clashed with the strategy of the great Russian general Kutuzov and suffered a downfall. The Russian army, defending the Motherland, gained a victory over the French invaders who were conducting an expansionist, predatory war.

We find the concept of a scientific, Marxist understanding of strategy and a new method of studying military phenomena in the classical works of Marx and Engels. In their works is given a theoretically new approach to military phenomena, to the investigation of the principles of war and especially strategy. Marx and Engels extended the fundamental principles of historical materialism to the area of the investigation of war and military affairs. The Marxist dialectical method of studying military phenomena rapidly moved the theory of military affairs forward and gave it a scientific character. It provided correct development of the theory, made it possible to discover the principles determining changes in the character of wars and in the methods of conducting them. Engels in 1851 gave a clear notion of the basic principle which causes changes in the methods of conducting war. "A prerequisite of the Napoleonic method of conducting war," wrote Engels, "was increased productive forces; a prerequisite of every new improvement in the system of conducting war also will be new productive forces. The railroads and telegraph already now are already giving the talented general or minister of war occasion for quite new combinations in European war."*

However, these changes were far from immediately realized by the official representatives of the old military science. For example, the Russian military theorist Leyer in the forty years after the statements of Engels mentioned above continued to publish his works on strategy which were based mainly on Napoleonic models.

The definition of strategy given by Leyer is of interest. He distinguished strategy in the broad sense of the word and strategy in the narrow sense. Strategy in the broad sense of the word, in Leyer's opinion, is a synthesis of all military affairs, its generalization. Strategy in the narrow sense is a treatise on operations in the theater of

war, it is the tactics of the theater of war or higher tactics in contrast to elementary tactics. Leyer's works, which were constructed on an idealistic methodology, proceed from a recognition of eternal and unchanging principles in military art. And naturally, from these positions it would certainly have been difficult for him to note the new qualitative phenomena in military art which were engendered by the development of military affairs in the second half of the nineteenth century.

Lenin saw the task of revolutionary strategy and tactics of the party in the conscious selection of the means, ways and methods of battle capable, with the least expenditure of effort, of giving the most results. The leaders of our party were brought up on Lenin's political strategy: our Soviet military strategy was imbued with the spirit of this strategy. By his political and military activity Lenin laid the foundations of Soviet military strategy which in many things predetermined its development at a later time which was confirmed with one's own eyes by the experience of the Civil and Great Patriotic Wars.

Soviet military strategy is the guiding part of our military art. It is concerned with the development of theoretical positions on preparation of the country and its armed forces for war in accordance with the character and goals of the latter, with the development of methods and forms of armed conflict on the scale of war and its campaigns, and also of the operations of individual types of armed forces, of partisan methods and forms of battle. Strategy at the same time is the art of directing the largest military operations and war as a whole.

Soviet strategy is extremely active and decisive in spirit and is directed toward the complete rout and destruction of the enemy's armed forces and the elimination of its capacity to continue the war. All the armed forces of the country in their indissoluble unity and close co-

ination are the agencies of strategy. Strategy as a scientific theory is indivisible since war is conducted not by any one type of armed forces but by their combined efforts. It is natural that any artificial isolation of types of armed forces and of scientific theories of their use cannot be recognized as scientific and well founded. At the same time, strategy considers the possibility of solving individual particular strategic problems of war and its campaigns primarily by some one type of armed forces, for example, by missile troops or naval forces.

The possibilities of strategy increase under the conditions of nuclear missile war. Strategy, as has been noted, now is not content only with the role of organizer and deviser of a system of operations. Now strategy has the capacity to achieve its goals not only through a combination of tactical and operational results, but directly. This capacity of strategy is provided by nuclear missile weapons. Moreover, the very effect of strategic strikes directly and more or less immediately determines the situation, course and results of all other efforts and scales, both operational and tactical. This position must be considered as one of the new features of military art under contemporary conditions.

The goals and tasks of strategy are determined directly, they follow from the goals and tasks of state policy, the agency of which is military strategy. It is necessary to especially emphasize particularly that policy and strategy are not equivalent categories. With respect to military strategy policy plays a guiding and determining role. Policy sets the tasks for strategy, and strategy fulfills them. In its turn, policy takes into account the achievements and requirements of strategy, but the priority of the requirements of policy always remains predominant.

Under contemporary conditions, the functions of the leadership of

war have become extremely complex. The functions of political and military leadership are very closely interwoven. This position is determined by the all-embracing character of war, by the participation in it of all the people, all the efforts and means of the state. However, this in no way detracts from the importance of military strategy as a scientific theory. Only the complete conformity of military strategy to state policy, like the complete conformity of political goals to the capacities and means of strategy is capable of providing successful conduct of armed conflict. In working out and setting the goals and tasks in war as a whole and in its individual stages policy must take into account strategy's capacities. Accordingly, strategy must never overevaluate its strengths, nor underevaluate the strengths and capacities of the enemy since both involve large, difficult to correct, errors in the conduct of war and can lead to defeat.

Proceeding from the political goal of war and its general character, strategy, using the comprehensive data of military science, studies the armed forces of probable enemies and the conditions of conducting armed conflict. In accordance with the specific goals, conditions and possibilities of armed conflict, the theory of strategy helps to determine correctly the principle method of battle, its forms and general scale, to indicate the directions of the main efforts taking into account economic, moral, military and other possibilities. The determination of the quantity and quality of resources and reserves of all types both material-technological and manpower necessary for achieving the goals of the conflict is part of strategy's job. Questions of the organization and training of the armed forces, theaters of war and strategic tendencies toward war are resolved, general plans of the use of armed forces in war are worked out, that is, general strategic plans of war and its campaigns, on the basis of the theoretical positions

which have been worked out.

Along with the general planning of war as a united whole, strategy includes in its subject the planning of war by stages, the content of which can be strikes of strategic missile forces and the operations of other types of armed forces or individual military campaigns which complete their results. Strategic leadership is the art of preparing and conducting military operations of large scale and war as a whole in the interests of achieving the set political goals of war.

Strategic leadership is made up of the following basic elements:

- the study and investigation of all the conditions of the situation and calculation of all the factors determining the course and outcome of war;

- the making of strategic decisions which determine the carrying out of certain military operations of large scale which bring the armed forces nearer to the achievement of the set goals;

- the preparation of the whole country for war in a military and military technological respect (mobilization of the armed forces, of material means, that is, the conversion of the armed forces from peace to war time, the equipping of theaters of war, the accumulation of the necessary reserves);

- the preparation and supplying of military operations of strategic scale and war as a whole in a strategic, material and technological respect;

- leadership of the armed forces in the course of military operations (organization of a system of operations in military theaters, of strategic directions) and war as a whole, the setting of new tasks;

- generalization of the experience of the war and bringing it to the troops.

The organization and accomplishment of strategic leadership of

huge scale military operations requires high military art and efficient work of the high command and staffs who must skillfully use the principles of strategy in their practical activity.

Strategy, like other branches of military art and military science, has two aspects: general theoretical and applied.

In the general theoretical part, which can be called the general theoretical foundations of strategy, are investigated:

- the laws and principles of strategy;
- theoretical principles of the development of a war plan;
- types of armed forces as strategic categories, their properties and use in armed conflict;
- the methods and forms of armed conflict on a strategic scale;
- the general principles of the material and technological supplying of the armed forces;
- the general principles of the handling of troops on strategic scales.

The applied part of strategy is concerned with the development of concrete questions of the immediate preparation and conduct of military actions of strategic scale, their material and technology supplying, with concrete questions of the handling of strategic groupings of troops and armed forces as a whole.

The High Command, guided by the data of strategy and proceeding from the conditions of the specific situation, determines the plan and works out plans of war and military campaigns, carries out organizational measures in theaters of war, deployment of the armed forces and organization of the rear, and also develops other questions connected with the preparation and conduct of campaigns and war as a whole.

Operational art. Operational art is the youngest branch of military art. Some elements of military operations appeared, as we have

already said, in the Patriotic War of 1812, and also in the course of battle operations in the rout of Napoleon's army in Western Europe, in wars of the middle of the nineteenth century, as well as in the Russo-Japanese War. However, their most salient features were developed only in the period of the first world war. But in this war operations still had not been completely developed chiefly because up until the final stage of the war the fighting sides could not use the means available to them for converting a tactical success into an operative one. Thus, in spite of the large number of cavalry in the armies of the fighting states, they were used mainly for the resolution of tactical problems. Moreover, the cavalry was poorly armed and could not break through a powerful screen of fire without the help of other types of troops. At the end of the first world war, a new type of troops appeared - tank troops, but because of their small numbers they still could not be a powerful means of development of operational success. Besides, the military command in the period of the war were not able to evaluate correctly this new type of troops and to develop effective methods of its use. The same thing can be said about aviation which only at the end of this war began to acquire the importance of an operational-strategic factor.

Soviet military art took into account the experience of the first world war and used it in the course of operations of the Civil War. The question of the development of operational progress was resolved by the creation of large units (cavalry corps), and then of operational units of cavalry in the form of mounted armies which were the means of development of a tactical success into an operative one and provided for the carrying out of operations at great depth with decisive goals. The operational use of large, highly mobile and, for that time, powerful cavalry corps and mounted armies for operations in the enemy's

deep rear in combination with strikes of advancing infantry units from the front changed the character of the Soviet Army's operations which led to a sharp increase in the tempos of the offensive and increased the maneuverability of battle operations.

After the Civil War, on the basis of an evaluation of its experience and the experience of previous wars, and also of scientific foresight, the formulation of Soviet operational art into an independent theory began. Later a theory of deep operations was created which received further development in the course of the Great Patriotic War. The most important prerequisite for this was the industrialization of the country which made possible the supplying of our armed forces with all the modern technological means of war.

The Great Patriotic War was a new stage in the development of the Soviet theory of operational art. In the course of the war the military airforces developed especially quickly, supplying of the troops with tanks increased which made it possible to create not only large units, but also operational units of armored and mechanized troops. The quantitative and qualitative supplying of the troops with artillery increased considerably, reactive artillery was developed and received wide use on the battlefields, the functions of the navy were broadened, chiefly in the area of its cooperation with land and air forces. Airborne troops and troops of the country's antiaircraft defense began to play a greater and greater role in the course of military operations.

All this received the widest reflection in the theory of operational art. In the course of the war, such questions as how to prepare for and conduct airborne and seaborne operations, operational cooperation and the supplying of troops received further development; knowledge about the forms of conducting operations, about operational maneuvering, about methods of development of operational progress was

considerably broadened. A most important problem of operational art as preparing for and conducting a large offensive operation with the forces of several fronts received a theoretical and practical solution as the result of which the strategic situation and the position of the fighting sides in the theater of war underwent radical changes. Such operations were conducted by the Soviet Armed Forces for the first time in the history of military art. Operations in which several fronts participated received the name of offensive operations of groups of fronts. Such operations which were conducted under the direct leadership of the Supreme Command were typical of the conclusive operations of the Great Patriotic War (Moscow, the battle on the Volga, Kursk, Belorussia, Yassko-Kishinevsk, Berlin and others). Finally, in the course of the Great Patriotic War new types of operations and the concepts connected with them in the theory of operational art developed, such as air, anti-air operations, joint operations of land forces, air forces and the navy.

After the second world war, antilanding operations began to be worked out in the theory of operational art. The content of the struggle for seizing and holding the initiative in the air was considerably more completely defined, which was extremely complicated and turned into not only a problem of operational art, but also a problem of strategy as a whole, having to do not only with air forces alone, but also with all armed forces.

Soviet operational art investigates contemporary operations which are a complicated set of various battle operations united by a unity of purpose, means and goals and conducted on the land, in the air and on the sea by large groupings of troops which include in their composition units of various types of armed forces acting in a specific operational or strategic direction.

An operation can be army or frontal in scale. An operation conducted primarily by forces of some one type of armed forces, accordingly, can be an air, sea, airborne, etc., operation. An operation conducted by large units in which various types of armed forces participate is usually called a joint operation. The goal of any operation is the defeat and destruction of a large operational grouping of the enemy's troops, the destruction and annihilation of the enemy's economic objectives or the seizure of an important objective (region) having operational or strategic importance, that is, furthering the favorable development of subsequent operations, in one or another operational or strategic direction. In a number of cases an operation by its scale and results can have a direct effect on the achievement of intermediate strategic goals of the war, that is, have strategic importance.

The most important act of an operation is a battle. It can be a single act crowning the operation or can be several battles both sequential and simultaneous. For example, a frontal operation can consist of several army battles taking place relatively independently or merging into one general frontal battle. Moreover, several battles can be conducted successively within the framework of one army operation, as the result of which the goal of the operation is attained. The battle can be offensive, including encounter, or defensive, responding to the general plan, goals and character of the operation.

In the theory of operational art, the new phenomena of armed conflict have caused first of all a reexamination of opinions on the role and place of operations of various scales which were formed from the experience of the past war. The essence of the new is that an offensive operation has ceased to be the prerogative of only land forces. The "land" aspect is least of all inherent in a contemporary offensive op-

eration - it has become a general operation of various types of armed forces.

Whether it is a frontal or army operation, nuclear missile strikes act as the fundamental element in it. The same can be said about operations carried out by the navy and air forces. The effect of strategic nuclear missile strikes directly or indirectly determine the operational situation, and thus the course, development and even the main results of the operations. This must be emphasized as one of the characteristic features of operational art in nuclear missile war.

The practical application of the theory of operational art consists in the organization of the battle efforts of the troops for the purpose of resolving operational tasks. This finds its expression in the preparation of an operation which includes determination of the form of the operation, the working out of its plan and solution as a whole, the planning of the use of the forces and means in place and time, thorough control of units and formations which have been selected to carry it out, its operational and material-technological supplying.

The theory of operational art encompasses both the conducting of operations by operational units and also the operations of units of various types of troops and arms of the service, both independent and joint. In accordance with this, modern operational art encompasses the operational art of all those types of armed forces whose actions are on an operational scale.

This means that operations are not carried out by every type of armed forces. For example, strategic missile forces carry out strikes which are not operations, but an act of strategic importance. And at the same time, the participation of these forces in the operations of land troops, air forces, long range aircraft and the navy is not excluded.

The theory of operational art has as an independent section the theory of the operational rear which develops questions of the material-technological supply of operations of various types and scales. Every type of armed forces participating in an operation has also corresponding sections on the rear in its theory of operational art.

Like strategy, operational art has a general theoretical and applied character. Guided by the data of the general theory of armed conflict and the theory of strategy, operational art investigates:

- the character of modern operations;
- the general patterns, principles and rules of preparing and conducting operations;
- the organization, properties and capacities of operational units;
- the methods and forms of using operational units under various conditions and for various purposes;
- the methods and forms of preparing and conducting operations of various types;
- questions of operational supply of all types;
- the principles of leading the troops in operations;
- the principles of material technological supply of troops in operations (theory of the operational rear).

In the applied theoretical section, operational art is concerned with the development of specific questions connected with the preparation and conduct of offensive and defensive operations of all scales - operations of fronts and armies, of land forces, naval forces, air forces, as well as their joint operations. Other types of operations are also investigated in the applied section: operational regroupings and types of operational supply, the work of the operational rear.

The general principles of the organization and carrying out of

offensive and defensive operations set forth by the theory of operational art in its applied section are used in each specific case with full consideration of the situation, established conditions, available forces and equipment and other characteristics dictated by battle reality.

The development of operational art as a component part of Soviet military art along with strategy and tactics expresses a specific historical stage of armed conflict in its methods and forms and serves as an indication of the progressive character of Soviet military science. Operational art along with the possibilities of the operational scale inherent to it uses the methods of tactics and the tactical operations of troops for solving operational tasks. Directing and, to a considerable degree, determining the development of tactics in its interest, operational art does not rule out the relatively independent development of the latter. The guiding influence of operational art on tactics is expressed not in indicating specific methods of battle, but in determining those general goals and results which tactics must achieve in the interest of an operation by its own means. And this invariably involves the selection of those forms of battle which most correspond to the indicated goal. Tactical actions, thus, follow from the plan of an operation and are carried out in its interest. However, the possibilities of tactics and its development in their turn have an effect on the possibilities of operational art and are reflected in its character in every given war.

Tactics. The theory of tactics has the longest history, since any war began with a battle, and sometimes also ended within its limits. Works on tactics are known from ancient times. Attempts were made in them to generalize the methods of using some or another weapon and the specific rules of actions under different conditions of a situation.

At a later historical time, theoretical rules found expression in manuals and handbooks for the actions of some or other types of troops.

Tactics is a theory which is part of military art and is concerned with the study of battle on land, in the air and on the sea, and also works out the principles of its preparation and conduct under the most varied conditions of a situation and in the cooperation of all types of troops. A battle is an organized armed clash of small units, units and formations of land forces, air or naval forces, independently or in cooperation with each other, pursuing the goal of destruction and taking prisoners of the enemy or inflicting on him such losses which would force him to give up carrying out the set task. Battle is conducted by armed masses of people directly using diverse military techniques for inflicting damage on the enemy. It is limited in space and time by the tasks as well as the forces and means which are used in battle for achieving the goals set. Thus, a battle as a specific phenomenon of armed conflict is characterized by a specific scale and its own parameters in forces, place and time.

The technological revolution in military affairs has required the reworking, and in a number of cases the completely new theoretical development of tactics. Thus, for example, the tactics of using various missiles had not existed earlier. Now it does. And this tactics is very many sided. One matter is the use of atomic submarine missile carriers and a quite different one is the operational tactical missiles or rockets used by the air forces.

Knowledge of the objective principles of battle makes it possible for tactics to develop the most expedient forms, ways and means of troop operations in battle. These forms, ways and means are based on the full use of favorable objective and subjective factors and on limitation of the adverse influence of unfavorable conditions and factors.

A battle can be conducted within the framework of a modern operation or independently:

- on the ground (land battle) - by land forces alone or with the support of the air force or navy;

- in the air (air battle) - by the air force alone and with support from the ground (or sea), including antiaircraft defense forces;

- on the sea (sea battle) - by naval forces alone or with their support from the ground and from the air.

Tactics at the present time includes:

- general tactics which investigates the principles and foundations of modern general troop battle;

- the tactics of types of armed forces and arms of the service: the tactics of missile troops, motorized infantry and airborne troops, artillery, tank troops, air force and the tactics of naval forces and of the country's antiaircraft defense.

The battle operations of the troops are provided for in a material and technological respect which prevents the necessity of the existence of an extensive military rear system. In conformity with this, modern tactics has a division of the tactics of the military rear, and the latter in its turn is divided into tactics of the organization and arrangement of the rear in various types of battle, military medical tactics, etc.

In its applied part, tactics is concerned with the development of specific questions connected with the planning and conduct of various types of battle, its supplying in all respects, with tactical leadership, with the handling, organization and arrangement of material-technological supply, evacuation and other measures of a tactical scale. The range of the given questions in each specific case is very diverse and their solution is dictated by the specific conditions of

the battle activity, whether this pertains to offense, defense or other types of battle operations on land, on the sea and in the air. The true tactical skill of military personnel consists in being able to solve independently and creatively questions of the organization and conduct of battle, while showing judicious initiative and always acting actively, decisively and at the same time in strict conformity with the conditions of the specific situation.

HISTORICAL MILITARY SCIENCE

Historical military accounts pertain to the distant past. In our country, they are connected with annalistic historical military tales and with chronicles in general in which accounts are given of the most important events of Russian military history. The formulation of historical military science into a more or less orderly system took place in Russia in the eighteenth century when the works of Tatishchev, Lomonosov, Sherbatov and especially Radishchev appeared, who introduced as a historical subject of study the people, and not the tsars and generals. At this time, attempts were made to throw light not only on the history of individual wars and battles, but also to generalize the experience of the building of an army. In the nineteenth century, the Decembrists, and later Golitsyn, Bogdanovich, Milyutin and Pusyrevskiy, left a great heritage to historical military science. At the end of the nineteenth century and in the first years of the twentieth century, the works of Maslovskiy, Myshlayevskiy, Mikhnevich and Bayov were widely known. However, it must be kept in mind that in all these works an idealistic concept of the examination of historical processes and development of historical military science was predominant.

Soviet historical military science - a component part of our military science - investigates the history of wars, military science and military art, the history of armed forces, armament and military tech-

niques, questions of military historiography and military sources.

The history of wars is the factual basis of military history. It can have various divisions as, for example, the history of the wars of individual peoples or countries or the history of individual wars in which a number of states participated and the history of world wars. It studies wars in all their concreteness, paying special attention to the specific characteristics of each war, its campaigns, operations and battles and the manifestations of these specific characteristics in every given era and in every given country, proceeding from the most important position of Marxism-Leninism on the dependence of the methods and forms of war on the level of production attained at the given moment. It is known that what the method of production is, the level of the productive forces and of the productive attitudes of the people corresponding to it are and what the basis of the society is, the ideas and theory, political views and institutions are, the forms of troop organization and the methods of conducting wars are.

Soviet historical military science at the same time takes into account that in one and the same era (for example, in the era of imperialism) there may be not only imperialistic, unjust, predatory wars, but also just, national liberations and civil wars, as well as wars in defense of socialist states.

On the basis of the sum total of material studied, historical military science exposes the objective principles of the development of armed conflict, establishes and explains the social, political and military conditions which have furthered and caused the development of some or other military phenomena. The history of wars makes it possible to draw conclusions about which objective laws of armed conflict which have been manifested in the past retain their force and significance under modern conditions.

The history of wars describes in detail the events which preceded the war, the economic and political causes and goals of the war, the methods of conducting it. Here historical military science is not restricted only to a chronology of historical military events. It draws from the experience of wars the necessary conclusions and includes historical military accounts both of individual campaigns and wars as a whole and also various types of operations of armed forces. Each historical military account has the goal of illuminating most completely one or another war, its campaigns or operations, their preparation and conduct, of giving an analysis of the military operations, and also the conclusions which follow from their experience, instructive lessons for the future.

The history of military science and military art studies questions of their development in the general process of military history, using for this the most important typical phenomena and events which disclose important aspects of the state of military science and military art, characteristic of one or another era.

The history of armed forces investigates the development of all types of armed forces: the history of missile forces, land forces, naval and air forces and the country's antiaircraft defense forces; the history of types of troops - infantry, artillery, cavalry, armored troops, special and other forces, the history of troop units, formations and large units - regiments, ships, divisions, corps, navies and armies. The history of armed forces studies the history of armament and military equipment: nuclear missile weapons, rifle and artillery armament, tanks, airplanes, engineering equipment, etc. It is also concerned with the study of the history of military communications, military medicine, etc.

The history of the armed forces and arms of the service produces

the richest factual material for showing the conditions of development of various types of armed forces and arms of the service, their armament and military equipment.

Military historiography is the part of historical military science which studies the development of historical military knowledge over the course of the whole history of mankind by individual eras, countries, historical military problems and individual historical military questions.

The science of the methods of studying and use of military sources is the part of historical military science which is concerned with the study, classification and description of various historical military sources, documents and archives on the basis of which the history of military science, military art, the armed forces, as well as military historiography is worked out.

A very responsible task faces historical military science: to overcome conclusively the consequences of the cult of personality in all the principal directions of its investigations. In the field of military history, it is necessary first of all to restore completely Lenin's values and methods of analysis, to reestablish historical truth in the interpretation of the historical process and thereby to raise the theoretical-cognitive role of military history as a science, to expose the party spirit of historical science in which Lenin saw the highest form of its objectivity. Marxist-Leninist methodology, which is a powerful means of scientific penetration into the essence of historical military phenomena, permits historical military science to show the role of the working masses and Communist Party in the military history of our country, and of our armed forces in the history of the Civil and Great Patriotic Wars, makes it possible to put an end to oversimplification, dogmatism and subjectivism in historical mili-

tary studies. Our historical military science has all the conditions for the creation of a truly scientific military history of the Soviet state.

THEORY OF THE TRAINING AND EDUCATION OF TROOPS

The theory of the training and education of troops is the part of Soviet military science which is concerned with the development of scientific methods and forms of training and educating the personnel of the armed forces, the methods and forms of training the subdivisions, units and formations, staffs and military leaders. The necessity for this theory within the framework of modern military science is based on the fact that the organization of the troops and their technical maintenance has become extremely complex. It is only possible to prepare the armed forces to carry out battle operations on a strictly scientific basis which is the theory of the training and education of troops. This branch of military knowledge is most closely connected with military art in the system of military science which the theory of the training and education of troops directly serves.

At the basis of the training and education of troops lies the most important position of Soviet military science that the training of troops should always be linked with education and constructed in accordance with the requirements of modern war. In the training of personnel in army and military educational institutions, all the principal methods and processes of Soviet pedagogy can and should be used in full measure taking into account the special aspects of military activity and military training.

The theory of training and education encompasses the training and education of personnel directly in army, middle and higher military educational institutions (military colleges, improvement courses, institutes, military academies). In military educational institutions,

it is usually subdivided into methods according to educational disciplines: tactics, operational art, strategy, military history, military geography, military administration, etc.

The uniqueness of the training and education of troops is due to the fact that first of all they have the goal of training personnel for direct conduct of armed conflict. In the training and educational process, it is necessary to deal with the most diverse categories of subjects, to pursue the goals not only of individual training and education of personnel, but also organizing army subunits, units and formations for the conduct of battle.

The training and education of troops is divided into the method of individual training of soldiers and sergeants, method of training teams, crews, subunits, units, formations, organs of the rear and organs of administration for operations in battle and the method of improving the training of the military leaders. The method of individual training of personnel is subdivided into methods of the various disciplines: political training, tactical, fire, drill, physical, special training, etc. The method of training subunits, units and formations, staffs and organs of the rear includes the method of tactical and fire training and the method of training in one's own specialty.

In order to understand the specifics of training and educational work in the armed forces, it is necessary first of all to consider that the activity of the armed forces as a whole is a continuous process of acquiring knowledge and skills necessary for carrying out battle operations. The training and education which takes place during the performance of military service is continuous and comprise the chief task and main official function of all the personnel of the armed forces, the function of all the subunits, army units and formations in peace time. Under war conditions, this function also does diminish.

Thus, training and education work in the armed forces is a continuous process of improvement of knowledge, of inculcating the troops with the specific moral and battle qualities and skills necessary for carrying out battle operations in any situation.

The complexity of armed conflict in modern wars, the development and perfection of battle equipment and its use on mass scales, the decisive character of military operations, the high battle activity and strain of battle actions, their maneuverability and dynamic character demand the development among the personnel of the army, air force and navy of special qualities peculiar only to the armed forces: the ability to conduct armed conflict skillfully in all its diversity, to use on the battlefield complex and varied military equipment, to provide reliable cooperation and battle coordination in all types of battle operations in any situation. Special forms, methods, ways and means which provide for the training and education of the troops in the spirit of the demands of modern military art are necessary to resolve this task.

The resolution of all the complex tasks of the training and education of the armed forces both in peace and in war time naturally is inconceivable without an appropriate scientific theory which, using all the achievements of general pedagogy, at the same time is not restricted to its boundaries since the principles of general pedagogy which determine the forms and methods of training and education in educational institutions cannot fully correspond to the specific tasks and requirements of the training of armed forces.

Military training includes not only training in one specific specialty or type of activity, it is concerned with the training of people and groups of various specialties and of all types of troops which have been supplied with the most diverse battle equipment and which

have the most varied purposes and who act in the course of battle operations in close cooperation with each other.

The process of the political training of the troops, of the education of servicemen in the spirit of Soviet patriotism, of utter devotion to the socialist Motherland, to the great ideals of communism, in the spirit of serving the people and proletarian internationalism, in the spirit of high political vigilance and battle readiness to fulfill at any moment their solemn duty in defense of the achievements of socialism proceeds in parallel with battle training. The Communist Party is successfully resolving the task of the development of a scientific world outlook among all the members of our society. The mastering of Marxist-Leninist theory has become an urgent necessity for the Soviet people, including Soviet troops. There are now all the conditions in order that the political education of the Soviet soldiers be conducted at the level of the requirements demanded for ideological work by the Twenty Second Congress of the Party, by the program of the CPSU, by the June (1963) Plenum of the CC of the CPSU. As for all Soviet people, for the soldiers of our armed forces the fulfillment of the moral code of the building of communism which is the embodiment of the high demands of our society for each of its members has great importance.

Battle education has the goal of developing among the troops such qualities as bravery, steadfastness, fearlessness in battle, as well as the ability to endure and sustain great physical and moral stress, while not losing the high battle spirit and will to victory.

In wartime, new tasks such as the training of reserves, the carrying out of training in a very short time, the training of troops to solve specific battle tasks, the transmission and assimilation of battle experience acquired in the course of the war, the mastering of new

battle equipment, which grow rapidly in the course of the war, face the armed forces.

It is completely understandable that these tasks can be successfully resolved only on the basis of experience and conclusions from the principles of military theory. The content of the training and education, that is, the sum total of the knowledge to be imparted and the qualities to be cultivated, is determined by military science, and first and foremost by one of its component parts, military art, which indicates what to teach. The theory of the training and education of troops must determine those methods, forms and means of imparting the necessary knowledge and developing the needed qualities most appropriate to the content, which would permit the most successful achievement of the goal - the training of troops, first class in moral and battle spirit and battle training, that is, must answer the question, how to teach.

Here the basic requirements of the theory of training and education underlying the training of the troops are: indissoluble unity of political and military education, training in the spirit of constant maintenance of high battle readiness, of active offensive actions and persistence in the achievement of the goal, skillful use of battle equipment, the preparation of the troops for war with a strong and technologically well supplied opponent, the outstripping of other armies in the degree of training and of the constant battle readiness of the troops for defeating the enemy.

Thus, the theory of the training and education of troops is a part of Soviet military science completely subordinate to it and called upon to serve its needs. Here the theory of the training and education of troops is directly connected, as has already been noted above, primarily with military art which gives the basic determining principle

on the training of the armed forces for carrying out battle operations under the given historical conditions. It is connected to the same degree with the general theory of military science and primarily with its section which is concerned with the study and use of the principles which call forth the troops' moral spirit and educating them with high moral and battle qualities.

As a component part of military science, the theory of the training and education of troops includes the general theoretical foundations and principles of military pedagogy; the principles of military training; the principles of military and political education; the methods of training and educating troops. These component parts are closely interlinked, they determine and depend on each other.

The theory of the training and education of troops has as its subject the development of the basic principles of the organization and carrying out of training and educational work as a whole in the Soviet Armed Forces. Here the principles of the theory of the training and education of troops cannot be understood as something once and for all given and unchanging, as a collection of laws and tenets suitable for any conditions of training and educational work in the army and navy. Of course, these principles contain many positions which have been developed and verified in a long process of previous training and educational work. However, the continuous development of military affairs and, in particular, the change in the equipment, organization and methods of troop operations also requires corresponding changes in the theory of the training and education of troops.

In the section "*Principles of Military Training*" are set forth the general principles of the process of training the personnel of the armed forces within the framework of a specific system of the knowledge, abilities and skills necessary for the resolution of tasks in war. The

system of military training originates primarily from the character of modern battle operations in which large masses of troops with varied battle equipment participate and the success of which is achieved by the cooperation of various types of troops, by the huge effort of all the moral and physical forces. At the same time, military training must take into account that in modern military operations the role and importance of independent operations of comparatively small forces who resolve their tasks in individual directions, often without direct interaction with other forces, is increasing. In the process of military training, the achievements of Soviet pedagogy, its general principles, as well as the didactic principles of training which have been developed by pedagogy, are used: the use of visual aids, the systematic character and planned nature of the training, the durability of the mastering of the knowledge, the accessibility of the training, the principle of the activity of the learners.

In the section "*Principles of Military Education*" are given the methods of educating the personnel of the armed forces in peace and war time, the ways and means of breeding high moral and battle qualities in the Soviet troops are defined. The content of the educational work is determined by Marxist-Leninist theory, by the resolutions of the Communist Party and the Soviet government, by the moral code of the building of communism, as well as by the requirements of Soviet military science and military manuals. "...Education," noted M.I. Kalinin, "is specific, purposeful and systematic influence upon the psychology of the person being educated in order to impart to him the qualities desired by the educator."*

Education under our conditions means the inculcation of a communist world outlook, of the morals and rules of socialist society, the development of specific traits of character and will, habits and

tastes, the development of specific physical properties, etc.

O This definition fully expresses the goals of the education of Soviet soldiers which is wholly built on Marxist-Leninist theory, on socialist ideology and the policies of the Communist Party and has as its principal task the purposeful and systematic development of qualities inherent in the Soviet people, in the people of the new communist morality, and on the basis of this the inculcation of the troops with high moral and battle qualities. Military education has as its goal the development in the Soviet troops of those qualities which are stipulated by the character and requirements of modern wars and the noble purposes which stand before the Soviet Armed Forces in the matter of the defense of our country and all countries of socialism from imperialist aggression.

In the process of military and political education, the inculcation of the Soviet soldiers with a spirit of battle activity, the development in them of decisiveness and initiative, the instilling of a sense of military honor and duty, of proletarian internationalism, of socialist patriotism, the persistent development of a feeling of hatred toward the enemies of the Soviet people and all other peace loving peoples - toward imperialist warmongers - has great importance. A mighty source of political and military education is the heroic history of our Communist Party, its glorious revolutionary traditions and the battle traditions of the Soviet Armed Forces.

O The method of training and educating troops is determined on the basis of the general principles of the theory of military training and education. By the method of training and education is meant a set of scientifically based principles concerning the best methods, forms and ways of inculcating individual servicemen and military collectives with the knowledge and skills necessary in their practical activity both in

war and in peace time.

In its general section, the method examines those theoretical principles which are obligatory and the starting points for all the particular methods which are united by the identity of common purpose standing before the training and education of troops. The training and education of troops requires a carefully thought out system of methods which must be strictly guided by the requirements of the training program and, at the same time, take into account the characteristics of the official activity and training and educational work in the Soviet Armed Forces.

The methods of training and education as part of the theory of the training and education of troops include two basic groups:

- the method of training and education in the army;
- the method of training and education in military educational institutions.

The method of training and education in the services includes:

- individual training and education of soldiers and sailors;
- advanced training of the commanding personnel (sergeants, petty officers, officers, generals, admirals);
- the training of subunits, units, formations, organs of administration and material and technological supply;
- the method of conducting military games, command and staff exercises and maneuvers.

In the system of methods the method of training subunits, units, formations, organs of administration and material and technological supply as well as the method of military games, exercises and maneuvers is more complicated. The method of troop training rests on the achievements of all the other methods and is called upon to develop rational methods and ways of training all military organisms for operations.

der any conditions of a situation. Taking into account the specifics of the organization and battle intention of each military organism, the method of troop training includes the training of subunits and units, formations, staffs and organs of the rear.

Consequently, the methods of troop training and education are a complex orderly system of scientifically based principles concerning the methods, forms and ways of disseminating the military knowledge and skills necessary for successful accomplishment of military tasks both by individual servicemen and by whole subunits, units and formations.

Neither the theory of training and education as a whole, nor the particular methods have as their object or are in a state to envisage methods which are equally suitable for various conditions of a situation. The theory of troop training and education of the wealth and diversity of forms and methods depending on the purpose of the work, the composition of the trainees, the conditions of carrying out the work, its material supply, etc. At the same time, its task is to carry out a most energetic struggle against schematism and banality, against attempts to turn certain methods and means of training and education into universal, suitable for all occasions, ones. Therefore, it is very important that the creative initiative of officers and generals in their investigation during practical work of the new most rational methods and processes of troop training and education be encouraged and developed in every possible way.

Further increases in the quality of the political and military training of troops urgently require a scientific and thorough generalization of the huge experience accumulated by the troops and military educational institutions in this area.

MILITARY ADMINISTRATION

Military administration is one of the branches of military science. It is closely connected with other branches of military knowledge and especially with military art. At the basis of this connection lies the dependence of the organizational forms on the methods and ways of conducting armed conflict. Military art is concerned with questions of preparing and conducting armed conflict on various scales, while military administration on the basis of the requirements of military art and the economic and political capacities of the country develops a theory of the structure and organization of the state's armed forces.

Even in wars of the past, in proportion to the degree of development of the armed forces, the necessity for scientific development of the principles of troop organization, its constituent elements, their interrelationships, the procedures of troop service and allowances has been felt more and more urgently. These questions were worked out at first in the form of parts of works on strategy and tactics and sometimes in the form of general precepts. The complication of military operations and the increase in their scale has caused an increase in the number of troops and complexity in the organizational structure of armies; the necessity has arisen for the creation of a special science which would be concerned with the investigation of questions of the structure and composition of the armed forces.

The need for such a science especially increased when capitalism with massive armies based on a cadre system and universal military service became firmly established as the predominant social and economic structure. The development of military affairs led to a more complex organization of these armies in comparison with armies of the feudal period; the order of military service changed sharply. The life service

of a soldier was replaced by a comparatively short period of active service in cadres and a rather long stay in the reserve which was divided into several categories according to its nature and purpose. The transition from relatively simple systems of recruitment and recruit conscription to universal military service and to universal military training, as well as such a new phenomenon in military affairs as mobilization, required the creation of a broad system of organs of local military administration which would take stock of the reservist population, its additional training in peace time, and in war time conduct a call up to military service by mobilization.

The possibilities for training the army and all of its personnel under conditions of a relatively short sojourn in active military service also changed sharply, which required the development of new principles for solving these problems. All this led to the emergence and formulation of a system of theoretical military knowledge to which we gave the name military administration.

Some believe that the term "military administration" is supposedly already outdated. In our opinion, it still can be retained under modern conditions since it has been taken to mean questions of a state's military system, organization and administration of armed forces.

The principal problems with which military administration is concerned are:

- the development of questions of the organization of the armed forces and military administration;
- investigation and development of the principles of the recruitment of armed forces and military service by all categories of servicemen, the development of just norms;
- investigation and development of questions of the organization of military life and service;

- mobilization and demobilization of an army;
- military economy and others.

Military administration works out the general scientific principles of the structure and organization of the armed forces as a whole and questions of the organization of their constituent parts: types of armed forces, arms of the service, formations and operational units, depending on the methods and forms of armed conflict, and primarily on the requirements of military art.

There exists a constant interdependence between military administration and military art, with military art having the determining role. On the basis of the requirements of military art, military administration investigates and develops such questions as the conditions of achieving of operational, tactical and administrative-economic independence of troop formations and units, simplicity and flexibility of their organizational forms, rapid transition from peace to war time (rapid mobilization and deployment). Questions of their thorough maintenance in material, technical and other respects come in here.

Strategy unites the requirements of tactics and operational art to the structure of the armed forces. It concretizes these requirements taking into consideration the capacities of the state and its military tasks, the nature of the theaters of war, the general state of battle readiness, material maintenance of the armed forces, etc. Thus, strategy determines the basic structure which must correspond to the structure of the armed forces as a whole and their organization, as well as the bases and times of troop mobilization in case of war. Strategy establishes the general principles of army recruitment and armament, the organization of the preparation of militarily trained reserves, the organizational principles of the structure of the rear of the armed

forces as a whole and other questions.

Operational art stipulates the requirements which the operational units must satisfy (armies of all designations, front units). Operational art is interested in the specific correlation of the number of higher tactical formations of various types of troops within the framework of an operational unit in accordance with the tasks of the organs of administration being resolved by them, in the rational organization of organs of material and technical supply. Much importance is also given to the organizational forms of arms of the service intended for strengthening operational units by reserves of the Supreme Command.

Tactics determines the basic principles which must be adhered to in order that the organization of the troops correspond to the nature of modern battle and the methods of conducting it. Not only the forms of troop organization are important for tactics, but also the quality and quantity of battle equipment, its tactical-technological properties and the degree of saturation of the military formations, units and subunits with it.

Thus, military administration develops principles of organization, troop recruitment and many other questions, but not arbitrarily, not by itself, but on the basis of the requirements of war and military art, as well as the country's capacities.

Military administration studies and develops the system and organizational forms of the central and local organs of military administration and their constituent parts. It considers the organizational bases of the administration of fronts, armies, military districts, formations and units of all arms of the service and types of armed forces.

In working out the scientific principles of the administration of troops, military administration considers roughly the following the-

oretical questions:

- forms of administration (one-man management and joint control);
- methods of administration (centralized, decentralized and mixed) and their interrelation;
- forms of subordination (direct, immediate and subordination in an operational respect).

Military administration develops methods of recruitment of armed forces and the order of their military service. A correction solution of this question has especially great importance for military art and its development. It is known that changes in the method of production cause changes in the development of military art, not directly but through military technology and the people who make up the armed forces. Man and technology are the factors which are primarily considered by military art in the development of methods and forms of carrying out operations and war as a whole. In the final analysis, the course and outcome of armed conflict and its methods depend on the quality of the personnel, armed, organized and supplied in an appropriate manner, which must be taken into account by military administration in the manning of an army with personnel.

The questions enumerated, as well as questions of army mobilization and demobilization and other problems, resolved by military administration speak not only of the large role of this discipline in military science, but at the same time give military personnel a deep understanding of the theoretical principles and practical methods of the structure of armed forces as a whole, the organization of their individual elements and the relationship of various military organizations in arms of the service and types of armed forces. Knowledge of the basic principles of troop structure also provides a deep understanding of military art, its theory and troop organization - subunits, units,

0 formations and operational units, their battle capacities, thanks to which a commander can actively and creatively use all the capacities of the given troop organization under specific conditions.

V.I. Lenin pointed to the army as one of the models of good organization. "And this organization is good only because," he said, "it is *flexible*, at the same time being able to give to millions of people a *unified will*... when in the name of one goal, animated by one will, millions of people change the form of their intercourse and their action, change the place and methods of activity, change instruments and weapons in conformity to changing circumstances and requirements of battle."*

Military administration, in furthering the development among the troops of all these qualities, gives to our military personnel a complete idea about of what elements the structure of the armed forces is made up, their organization and other vital functions, under the influence of what causes and in what direction they develop. Thereby a unity of opinions is brought into the given question and this makes it possible to organize correctly the theoretical development of the scientific problems of the building of armed forces.

MILITARY GEOGRAPHY

0 Military geography is the branch of military science which investigates the contemporary state of political, economic, natural and military conditions of various countries, theaters of war and individual regions from the viewpoint of their effect on the preparation and conduct of military operations and war as a whole. It provides military science with factual material, generalizations and conclusions. Military geography helps to show the most important industrial and political and administrative centers and economic regions of strategic and operational importance which can become targets of military operations

in one or another theater.

Attempts to take into account geographical conditions in the interests of war are as old as military art itself. A number of documents have been preserved which indicate that in Russian military art much importance was attached to calculation and evaluation of the geographic factor. V.N. Tatishchev's statement on this question is interesting. "Geography proper," writes Tatishchev, "presents a description of some region or boundary... For any, especially for military discussions, it is necessary in descriptions of all boundaries to show not only mountains, lakes, swamps and forests, but all the narrow passages and from nature the small places which cannot be shown on maps, in order that the general know in advance where he can safely place his troops, and in what place to attack boldly; which is esteemed as great wisdom in commanders, that sometimes with a small army by means of an effective position they conquer the mighty; and not knowing that, easily can fall into misfortune and lose the army; just as with a navigator it is necessary to know before where the shoal or rock under the water is, and not later to discuss how the ship sits on it."*

Tatishchev emphasized the necessity of military geographical knowledge for a wide circle of officers: "So the Military College, and then the generals to the last officer... must know: where the strongholds are, which at the arrival of his power can be convenient or inconvenient for the enemy, where it is more convenient for the enemy to hold out or win a victory, and in case of misfortune, it is necessary to know in detail how to save oneself."**

To Russia belongs indisputable priority in the matter of the creation of military geography as a science. P.A. Yazykov, the first professor of the Department of Military Geography in the Academy of the General Staff, laid the foundations in this matter. In his book "Ex-

O perience of a Theory of Military Geography," published in 1838, he correctly, for his time, defined the task of military geography, which consists not in simple description of places, but in a study of the effect on troop operations of "various geographical types of the earth's surface and various geographical objects, in order to have a correct idea of what strategic value or importance they can have, both whole areas or countries which are separated on the earth's surface by natural and political boundaries, and also the geographical objects which make up these areas."*

D.A. Mil'yutin also did much work in the development of military geography. In his book "First Experiences of Military Statistics," published in 1847, he was the first to formulate the hypothesis that "in strategic studies of a theater of war it is not possible to be restricted only to geographical data, eliminating all other types of considerations as, for example, political, moral... and so on and so forth."** Mil'yutin believed that the tasks of military geography are "to significantly expand the range of considerations, having taken as their foundation, in addition to the surroundings, all those data which in each state generally determine its means and capacities for conducting war, the advantages and disadvantages of the geographical, ethnographical and political situation, with respect to general military considerations; and through this the studies apply almost to the whole structure of the state and will lead to the general goal: the determination of the power and might of the state in a military respect."***

D Thus, even in the nineteenth century, many questions of military geography as a science were not only raised in great breadth, but also resolved, its tasks and methods were formulated and its connections with other sciences determined. The schemes of a military geographical

study of states and theaters of war created at that time were retained in almost unchanged form up until the Great October Socialist Revolution. (7)

The new stage in the development of military geography is inseparably linked with Soviet military science. Military geography consists of two principal sections: military geography of individual countries and descriptions of theaters of war. In the first section are studied the physico-geographical conditions, the economic and political organization of various countries in conformity with the requirements of military science as a whole and primarily of military art. In the second section, military geography studies in the interest of strategy and operational art various theaters of war, that is, territories and water surfaces from the viewpoint of preparing and conducting military operations of various scales on them.

The conclusions and generalization of military geography are used by all the component parts of military science. Military geography is most closely connected with military art. It is commonly known that the military operations of troops take place in a specific geographical environment (in a specific locality, under specific climatic conditions, with specific ground conditions). Natural conditions also have a considerable influence on the battle operations of troops under contemporary conditions and this must be taken into account by military science. For example, the use not only of specific forces and equipment but also the methods of their operations depends to a considerable degree on natural conditions. Such a new factor of an operational-tactical situation as radiation contamination of a locality which arises from the use of nuclear weapons to a very considerable degree depends on the local geographical conditions. The effect of the geographical environment is studied and considered in the planning and

carrying out of battles and operations. Military geography is concerned with the study of the effect of natural conditions on the conduct of battle operations.

In its conclusions and generalization, military geography uses the data of political, economic and physical geography, as well as the data of a whole series of other socio-political, economic and military sciences. Military geography uses the data of these sciences not mechanically, but creatively, interpreting them in the light of military requirements and determining the effect which certain geographical factors can have on the conduct of military operations and war as a whole.

The nature and degree of the completeness of orienting always depends on the level of the command organ for which it is intended. Higher command organs, for example, need more complete knowledge of all the factors characterizing the possibilities of various countries and conditions of conducting armed conflict in various theaters of war. The lower organs need narrower information giving specific data on the nature of a theater of war or a zone of a locality, region or section where they will have to operate.

From political geography, military geography draws information about the position which certain countries occupy in the world, about their population, social and political structure, about the internal and external policies of the ruling circles, about the interrelationships with the USSR and other socialist countries. Economic geography provides military geography with data about the productive forces of countries, about natural resources, about the distribution and level of development of industry and agriculture, about military industry, transportation, finances and about economic links with other countries. From various official sources (reports about the state of budgets, num-

bers of armed forces, statistical data on various branches of the economy, as well as from the press), military geography takes various data characterizing the military potential of one or another state, the numbers, equipment and battle makeup of the armed forces, the possibilities of their deployment in war time and the readiness of the theaters of war. Physical geography provides military geography with information about the structure of the surface, plant life, climate and hydrography.

Military geography studies all these data in conformity with the requirements of military science. It determines how the natural physico-geographical conditions of one or another territory will affect the conduct of war and military operations. Military geography shows the effect on the conduct of war and battle operations of various socio-political conditions and the specific capacities of individual countries for conducting modern war (resources and distribution of the economy, possibilities of transportation, military bases, methods and systems of communication, fortifications, characteristics of the population, condition of the armed forces, etc.). Military geography helps to make known the most important industrial and politico-administrative centers and economic regions of strategic and operational importance, which can become the objects of military operations in one or another theater of war, the destruction or loss of which can have great consequences for the future conduct of war by one or another state. These and a number of other questions examined by military geography are separated into a special area which is called military geography of individual countries.

In addition to studying countries, military geography studies, as has already been emphasized, also various theaters of war, that is, regions, territories and bodies of water, from the viewpoint of pre-

paring and conducting military actions - operations and battles - on them. By thoroughly analyzing all the data, military geography exposes all the characteristics inherent to individual theaters of war, knowledge of which promotes the most expedient organization and training of troops. Thereby the work of the commanders and staffs in working out solutions under specific conditions of one or another country or one or another theater of war is facilitated.

The task of providing the trainees with information on the military capacities of countries which belong to one or another camp, as well as with information on the natural conditions of various regions, territories and theaters of war is entrusted to military geography as an educational discipline. In carrying out this task, military geography proceeds from the requirements of troop battle and operational training in the light of the demands of modern war.

MILITARY TECHNOLOGICAL SCIENCES

In considering questions of the general theory, and in particular of the classification of military science, the role and place of the military technological sciences has already been noted. Their connection and interrelation with the individual parts, branches and disciplines of military science and primarily with military art has been characterized. Here we shall restrict ourselves only to a brief enumeration of them.

But before listing them, it is necessary to indicate the general path of development of science and technology mentioned in the Program of the CPSU and having a direct relationship to the development of military technological sciences, and through them - to the development of military science as a whole. In the Program of the CPSU it is noted that future prospects for progress of science and technology are determined in the present period primarily by the achievements of the

leading branches of the natural sciences: mathematics, physics, chemistry and biology. A high level of development of these sciences is a necessary condition for the development of other sciences, to which the military technological sciences belong.

But the development of the military technological sciences has its own specific character. The military technological sciences emerge as an organic component part of military science and their tasks are determined by military science as a whole in the interest of the future development of the latest means of armed conflict. This, naturally, distinguishes the military technological sciences from the general civil sciences. At the same time, it is impossible not to note: that in military technology the most promising achievements of the various technological sciences, particularly mechanical engineering, electronics, automation, chemistry, etc., are made concrete. This speaks of the dialectical interconditionality of the military technological sciences and the technological sciences.

The military technological sciences investigate special questions inherent to each of them. Thus, for example, the artillery military technological sciences investigate arms - infantry, artillery and including missile, aviation and naval. They combine a number of scientific disciplines which study questions of the construction of various arms, their battle properties and technical exploitation. These disciplines are:

- the principles of the construction of the material part of arms - the branch of artillery science which helps to solve correctly questions of the design of arms. The foundations of the construction of ammunition - the branch giving starting data for the production of shells and other ammunition. Explosives - the branch which considers questions of theory, preparation and their use for purposes of injury

and destruction;

D - internal and external ballistics. The first studies the phenomena which occur inside the barrel at the moment of the shot, and the laws of the movement of the shell in the period when the gunpowder gases are acting on it, gives the initial data for the planning of weapons; the second studies the laws of the movement of the shell in the air and determines the ballistic data of weapons;

- the theory of gunfire, based on the theory of probability and the theory of errors, which permits the most correct solution of the battle tasks of various types of artillery weapons.

The artillery military technological sciences are connected with military art, and primarily with the tactics of arms of the service and types of armed forces, with operational art. In their specifics they belong to the area of the planning, production and exploitation of the material part, they are most closely affiliated with other military technological and technological sciences.

These military technological sciences can be characterized in a similar manner:

- the military technological sciences connected with the design, production and use of nuclear missile weapons;

- military aviation sciences connected with airplane construction and the exploitation of military aviation;

- tank and automobile sciences connected with the production, use and repair of the material part of armored troops and autotransport;

- military naval technological sciences which pertain to the area of military ship building and navigation;

D - military transport and military communication, especially electrotechnological, radar, radiotechnological and other military technological sciences;

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- military engineering sciences and among them: fortification - field and long term, military bridge and ferrying matters, military roads, mine demolition and mine fields, camouflage, water supply, etc.;

- military cybernetics.

It is especially necessary to point out such new directions in the development of scientific knowledge and sciences which have developed as the general theory of battle effectiveness, the mathematical theory of the investigation of military phenomena and others.

Military topography, as a military technological science, uses the data of such technological sciences as geodesy and cartography. However, the principal, decisive matter for military topography is serving the interests of military art with specific equipment - topographical maintenance of the troops in operation and battles.

In carrying out its task, military topography investigates and substantiates in the interests of military art ways and means of studying localities in a military respect. Under contemporary conditions, such an investigation represents a valuable scientific theory and is linked with the application of various complex techniques using special knowledge. This pertains to the topographical maintenance of the battle actions of troops in operations of all scales, and in peace time - to exercises, maneuvers and war games.

Military topography works continuously on the improvement and perfection of existing topographical maps, and also develops the necessary special maps and military graphic documents of various purposes.

It is important to emphasize that each of the military technological sciences has great independent importance, solves its own specific problems and, at the same time, acts in the interests of all military affairs as a whole, revealing its diverse links with the general progress of science and technology.

Even from this far from complete enumeration of the military technological sciences, it can be seen what a complex and very varied range of questions they encompass and solve in the interest of military science as a whole and of each of its parts individually.

The development of the military technological sciences, as of all military science, cannot stop with what has been accomplished. It is inseparably linked with the general development of the productive forces and the future development of human knowledge which is inseparably bound with the general progress of science and technology in the modern era.

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[Footnotes]

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Chapter 6

CONDITIONS AND FACTORS, LAWS AND PRINCIPLES OF ARMED CONFLICT

In determining the nature of each specific war Marxism-Leninism takes into account which classes are conducting this war, the social and political structure of the countries participating in the war and what political goals are being pursued in the given war by the fighting states. These factors determine the just or unjust character of a war.

The Soviet state has always come out against imperialist, predatory, unjust wars and, on the other hand, have supported just, liberating, revolutionary wars.

The Soviet Union together with other socialist countries, peace loving states and peoples, is doing everything possible to prevent a third world war and to create conditions which will completely eliminate war from the life of society. At the same time, the Soviet people are taking all the necessary measures for guaranteeing the security and inviolability of their socialist Motherland and of all other countries of the socialist camp.

"The CPSU and all the Soviet people," says the Party's Program, "henceforth will come out against all and any predatory wars, including wars between capitalist states and local wars directed toward the suppression of popular liberating movements and believes it to be its duty to support the sacred struggle of oppressed peoples and their just liberating wars against imperialism."*

For Soviet military science these principles have theoretical im-

portance in determining and evaluating the conditions and factors influencing the course and outcome of the armed conflict in one or another war. In the modern era the conditions and factors of our country's victory in war are inseparably linked with the tasks of building a communist society, and first of all with the creation of its material-technological base. As N.S. Khrushchev said at the Twenty Second Congress of the CPSU, "only on the paths of the building of the material-technological base of communism is it possible to win the economic competition with capitalism, to always maintain the defense of the country at a level which will permit routing any aggressor who dares to raise his hand against the USSR, against the whole socialist world."*

The decisive successes of the Soviet people in the building of communism, the achievements of all the peoples of the socialist countries, the growth of the forces of the international working class and the activation of the national liberating struggle of colonial peoples against imperialism have changed the arrangement of the class forces in the world arena in favor of socialism, to the detriment of capitalism. The political and economic conditions in which a war can develop consequently have changed.

Radical qualitative changes have also taken place in the methods of conducting war and in its possible consequences. The creation of nuclear missile weapons has changed all the previous notions of war. The geographical conditions affecting war which are taking on an inter-continental character are also being considered differently. Thus, the study and generalization of all the qualitatively new phenomena of armed conflict which have developed in connection with the appearance of nuclear missile weapons and other of the newest battle techniques is the primary task of Soviet military science.

Soviet military science has decisively rejected Stalin's erroneous

0 assertion that supposedly peace loving countries naturally have a lower readiness for war in comparison with aggressive states. This assertion fundamentally contradicts Lenin's position that the peace loving character of the countries of socialism does not eliminate the necessity to be always ready to repel an attack by imperialist aggressors and to keep their armed forces at a high technological level, in constant battle readiness.

V.I. Lenin pointed out: "...While we show the most stable and peaceful attitude, at the same time we are prepared in a military respect. And any attempt at war against us will mean for the states which participate in such a war the deterioration of those conditions which they might have had without the war and before the war, in comparison with those which they will obtain as a result and after the war."*

In connection with the evaluation and calculation by military science of the conditions and factors of armed conflict, Stalin's position on the constantly acting and temporary factors of war must be examined critically. As is known, Stalin's formulation of the constantly acting and temporary factors which he gave in 1942 for a long time prevented a deep scientific development of this problem. In the period of the cult of personality the erroneous positions of this formulation were not subjected to critical analysis, although this was necessary. Moreover, in certain works, as has already been noted in the fourth chapter, the position on constantly acting and temporary factors was considered as the principal thing in Soviet military science and even was raised to the rank of its fundamental law.

0 The Stalin formula of constantly acting and temporary factors suffered from logical and constructive incompleteness, metaphysicalness and inconsistency. Thus, for example, the factor "stability of

the rear" in war is given in general form which created the possibility for its arbitrary interpretation - from a narrowly technical to the most broad socio-political meaning. At the same time, in arguments about the stability of the rear the importance of foreign policy conditions was ignored.

The factor "the number and quality of division" in war was considered in isolation from specifically historical conditions, which gave rise to its incorrect interpretation. In the period when war primarily was of the nature of a struggle in land theaters of war and land forces comprised the basis of the military might of a state, their fighting capacity was determined by the number and quality of the tactical formations - the divisions. Now the decisive factor of military power are the new technological means of armed conflict, and mainly nuclear missile weapons. Now the military might of a state depends mainly not on the number and quality of divisions, but on how many nuclear weapons and means of delivery to the targets the state has. And it is necessary to keep in mind that divisions by their composition, armament and purpose in individual historical periods have had different characters. Modern motorized infantry, tank, air and airborne divisions differ in many ways from similar divisions which operated in the second world war. All this indicates that "the number and quality of divisions" cannot be considered abstractly, outside of concretely historical conditions.

The Stalin formula also does not reveal the importance of the command personnel in guiding troops in war. From a whole group of questions it selects only certain organizational capacities of the command personnel which is far from sufficient for a correct determination of their place and importance in armed conflict. It does not consider the importance of the officers' moral-political qualities, scientific

knowledge, military skill and art of leadership.

D In war many other factors operate which for some reason or another were not noted by Stalin.

Some military historians and theorists who did not examine the position on temporary and constantly acting factors belittled the importance of surprise in war and assigned it to a second place role. They did not take into consideration either the conditions of the specific historical situation or the appearance of new weapons. All this did great harm to Soviet military science and the strengthening of our state's defensive capacity.

It is necessary to keep in mind that an evaluation of the factors according to their action only in time is not decisive. It is known that unimportant factors whose effect is constant over the course of a more prolonged period may not always be important and determining in modern war, while factors acting only in a specific short period of time may prove to be primary and decisive in war.

The authors of a number of works published in 1943-1953 considered the factor of surprise as secondary, temporary and attendant, almost accidental. It must be said that such belittling of surprise is incorrect. Historical experience confirms that skillfully used surprise in past wars produced positive results in war as a whole, in operations and in battle.

D Surprise under the conditions of nuclear missile war acquires especially great importance. A surprise attack with nuclear missile weapons can cause great destruction and huge losses in people and material among the fighting sides. In the past the aggressor by a surprise attack on the other side did not receive any punishment for a long time and exploited the success achieved thanks to skillful use of surprise, while in our time a retaliatory nuclear missile strike will rapidly

befall him.

Of course, surprise should not be attributed to the constantly acting factors, on which depends the continuity of armed conflict. It is possible to fight and win without carrying out surprise attacks. But the prize which surprise brings makes it one of the important methods of military art and, consequently, one of the main factors of success in modern war.

From what has been said it is possible to draw the conclusion that the previous position on constant and temporarily acting factors needs not only criticism, but new and more modern scientific development.

The conditions and factors of armed conflict are diverse. They are all connected and interdependent. Only as a result of close interaction and coupling, these factors show their worth in full measure. The role of various factors in different circumstances and at different stages of war also does not remain constant. Depending on the nature and conditions of the war they can change. Thus, at one stage of a war political factors can have primary importance, at another - economic, at a third - military and military technological. However, these factors always and everywhere act in close connection and depend on each other.

In spite of all the importance of the factors influencing the character of armed conflict and often determining its course and outcome, the decisive role in war always has belonged and will belong to people. They create the possibilities for achieving the goals and for resolving specific tasks. In the wars which the Soviet state conducted against the imperialist aggressors, the conversion of possibilities into actuality always belonged to people: to the soldiers, to the commanders supported by all the people and guided by our Communist Party.

D Military science always has been interested and is interested primarily in military factors such as the forces and means of armed conflict, their quantity and quality, the level of readiness of the armed forces to conduct modern war and a number of others. Such factors as space and time as well as geographical conditions have a considerable effect on the nature and conduct of war. At the same time, in the final analysis, economic and socio-political factors at all times have had an effect and continue to have an effect on armed conflict.

A scientific analysis of the conditions and factors having some effect on the course and outcome of armed conflict requires strict calculation of the correlation of class forces in the world arena since this makes it possible to draw the correct conclusions.

Before the second world war the Soviet Union was the only socialist state, while today a world socialist system exists and is getting stronger. Not long ago the overwhelming part of the world's population was under direct colonial and semicolonial oppression. Today the colonial system is falling under the blows of the national liberation movement. Young sovereign states have arisen and are arising in place of the former colonies and semicolonial territories. Their peoples have entered a new period of their development. All this indicates that after the second world war radical changes have taken place in the forces in the world arena. Now, not imperialism, but the forces of socialism and peace have become a decisive factor in world development. Now the countries of socialism are surpassing capitalism not only in a political, but in a military respect. Thorough and objective calculation of these new phenomena is a necessary condition for a correct, **D** realistic evaluation of conditions and factors.

Military factors. The principal military factors are: the armed

forces of the fighting states, their quantity and quality, organizational structure, quantity and quality of weapons and military equipment, the level of development of military science in the country; the organizing and leadership qualities of the officers; the level of the troops' military training and especially their operational-tactical training, field training; the state of discipline and the level of the troops' moral and fighting spirit; battle readiness and vigilance and, finally, efficiently operating, rationally organized systems of administration and supply.

The armed forces are the principal instrument of the conduct of the war. With their help the defeat of the enemy's armed forces is accomplished, its technological equipment and economic objectives in the deep rear are destroyed, the enemy's territories are seized and the armed conflict is successfully concluded. The armed forces are one of the most important factors influencing the character of armed conflict and determining its course and outcome. Here they represent one of the necessary conditions without which the conduct of armed conflict is impossible. A specific quantity and quality of armed forces is necessary for conducting war.

The quantity and quality of armed forces are mutually connected and mutually dependent. Quantity under certain conditions is always transformed into a specific quality and provides the fighting sides with one or another correlation of forces in armed conflict. By using superiority in quality, many prominent generals of the past, not having numerical superiority, achieved victory over a stronger enemy. It is natural that the decisive role of quality is manifested if there is the specific, necessary quantity. This principle lies at the basis of troop organization and rational correlation between arms of the service and types of armed forces in their over-all structure. In those

eras when the effectiveness of weapons was small, the quantitative feature played a significant role. And on the other hand, the increasing might of weapons has produced the possibility of reducing the numbers of armed forces, which in this case retained high fighting efficiency. Thus, for example, the numbers of personnel in a division now have been considerably reduced in comparison with the past, while its fighting capacity has grown sharply.

The important thing in modern armed forces is not the quantity of manpower, not the number of soldiers, but the quantity and quality of nuclear missiles, reactive artillery, rocket carrying airplanes, rocket carrying ships, especially atomic submarines, as well as other technological means of war.

This does not mean that modern armies can be small, as certain bourgeois theorists in the West have tried to assert. Massive armies are also needed in modern war. However, these armies have quite a different quality. Thus, for example, in the first world war infantry sections comprised the basis of armed forces, while in the second world war the role of the infantry had decreased essentially. Now mechanized armed masses can go out on the battlefields. In their composition there will be relatively few infantry which has changed its qualities and conducts battle operations primarily from fighting machines.

In connection with the high level of motorization and mechanization of the armed forces, the tactical and operational mobility of the troops has increased. As a result of an increase in the power of fire attacks and in troop mobility, the tactical, operational and strategic situation in modern armed conflict is undergoing sharp and frequent changes which makes especially high demands on the management of troops.

Nuclear missile weapons, motorization and mechanization of troops have had an important influence on the correlation of arms of the service and types of armed forces. In modern armed forces, along with the decrease in the percentage of infantry, the proportion of military air forces, airborne, tank, mechanized and special troops is growing. New kinds and types such as missile, radiotechnical and others have appeared.

In recent years missile troops, which have become the predominant type in the Soviet Armed Forces, have grown extremely rapidly. Missile carrying airplanes have also increased. Armored troops have begun to play a decisive role among the land forces. In the naval forces atomic submarines with missile weapons, as well as missile carrying ships and airplanes have acquired primary importance.

In spite of their leading role in the armed forces, missile troops cannot completely supplant the ordinary means of war and kinds and types of troops since they are not in a condition to solve all the problems in war. In particular, they cannot rid a place of remnants of the enemy's troops who have been subjected to missile strikes, seize a territory and secure it. Therefore, the armed forces have in their composition, rifle, tank, engineering and other special troops which require daily attention and perfection since success in battle operations will also depend on them to a large degree.

Ordinary armed forces are necessary both under conditions of nuclear missile war and also particularly for conducting limited, local wars in which nuclear weapons cannot be used.

Thus, modern highly effective weapons and equipment are the basis of the fire power of modern armies and navies. However, in spite of their huge importance, arms and military equipment by themselves are lifeless if skillful, thoroughly trained, experienced people do not

0 set them in motion. The more complex the equipment, the higher the organization and qualifications of the personnel who put the equipment into motion must be. People who have the will and ability to conduct armed conflict and who persistently overcome its difficulties decide the success of a war.

Always and everywhere, with any arms, people who are organized and prepared are the main motive power in armed conflict. Their role in modern wars not only is not decreasing, it is increasing still more. But people also are not an abstract, extra-historical category which does not depend on social development. People in the process of work and struggle change society and nature. At the same time they change themselves, their ideology, traditions, culture, knowledge and their whole aspect.

Thus, in developing the principles of military science it is impossible to take as the point of departure only equipment alone. It is necessary always to take into account the human masses, or, as Engels expressed it, human material, people, its possibilities and capacities.

In investigating the forces and means of conducting war, military science studies the experience of their use in past wars. But it is not restricted only to this experience. Military science studies the development of modern military affairs, military equipment and weapons and the character of future war and on this basis develops methods and forms of their battle use and organization most suitable for the given specific historical conditions.

0 Military science studies the general principles of the building and organization of armed forces, their division into types and arms of the service. It substantiates the necessity of creating new types, the abolishment of the old, investigates the battle capacities of each type of armed forces and arms of the service and on this basis develops

theoretical principles of their use in battle, operations and in war as a whole. It determines the most expedient, under the given conditions, principles of troop recruitment and mobilization.

Military science itself, its state, occupies an important place among the conditions and factors influencing the character of armed conflict. V.I. Lenin pointed out many times that it is impossible to build an army and conduct war successfully without military science. The prominent role of Soviet military science was especially clearly manifested in the Great Patriotic War. Soviet officers and generals, armed with knowledge of the laws of armed conflict, surpassed their enemies in the art of conducting battle operations and achieved a historic victory over them. Soviet military science is acquiring even more importance under contemporary conditions. The appearance of quite new means of war makes it incumbent to carry out the development of methods of their battle use on the basis of scientific foresight. Thorough scientific and theoretical investigation of the character of modern wars, the discovery of new objective principles of armed conflict, the study of the conditions and factors influencing the character of armed conflict, the development of a theory of military art, of the methods and forms of armed conflict both in nuclear missile war and in war without the use of nuclear weapons, but taking into account the changes which have taken place and are taking place, helps the officers, generals and admirals to achieve victories over the enemy with great skill, with a lower expenditure of forces and means and in a shorter time.

On the 26th of June 1963 at a reception for graduates of the military academies of the USSR Armed Forces, Marshall of the Soviet Union R.Ya. Malinovskiy noted the increasing role of military science under modern conditions. He said: "You have studied in the academies at a

time when a process of revolutionary transformations has taken place in military affairs: the army and the navy have been armed with the latest models of contemporary weapons and battle equipment, perfection of our armed forces has come, *Soviet military science has developed at a rapid rate* (emphasis ours - *Authors*). All the newest achievements of military theory and practice had to be introduced into the educational process of the higher military educational institutions in a short time. The military academies have successfully coped with this task. During training you received comprehensive theoretical knowledge and practical skills in the area of modern weapons and their use under complex battle conditions. This is the great merit of our military academies. However, we henceforth must increase in every possible way the scientific level of the teaching of all disciplines, improve the educational process and methods of teaching."*

Only well prepared military personnel can successfully lead modern battle operations in war.

The theory of military art - strategy, operational art and tactics - is acquiring special importance in our time. Therefore, the development of all parts of military art, of effective methods and forms of armed conflict is an important factor of victories. Military scientific research work in this direction is a task of great military and political importance.

Military personnel are the bearers of modern military science and military art. The quantity and quality of the officer corps, especially its general and professional knowledge, organizing and leadership qualities have great importance for armed forces in modern war. The massive introduction of complex military equipment into the army (missiles, artillery of all types and purposes, airplanes, tanks, radio-electronics, calculators and other equipment) requires of the military

cadres thorough knowledge and serious technological preparation. Knowledge of military equipment helps our personnel to handle it in battle and operations with the greatest effect and to achieve victory in the shortest time. However, this does not exhaust the demands on military cadres of contemporary war. Officers and generals must be highly able to organize and conduct battle operations of all scales.

Battle preparation and field training of the troops plays a huge role in modern wars. A high level of battle preparation and especially field training promotes the successful conduct of battle operations of various scales and under different conditions of a battle situation. Untrained troops are not capable of successfully carrying out battle tasks and suffer unjustifiably great losses.

A high level of preparation and field training of troops is especially necessary in a nuclear missile war. The battle operations in this war will take place in more complex and difficult circumstances than in past wars. Quite new methods of conducting battle operations will be required of the troops under conditions of a nuclear attack, of radioactive, chemical and bacteriological contamination of an area.

In modern war, a state of military discipline and a high moral and fighting spirit of the troops has great importance. Both these categories are closely connected. Discipline is one of the most important elements and indications of a moral and fighting spirit. In contrast to all armies of the past and the modern armies of capitalist states, the military discipline in the Soviet Army and Navy, as well as the high moral spirit are based on different principles and are cultivated by quite different methods. The high moral and fighting spirit in the Soviet Armed Forces and the high military discipline follow from the character of the Soviet social and political structure, from the character of the Soviet Armed Forces.

M.V. Frunze pointed out that party political work, the high moral and fighting spirit of the Soviet troops, their military discipline is a new weapon, "an additional arm of the service," which is created by the Soviet social structure and which there has not been and will not be in the armed forces of capitalist states. With the help of this weapon the Soviet Armed Forces have conquered their enemies.

Our Communist Party shows tireless anxiety about the Soviet Armed Forces and does everything so that they will be an efficient and well-organized organism, have high organization and discipline, carry out in an exemplary way the tasks set for them by the party, the government and the people and will be ready at any moment to give a shattering rebuff to imperialist aggressors. The party inculcates our soldiers with a spirit of infinite loyalty to the Soviet people, to the matter of communism.

High troop vigilance and battle readiness acquire especially great importance under modern conditions since only high vigilance and battle readiness of the armed forces will help to foil an unexpected enemy nuclear missile attack, to repel imperialist aggression, to save our forces and equipment and to inflict a powerful crushing retaliatory blow on the enemy.

Geographical conditions and factors, space and time in modern war. These factors always have had and continue to have an effect on the character of armed conflict. The importance of these factors in nuclear missile war has increased especially heavily. This is explained by the fact that nuclear missile war invariably acquires the character of a general, world war.

Geographical conditions and factors show their effect on the conduct of armed forces in various ways. Thus, for example, mountain forest regions or jungles have always helped people for whom these condi-

tions were usual to conduct war and have hampered the operations of foreign aggressors. Sea and ocean areas which require great forces and equipment to overcome them have a huge influence on armed conflict.

But in modern war certain unfavorable geographical conditions to a considerable degree are overcome by the new battle equipment and new weapons. Modern missiles, airplanes, high speed submarines and ships, tanks and cross country vehicles can successfully further the overcoming of obstacles and difficulties of armed conflict connected with an unfavorable character of military theaters and with the overcoming of large land and war areas.

Historical experience shows that for successful battle operations in various, previously unknown theaters of war it is necessary to give the troops some time for acclimatization, studying the theaters of war and preparing battle operations in a material and engineering respect.

Geographical conditions and factors, space and time have played and continue to play an important role in armed conflict. A country possessing large areas has great possibilities for dispersion and concealment of important political, economic and military objectives. Large areas also permit maneuvering by armed forces in case of a failure or temporary defeat in armed conflict.

However, space has ceased today to play the role of a screening and safety factor, as was the case in past wars. Earlier, for example, the USA could conduct war on foreign territories without fearing for its deep rear. Under modern conditions the position has changed sharply. For strategic intercontinental nuclear missile weapons there are no places on the face of the earth which could not be hit with these weapons. The whole territory of the USA and its satellites can be subjected to powerful nuclear missile strikes in the first minutes of a war, as a result of which these countries will suffer colossal losses.

and destruction. Large areas will lose their importance to an even greater degree in connection with the development of war in space, if imperialists resort to it.

States having little territory will experience extreme difficulties in nuclear missile war. The crowding of a large number of targets and objectives in a small space in the case of nuclear missile strikes on it will invariably bring such states to destruction.

States spread over large areas also have their own special features.

Large spaces create certain difficulties for the enemy, who must exert much effort to create large groups of armed forces to seize these spaces.

The time element is acquiring special significance in modern war. Minutes, and sometimes seconds can place some groups of soldiers or the armed forces as a whole under annihilating attacks. Therefore the troops must use every minute effectively to increase their battle readiness and to inflict powerful blows on the enemy. The time must be used so as not to give the enemy any respite for recovery of the forces and preparation for counterattack.

Under contemporary conditions the importance of mobility in directing troops has increased. Rapidity of obtaining data about the situation, immediate reaction to various types of phenomena and processes occurring in the course of armed conflict, making a rapid decision and conveying it to the troops - is a most important requirement in the handling of troops and equipment in modern war.

The role of economic conditions and factors in the preparation and conduct of war is increasing sharply under modern conditions. The economic factor, as the most important index of a state's military power, has acquired especially great importance. Without a strong econ-

only the creation of a stable and functioning military economy dependably supplying the armed forces with battle equipment, arms and everything necessary for conducting war is unthinkable. ()

But, in ascertaining the effect of the economic factor on the course and outcome of war, it is necessary first of all to have in mind the character of the social and political structure existing in the country, the level of development of the productive forces, the character of the people's industrial relations. Only on the basis of a thorough, detailed study of all the elements of the economic factor and of the fundamental, qualitative differences which exist between socialist and capitalist systems can the role of the economic factor in the preparation and conduct of war be determined correctly.

The experience of the Great Patriotic War of the Soviet Union showed that the Soviet social and political structure, a socialist economic system based on social property and planning, has colossal advantages over the capitalist system and its economy based on private property. During the war the USSR surpassed its enemies as well as the allies in the anti-Hitler coalition in organization of military economy, productivity of labor and manufacture of the most important types of armament.

The development of the military economy of the capitalist countries obeys the general economic laws of capitalism. It is based on brutal exploitation of the workers, extraction of high profits and on competition. All this does not permit a bourgeois state to mobilize completely all the material, financial and human resources of the country to the needs of the war.

The development of a socialist economy is based on quite a different foundation, the socialist state plays a different role in the economic maintenance of war. In contrast to the bourgeois state, in ()

fulfilling the function of military protection from aggressors' attacks, it directly controls the country's whole economy which permits it to use most rationally and systematically huge material and human resources for the needs of war: industry, agriculture, transportation, scientific institutions, the country's entire economy.

In contrast to a capitalist system of economy, a planned socialist system of economy opens vast possibilities for the development of the productive forces, science and technology and their effective use. The prospects of the development of our economy, set forth in the Program of the CPSU, are new indisputable confirmation of the advantages of the socialist over the capitalist system. The planned nature of our economy allows the Soviet state to mobilize purposefully and rapidly the whole economy for strengthening defense, and in the case of war to subordinate it to the general goal - full rout of the enemy.

Consequently, the general level of development of the productive forces and the character of the industrial relations and state structure have special importance for the economic maintenance of war. The Great Patriotic War showed the huge advantages of the Soviet State and its planned economy over a capitalist economy. At the present time these advantages have grown still more. Now not only the Soviet Union but other socialist countries are developing their economies at a rapid rate. For four years (1958-1961) the average yearly growth of industrial production of the socialist countries was 13%, that is, it was two times more than in the capitalist world. In comparison with the prewar level (1939) the volume of industrial production of the countries of socialism increased more than 7 times, whereas in the countries of capitalism it increased only 2.5 times.

Socialist industrial relations not only have opened unlimited scope for the development of the productive forces within each country

but also have permitted setting up the closest economic collaboration among the peoples of the countries of the whole socialist camp. The economic collaboration, brotherly support and mutual assistance of the socialist countries are multiplying their powers and helping them to attain newer and newer successes in the development of the economy, science and technology, in the building of socialism and communism, as well as in strengthening their defensive might. However, the opportunists of the "left" and sectarians do not understand this; they seek to rely exclusively on their own powers in the building of socialism and in the strengthening of defensive power, ignoring the experience and assistance of other socialist countries, thus weakening their ties to these.

The Soviet socialist economy is developing at a particularly high rate. Over the course of several years the yearly absolute increase in the USSR's industrial production exceed the corresponding increases in the USA. In 1921 the industrial production of the USSR was only 2% of the American volume, and on the eve of the second world war it was 28%, while at the present time it has reached 63% of the level of the USA's industrial production.

Now not only the Soviet Union but also several other socialist countries thanks to the high rate of economic development have approached the level of industrial production of the most developed capitalist states. In the prewar period the capitalist countries of Europe surpassed the present European socialist countries in the most important types of industrial production per capita by two to three and more times, while now this superiority has been eliminated.

In speaking of the role of the economy in war, it is necessary to emphasize that the economy has a direct effect on the character of armed conflict chiefly through weapons and military equipment. The

more developed the economy of a country, the greater scientific technological progress attained in it, the more perfect weapons it can produce and moreover, in large numbers sufficient to supply armed forces of many millions, as well as to make up losses in the course of military operations.

Scientific-technological progress and mass production of the newest technological means of war has special importance in modern war. The Soviet Union, building communism, occupies a leading place in the world in the development of science and technology. Soviet scholars are successfully carrying out work in the area of the development of physics, mathematics, cybernetics, chemistry, biology and other sciences. They have opened a new brilliant era in the mastering of space.

Soviet military science bases its conclusions concerning the effect of economic conditions and factors on the preparation and conduct of war on data characterizing the economic development of socialist and capitalist countries and on those undeniable advantages which a socialist economy has over a capitalist economy.

In evaluating the growth of our capacities in the economic and scientific and technological areas, one should not at all belittle the economic capacities of imperialism and ignore changes in the development of the capitalist economies which have occurred in the postwar period in a number of countries. It is known that the aggressive imperialist states in the last ten years have intensified the militarization of their economy, are conducting a frantic arms race and are preparing more and more extensively for war against the countries of the socialist camp.

The effect of political, ideological and moral factors on war. As has already been said above, the character of the social and political structure, the class relations, the state's internal and external poli-

ies, the ideology predominant in the society, the attitude of the popular masses toward war, the level of consciousness of the masses, the state of the moral spirit of the people and the army, as well as other elements of a moral and political nature, have a huge effect on war.

It is known that together with the armed form of battle as the main form in war, economic, diplomatic and other forms, ideological warfare is a special form of battle. This battle is conducted before war and in time of war.

Under contemporary conditions when millions of people participate in war, the importance of the ideological factor has grown. Now it is impossible to start, conduct, and even more to victoriously conclude a war without serious ideological preparation.

Ideological warfare in an overwhelming majority of wars of the past, when armed conflict was conducted between states with the same kind of socio-economic structure, when similar ideologies of the fighting sides clashed in war, was of a special character.

Modern world war, if the imperialists unleash it, will be the decisive clash of two opposite social systems - capitalism and socialism. In this war ideological warfare will be of an especially acute and intense character.

The Great Patriotic War of the Soviet Union against fascist Germany and militaristic Japan showed not only the invincible might of the Soviet State and its armed forces, but also the superiority of socialist ideology over bourgeois ideology. The enemy was defeated not only by means of the military equipment and military art of our armed forces, but also by the great strength of the ideas of Marxism-Leninism and the socialist consciousness of the masses.

But the dying and outdated capitalist system continues to wage a

frenzied ideological war against socialism.

D "The prospects of capitalism's defeat in the race with socialism frightens the leaders of the old world," said L.F. Il'ichev at the June Plenum of the CC of the CPSU. "Therefore new methods are being devised and the front of ideological subversive activities is being extended, the propaganda machine is being improved. Not only are stock-piles of nuclear bombs being built up but the means of psychological warfare are being mobilized, the imperialists are not only conducting an arms race but an ideological arms race. "Psychological warfare" has been raised by imperialism to the level of a state policy. Leadership of it has been completely shifted to the palaces of the chancellors, premiers and presidents who have assumed command of the ideological front. The leaders of imperialism not only "order the music," but themselves direct the propagandist orchestra."*

The aggressive capitalist states are allocating huge amounts of money for the promotion of "psychological warfare" and are widely using the press, radio, television, movies and other means. In the USA the budget of only one information agency in 1963 was more than 120 million dollars. The agency had 239 branches in 105 countries. There is no doubt that in time of war ideological warfare will be intensified even more and assume a huge scale.

Under these conditions our task is to tirelessly wage an offensive on bourgeois ideology, to unmask the misanthropic essence of imperialism, its savage customs and habits, its degrading culture and corrupt morals, to do everything necessary to strengthen the defensive might of our socialist Motherland, to intensify the battle readiness and ideological training of Soviet troops.

D Our Communist Party, inculcating in the Soviet people and its armed forces a communist spirit, is conducting an offensive along the

entire front against the ideology of imperialism, against bourgeois ~~relaxers~~ who are attempting to discredit our socialist system. The party considers the ideological front as one of the most important fronts in the struggle for the victory of communism.

"The CPSU considers as its first responsibility to the Soviet people, as its international duty to the workers of the whole world," a resolution of the June Plenum of the CC of the CPSU states, "to conduct an uncompromising offensive war with misanthropic imperialist ideology, to protect the workers from its pernicious influence, even more actively to bring the great ideas of communism within the reach of the masses and to continually be concerned about the purity of Marxist-Leninist teaching, its development and enrichment."*

The Communist Party is tirelessly developing Marxist-Leninist theory and resolving on its basis practical questions. Fundamental problems of the theory and practice of the building of communism and the strengthening of the country's defensive capacity have found reflection in the resolutions of the Twentieth, Twenty First and Twenty Second Congresses of the CPSU and in the party's new program.

The party raised and resolved fundamental questions of the transition from socialism to communism, theoretically generalized the process of transforming the state from a dictatorship of the proletariat into a general socialist state which will raise its military capacities and strengthens the moral-political unity of the Soviet people still more. The party has organized and headed a scientific-technological revolution in our country, including a revolution in military affairs, whose success has securely consolidated the military advantages of socialism over capitalism. On the basis of the guiding instructions of the Communist Party, the Soviet government and the data of military science a Soviet military doctrine has been developed.

in which the principal ways and means of reliably protecting the Soviet Motherland and all the countries of the socialist camp from imperialist aggression have been defined.

The revolution which has taken place in military affairs has sharply increased the demands on the troops' moral-political and moral-battle qualities.

The moral spirit of the troops has always had great importance in war. In his time F. Engels wrote that for a correct evaluation of an army's fighting capacity it is necessary to have an idea not only about weapons, but also about the degree of its discipline, steadfastness in battle, about its ability and readiness to take on the burden of war and "especially about its *moral state*, i.e., about what can be demanded from it without risking its demoralization."*

V.I. Lenin, in speaking at a broad worker-Red Army conference in the Rogozhsko-Simonovskiy region on 13 May 1920, said: "In any war, in the final analysis, victory depends on the spiritual state of those masses who spill their blood on the field of battle."** One of the most important laws of war was formulated in essence on this position of Lenin's. This law is especially sharply demonstrated in wars in which one side pursues just, and the other aggressive, predatory goals of war. "The belief in the justice of a war," Lenin pointed out, "the creation of the necessity to lay down one's life for the good of one's brothers raises the soldiers' spirit and compels them to bear unprecedented burdens."*** A high moral spirit of the troops gives rise to boldness and initiative and to mass heroism. But where the moral spirit of the troops is undermined, where military duties are carried out formally, under compulsion, fighting capacity is low.

Ideological conviction lies at the basis of the morale of our Soviet society. Mastery of the principles of Marxism-Leninism, a commu-

nist world outlook, a deep understanding of the party's policies are a vital necessity for every Soviet person, for every Soviet soldier. But communist morale does not remain set and unchanged, in the course of building socialism and communism it is enriched with new principles, with new content. The fundamental principles of communism's moral code have been formulated in the new Program of the CPSU.

Soviet soldiers, boundlessly devoted to the matter of communism, to their socialist Motherland, are guided in all their military affairs by these principles of communism's moral code. They persistently struggle to increase their battle and political readiness, they are multiplying the glorious battle traditions of our armed forces, they manifest collectivism and comradely mutual assistance in their military work. Soviet soldiers are educated in a spirit of proletarian internationalism and socialist patriotism, in a spirit of irreconcilability to the enemies of communism.

Soviet military science attaches great importance to the moral-political factor in war. It considers it as one of the decisive factors in all methods and forms of modern armed conflict, in the battle and political preparation of Soviet soldiers, in their training and education in the light of the demands of nuclear missile war.

The moral-political supremacy of the armies of the socialist countries over the bourgeois armies is clear. There is no doubt that in case of war the armies of the socialist countries will manifest unprecedented selflessness, will toward victory, heroism and determination. However, it would be a mistake to underestimate the moral-political capacities of our opponents. It is impossible to forget that considerable sections of the population in capitalist countries are being infected with proprietary bourgeois ideology, are being poisoned with the venom of anticommunism. Therefore, Soviet military science must

take into account the state of the moral-political and ideological factors not only of its own country and of other countries of the socialist camp, but also of the capitalist states.

But a calculation and evaluation of moral-political and ideological factors will be incomplete if such elements as the basic trends in the development of military science and military affairs in capitalist countries, the development of military technology and military art are ignored by Soviet military science. Soviet military science must deeply and comprehensively study a probable enemy, must make scientific prognoses in the area of the future development of various conditions and factors of modern armed conflict, especially the prospects for the development of military science and technology.

The laws and principles of armed conflict. Knowledge of the laws of armed conflict is necessary for correct leadership of armed conflict as a whole and of military operations of various scales.

Knowledge of these laws provides the military cadres with a solid scientific basis for correct evaluation of the phenomena of war, with an understanding of the specific characteristics of armed conflict at one or another stage, helps them to carry out more successfully the set battle tasks. Knowledge of the laws of armed conflict helps the military cadres not only to understand deeply the state of military affairs at the present time, but also to foresee trends in its development.

In the second chapter, in examining questions of the methodology of Soviet military science, and also in the fifth chapter, in characterizing questions of the general theory we have already spoken in general terms of the laws of military science and have cited some of them. In this section we shall attempt to discuss them in more detail in connection with an examination of the conditions and factors of

armed conflict because these laws are manifested in them and through them.

Knowledge of the principles of war is an exceptionally important task of military science. It is a necessary condition of the development of the principles of military science on a strict scientific foundation. The organization of armed conflict and battle operations of various scales is placed on a scientific foundation in the same way.

It can be said directly that the first and chief task of military science is a definition which is as close as possible to reality of the character of nuclear missile war, its characteristics and properties, i.e., the principles inherent to it. This is all the more important since there have not been such wars in the past.

Knowledge of the laws of armed conflict helps commanders to show initiative, to achieve a creative approach to the working out and solution of large and small problems. Without military science, without knowledge of the laws of armed conflict, effective and qualified leadership in war is impossible.

The laws can be general, pertaining to all social phenomena. For example, a universal principle is the dependence of all social phenomena, including military, on material, i.e., economic conditions. This principle was expressed in a well-known formula of Engels. In the second half of the nineteenth century he wrote: "...The whole organization and battle method of armies and, together with them, victories and defeats, prove to be dependent on material, i.e., economic conditions: on human material and on weapons, consequently - on the quality and quantity of the population and on technology."*

This law lies at the basis of teachings on war and the army and is one of the corner stones of the ideological and theoretical foundation of Soviet military science. All the wars of the past, the whole

history of the development of military affairs and military science confirm the validity of this law.

The dependence of the methods and forms of armed conflict, as well as the organization of the troops, their numbers and qualities on economic conditions is manifested in a whole series of principles. It is known from the experience of history that the technical equipment of the armed forces has developed and improved in proportion to the development of the methods of production, the economy and technology. The use in battle and operations of various types and various amounts of new equipment and new human material has usually led to greater or lesser changes in the methods and forms of armed conflict. Each specific historical period has had its own methods and forms of armed conflict.

Under contemporary conditions the rapid development of technology also is giving rise to new methods and forms of armed conflict which differ in a radical way from those of past historical eras, including the period of the second world war.

The discovery by historical materialism of the laws of the dependence of social phenomena on the economic and political conditions permits us to understand correctly a principle such as the increase in the scale of armed conflict. In ancient times, the quantity of forces and equipment which took part in wars, the territory which they seized and the rate of conducting battle operations were comparatively small. As the material-technological base of wars expanded and the number of armed forces participating in them increased, the scale of battle which is determined by the political goals and economic capacities of the fighting states continually grew. In the two last world wars, huge armies of many millions of men fought each other, and the amount of military equipment used in the battles was reckoned in tens and hun-

dreds of thousands of units. The fighting was prolonged and severe, the tempo of the operations in many cases was very high. The scale of armed conflict under contemporary conditions is growing even more.

The appearance on battlefields of armies of many millions of men, the increase in the effectiveness of military equipment, as well as the increase in the scale of armed conflict and the decisive character of its goals has brought to life such a new principle as the increase in the cost of wars and operations.

One of the most important general laws of historical materialism is the law concerning the determining role of the popular masses in war.

The importance of the popular masses in war has increased especially heavily in the era of imperialism. Lenin substantiated the position that wars are now being waged by the people and the final result of a war is determined by the state of the spirit of those masses who spill their blood on the battlefield.

This position determines a whole system of military science's recommendations on questions of the preparation and waging of modern wars. At their basis lies the attempt to prepare not only the armed forces, but all the people for war, to rely in war not only on the armed forces alone, but on the whole country. This obliges military science to be well acquainted with and to consider all the capacities of the country as a whole, to use them skillfully in war and to evaluate soberly the enemy's capacities.

Guided by the general laws of historical development, military science studies and investigates, moreover, the specific laws inherent to armed conflict as a whole as well as to its individual phenomena.

In investigating the laws of armed conflict it is necessary to proceed from the indisputable fact that armed conflict in its very es-

sence is nothing other than the highest act of violence, the use of armed force to achieve the goals of state (class) policy by means of destroying the enemy, forcing him to capitulation. This is the essence of armed conflict and it naturally finds its reflection in the content of its laws.

War, as has been pointed out earlier, is a two-sided phenomenon. The most important element of any war are the armed forces of the sides with whose help it is conducted. These forces and means can be different. The correlation between them can also be different.

In the experience of past war, such a principle of armed conflict is demonstrated when under equal conditions the side which has a more favorable correlation of forces and means is victorious. An unfavorable correlation of forces in a majority of cases is one of the reasons for defeat in war. In this case, by forces and means is meant the sum total of political, economic and military factors.

However, this is only one side of the matter. In war it sometimes happens that one side has much more: troops, equipment, material means, but uses them poorly. And the side having superiority in them does not achieve victory, but suffers defeat. This means that the law of the determining effect of the correlation of forces finds its manifestation through military art, the ability to conduct victoriously military operations and war as a whole. Military art - the ability to fight well - is the most important condition of victory in war. Victory is gained by skillful fighting and great efforts. And the more effective the means of battle, the more skillful their use must be.

There is no doubt, as we have said earlier, that moral factors also play a huge role. The experience of all wars, especially the first world war, the Civil War in the USSR and the second world war, testifies to this.

In revolutionary, national-liberation wars, in wars in defense of the socialist system in which the moral state of the people is high, a country weaker in a technological respect can achieve victory over a stronger enemy. Thus, for example, the military forces and capacities of foreign intervention and internal counterrevolution in the years of the Civil War in Soviet Russia in many respects were superior to the forces and capacities of the Soviet Army, but nevertheless it was victorious and not its enemy.

In all of these wars certain principles engendered by the character of the wars were manifested. In these wars the high moral spirit of the popular masses develops into huge material strength and in the final analysis provides victory for the people fighting for its great goals. Of course, even the highest moral spirit will not provide victory if the army does not have the necessary equipment and arms.

The armies of a liberated people fighting for the freedom and independence of their country can under certain conditions achieve victory over an enemy which is stronger in numbers and in a technological respect if they skillfully conduct active, creative operations, and use the general political and military situation skillfully. The national liberation wars of colonial peoples fighting for their freedom from the yoke of imperialism can serve as an example of this.

Armies which wage unjust, predatory war do not encounter the support of the wide popular masses. The morale spirit of the personnel of these armies is usually unsteady. The troops fight without enthusiasm and are not inclined toward self-sacrifice. All this speaks of the huge importance of the moral factor in modern war.

The laws of armed conflict find their specific manifestation in various individual principles which arise in the process of the development of military affairs. In various eras these laws were of a dif-

ferent character and had various expressions. Thus, for example, when an army had side arms as weapons, principles existed which differed from those which arose in connection with the massive appearance of firearms. Distinctive principles arose with the use of large masses of infantry, when armies were primarily on foot, with the transition from a galley to a sailing vessel navy and from a sailing vessel to steam vessel navy. The appearance of airplanes and tanks also gave rise to a number of specific principles of armed conflict. With the appearance of nuclear weapons, jet equipment and radioelectronics new principles of armed conflict arose.

One of the most important laws of military science, discovered on the basis of the laws of Marxist dialectics, is the law of the unity of actions in armed conflict. It expresses the unity, integrity and interconnection of armed conflict on the land, on the sea and in the air. From it follows the most important theoretical principle of Soviet military science - total success in battle operations in modern war can be achieved only by the combined efforts of all types of armed forces and arms of the service.

The conducting of battle operations in war by the united efforts of all arms of the service and types of armed forces in its turn gives rise to its own specific principles which are connected with the characteristics of the use of various forces and means of armed conflict for achieving success in the course of battle operations.

Such a very important principle as the conformity of the forces and means to the set goals is also manifested in military art. The history of the development of military art knows many examples which confirm the operation of this principle. The overwhelming majority of the operations of the Soviet Army in the years of the Great Patriotic War were conducted on the basis of a strict objective calculation of

forces and means needed for the conduct of an operation. So it was at Moscow in 1941, in the battle on the Volga in 1942, at the Kursk front in 1943 and in all the concluding operations of the Great Patriotic War. The creation of groups of Soviet troops in the Far East and the tasks which were set for them in destroying the armed forces of imperialist Japan in 1945 took place on the basis of a strict calculation of forces and means.

But this principle is not manifested by itself, but through military art and the creative organizational activity of people.

However, there were shortcomings in the Soviet Armed Forces connected with the violation of this principle. The offensive operations of the Soviet Army in 1941-1942 did not bring success in a majority of cases because the forces and means did not correspond to the set goal. So it was, for example, in the Khar'kov offensive operation of the South-Western Front in May of 1942.

A scornful attitude toward this principle was especially characteristic of the commanders of the Hitler Army. Thus, for example, in the attack on Moscow, at the Volga or in the northern Kavkaz, the forces of the German fascist army, although they were very large, did not match the goals and tasks facing them. And this could not be compensated for by any military skill. The first successes achieved by the Hitlerites thanks to supremacy in forces in narrow sectors were not consolidated as the operations developed because of a deficiency of forces and means. This led to a breakdown in the operations which they were conducting.

Meanwhile the forces and means of the Soviet troops in the course of the war increased continually and the initiative in operations was transferred to them. By bringing in new strategic and operational reserves, the Soviet Armed Forces inflicted powerful blows on the enemy,

eliminated the successes which they had achieved earlier and seized the initiative.

In speaking of the principles of armed conflict it is necessary to note first of all those which are connected with the various methods of conducting it. Thus, an offensive which finds its expression in a combination of fire and moving forward on the territory occupied by the enemy differs in its very essence from other types of military operations and has its own specific principles.

Under modern conditions an offensive requires especially high tempos, constant forestalling of the defending enemy who, possessing the same powerful means of defeat and mobile reserves, is capable of inflicting retaliatory blows and by inflicting damage on the attacker reestablish the lost position. The principle for an offensive is seizure and holding of the initiative, and for securing its success is consolidation of the results achieved and the reliable supplying of the attacking groups with everything necessary, especially with nuclear arms.

Defense has its own principles connected with the use of the countryside for compensating for a deficiency of forces, with thorough engineering equipment and distribution in depth of forces and means, with striving to hold the positions occupied and others. However, it is necessary to keep in mind that defense under conditions of nuclear missile war is losing many of its old features and acquiring new ones which differ sharply from the former. It can be asserted that in wars which differ in political goals and in quality of the equipment, defense occupies a different relative proportion. This is not difficult to see in the example of the first and second world wars.

Differences connected with the scale of military operations taking place exist. A battle which takes place as a clash of relatively

small forces on a limited territory and in the course of a comparatively short period of time has its own principles which distinguish it from an operation where a change in the scale of operations and quantitative indices leads to important qualitative changes. ()

As is known, the division of military art into component parts is based on this: strategy, operational art and tactics. Each of them studies the principles of phenomena of specific scale, but studies them not in isolation but in specific connection with the principles inherent to all armed conflict as a whole.

The commonly known principle that only that tactical success which promotes the achievement of the goals of an operation can be useful, for example, indicates the distinctive principles of battles, operations and war as a whole. Tactical success in an offensive can be larger or smaller. But if it does not create a sudden change in the position of its troops, does not permit them to bring in new forces and means, does not provide for the development of operational success, it is impossible to consider it as sufficient for achieving the goals of the operation.

The same can be said about an operational success. If it does not create a radical improvement in the strategic position of its troops then it cannot always be considered as sufficient. Such an approach to the evaluation of tactical and operational successes in war was justified for the period when in armed conflict a strategic result was achieved by successive accumulation of tactical, and with their help, operational results.

Under conditions of nuclear missile war the possibility arises of achieving decisive strategic results immediately by direct strategic nuclear strikes. Not only the outcome of operations and battles, but the fate of the whole war can be predetermined by them. This is a new ()

principle inherent to the new means of armed conflict.

The use of the most effective means as well as the most decisive methods and forms of armed conflict is one of the most important principles of nuclear missile war. The side which most correctly and thoroughly recognizes this principle and prepares sufficient forces and means for conducting the most decisive active operations by the most decisive methods and in the most decisive ways will have an undoubted advantage over its opponents.

The study of the laws of armed conflict is not an end in itself for military science. This is only the means of recognizing the conditions and factors on which the achievement of victory depends. The laws of armed conflict have an objective character, but the possibility of learning, taking into account and thereby using them for one's own benefit and to the detriment of the enemy of course is connected with the subjective abilities of people, the military leaders - the organizers and directors of military operations of the appropriate scale.

The specific principles of armed conflict do not rule out chance in war. It is difficult to foresee in detail the enemy's plans and intentions and his possible actions. And besides, many chance, transient phenomena always arise in the war itself through which a certain necessity must force its way. The task of a commander consists in ascertaining how the chance phenomena are connected with the given necessity and what their most common sources are. And the greater the commander's military theoretical preparation, his knowledge of the objective laws of armed conflict, as well as his practical experience, the more successfully the various chance factors in armed conflict will be overcome.

These are some of the general laws of armed conflict.

In armed conflict, as in all other phenomena, the laws of dialectical materialism operate. Thus, for example, the law of the unity and conflict of opposites permeates all the phenomena and processes of war and armed conflict. The unity and conflict of opposites is inherent to all processes connected with the conduct of armed conflict, with the development of its methods and forms. War represents a single material process. At the same time there are internal contradictions in this process. The struggle between these contradictions is the basis of the movement and development of the new phenomena of war. This can be observed, for example, in the evolution of the development of offense and defense.

In contemporary war using nuclear missiles, offense as the principal method of armed conflict acquires decisive importance. At the same time, defense as the opposite of offense continues to exist. In a battle or operation an offensive sometimes ends with a transition to defense. Under certain circumstances an offensive develops from a defense. Other relations also exist which determine the unity and conflict of opposites in armed conflict.

The law of the transformation of quantity into quality and of the spasmodic nature of the development finds its expression in full measure in military phenomena, to which the whole historical experience of the development of military science and the conduct of wars testifies. This experience shows that each time quantitative changes have outgrown certain limits in armed conflict, a leap in military science has taken place which has given rise to a new quality and has brought new phenomena to life.

The law of the negation of the negative also operates in armed conflict, in military theory and in military science. It expresses the continual process of the dying off of the old and the emergence of the

new. The new fights and forces out the old. In its turn, the new after a certain interval of time also becomes old. Something newer appears which also in its time becomes old. Such a process of the replacement of the old by the new continues ad infinitum. Here the negation of the old is carried out with the retention of everything valuable and positive which has been accumulated by practical activity which has importance for the future.

An example of the operation of this law are the changes in the methods and forms of armed conflict. For example, after the end of the war of 1939-1945 it became clear that many methods and forms used in it had to be changed. But the changes which took place in this period originally did not affect the qualitative foundations of the methods and forms of armed conflict. In 1954 because of the development of nuclear missile weapons and their entry into an army's equipment, it became clear that the old methods and forms were inapplicable to future nuclear missile war. As a result of investigations appropriate methods and forms of armed conflict were found.

Along with the laws of historical and dialectical materialism which find their complete manifestation in war as a social-historical phenomenon, its own special, specific laws operate in armed conflict. One of the most important principles of contemporary armed conflict is the primary use of nuclear missile weapons as the chief, decisive and determining means, with whose help victory over the enemy can be achieved in a short time.

Principles of armed conflict. It is known that not one social science, including military science, exists which should not shape the results of its investigations into specific principles and rules. Before speaking of what reflection these principles find in military science, we should like to dwell on them.

At one time statements of some military specialists crept into our military literature that any principles whatsoever are supposedly alien to Soviet military science since they paralyze Soviet military art. Such erroneous opinions appeared under the influence of the cult of personality, on the one hand, and from an incorrect approach to the analysis of the objective laws of armed conflict, on the other.

Marxism-Leninism considers that "principles are not the starting point of an investigation, but its final result; these principles are not applied to nature and to human history, but are abstracted from them; neither nature nor mankind conforms with the principles but, on the contrary, the principles are correct only so far as they correspond to nature and history."*

Bourgeois military science considers the principles from idealistic and metaphysical positions. It considers them eternal and unchanging, valid in all cases of life, independent of the specific historical conditions of armed conflict. Soviet military science on the basis of the dialectical method deduces its principles from specific objective conditions. It believes that there are no and cannot be any eternal principles, that the principles change together with a change in those conditions under which the armed conflict is being carried out. Even in the case in which one and the same principle operates in many wars, it always becomes saturated with new content which corresponds to the conditions of the new historical era.

Soviet military science has recognized and recognizes principles as general guiding statements, forming in brief form the basis for actions. The denial of principles in military science which have been formulated on the basis of known objective laws of armed conflict and are suitable for guiding it on various scales is, in essence, slipping down to a position of subjectivism in military science.

Historical experience shows that the principles of military science are objective. They follow from practical experience and find their confirmation in it. With the help of practical experience Soviet military science brings to light specific regularities and in accordance with this substantiates the correctness of some or other principles and formulates them.

The formulation of principles in the old bourgeois military science often occurred empirically. The bourgeois military theorists could never scientifically discover the fundamental principles of armed conflict. They always tried to narrow the content of these principles, to bring them down to a very small, fixed, unchanging number. Thus, for example, Jomini counted a total of four principles in military science. General Leyer asserted that the number of principles must not exceed twelve. The British military theorist Fuller believed that it was possible to limit the number of principles to seven, and some American military theorists named nine such principles.

Soviet military science does not limit the number of principles to any specific number. It proceeds in the determination of principles from the concrete reality of the development of military affairs and the nature of armed conflict.

Nuclear missile weapons are having a huge influence on the formulation of contemporary principles of armed conflict. With the appearance of this powerful weapon a number of new principles are emerging which were previously unknown to military science. Thus, for example, one of the most important principles of nuclear missile war is the primary, concentrated use of nuclear missiles for achieving the goals of the war in the shortest time.

The principle of strategic nuclear missile strikes along the whole depth of the enemy's strategic position has great importance in

nuclear missile war. A new principle in nuclear missile war is the infliction of powerful nuclear missile strikes not only on the enemy's armed forces, but also on his most important, main objectives.

The principle of the simultaneous neutralization of the entire operational and tactical depth of defense which provides for the conducting of primarily deep battles and deep operations has a new sound under modern conditions. No less important is the principle of secret preparation for and surprise attack in the course of war both on strategic and on operational and tactical scales.

The high injuring power of nuclear missile weapons has caused the appearance of such a principle as the dispersion of troops in battle and operations in order to avoid the annihilation of large groups by one nuclear attack. Moreover, the principle of the immediate and rapid use of the success of nuclear missile attacks for conducting an attack on the enemy with all available forces and means in order not to give him the possibility of bringing up fresh reserves and preparing for a new organized opposition.

The simultaneous hitting of the whole tactical and operational depth of defense provides for the conduct of battle actions and operations at high tempos. The principle of the rapidity of conducting battles and operations and of the development of success in them at high tempos is determining at operational and tactical scales.

The striving of the opposing sides to attack each other suddenly in order to obtain strategic and operational advantages requires from the troops, as has already been noted earlier, high vigilance, constant knowledge of the enemy's groupings and discovery of his plans and intentions. Continually conducted strategic, operational and tactical reconnaissance is the most important principle of waging successful armed conflict and maintaining high vigilance.

Vigilance must be combined with the troops' high battle readiness for an immediate retaliatory attack or for immediate military actions in general. In order to protect oneself from a surprise nuclear enemy attack it is necessary to constantly maintain high battle readiness of the troops.

Along with these new principles, many old principles still retain their importance. These are the principles of careful planning and thorough support of military operations of any scale. This means that a battle, operation, military campaign and war as a whole must be thoroughly prepared, planned and provided with everything necessary. This principle follows from the very essence and nature of contemporary war, its increased scale in space and time, the forces and means being used, the diversity and complexity of battle.

The principle of the combining of all methods and forms of armed conflict finds reflection also in contemporary war. Modern war is conducted in conjunction with nuclear missile attacks inflicted by missile troops which are present in all types of armed forces, with an offensive, and in the necessary cases with the defense of land and naval forces in those sectors where an offensive at the given time is not contemplated or is impossible.

The most important principle of Soviet military science is the principle of compulsory organization of the cooperation of all types of armed forces, arms of the service as well as of subunits, units, formations and operational units in a battle, operation, military campaign and armed conflict as a whole.

The interaction can be strategic, i.e., carried out in higher, strategic spheres by distributing the efforts of types of armed forces and strategic groupings in space and time, in military campaigns and strategic operations. It can also be of an operational character and

accomplished by operational units of all types of armed forces in the various operations which they are conducting, and especially in joint operations. In battle a more or less close, most frequently, tactical first interaction takes place.

Violation of the principle of interaction in battle operations, as well as in armed conflict as a whole often leads to defeat, as the experience of all past wars indicates. The strict and absolute fulfillment of the requirements of the principle of organization and continuous support of interaction in battle, operation and armed conflict as a whole is a necessary condition for achieving victory in modern war.

Historical experience shows that however many armed forces and means there may be, there are never enough for simultaneous solution of all problems in war. Hence follows the requirement: the main efforts of the armed forces be directed toward the resolution of the chief, immediate tasks on which the course and outcome of the war depends. This principle of Soviet military science has important organizing significance. The conducting of armed conflict in the spirit of this principle provides for purposefulness in armed conflict and concentration of the main efforts at the necessary place and at the necessary time. With regard to other directions which are not decisive, military science recommends husbanding forces in order to reinforce the chief, decisive directions by means of these forces and means.

The clearest expression of the principle of economy of forces and means is found in defense. As a rule, relatively fewer forces are used for occupation of defensive lines and for conducting defensive actions.

The principle of individual victory which means that every commander, subunit, unit, formation and operational unit must strive for victory. Individual victories, flowing together into the general stream, radically change the situation and create the prerequisites

for a common victory over the enemy.

One of the most important principles of Soviet military art is high troop activity in conducting battle operations. A high offensive spirit, the rapid conduct of an offensive, forestalling the enemy from seizing the initiative and active parrying of his counter strokes are the basic elements of troop activity in an offensive. Active opposition to the enemy, inflicting the greatest losses on him by nuclear and fire strikes, counterattacks, counter strokes, moving to a counteroffensive and seizure of the initiative are characteristic of defense. In defense it is particularly necessary to be concerned about maintaining the troops' moral-battle spirit at a high level, about their steadfastness and unyieldingness and to instill in the troops faith in themselves and their weapons and confidence in a final victory.

Activity in the conduct of military operations is an indication of a high level of military art, training and talent of the military cadres. Under equal conditions, he who persistently fights for the initiative in operations and conducts the battle actively and decisively always wins.

The role of the maneuver in contemporary war has increased greatly. Today the maneuver is the principal basis of active, decisive battle operations in resolving any tasks. The principle of maneuverability in the conduct of battle operations in nuclear missile war is one of the most important in Soviet military art.

The principle of deep troop formation in battle and operations is of no less importance. The previous linear configurations of tactics, operational art and strategy have become outdated. The dying off of the principle of linearity began in the first world war and continued in the second world war. This principle finally loses its importance

in nuclear missile war.

In contemporary war battle formations, the operational formation of troops must be dispersed not only along the front but also in depth, and there must be new echelons of troops and new reserves in the rear, well concealed from the enemy's nuclear missile strikes and capable of immediately replacing the first echelons which have lost fighting capacity and of exploiting a success.

We have enumerated the basic principles of Soviet military science which reflect the characteristics and nature of contemporary war. But in addition to them there exist other principles which are found in other branches of Soviet military science. Thus, for example, in military administration one of the most important principles determining the structure of armed forces under contemporary conditions is the principle of the creation of high fire power on the basis of nuclear missile weapons. There are also a number of principles in military pedagogy. The most important of them is to teach the troops what is needed in war. Among the other principles it is necessary to note the obligatory combining of training and education.

The principles of military science are not of an eternal, unchanging character. They change in accordance with changes in the material basis of war, its character and the specific conditions under which the war is waged. Many of them disappear and are replaced by new ones. In the era of the Napoleonic Wars, for example, the principle prevailed which said that it is impossible to concentrate more than one army in a theater of war. This principle became obsolete in the first world war.

It would be possible to present many examples which disclose the reasons for the disappearance in contemporary war of some or other principles which operated in the recent past. Thus, for example, in

the first and second world wars the principle of the massing of forces and equipment which was expressed in the creation of dense groupings on narrow fronts was widely used. This principle is disappearing under conditions of contemporary war. Even in the carrying out of battle operations by ordinary means the principle of massing must be used with great care since the danger of a surprise nuclear missile attack, although even by tactical nuclear weapons, remains.

In conclusion, we should like to dwell on the rules of military science. They are worked out by military science on the basis of the laws of armed conflict and its guiding principles.

By applying these principles to practice, as well as by evaluating the experience of the carrying out of armed conflict on various scales, people work out a specific order and specific rules for carrying out military operations and armed conflict as a whole. These rules indicate what and how it should be done in organization, preparation and conduct of battle actions or operations.

However, these rules do not apply to all cases of life. The rules specify only the general requirements for the conduct of battle operations.

The rules of preparing for and conducting military operations, like the principles, are not of an eternal, unchanging nature. Like the principles, they are valid for specific historical conditions of the development of military affairs. Their effects are more limited in time. The rules are more frequently revised and replaced by new ones, even in peacetime, to say nothing of wartime.

Contemporary war has demanded radical changes in the rules of preparing for and conducting military operations and armed conflict as a whole. These new rules are set forth in the regulations and manuals of the Soviet Army and Navy, as well as in various types of instruc-

tions and indications.

The regulations and manuals of the Soviet Army and Navy are the most important documents of Soviet military science. The manuals regulate the whole life of the troops and give general instructions on the order of preparing and conducting battle operations. Knowledge of the regulations and instructions is a necessary condition for the maintenance of high military discipline, organization and order both in war and in peacetime.

In wartime, knowledge of the rules indicated in the manuals and regulations and an understanding of their spirit provides for skillful conduct of battle operations and a community of efforts in achieving victory over the enemy. Perfect knowledge of the manuals and regulations and their judicious and creative use in battle and operations is the most important duty of the Soviet military cadres.

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[Footnotes]

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Chapter 7

THE METHODS AND FORMS OF ARMED CONFLICT

The question of the methods and forms of armed conflict has always occupied a large place in the general theory of armed conflict, comprising at the same time the principal content of the theory of military art.

Considering the special importance of this question for military science, we separated its examination into an independent chapter. We have done this because today great changes connected with the development of battle equipment and with changes in the conditions of conducting military operations are taking place in the methods and forms of armed conflict.

Like any social phenomenon, armed conflict, being subject to the general objective laws of development, changes continuously. This affects first of all the methods and forms of its conduct. Changes in the method and forms of armed conflict take place by means of gradual transformations or by leaps, as a result of which qualitatively new phenomena arise in its content.

The method of armed conflict as a concept is considered in two ways. On the one hand, by it is meant that order of troop operations accepted under the conditions of the given situation, and on the other — the sum total of various methods and procedures which have been selected for resolving the strategic, operational and tactical tasks facing the troops.

Military theory in the past has known two principal methods of

action in war: offensive and defensive. However, each of them has a whole series of varieties, as a result of which the number of methods of armed conflict always has been very large. In nuclear missile war, new methods of armed conflict are arising and many old methods are changing their character significantly.

The forms of armed conflict are also diverse. By the form of armed conflict we mean the external expression of its method. Each of the methods has various forms which are used depending on the situation. Under the new conditions the old forms are changing and some even are disappearing.

The methods and forms of armed conflict arise out of practice and scientific foresight. Here, military science, by studying the methods and forms of armed conflict used in practice, selects the most valuable and effective of them, generalizes and enriches them, tests them in practice, and then introduces them into the armed forces, helping the officers and troops to master them.

The exposure, study, development, perfection and assimilation of the new methods and forms of armed conflict, teaching them to the officers and the introduction into the army of the most effective of them is the constant task of Soviet military science.

The study, development and mastering of new, previously unknown methods and forms of armed conflict has primary importance. In order to defeat the enemy it is necessary to master perfectly all the methods and forms of armed conflict in their combination and interaction. Here it is necessary to keep in mind that the methods and forms of armed conflict under contemporary conditions change very rapidly. Thus, for example, in the second world war they differed essentially from the methods and forms of armed conflict which were used in the first world war, although it is possible to find much which is common in them. The

methods and forms of armed conflict in a third world war, if the imperialists resort to it, will differ radically from the methods and forms which were used in the second world war because new phenomena have arisen in armed conflict which did not exist in the past.

The most important and immediate changes in the methods and forms of armed conflict have always occurred in connection with changes in the quantity and quality of arms and equipment. Engels pointed out that progress in technology has almost forcibly, often moreover against the will of the military command, caused changes and even revolutions in the method of waging war.

The correctness of this position of Engels' is confirmed under contemporary conditions when progress in the development of nuclear missile weapons has led to a radical revolution in the methods and forms of armed conflict both in strategic and also in operational and tactical scales.

There is no doubt that the scope of war which depends mainly on its political goals and the technological means of achieving them also has an effect on the methods and forms of armed conflict. In local wars, changes in the methods and forms of armed conflict are of a limited character and occur more slowly. In world wars, these changes are accomplished more rapidly and are of a more many-sided and profound character. The broad scope of world wars, the diversity of the political, economic, geographic and military conditions in theaters of war have always caused considerable changes in the methods and forms of armed conflict.

The methods and forms of armed conflict in nuclear missile war, which has its own special character, differing sharply from all past wars are changing radically. These characteristics are engendered by the nature of contemporary nuclear missile weapons and by their new

properties: range, inevitability of defeat and huge destructive power. All this has led to the appearance of new methods and forms of armed conflict.

Historical experience shows that even one and the same weapon, which undergoes in the process of its perfection quantitative and certain qualitative changes, entails essential changes in the methods of conducting armed conflict. The large changes which took place in the methods of armed conflict when the mass use of firearms began, especially when these weapons acquired high mobility by being fixed on an armored carrier, tank or airplane are well known. Still greater changes take place with the appearance and sufficiently broad distribution of qualitatively new weapons with other more effective properties. This circumstance in combination with many other attendant conditions naturally promotes the emergence of qualitatively new, previously nonexistent phenomena of armed conflict.

The methods and forms of armed conflict change under the influence of the specific requirements of war and battle situations as well as of the creative work of the popular masses in war.

The first world war was for the most part stabilized. It required the broad development of forms of defensive operations, the mastery of new procedures and methods of conducting a defense. In the Civil War in our country, new forms of offensive, maneuvering operations appeared. The second world war made more varied demands on the development of methods and forms of conducting battle operations.

The creative work of soldiers and officers in war, who more than anyone else become acquainted with the methods and forms of battle in practice, on the battlefield, under enemy fire, and have broad possibilities to evaluate all their virtues and shortcomings, has always furthered the appearance as well as the successful use on the battle-

fields of new methods and forms of armed conflict.

The responsible task of evaluating all the available experience of battle operations, of finding trends in their development and of giving a scientifically well-founded characterization of the methods and forms of armed conflict as well as recommendations for their use in the future has fallen to the lot of military science.

The fundamental prerequisites of contemporary methods and forms of armed conflict. The principal substance of the contemporary era, as stated in the Program of the CPSU, is the transition from capitalism to socialism, a transition during which the struggle of two opposite social systems - socialism and capitalism - is becoming extremely sharp.

Socialism has no need of wars for its strengthening and development. In the Soviet Union, as in other socialist countries, there are no classes and social forces to whom war would be profitable. But our military theory proceeds from the Marxist-Leninist position that the nature of imperialism has not changed and the danger of the onset of wars has not been eliminated.

As Marshall of the Soviet Union R.Ya. Malinovskiy has noted, a future war, if the imperialists manage to unleash it, will be a decisive clash of two opposing social systems, and in the nature of the weapons used it will inevitably become thermonuclear, i.e., a war in which the principal weapons will be nuclear weapons, and the principal means of their delivery to the targets - missiles.

In all wars of the past, the targets of the attacks and strikes were exclusively the armed forces of the enemy, on whose defeat the outcome of the war depended, while in contemporary war the target of the weapons is becoming not only the armed forces, but the rear of the country. The origin of this trend occurred in the first world war. In

it, military operations directed toward weakening the enemy's economic and moral-political potential began to be developed. The development of submarines provided the possibility of an effective battle with the fleet which carried out sea and ocean shipping. Countries whose economy depended on sea transport came to feel the severe effect of submarine warfare.

In the first world war, a completely new weapon appeared which could be used for weakening the enemy's economic potential. This weapon was the bombing airplane.* However, at the same time, it was still technically imperfect and could not play a large role in suppressing the enemy's economic and moral potential. But the potentialities for the development of aviation were large.

Military theory began to consider armed conflict not only as the clash of armed forces on the front line, but also as the direct effect by military means on objectives of the deep rear. The spatial limits of war became extended. A new qualitative phenomenon was the involvement in the immediate sphere of armed conflict of economic objectives, their annihilation and also the suppression of the fighting sides' moral potential.

In the second world war, both fighting sides widely used various means of armed force on the enemy's rear. Bombers were systematically used for inflicting blows on industrial objectives and cities and on the enemy's means of communication.

With the appearance of nuclear weapons, the possibilities of armed action on the enemy's deep rear increased many fold. But aviation alone could not resolve these complex tasks. It continued to depend on conditions, place and time, and also experienced ever-increasing opposition from the new antiaircraft defense equipment. In this period, the significance of nuclear weapons as a new factor in armed

conflict had not been completely evaluated. Only with the appearance of missiles of various ranges for the use of nuclear weapons was their boundless scope revealed. The combination of nuclear explosives of huge power with such means of their delivery to the targets as missiles decisively changed all the previous notions concerning the methods of conducting armed conflict.

In contemporary war, the putting out of action of the enemy's objectives does not require the seizing of them. This is achieved by destroying them by nuclear strikes. The enemy who is not able to prevent or repel such strikes loses everything that supports the war and invariably is doomed to defeat.

In nuclear missile war, it is clear that the center of application of military efforts shifts from the sphere of the direct clash of armed forces on the front lines to the most important remote regions of a country or a coalition of fighting countries. Because of this, the very concepts "front" and "rear" are undergoing radical changes since armed conflict is losing its thousand-year linear character and acquiring a different one. It involves in its sphere all the fighting sides with their whole population and economy. This does not mean that armed conflict as a clash between land, naval and air force groupings of armed forces conducting military operations on strategic fronts in direct contact with each other has lost its importance under contemporary conditions. The methods and forms of conducting it can be used in various combinations.

Nuclear missile weapons, which have accomplished a revolution in military affairs, owe their appearance to scientific discoveries of the end of the nineteenth and beginning of the twentieth centuries.

The first ammunition with atomic explosive was produced in the form of aviation bombs with the equivalent power of 20, 30 and 40 thou-

0 sand tons of TNT. Later, with the appearance of atomic artillery, shells and mines of less power — within the limits of from 5 to 10 thousand tons, and still later — from 0.5 to 2-3 thousand tons began to be produced.

Along with the development of missile weapons, nuclear warheads with which the missiles were equipped were developed. The power of these warheads has grown continually — 100, 300, 500 thousand tons, and by the end of the nineteen fifties had increased to a million and more tons of TNT. At the present time, in the USSR, there are warheads with a power of up to 50 and 100 million tons and more of TNT. This indicates the military technological supremacy of the USSR over the USA in the area of the development of nuclear missile weapons.

Simultaneously with the development of nuclear weapons, means of their delivery to the target were developed. In the USA, for a long time, main attention was concentrated on the development of a strategic airplane as the means of delivery of atomic and hydrogen bombs to the target. The USA, considerably later than the USSR, began to design and produce various types of missiles, at first tactical and operational-tactical, and then strategic, including intercontinental missiles.

At the end of the fifties, a global missile was designed in the USSR which has especially high velocity, a huge range and the capacity to deliver a nuclear warhead to any point on the earth from any direction. The global missile is not subject to the effect of contemporary antimissile equipment. The antiaircraft defense and antimissile defense system which has been constructed in the USA is powerless against this missile.

3 The appearance of nuclear missile weapons in massive numbers and their unusually high effectiveness has required the development and formation of special missile troops. Thus, in our country, as already

mentioned, there has developed a new type of Armed Forces - Strategic Missile Troops. Nuclear missile weapons have also been widely introduced into all other types of the USSR's armed forces: air, naval and antiaircraft defense forces. Missile troops who use operational and tactical missiles and who can strike with nuclear weapons any objectives at operational and tactical depth also have become the main fighting power of the Land Forces.

The appearance of nuclear missile weapons in all types of armed forces has brought about a revolution in the methods and forms of armed conflict which is more significant in nature than the revolution caused by the invention of powder and the appearance of sidearms.

A large part of all the tasks of war which previously were resolved by the ordinary types of armed forces can be considerably more rapidly and effectively resolved with the help of nuclear missile weapons.

The huge possibilities of nuclear weapons are sharply changing all the old notions of the scale, scope, time and results of conducting armed conflict. It is natural that at first the interpretation of all the new things which these weapons introduced into military theory and practice (while the new weapons were few, they were not distinguished by perfection, experience in their use was lacking) was based on old concepts and proceeded along the lines of adapting the new weapons to the old methods and forms of conducting armed conflict. This is what also happened earlier. For example, the machine gun at first was regarded and used as a variety of artillery gun, the tank as a mobile armored machine gun escort of the infantry, etc.

The uniqueness of the properties of nuclear missile weapons also was not immediately understood. Abroad this weapon initially was considered as a certain new quantitative factor in the sphere of fire

weapons, as a powerful variety of artillery and aviation. The bomber during its conception was also considered as "flying artillery," i.e., as a unique variety of artillery. The special qualities characteristic of the airplane which introduced essential changes in the methods of armed conflict in this case were clearly underestimated.

The more profound knowledge of the properties of nuclear weapons which became possible as the result of their wide introduction into the army as well as their combination not only with the "old" means of delivery (the airplane, artillery guns), but also with the new carrier - the missile, gave a huge push to the scientific investigation of new methods and forms of armed conflict and compelled the resolute reexamination of all previously developed opinions on the character of armed conflict and methods of conducting it. Now the special features of those new phenomena of armed conflict which arose as a result of the wide introduction of nuclear missile weapons into the armed forces and the appearance of possibilities for their battle use have been exposed with sufficient clarity.

The decisive role in war, operations and battle today belongs to nuclear missile weapons, but the use of the usual types of weapons is not excluded. Artillery, tanks, and airplanes as before are terrible weapons of the ordinary type and will find use in nuclear missile war, to say nothing of ordinary "non-nuclear" war where the chief role belongs to these weapons. However, all these types of so-called ordinary arms have not remained unchanged. They have undergone and continue to undergo essential changes.

Artillery after the second world war was developed further. Although the principal calibers of the artillery remained basically as before, the guns and shells became more powerful. The range and accuracy of firing of artillery increased, the destructive effect of its

shells increased. In a number of foreign countries, atomic artillery and mortars which fire atomic explosives appeared. Reactive artillery increased and improved many fold. Special artillery received some development: antitank, antiair as well as many types of heavy artillery. However, the appearance of antiaircraft and antitank missiles sharply decreased the role of barrel artillery of these types. All artillery today moves by mechanical traction and a considerable part of it has become self-propelled. The rapidity of the movement of artillery in the countryside has become the same as in the motorized and tank troops.

Tank troops after the second world war also changed qualitatively. Modern tanks have become faster, well armored and have powerful artillery, including reactive armament. They possess high practicability, are well protected from penetrating radiation and under conditions of nuclear missile war are the most promising type of weapon. Tanks have a number of new devices which permit them to carry out accurate firing in motion and to strike the targets from long distances, including firing from covered positions.

Modern tank troops are a powerful means of conducting battle independently or in cooperation with other types of troops, as well as the most important means of exploiting a success after nuclear missile strikes.

It is necessary to note that, in connection with the invention and adoption of various guided reactive antitank shells in a number of countries, the protection of tanks has become complicated and requires the carrying out of a number of not only technical, but also operational and tactical measures.

The airplane also has not lost its importance in modern nuclear missile war. However, its role has changed considerably. In the second world war, as is known, the airplane was the only means in the hands

of the command of operational units as well as of the high command for inflicting strikes at operational depth and along the enemy's deep rear. In nuclear missile war, these tasks can be carried out by missile troops with considerably more effect and in a shorter time. However, in contemporary war airplanes will also resolve large tasks. As is known, the old piston airplane today has been wholly replaced by the jet having sonic and supersonic velocity. The old bomber has yielded its place to the missile-carrying airplane which can inflict nuclear missile strikes from long distances without coming within range of the enemy's antiaircraft and antimissile defense system.

The fighter bomber, being versatile and maneuverable, is capable of actively supporting the troops operating on the battlefields with its strikes. It is now a serious weapon for contending with the enemy's airplanes and mobile objectives and is the most important means of screening troops, especially those in movement. One of the main tasks of the airplane is deep operational and tactical air reconnaissance. In a number of cases, specially equipped airplanes can carry out strategic reconnaissance.

The military transport airplane is used for operational troop transportation, movements of airborne landings and for transport of military supplies.

It is evident from what has been said that the airplane can also play a large role in nuclear missile war. With regard to local wars, which are most often waged by the usual means, the role of the airplane as before remains high. And the possibilities for further development of aviation have not been exhausted.

The development of military air transport equipment which is furthering the growth of airborne troops continues uninterruptedly. With good armament and modern high carrying capacity, air transport equip-

ment (airplanes and helicopters), airborne troops are capable of carrying out landing operations of various scales.

Electronics and radioelectronics which will play a large role in war have made great progress in their development. Electronics is being used for military purposes in almost all types of armed forces for automating the operation of weapons and also for guiding them. It is used for carrying out reconnaissance, establishing communications, warnings and reporting, as well as for contending with the enemy's radioelectronic equipment. Today electronic calculators which are being used in scientific research institutions and in armies are acquiring special importance.

The introduction of electronic equipment and electronic calculators into the army permits automation of the operation of weapons in battle, especially in missile troops, antiaircraft defense troops, aviation and in others. The instantaneous reaction of electronic equipment to the appearance of targets, the rapid carrying out of calculations and the exact automatic firing for effect are speeding up the process of conducting battle and increasing the effectiveness of weapons.

The broad introduction of radioelectronics into the army and its use on the battlefield and in operations has caused such new types of battle as radiowar, war in the ether or radio interference and the struggle with it. The success in battle and operations of all the newest technological means of warfare which require handling with the help of various types of radioelectronic equipment depends to a certain degree on the outcome of these types of warfare.

The importance of radio communication for directing troops is well known. We shall point out only that the new means of radio communication, the new apparatus for coding and decoding is increasing

many fold the effectiveness of the operation of radio communication equipment in battle and operations.

Television is a new means of radioelectronics which helps in the effective guiding of troops on the battlefield and in operations. It makes it possible to see the course of battle operations, to determine exactly the positions reached, to reveal successes and shortcomings in the troops' operations and to make decisions on the conduct of the war.

In the aggressive capitalist states, in addition to such highly important technological means of warfare as nuclear missile weapons, artillery, tanks, airplanes, space ships and aircraft, methods of radiological, chemical and bacteriological warfare continue to be developed. In connection with this, it is necessary to work out appropriate effective counter measures.

The engineering troops have available a large amount of unique technological equipment. They have various types of excavating, road-building, bridge-building and other machines which permit the erection of field fortification installations and the building of roads and bridges at a higher level and with higher productivity than previously. The nature of the modern ferrying and pontoon bridge equipment and mechanization of the work make it possible for the engineering troops to build and construct crossings in a shorter time. Floating amphibious trucks and tanks as well as self-propelled crossing equipment accelerates the process of ferrying troops across water obstacles. Helicopters help in transferring airborne troops under conditions of forced crossings with fewer losses and in a shorter time.

Engineering troops have a large number of methods for mining areas and the creation of systems of powerful operational obstacles in the enemy's path. Minefields under wartime conditions will be established with the help of various equipment which mechanizes the work and al-

lows their production in a short time. Much equipment is required in the engineering corps for obstacle clearing of an area, especially in the period after massive nuclear missile strikes.

The naval forces have also obtained new technological equipment. Atomic submarines armed with various types of missiles and torpedoes, including self-guided, which guarantee the accurate hitting of any targets are the main type of weapon of the navy.

The navy also has available fast above water missile carrying vessels and ships. They are supplied with powerful nuclear missiles for inflicting nuclear missile attacks both on naval forces on the open sea and ocean and also on objectives located on the shore and in deep territory.

Everything which has been stated above about the new technological means of war which have been adopted by the army and navy indicates how complex the technological equipment of contemporary armed forces has become and what great changes have occurred and are occurring in the methods and forms of armed conflict.

The new weapons and the methods and forms of armed conflict corresponding to them have also changed the notion of the duration of war. Contemporary nuclear missile war can end in a short time. But for this it is necessary to determine correctly the specific strategic goals of the war and in accordance with them to prepare, to bring into action quickly and decisively the necessary forces and equipment, especially nuclear missiles and to select correctly the methods and forms of armed conflict which will provide for the defeat in a short time of the most important objectives on the territory of the enemy countries as well as rout and annihilate their armed forces, especially the nuclear missile forces.

A well developed plan of war has extremely great importance in

0 nuclear missile war. The importance of a plan in nuclear missile war is many times greater than in ordinary war. In modern war there will not be time for preliminary training and mobilization of armed forces. As is evident, there cannot be a period of a "threatening situation." The war will begin suddenly and will require the immediate bringing into action in the first minutes of the war all the principal forces and means of armed conflict. All this makes it possible to draw the conclusion that the center of gravity of the planning of contemporary war does not lie where it was previously, i.e., in the course of war, but in the period preceding the war. The success of a war depends to no small degree on the skill of planning it. Serious errors and miscalculations in the plans can lead in nuclear missile war to catastrophic consequences or cause prolongation of the war.

Possible methods and forms of armed conflict. In the previous section we indicated the political, economic and military prerequisites which influence the formulation, development and change in methods and forms of armed conflict. But all this does not produce ready methods and forms of armed conflict. They only create certain possibilities for their emergence and development. The final determination and choice of the methods and forms of armed conflict and their development belongs to people who in choosing one or other method and form of armed conflict proceed from the goals which have been set.

Over the course of many centuries the position that the main, decisive objective in war are the enemy's armed forces has predominated. The annihilation of the enemy's armed forces deprives him of the principal instrument with whose help the war is waged and the achievement of its final goal is attained.

0 In considering the experience of two world wars, military theory came to the conclusion that annihilation of only the armed forces still

does not provide complete victory. The armed forces can always be re-established if the country's economy remains capable of functioning, the human resources are not exhausted and retain the will to fight. Victories in modern wars can be attained only in the case when the armed forces - the main instrument of war - have been completely routed and the economy - the material basis of the conduct of armed conflict - has been completely destroyed.

Therefore, the main objectives of military operations in contemporary war are not only the enemy's armed forces, but also the economy of the country or coalitions of enemy countries, especially military industry which produces the contemporary weapons, as well as the power systems and centers of administration.

It is natural that, depending on the level of development of the productive forces of a state, the economic objectives have more or less importance. It is most likely that a contemporary world war can begin with the defeat of military and economic objectives and end with the rout of the armed forces and the unconditional surrender of the enemy.

It is known that any war begins and basically is carried out by armed conflict. However, the methods of unleashing war have not always been the same. According to the canons of the old bourgeois military science, the beginning of a war must be preceded by its declaration and the carrying out of general mobilization. Under cover of the units and formations stationed along the boundaries of states, operational troop transportation to the theaters of war was carried out and their strategic deployment was accomplished, after which military actions were begun. The very practice of the imperialist states overturned the dogmas of bourgeois military science in this area. In the second world war everything took place differently. Fascist Germany was prepared

for the war long before its start. Over the course of a long time, it had increased its armed forces. War was not declared. The mobilization of German troops took place gradually, in complete secrecy. The strategic concentration and operational deployment of troops to theaters of war also was carried out secretly.

A third world war, if the imperialists unleash it, undoubtedly will begin differently. "Under contemporary conditions," N.S. Khrushchev says, "wars will not proceed as before and will little resemble previous wars. Previously, states tried to keep armies closer to their borders in order to form at the necessary moment a sort of living fence of soldiers and guns. If any state wanted to invade another country it had to attack these troops stationed on the border. This is how a war usually began. In the first days battles flared up on the borders of the fighting states where the troops were drawn up.

"Now, if a war begins, military operations will develop differently since the states will have the means of delivering weapons thousands of kilometers. The war will begin first of all in the depths of the fighting countries and there will not be one capital, not one large industrial or administrative center, not one strategic region which will not undergo an attack not only in the first days, but in the first minutes of the war. Thus, a war will begin differently, if it begins, and will develop differently."*

Bourgeois military theory divides contemporary world war into two periods: the beginning and the subsequent period. But among bourgeois military theorists different opinions exist on the nature of these periods. However, they all come down to the fact that the beginning period of war will be short and the military operations will immediately have a decisive character. In this period heavy blows will be inflicted on the deep rear of the country and the armed forces. Fol-

lowing this it is supposed that various types of military operations will be carried out on land, on the sea and in the air in order to conclusively defeat the enemy's armed forces and to provide favorable conditions for operations in the next, concluding period of the war.

Bourgeois military theorists are paying the most attention to "nuclear attack" as the principal method of action at the beginning of a war. In the opinion of a number of bourgeois military theorists, as a result of "forestalling" nuclear attacks, the putting out of operation of stocks of nuclear missile and missile installations on the territory of countries which have been subjected to attack, the destruction of the most important economic centers, large groupings of troops, organs of administration, etc., is possible.

However, the imperialists overestimate their capacities and are forgetting that if they launch their nuclear missiles an immediate retaliatory nuclear missile attack will be received even before their missiles and airplanes reach their targets. Even if it is assumed that some of these missiles and airplanes reach their targets, it is necessary to keep in mind that a state more powerful in an economic and military respect located on a large territory has all the possibilities of more effectively dispersing its means of defense. "...If some weapons intended for inflicting a retaliatory attack," says N.S. Khrushchev, "are put out of action, duplicate weapons can always be put into operation and strike the targets from reserve positions."* Consequently, the very suddenness of an attack cannot be a guarantee of absolute success since it cannot prevent a powerful retaliatory attack.

Bourgeois military theoretical thinking does not restrict a war only to an initial period alone although it recognizes its decisive importance. It believes that war can continue into a subsequent period since the sides will not exhaust their capacities in the course of a

short term "nuclear duel" in the initial period of war. The next period of the war, in the opinion of bourgeois military theorists, will be a combination of various battle operations of land, air and naval forces directed toward achieving the final goals of the war. In this period, the use of nuclear weapons in battle operations will be considerably decreased in comparison with the initial period of the war because the greater part of them will already be expended and the production of new ones will be difficult because of heavy destruction. Therefore, the role of the ordinary means of armed conflict can be considerably amplified.

Soviet military science has always showed great interest in the initial period of war. It believes that the most important, the most essential and primary task of our armed forces is to be in constant readiness to repel a surprise enemy attack and to frustrate his criminal intentions. "We have quite clearly and fully worked out views on methods of repelling a surprise attack by an aggressor," writes Marshall of the Soviet Union R.Ya. Malinovskiy. "The necessary means for this are available and constantly ready."*

In working out the methods and forms of armed conflict, Soviet military science is carefully studying the characteristics of the initial period of contemporary war since it will have a decisive effect on the future course and outcome of the war. All the targets located in the theaters of war and in the deep rear of aggressor countries, including on other continents, having important political, economic and strategic significance will be subjected to powerful nuclear missile attacks.

The successful completion of the initial period of the war will be conducive to the further carrying out of armed conflict up to the complete annihilation of the enemy's armed forces and his capitulation.

Our military science is not orienting the Soviet military cadres toward an easy victory. It takes into account the enemy's strengths and foresees a fierce fight in the air, on the land and on the sea with a strong opponent, a fight requiring huge efforts, mass heroism and great military skill.

The methods and forms of armed conflict are diverse. But by whatever methods the war is conducted, the achievement of its goals will not be limited only to armed conflict alone. In the course of the war, depending on its character, other types of warfare will be used to a greater or lesser degree. Soviet military science is obliged to consider all the possible conditions and factors affecting the course of an armed conflict, to study all possible types of actions which can be used in the course of war and directed toward the achievement of victory.

Political and ideological warfare will continue during war and it will acquire more acute forms than in peacetime. War will develop on the diplomatic front. The withdrawal of some or other allies from the enemy coalition, the winning over to one's side of previously uncommitted countries or the strengthening of their neutrality, etc., will be its goal. By its successes diplomacy can contribute to no small degree to the success of armed conflict. And, on the other hand, resting on the success of armed conflict, diplomacy puts forward decisive goals and strives for their accomplishment.

The role of scientific and technological supremacy over the opponent is growing even more. Each of the fighting sides will try to outstrip its opponent in the production of the most modern and effective equipment and weapons. And he whose economic and political organization, science and technology is more developed, whose cadres, politically highly conscious and devoted, technically excellently pre-

pared, able to organize rapidly the production of new models of equipment and to put them into operation rapidly, prove to be best, will win.

In modern war, as in the past, partisan methods of operation can also find application. They are widely used, as the experience of history has shown, when war acquires a national character, when the goals of the war are near and are understood by the working masses who are fighting for their freedom and independence. The methods and ways of guerilla warfare also are diverse. They include actions of individual people or groups, fighting by units, formations and operational units of partisans who are conducting a war of liberation in the enemy's rear.

Acts of sabotage will find broad use. The imperialists are trying to develop an espionage and sabotage network in countries of probable enemies even in peacetime. In wartime, they can be strengthened by small airborne groups, and sometimes by large landings. Therefore, contending with espionage and sabotage requires exceptional vigilance, attention and activity.

Today nuclear missile attacks have become the main and principal method of armed conflict. This method of operation in its organization, execution and results goes beyond the bounds of previously known and existing methods of the use of ordinary weapons by methods of offense and defense. It is impossible to compare nuclear missile attacks with ordinary fire attacks. *Nuclear attacks are a new, unique phenomenon of armed conflict*, there has been nothing like them in the past. The use of nuclear weapons with unlimited possibilities for their delivery with the help of missiles will permit the attaining of decisive results in war in the shortest time and inflicting crushing blows on the enemy independently of the distance at which he is located.

In distinction to historically laid down armed forces of land troops, air forces and the navy, strategic nuclear missile forces have special properties which call for special methods and forms of their use in war. However, by drawing analogies, some military theorists incorrectly believe that all methods and forms, without exception, which have been worked out in practice by other types of armed forces apply to this new type of armed forces. This particularly concerns the concept of "operations."

In evaluating the use of strategic missile troops it is impossible to apply ordinary criteria developed in the practice of the operational use of previous types of armed forces. Side by side with certain similar points which pertain mainly to organizational questions, the methods of using missile troops differ radically from the methods of using other types of armed forces.

The operational *goal* of the actions stipulated by a given scale, the *means and forces* appropriate to its achievement, the *scope* in space and time, the specific *method and order* of operations and the *leadership* of them and the planned or achieved *results* first of all characterize an operation as a phenomenon of armed conflict. All these elements are commensurable in their material indices, are similar in the operations of land forces, air forces and naval forces, although they have specific properties which depend on the qualitative characteristics of these types of armed forces and the sphere of their use.

By their nature, the attacks of *strategic* missile forces cannot be considered an operation since they resolve not operational, but strategic tasks.

In contrast to the goal of any operation of the past, a strategic nuclear missile strike is inflicted primarily not on *operational* troop groupings, but on strategic objectives located in the depths of a coun-

try. Even if it is considered that the main target of strategic strikes will be purely military strategic objectives (the starting positions of strategic missiles, etc.), in this case the target nevertheless is strategic and not operational. Of course, the air force and the navy formerly were faced with such targets to some measure, but these targets and means are incommensurable in their extent and result. Even the total result of the operations of all bombers in the entire second world war in TNT equivalent was far less than that of a one megaton nuclear bomb.

For the resolution of certain operational tasks quite considerable groupings of manpower and equipment have been enlisted which received the name of operational groupings. Strategic missile troops with a minimal amount of equipment and comparatively few service personnel will carry out large strategic tasks. And in contrast to the comparatively limited area in which an operation is carried out and the rather considerable time required for achieving its goal, a missile attack is a practically instantaneous act for any, in no way restricted, distance.

The method and order of operations are changing radically. The successive overcoming of the enemy's resistance by the method of limited firing and advancing on territory occupied by him in an offensive or the holding of one's own territory in a defense is characteristic of operational units. Strategic missile troops will achieve the planned goals by launching missiles.

In the operations of the air force there is also observed a certain difference from those usual features which characterize operations on the ground. For example, operations which were carried out by aviation did not have as their object the seizure and holding of a specific territory, therefore they could not be called offensive or

defensive. At the same time, the air force conducted operations for the purpose of achieving supremacy in the air, especially operational supremacy, i.e., in a comparatively limited area and for a specific period.

Operations on the sea also usually had nothing to do with seizure and could be carried out for the purpose of retaining supremacy in a specific region. All this speaks of the fact that a missile strike is similar to strikes from the air or the sea. However, there are clear and fundamental differences between them (especially if the air force and navy use ordinary weapons).

The development of the conception and plan of an operation to be carried out on land, sea or in the air remains the prerogative of the appropriate operational command department.* It also includes the determination of particular or intermediate tasks, the organization of the cooperation of heterogeneous forces and equipment which make up the operational units, their all-around maintenance and continual management of them in order to control their operations and to influence the latter by the weapons which remain at the disposal of the command department, in the interests of overcoming the enemy's supposed or unexpected resistance and of achieving the goal of the operation.

In the past the result of operations usually was limited to operational, more or less large goals. Missile troops will achieve by themselves an immediate strategic result which will influence the outcome of the war.

All this indicates that the nuclear missiles strikes of strategic troops differ radically from the operations of other types of armed forces. They represent a qualitatively new phenomenon of armed conflict of a strategic scale. Consequently, the *theory of strategy*, and not operational art, must be concerned with the development of a theory

of their use.

In connection with the appearance of the possibility of inflicting direct strategic strikes, strategy has acquired a new quality — the capacity of *direct action*. In the period when a strategic result was achieved in a general battle by one army, the role of strategy consisted in the development of a general plan of war, the skillful accomplishment of strategic maneuvering, the concentration of forces at the battlefield and in the skillful use of the results of the battle. This comprised the content of a strategic operation. Tactics, which determined the fate of the armed conflict, played a decisive role in the battle itself.

With the appearance of operations, the role of strategy did not change in principle. As before, it developed a plan of war and grouped the operations in the interests of achieving the strategic goals. For this specific strategic groupings were created and the strategic efforts of types of armed forces were directed.

Thus, in this period, strategy stood out practically in one quality — in the planning, guiding element. The effectiveness of the armed conflict was manifested in the sphere of operations and battle, i.e., of operational art and tactics. The intentions of strategy were accomplished mainly through operational art.

In our time, having nuclear missile weapons at its disposal, strategy, as already noted, has the possibility of achieving its decisive goals in war directly. Operational art and tactics resolve tasks connected with the completion of the main results which have already been predetermined by strategic nuclear missile strikes.

The leading role of strategy has received full direct force. Therefore, the usual system and sequence of armed conflict has changed. Previously, the strategic result was achieved by the gradual build up

of operational and tactical efforts and the process proceeded as if from the particular to the general, "from the bottom to the top," while now the matter has changed radically. The results of armed conflict now have to be examined along its course, "from top to bottom," from the general to the particular. A decisive result is achieved in the sphere of strategy as a direct result of crushing nuclear strikes. And the character of all, so to speak, subordinate, operational and tactical efforts is predetermined by this result.

However, the fundamental role of strategy as the leading principle in military art, in whose interests all military operations were organized, has not changed. On the contrary, it has been strengthened still more.

Therefore, the attempts of some military theorists to prove by means of comparisons that since strategic missile forces are a *type* of armed forces, and other types have a sphere of operational use, consequently, the new type also can and must by analogy have its own operations and its own theory of operational use, are not convincing.

We have considered above how the strikes of strategic missile troops differ from operations of other types of armed forces. It seems to us that these differences which characterize in essence, but not in form, the fundamental difference in the battle use of missile troops from all other types of armed forces, convincingly refute any attempts to prove the identity of these different phenomena of armed conflict.

Thus, it can be asserted that, as in its time between a battle and war as a whole within the framework of a single armed conflict an operation arose as a new phenomenon of armed conflict at first on the land and on the sea, and then in the air, so now between an operation and war as a whole, strategic nuclear strikes have arisen. *Armed conflict has been enriched by a new, unique in scale, phenomenon.*

* * *

Along with nuclear missile strikes in modern war such "classical" methods of armed conflict as offense and defense retain their importance. They have been considered since olden times and continue to remain the principal types of battle operations. Offense always has been and still remains the most decisive method of operation, since only as a result of an offense is complete annihilation of the enemy's forces and means and his material resources achieved, which in the final analysis provides for victory over the enemy.

An offensive in nuclear missile war is conducted by other methods and procedures than in ordinary war. It begins with the infliction of powerful nuclear missile attacks on the enemy's defense on its entire operational and strategic depth. Land forces, especially tank and airborne, immediately consolidate the results of the nuclear missile attacks. Their offensive is usually conducted in open formations. Simultaneously with the beginning of the offensive by the tanks and motorized infantry, the landing of tactical or operational troops is carried out both in the tactical and in the operational depths of the enemy's defense. The troops overcome the tactical depths at a rapid rate, seeking to break loose on an operational scale. Powerful tank armies are used for deep operational exploitation of the success.

In the absence of a continuous front the offensive is carried out by the method of deep swift attacks which are combined with operations along the flank and rear of the enemy's groupings for the purpose of breaking down and annihilating them in parts.

In conducting an offensive it is necessary to keep in mind that the enemy at any moment can use nuclear weapons. Therefore, the troops must operate in open formations and the management of them must be ex-

tremely flexible and provide for rapid concentration of troops at the necessary place for inflicting concentrated blows and for their just as rapid dispersion.

Defense in nuclear missile war can use nuclear weapons for breaking down and repelling the enemy's offensive. At the same time, the defense itself is subject to more severe attacks than under ordinary conditions. Nuclear missile attacks will put out of action whole units of the troops, make large gaps in them. A continuous defensive front under these conditions will hardly prove to be possible.

A defense, in order to fulfill its tasks, must possess great vitality, have fortified installations which have been created in advance or can be rapidly erected and a well organized system of firing and barrage. The highest activity, maneuvering of forces and weapons along the front and from the rear, counterattacks and counterblows must comprise the basis of the battle operations of the defender. Well organized reconnaissance and careful observation of the enemy are called upon to promote the skillful use of nuclear missile weapons in a defense. In connection with this, the principal goal of a defense will consist not only in occupying and holding certain lines, but in inflicting maximal damage on the enemy and in frustrating his offensive plans.

A defense in war without the use of nuclear missiles is similar to the defensive operations of the past war. But here it is necessary to keep in mind the new technological means of war, as well as the possible use by the enemy of nuclear means of attack.

One of the most important methods of armed conflict under contemporary conditions is the pursuit of the enemy. Under conditions of nuclear missile war the pursuit will entail the overcoming of zones of severe destruction, obstacles and contamination.

In individual cases in armed conflict, most often on a tactical scale, and sometimes on an operational scale, such a method of operation as falling back or retreat can be used if an unfavorable situation develops or it is necessary to remove one's troops from under attack and to occupy a more advantageous position for subsequent operations.

These are the principal methods of armed conflict under contemporary conditions.

But the scales of armed conflict are different. Military operations are conducted on strategic, operational and tactical scales. Each scale has its own specific properties as well as its own methods and forms of armed conflict.

The basic method of military operations on a strategic scale are strategic nuclear missile attacks carried out by strategic missile troops on strategic objectives of the enemy, and primarily on his missile, air and naval bases, strategic airports, large groupings of armed forces as well as on the most important economic and military economic objectives in the enemy's rear, on administrative centers and other targets having decisive importance in contemporary armed conflict.

We believe that a *strategic offense* will be carried out in combination with strategic missile strikes. The term "strategic offense" on the one hand means that some or other armed forces taken as a whole possess the strategic initiative, that the manner of their action in the war as a whole is offensive. On the other hand, by strategic offense is meant a system of military operations of large strategic scale in which large strategic groupings consisting of all types of armed forces can take part. Military operations of such type are conducted in one, two or more theaters of war or on all strategic fronts in order to resolve large strategic tasks and achieve important stra-

tegic goals.

A strategic offense is developed on a broad front often reckoned in thousands of kilometers. It develops in the entire strategic depths of the position of the enemy's armed forces in a given theater of war and envisages the destruction of all his forces and equipment operating in it, including the enemy's missile, air and rear bases.

Such an offensive can continue for various periods. In the past war a strategic offensive continued uninterruptedly for from three to five months. In a nuclear missile war, a strategic offensive certainly will be conducted at a higher tempo and have a considerably shorter duration. However, its results in their political importance and strategic consequences will be immeasurably greater than in the past war.

A *strategic counteroffensive* was considered to be a variety of strategic offense in ordinary war. Today it has lost the importance which it had in the second world war. In contemporary nuclear missile war, it will be undertaken only in those directions where defensive operations of large scale have been conducted, but mainly by operational groupings. A strategic counteroffensive is undertaken after a successful defense in order to complete the rout of the enemy's offensive groupings and to provide for the assuming of the offensive by one's own troops along the entire front.

A strategic counteroffensive can begin from different positions: after a retreat from previously occupied positions, after a small operational retreat and also when the enemy's offensive has been beaten off.

Military science also knows such a method of operation as a *strategic defense*. By strategic defense is meant, on the one hand, a general defensive form of operation in war as a whole of a whole country, and on the other - defensive military operations which are conducted

on strategic scales in theaters of war for saving forces and equipment, for gaining time necessary for resolving tasks in the principal directions, for opposition of an attack by superior enemy forces and weapons in order to bleed them white and then to defeat them by means of a counteroffensive.

Strategic defense as a defensive method of action of a country or armed forces as a whole in contemporary war is hardly applicable. It means passivity, concession of the strategic initiative to the enemy and placing the country and its armed forces in advance under very unfavorable conditions.

However, military science cannot reject on this basis the necessity of studying strategic defense as a method of action, for in war one side will attack and the other defend. Consequently, it is necessary to know how to conduct a strategic defense if the circumstances compel it.

A strategic defense as a system of military operations conducted by individual strategic groupings in theaters of war is forced, temporary and directed toward changing the correlation of forces and creating favorable circumstances for a transition to a decisive offense.

Military science also knows such a method of military operations on a strategic scale as *strategic pursuit*, which is carried out by large strategic groupings in a theater of war.

Strategic pursuit usually develops in a theater of war after a successful offensive when the enemy has been routed to such an extent that he is not in a condition to conduct an organized defense and is compelled to fall back along the entire front. Such pursuit is conducted in the depths of the whole theater of war and ends with the annihilation of all the remnants of the enemy's troops and the withdrawal to the final strategic line or with a halt somewhere in the depths of

the theater of war by order from above.

There is also a method of operation of strategic nature known as a *strategic retreat*. It can be most often forced, but sometimes is deliberate. Although this method of action is undesirable, it is nevertheless necessary to know about it and it should be studied just because it may be used by the enemy.

All these methods of armed conflict on a strategic scale are conducted in the appropriate forms. The greatest possibilities and prerequisites have been created in modern nuclear missile war for resolving the tasks of war and the fate of the fighting states in a short time. But, nevertheless, no state, even one which has suffered very severe losses as the result of nuclear missile attacks, will put an end to armed conflict while it retains the capacity and the urge to continue resisting. In order to defeat the enemy and to obtain his unconditional surrender, it may also prove to be necessary in contemporary war to conduct a series of large military operations of strategic scale which can take the form of a *military campaign* as a specific strategic stage of the war.

What is meant by the term "military campaign?" There exist various points of view on this question. Some military theorists believe that a military campaign is a historical concept combining a number of operations conducted by one or another side in a specific period of time. In their opinion, a military campaign should not be considered as a strategic category and it should not be used as a form of planning of armed conflict. Such an understanding of military campaign, in our view, is limited and narrow. Historical experience shows that it is impossible to win any war, particularly a modern war, without sufficiently deep foresight of its possible course and results. Military events develop in different ways in the principal and secondary thea-

ters. They also proceed in different ways in different periods of the year. It is impossible to plan them as one common strategic effort. They have to be broken down according to place and time into intermediate strategic goals which will comprise the content of a military campaign.

By a military campaign we mean a system of military operations of strategic scale limited to a theater of war (for example, before going out on a sea or ocean coast) or time (season) of the year.

The planning of a contemporary war by military campaigns, in our opinion, is a requirement which follows from the nature of contemporary war. A military campaign is not only a historical, but also a strategic category.

Other specific forms of armed conflict are also characteristic of military operations on a strategic scale. Strategic nuclear missile strikes, about which we have already spoken, are acquiring principal importance among them. The most important political goals of the war are achieved and the main strategic tasks are resolved with the help of these strikes.

Strategic operations are one of the important forms of strategic military operations. However, the term "strategic operation" refers only to the military operations of large strategic groupings which consist of all types of armed forces and which carry out armed conflict in one or several theaters according to one plan. The goal of this battle is the achievement of large strategic results.

In contrast to the past war, when strategic operations usually took place in the form of an operation of a group of fronts, strategic operations in theaters of war now can be carried out by the forces of one front unit, and on the sea by the forces of one fleet.

Military operations of strategic scale also have their own forms

of maneuver. Among them are the maneuver by missile strikes, frontal strategic attacks of land forces, strategic outflanking, strategic evasion and deliberate strategic withdrawal. All these forms of maneuvering are used depending on the circumstances and nature of the tasks being resolved.

A strategic maneuver of missile strikes is undertaken in order to shift the efforts of strategic missile troops from some directions to others and for subsequent infliction of concentrated nuclear missile attacks in directions which acquire principal, decisive importance in a given concrete situation.

Frontal strategic attacks which split and crush the enemy's strategic troop structure in a theater of military operations or a theater of war are for land forces the principal form of maneuver. In individual cases when the circumstances are favorable, strategic turning movements and outflankings can be used in theaters of war or theaters of military operations for the purpose of going out into the flank and rear of the enemy's strategic groupings and his subsequent complete defeat from directions in from which the enemy does not expect attacks.

A strategic withdrawal is undertaken deliberately in those cases when the troops' strategic position is not advantageous and does not provide a convenient position for subsequent operations or when it is necessary to withdraw a strategic grouping of one's troops from under attack in order to place it in a more suitable position for subsequent operations in a new situation.

Such, in our opinion, are the methods and forms of armed conflict on strategic scales. But they do not exhaust all the varieties of contemporary armed conflict. A nuclear missile war can also give rise to other methods and forms. Soviet military science must analyze and study the new phenomena innerent to contemporary armed conflict, it must

consider in good time the changes which are taking place and on the basis of experience and scientific foresight formulate and develop new, even more precise strategic methods and forms of armed conflict.

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The methods and forms of military operations on an operational scale are also varied. Under contemporary conditions operational nuclear missile strikes combined with the operations of operational groupings of land, air and naval forces are the principal method of armed conflict of an operational scale.

An *offensive* carried out by operational groupings against the enemy's troops which have created a permanent defense, or against troops hastily shifting to defense as well as against enemy troops, in their turn carrying out an offensive, is the principal method of armed conflict on operational scales.

An offensive can be conducted under various conditions: with the overcoming of large water obstacles, in the mountains, forests, deserts, jungles, etc. An offensive against various types of defense as well as under various ground conditions requires the use of special methods and procedures of action. For example, the forcing of large water obstacles can be accomplished by a systematic forced crossing as well as by rushed forcing. The latter is the most characteristic for conditions of contemporary war. Large water obstacles can be forced by using the new ferrying equipment, helicopters and self-propelled equipment.

An offensive in the mountains, forests, deserts, and in other ground conditions usually is carried out in disconnected directions which requires the troops and their leaders to display broad initiative. An offensive under such conditions permits good camouflage and

creates possibilities for an approach hidden from the enemy and a surprise attack, but at the same time complicates the use of powerful and long-range weapons.

An offensive in the absence of a continuous defensive front can take the form of a "focal" battle, a battle with individual enemy groupings. Deep nuclear missile attacks, the landing of airborne troops as well as the breakthrough of tank groupings into the operational depths and rear will further this to a considerable degree.

The operations of attacking troops at operational depth will be accompanied by encounter battles of individual operational groupings and encounter battles carried out within the framework of tactical units and formations. The broad use of operational and tactical airborne troop landings as well as the breakthrough of tank groupings into the enemy's operational rear promotes the development of encounter battles. At the same time, the defenders who have mobile reserves at their disposal can bring them forward to inflict counterblows.

The focal character of the development of armed conflict at an operational depth itself promotes the development of encounter battles. However, the nature of the encounter battles at an operational depth will differ considerably from the conditions of the second world war. Encounter battles will begin and be carried out at a greater depth than previously. Nuclear missiles and missile carrying airplanes as well as large forces of mechanized tank troops and airborne troops will be widely used which will give rise to sharp changes in the situation and will give encounter battles an even more decisive character than in past wars.

Modern forces and weapons will make it possible to conduct a counteroffensive on operational (frontal and army) scales after a successfully carried out defensive operation. The methods and procedures

of an operational counteroffensive in a nuclear missile war will differ radically from those of the past war and will be based mainly on nuclear missile attacks.

Any offensive on operational scales will conclude with deep, relentless pursuit of the enemy, up to complete annihilation or taking prisoners of the enemy troops which have survived, and with the coming to the final line of the set task in full readiness to resolve the next operational tasks.

Operational pursuit represents a whole complex of marches connected with the overcoming of zones of obstructions and contamination, of offensive and defensive operations, of encounter battles, rushed forcing of rivers and other battle operations which are conducted in the battle zone of one or another operational unit for the purpose of annihilation the retreating enemy troops and the new reserves which have been brought forward from the rear.

Operational pursuit can be frontal and parallel. The most advantageous type of operational pursuit is parallel pursuit.

Defensive operations of various types can also be conducted on operational scales. They rely on the might of nuclear missile weapons, on the firing and striking capacity of the land forces, on air support as well as on the skillful use of ground conditions and field fortifications.

In those cases in which the holding of an area is the main task, a defense on operational scales can be carried out on the principle of the firm holding of occupied regions in combination with maneuvering of forces and weapons, counterblows and counterattacks. The defense in this case is created beforehand with the broad use of natural cover as well as artificial installations which protect from damage by nuclear missiles.

If the holding of a locality is not the primary task, but has the purpose only of preserving manpower and equipment, the defense can be conducted according to the principle of a mobile defense on a series of successive lines. During a withdrawal or retreat, the battle operations of the rear guard for the most part are carried out by the mobile defense method.

A defense under contemporary conditions must be constructed in such a way that the enemy cannot discover the true grouping of the troops. Defensive works can and must be carried out on a broader front and at a greater depth than in the past war.

The broad use of engineering troops of various types of machines and the mechanization of engineering work provides for the creation in a very short time of defensive positions and zones and their camouflage as well as the creation of dummy positions, dummy defensive zones and massive artificial barriers. Even the simplest field fortification will decrease troop battle losses from nuclear weapons by two to three times in comparison with an open location on the ground.

With regard to the operational structure of troops in defense, it is becoming even more dispersed along the front and in the rear than it was in the second world war. Spaces between the battle lines of the troops are usually intensified by obstructions and come under the fire of all types of weapons.

In contrast to past defense, a line structure must now be avoided. It should be constructed as a system of interconnected strong points and by relying on them, the defending troops with powerful fire strikes, bold maneuvering, counterblows and counterattacks can inflict a decisive defeat on the enemy.

One of the effective ways of conducting a defense in nuclear missile war is by frustrating an enemy nuclear missile attack. For this,

○ battle operations can be conducted both in a period of preparing for an enemy attack and immediately before it begins. In the latter case, counter-preparation is carried out with the help of operational and tactical missile troops, airplanes and ordinary artillery weapons.

Counterblows will find broad use under conditions of conducting an operational defense. In combination with powerful operational nuclear missile attacks, they can frustrate and stop an offensive by large enemy groupings.

The focal character of a battle in the depths of a defense, the wide use of airborne troop landings from both sides, the breakthrough of tanks into the depths of a defense under contemporary conditions can cause battle operations with an inverted front or in the form of "puff pastry." Moreover, a high rate of advance by attacking troops can create for individual groupings of defending troops a situation of encirclement. Hence the necessity of developing battles in an encirclement and of providing for the breaking out of an encirclement arises. However, under contemporary conditions the creation of a continuous front of encirclement is hardly possible or expedient. It is evident that it will be carried out mainly by means of the strangulation of the principal communications with the help of a continuous system of firing and maneuvering.

An unfavorable operational situation can cause the forced *retreat* of defending troops to other, more advantageous positions and lines. The withdrawal from battle of the main grouping of troops, its deploying into columns and the withdrawing to a new line under the cover of nuclear missile attacks (the creation of "nuclear barriers"), of operational obstacles and rear-guards precede an organized retreat.

○ The methods of armed conflict on operational scales are diverse and complex. An operational nuclear missile attack inflicted by opera-

tional and tactical missile troops and airplanes in the principal method. Such attacks, as a rule, will be inflicted in the operations of land forces on the front of one or another operational unit.

Operations comprise the principal form of battle operations of all types of armed forces conducted on operational scales. By an operation under contemporary conditions is meant a system of nuclear missile strikes by operational and tactical troops and various battle operations of groupings of different types of armed forces united by a single operational plan and leadership and directed toward the resolution of important operational tasks in one or several operational directions.

The operation as a phenomenon in armed conflict arose only about one hundred years ago. A new quality which was the result of the interaction of previously unencountered factors - the mass character of armies recruited on the principle of universal military conscription, the high effectiveness of their armament, the possibility of rapid movement by railroads, etc. - found its reflection in it. Under the influence of these new conditions, the single battle of one army on one field of battle which had been carried out under the direct leadership of a general was expanded in space and time and was broken down into a series of battles of operational groupings acting in independent operational directions, sometimes at different depths and at different times, but interconnected by a common plan and common leadership. Battles which earlier had led directly to the strategic result on which the achievement of the goals in war depended came to be grouped into an operation. The strategic goal could be reached only by means of conducting an operation or a system of operations.

Having arisen as a set of actions of an operational unit of a type of army, the operation subsequently received further development

in scale which was reflected in the operations of larger operational units, fronts, then groups of fronts. Operations of various scales appeared. However, according to their characteristics they all could be related to one area of phenomena and were examined within the framework of one theory, operational art. However, the operation of a group of fronts was not an "operational," but a strategic act. In goals and results, in makeup of forces and equipment, and in character of organization and leadership this was, in essence, not one operation, but a system of operations. Not operational art, but strategy was concerned with the development of such a "strategic operation."

Along with land forces, operational actions of naval forces began to be conducted. A new type of armed forces, the air force, at a certain level of its development also began to carry out operations of its operational units.

A theory of operational art also appeared which determined and developed typical forms of organization of operational units, their composition, tasks, methods of action and direction of them as well as all types of their operational maintenance. Nuclear missile weapons have brought about especially great changes. The productiveness of an operation has increased. Thanks to the use of nuclear missile weapons, the enemy grouping against which the operation is directed is subjected to rapid defeat and often to complete annihilation.

The study of the nature of contemporary operations and the scientific prognosis for the further development of the phenomena of armed conflict make it possible to expose new qualitative elements in operations. Even now much of what was considered typical for operations of all the preceding periods and even of the period of the second world war has lost its significance.

Great importance is attached to the factor of the time spent on

an operation. In the past, the question of the time of conducting an operation was resolved by a calculation method. In determining the goal of an operation, the desirable and possible times for achieving the goal were established depending on the general operational and strategic circumstances. The strength of the enemy's resistance, the spatial factor and the capacities (striking power and mobility) of one's troops for overcoming the enemy's resistance and space served mainly as the data for the calculation. The art of the operational solution and the planning of an operation consisted in the most accurate, closest as possible to reality, calculation of the effect of these factors and in the selection of methods of action for the effective use of the available forces and equipment most appropriate to the possible conditions.

Under these conditions, the planned rate of conducting the operation was an important index. In determining it, the degree of enemy resistance and the ability of one's own troops to move at a given average speed as well as all types of provisions on which the assigned rate depended and with whose help it was accomplished, were taken into account. The scope of an operation which had been established by experience came to in time several days, and in space hundreds of kilometers.

The preparatory period of an operation acquired special importance, which, although it was not included in the calculation of the operational time allotted to the period of active military operations, actually played an important role since more time was often spent on it than on the whole active part of the operation.

The most time in this period was spent on the concentration and deployment of forces and equipment designated for participation in the operation, on the creation of an operational structure and of the nec-

ecessary supplies of fuel, ammunition and provisions and on the deployment of rear establishments. Usually the preparatory period was limited to the readying of the principle means of damaging an enemy grouping, the artillery.

The start of an operation was determined by the degree of readiness of the operational grouping for action, and its conclusion by the attaining of the planned goals.

Since the final goals of a war were not resolved by one operation, preparation for a new operation was developed in accordance with the general plan. As a rule, there were pauses between operations.

With the appearance of nuclear missiles, the conditions of preparing for an operation and the methods of conducting it have changed radically. Now it will not always be possible to conduct an operation by a continuous front, by keeping the "alignment." An operation will invariably break down into a number of relatively independent actions of individual operational units, formations and detachments in different directions and at different depths. Apparently, in a majority of cases it will not be necessary to organize and carry out a planned breakthrough of a defense in the classical "battering-ram" forms as observed in the past, there will not be powerful large operational enemy groupings which have to be cut up and surrounded, and the defense itself evidently will not be a continuous line or organized enemy resistance.

With the disappearance of the previous forms of breakthrough it is obvious that high operational and tactical densities will also not be necessary. There will be no need for the creation of large, monolithic strike forces and the operational structure and its depth will change.

The question of the selection of the direction of the operations

flict in space, the USA is also carrying out work on the creation of large spacecraft, interplanetary stations and other space equipment. But in the creation of space missiles and ships the USA is far behind the USSR.

The peaceful exploration of space is being successfully carried out by the USSR. The Soviet Union has launched a number of spaceships and has created an artificial planet which is rotating around the sun. A Soviet space ship has flown to the moon and has photographed its invisible side. A Soviet rocket has passed close to Mars which has made it possible to draw a number of scientific conclusions about this planet. Soviet cosmonauts were the first to pave the way for man in space. The world records for flight in space belong to Soviet cosmonauts. They were the first to prove that it is possible to carry out group flight of spacecraft in space.

Considering the preparations of the imperialists for war in space, our country naturally is compelled to keep vigilant watch on their intrigues.

Soviet military science is intently following the development of military affairs, bringing new things to light and furthering their development and consolidation. It is arming our cadres with knowledge of the objective laws of modern war and helping them to a deeper understanding of the new methods and forms of armed conflict which have been brought to life by the appearance of nuclear missile weapons and those tremendous changes which have taken place in military affairs in recent years.

the development of the new means of armed conflict.

The contemporary operations of land forces can be frontal and army in scale. Frontal operations are conducted by front units and army operations by general troop and tank armies. On the sea operations are conducted by fleets. In method of conduct operations can be offensive, defensive and retreating.

Offensive operations in a nuclear missile war, as already noted, will have a different character in comparison with operations in the past war. In order to resolve operational tasks set by operational units, in nuclear missile war such massive strike forces and densities of weapons which were used in the second world war will not be necessary.

In a contemporary offensive operation all the basic tasks in annihilating the forces and equipment of a resisting enemy can be considerably more effectively and rapidly resolved by nuclear missile strikes. The completion of the rout of the surviving remnants of enemy troops at tactical defensive depth, the conducting of an offensive and the deep operational pursuit in the entire zone of the operational unit in the entire operational defensive depth will fall to the lot of ordinary land forces.

Armored, motorized and airborne troops will play the most active role in the development of offensive operations in nuclear missile war. Airborne troops will be landed in the enemy's deep rear and armored troops will rush to meet them, break up the enemy groupings and annihilate them in parts.

Defensive operations will also be conducted differently in nuclear missile war. Most often they will enter into an operation of the highest operational unit as an element of it or into a system of offensive operations of a strategic grouping. Defensive operations can be both

forced and premeditated. The necessity and expediency of shifting to a premeditated defensive operation for the purpose of beating off an enemy attack in a given zone is always determined by the circumstances and the tasks facing the troops.

Retreating operations also can be forced or deliberate. In the course of retreating operations, it is necessary to protect manpower and equipment from enemy nuclear missile attacks and to maintain high fighting capacity and battle readiness for immediate action against the enemy.

The joint operations of missile and land forces, air and naval forces as well as of antiaircraft and antimissile defense forces are one of the forms of operations undertaken by all types of armed forces in seaside directions. Primary among these operations are antilanding and landing operations.

Naval landing operations will acquire special importance in nuclear missile war. In preparation for them, troops are transferred by sea and open military operations in new directions and on other continents. The success of sea landing operations under contemporary conditions will depend on nuclear missile strikes, the wide use of airborne troops for seizing bridgeheads and territories in the depths of the enemy's defenses, the use of new swimming and transport equipment and on reliable cover of the landing operation from the air and sea.

The operations of land forces on operations scales also have their own forms of maneuver.

The principal forms of an operational maneuver in contemporary war are: frontal attacks which split up and disrupt a defense in order to subsequently annihilate the enemy in parts, attacks in converging concentric directions for the purpose of annihilating individual enemy groupings, attacks on the flank and rear in order to drive the enemy

to an almost inaccessible barrier and then to annihilate him, operational outflanking, operational turning movements and deliberate operational withdrawal.

The selection of one or another form of operation maneuver will depend on the set task, the available forces and equipment as well as on the conditions of the situation. Here it is always necessary to avoid a pattern.

A pattern in the choice and use of forms of operational maneuver is extremely dangerous in nuclear missile war. By knowing how one or another side prepares for and conducts an operation, the enemy can always organize powerful nuclear missile attacks on the troop groupings and wreck the operation. Every operation must therefore be prepared and conducted in an original manner and skillfully in order to trick the enemy. Only skillfully prepared operations can guarantee large operational successes in contemporary nuclear missile war.

Tactical battle actions are conducted by subunits, units and formations, beginning with a squad and ending with a corps. These actions, like operations, can be carried out in the most varied situations and under various conditions. Unique situations demand of the troops careful preparation for the actions, appropriate equipment and choice of weapons, as well as the use of special methods and procedures.

The principal tactical methods of action in modern war are: tactical nuclear missile attacks and attacks by ordinary artillery weapons used offensively and defensively, swift movement forward, firing and attacks by tanks and motorized infantry. If both sides simultaneously conduct an attack on meeting each other, encounter battles will break out. They can be conducted both in offensive and in defensive operations.

Every offensive usually ends with tactical pursuit, i.e., pursuit

on the battlefield. Counterattacks, battles in encirclement, withdrawals from battle and retreat can be used in defense.

The *forms of battle actions* on the tactical scales of modern war are also diverse. They are tactical nuclear missile attacks, artillery battles and general troop battle. These forms are characteristic of offense and defense.

General troop battle is the principal form of modern armed conflict on tactical scales. They achieve annihilation of enemy manpower and equipment, mopping up of an occupied area and seizure of tactical boundaries and objectives.

General troop battle has changed its character in nuclear missile war. The principal tasks in inflicting damage on the enemy are resolved by nuclear strikes of operational scale, and partly by tactical nuclear weapons. General troop formations complete the rout of the enemy troop remnants who have survived after nuclear missile and fire attacks and conduct battle with his fresh forces which are brought up or transferred from the rear, including by air.

Tactical offensive actions are grouped primarily by individual directions which are linked in tactical and fire respects. The offensive is conducted primarily in tanks, armored carriers, armored cars, motor vehicles of increased practicability and in helicopters.

In meeting up with surviving foci of the defense who have not been suppressed in the depths, the attackers go around them and move forward, entrusting the annihilation of the surviving foci to the second echelons. If it is impossible to conduct battle from the vehicles, the units dismount and conduct it in ordinary formation.

Defensive foci at tactical depths are annihilated by attacking them with nuclear and ordinary weapons, with subsequent attack by tanks and infantry operating from vehicles or dismounted, depending on the

circumstances.

In a defensive battle the subunits and units of the first echelon dismount, take cover in defensive works and conduct battle in position. The second and succeeding echelons, situated under cover, maneuver in battle, shift to counterattacks and inflict blows on the enemy.

The forms of tactical maneuvering are: frontal attack, outflanking, turning movements and withdrawal.

In a war without the use of nuclear weapons, offensive and defensive battles will be conducted using ordinary weapons. The methods and forms of action will remain the same. However, the methods and procedures of conducting battle actions will differ essentially from those used in the past war due to the changes in ordinary weapons and battle equipment. For example, the appearance of guided antitank projectiles as the most effective means of contending with tanks forces the tanks to use special methods of action and to organize differently their fire escort and support. The same can be said about airplanes against which there exists a formidable weapon as guided antiaircraft missiles.

The methods and forms of armed conflict of other types of armed forces follow from their designation, the nature of the equipment, the battle tasks to be carried out and the conditions of the situation. For example, the principal method of action of frontal aircraft on operational and tactical scales is nuclear missile attack from the air. This attack is carried out with rockets with which the aircraft are supplied.

Fighter aircraft primarily conduct an offensive in the air. The principal form of their battle action is air battle. The battles can be single, group and in unit formation. In individual cases, they can become large air battles. One of the most important tasks of aircraft in war is air reconnaissance. It is carried out by means of flights of

a single airplane or groups of them into the depths of the enemy position using technical reconnaissance equipment.

The battle tasks of the military air forces in the operations of airborne troops include attacks in cooperation with operational and tactical missile forces in the landing regions, the transport of airborne troops by air, their protection from enemy aircraft attack, the landing of the troops and their future material and technical maintenance. These battle actions are usually carried out within the framework of a frontal or strategic operation and in the latter case take the form of an air landing operation.

The principal method of action of military naval forces in nuclear missile war is also nuclear missile attack. It is carried out both independently and in cooperation with strategic missile forces and sometimes with operational and tactical missile forces.

Offense and defense play an important role in the battle actions of a military naval fleet. An offensive is conducted on the sea by all the forces and weapons of the fleet with decisive goals - to annihilate the enemy's naval forces. A defense is conducted to cover one's own objectives on the sea and shore as well as to provide maritime communications. Both specially detached naval forces and equipment and also the missile, land and air forces assigned to them can conduct a defense. Antilanding defense as well as the battle against enemy submarines attempting to attack shore objectives and the country's deep rear acquire special importance under contemporary conditions.

The principal forms of armed conflict on the sea are nuclear missile strikes inflicted by atomic submarines, by missile carrying ships, by naval missile carrying aircraft and by missile forces located on the shore. An attack by ordinary weapons will be carried out in the form of massive brief attacks on ships and shore objectives.

D A naval battle as one of the forms of armed conflict on the sea will be conducted primarily in the form of nuclear missile, gun and torpedo attacks in conjunction with naval aircraft attacks. The aggregate of a number of naval battles, extended in time and space and conducted for the purpose of annihilating a naval fleet can sometimes take the form of a large naval battle.

The battle actions of a naval fleet on operational scales are acquiring the form of naval operations. Submarine operations undertaken for various purposes can acquire special importance. Operations for the purpose of destroying naval communications and sea landing operations also play an important role. Naval fleets as operational units will conduct operations on shore locations with the assistance of land forces. These operations can take the form of nuclear missile and firing attacks by ships and submarines as well as by naval aircraft. Tactical and operational landings can be carried out in the rear of a defending enemy by a naval fleet.

In armed conflict on the sea, all forms of strategic, operational and tactical maneuvers will be used depending on the set tasks, available forces and equipment and the circumstances.

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D Successful conduct of modern war is possible only when there is a reliable antiaircraft and antimissile defense in the rear of the country and strategic groupings of armed forces directly carrying out military operations. The role of a country's antiaircraft and antimissile defense forces will be considerably increased in nuclear missile war. The objectives subject to cover in a contemporary nuclear missile war are diverse. The most correct resolution of the tasks of a country's antiaircraft and antimissile defenses, as well as the antiaircraft and

antimissile defense of military objectives and groupings will not be dispersal of the antiaircraft and antimissile forces and equipment along the front and in the rear, but their concentration for protecting the principal, especially important objectives.

Antiaircraft and antimissile defense must not be passive. The best method of protecting troops from enemy attack is the destruction of his missile carrying aircraft, nuclear missile forces and equipment. For resolution of these tasks, the battle equipment of the antiaircraft and antimissile defenses are located at the necessary distance from the objectives being protected and go into action immediately on finding the targets.

One of the most important tasks directed toward weakening the enemy's nuclear missile forces is the destruction of his electronic systems and equipment, administrative centers and induction centers. Without them, the enemy cannot effectively use air and nuclear missile attack.

Thus, the tasks of antiaircraft and antimissile defenses today go beyond the limits of ordinary defenses and include not only the repelling of an enemy attack, but also attacking him. Besides antiaircraft and antimissile defense forces, the forces and equipment of strategic missile troops, land, air and naval forces are answerable for the resolution of all these tasks. The tasks of a country's antiaircraft and antimissile defenses are resolved, thus, by the combined efforts of all types of armed forces.

The principal methods of armed conflict by a country's antiaircraft and antimissile troops are the destruction of missile carrying aircraft and missiles in the air during their flight, as well as repulsion of their attacks and destruction on direct approaches to the objectives.

Continuous daily battle actions which are expressed in the finding of air targets and their destruction by all the means available to the troops of a country's antiaircraft and antimissile defense are the principal form of armed conflict by troops of a country's antiaircraft and antimissile defenses.

The fighter aircraft of the antiaircraft defense conduct air battles, and sometimes large scale air battles.

In a nuclear missile war armed conflict in space can develop. The USA is planning this. The USSR is carrying out the exploration of space for peaceful purposes, for knowledge of the universe and the use of space in the interests of all mankind. As is known, the UN has passed a resolution calling on all countries not to send space ships and other equipment with nuclear charges into space. However, the United States of America is attempting by means of the conquest of space to intensify its military capacities, to take aim at the whole earth and to threaten the peaceful existence of all peoples on Earth. The exploration of space by the USA at the present time is being conducted mainly for reconnaissance purposes. Various types of reconnaissance spacecraft are being launched by the USA for this purpose. These are spying spacecraft which have as their purpose collection of information about military objectives on the territory of the USSR and other countries of the socialist camp. Another direction in which work is being conducted in the USA for the purpose of the mastering of space is the development and creation of conditions for and systems of transcontinental and global communications as well as the provision of conditions for the transmission of televised images over long distances in the interests of controlling military operations.

The USA is paying great attention to space flights and the mastering of interplanetary communications. In the interests of armed con-

flict in space, the USA is also carrying out work on the creation of large spacecraft, interplanetary stations and other space equipment. But in the creation of space missiles and ships the USA is far behind the USSR.

The peaceful exploration of space is being successfully carried out by the USSR. The Soviet Union has launched a number of spaceships and has created an artificial planet which is rotating around the sun. A Soviet space ship has flown to the moon and has photographed its invisible side. A Soviet rocket has passed close to Mars which has made it possible to draw a number of scientific conclusions about this planet. Soviet cosmonauts were the first to pave the way for man in space. The world records for flight in space belong to Soviet cosmonauts. They were the first to prove that it is possible to carry out group flight of spacecraft in space.

Considering the preparations of the imperialists for war in space, our country naturally is compelled to keep vigilant watch on their intrigues.

Soviet military science is intently following the development of military affairs, bringing new things to light and furthering their development and consolidation. It is arming our cadres with knowledge of the objective laws of modern war and helping them to a deeper understanding of the new methods and forms of armed conflict which have been brought to life by the appearance of nuclear missile weapons and those tremendous changes which have taken place in military affairs in recent years.

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- 395 Dirigibles were also used for this purpose but, as is known, this type of air equipment was not developed further.
- 407 N.S. Khrushchev. Razoruzheniye - put' k uprocheniyu mira i obespecheniyu druzhby mezhdunarodami [Disarmament - A Means of Strengthening Peace and Maintaining Friendship Among Peoples], pages 45-46.
- 408 Ibid., page 37.
- 409 R.Ya. Malinovskiy. Bditel'no stoyat' na strazhe mira [Vigilantly Guarding the Peace], page 25.
- 414 The fact that a strategic command department has also often been concerned with questions of the operation does not contradict this. The grouping of operations for the achievement of a strategic goal has always been strategy's job.

Chapter 8

MILITARY SCIENCE AND MILITARY DOCTRINE

DEFINITION OF THE CONCEPT "MILITARY DOCTRINE"

By military doctrine we mean a system of the state's guiding opinions on the character of war under given specific historical conditions, the determination of the tasks of the armed forces and the principles of their construction as well as of the methods and forms of armed conflict following from the goals of the war and the socio-economic and military technological capacities of the country.

Military doctrine is developed and determined by the political leadership of the state. It reflects the socio-economic, political and historical characteristics of the state, the nature of its internal and external policies. Any state, in creating its own armed forces, develops a specific system of opinions on military questions according to which the building of the armed forces is carried out and the preparation of the country for war is conducted.

The scientifically based development of a modern military doctrine requires strict calculation of the correlation of forces in the international arena and of the socio-economic, political and military capacities of one's own country and of enemy countries.

In the area of military technology, military doctrine must take into account the level of development of the productive forces, the nature of the industrial relations and capacities of a state in using the economy, science and technology in providing for the needs of the war.

The military doctrine of a state is not eternal. It forms, develops and changes in the course of the historical development of one or another state and its armed forces. An old military doctrine which does not satisfy the political goals or material and technological capacities of the state is replaced by a new one.

In the old Russian Army there was much discussion about the question of a military doctrine and its basic principles. There were adherents of a unified military doctrine and their opponents who believed that a doctrine paralyzes the thinking and initiative of military leaders. But, in spite of this, in Tsarist Russia, as in other bourgeois states, a military doctrine existed. Attempts were made to give a definition of the concept "military doctrine." For example, one Russian military theorist, V. Domanevskiy, in 1911 wrote that the development of general theoretical positions from which it is necessary to proceed in the building of armed forces, their battle training and handling in battle comes into the concept "military doctrine." V. Domanevskiy noted that "military doctrine is a summary of the guiding opinions accepted in a given army, in the given era of the basic doctrine."*

In Soviet times, in the years of the Civil War, a former general of the old Russian army, Professor of the General Staff Academy, A.A. Neznamov, in articles printed in 1918 in the journal "Military Affairs," also attempted to give a definition of military doctrine. He wrote that "military doctrine is a set of officially recognized basic scientific principles which combine both opinions on the character of contemporary war and on the methods of conducting it in general and, in particular, which establish unified ways of evaluating and solving military questions and the battle training of an army."

Young Soviet military science from the first days of its existence

attempted to find a scientifically based definition of military doctrine. M.V. Frunze wrote in 1921: "... 'A unified military doctrine' is the doctrine accepted in the army of a given state which establishes the nature of the building of the country's armed forces, methods of battle training of the troops, their guidance on the basis of opinions prevailing in the state on the nature of the military tasks facing them and methods of resolving them following from the class nature of the state which are determined by the level of development of the country's productive forces."*

M.V. Frunze believed that the formulation which he gave in defining military doctrine does not pretend to be constructively complete and entirely logically faultless.**

The question of the nature of Soviet military doctrine was widely discussed in the Soviet Army in 1921-1922. In these years, discussion developed about a unified military doctrine. It produced positive results. A Soviet military doctrine was developed on the basis of Leninist principles of state and military building, the basic principles of which were reflected in the building of the armed forces, in the methods of battle and political training as well as in military manuals, regulations and other military literature.

The military doctrine of every state is formulated under the direct influence of political goals and opinions on war, the class relations in the country, the internal and external policies and economic and military technological capacities. However, a bourgeois state in developing its own military doctrines does not sufficiently consider the social structure of its society, its class makeup, which has a great influence on the staffing of the contingents of the armed forces and on the establishment of their general structure. Therefore, the military doctrines of bourgeois states suffer from one-sidedness. It

is not accidental that in many bourgeois states in the nineteenth and beginning of the twentieth century military doctrine foresaw the development of only a land army or, on the other hand, of a naval fleet since the main political goals of these states were resolved on a continent or on the seas.

A military doctrine has two aspects: political and technological. The political aspect is concerned with political evaluation of the nature of the state's military tasks, the technological aspect gives an answer to questions which arise in connection with already outlined or suggested characteristics of armed conflict in future war. It defines the military technological tasks of the armed forces, the methods and forms of armed conflict.

If you take the contemporary bourgeois states, each of them has its own military doctrine in spite of the fact that the political goals of many of them in war are the same - the forcible seizure of foreign territories and the enslavement of other peoples. For example, predatory goals lay at the basis of fascist Germany's adventurist military doctrine. But the fascist military doctrine of "blitzkrieg" and "total war" and the military strategy and tactics developed on the basis of this doctrine suffered a complete downfall. In the years of the Great Patriotic War, Hitler's army was routed by the Soviet Armed Forces and fascist Germany was forced to capitulate.

After the second world war, great changes occurred in the world arena in the correlation of forces to the benefit of socialism and the detriment of capitalism. During the years after this war, the forces of socialism grew not only in a political and economic but also in a military respect. They are becoming a decisive factor in world development. The Soviet Union, the largest socialist power in the world, now has all the necessary means of armed conflict at its disposal. To-

gether with the other countries of the socialist camp, it is conducting a consistent battle for the preservation of peace in the whole world and at the same time is taking the necessary measures to strengthen its defensive might.

Proceeding from the new arrangement of forces in the world arena and the revolution which has taken place in military affairs, in our country in recent years there has developed on the basis of the guiding instructions of the Communist Party, the Soviet Government and the data of military science a new military doctrine which defines the ways and means of reliably defending the Soviet State and the whole socialist camp from imperialist aggression. The doctrine includes a comprehensive evaluation of the nature of future war, i.e., its socio-political essence, the probable methods of conducting armed conflict and the requirements for preparing the armed forces, the people and the country as a whole for a shattering rebuff to an aggressor.

Soviet military doctrine is based on the calculation of economic, moral and military factors and the data of military science. Its fundamental principles are directed toward the development of the principal direction in military building, the establishment of unity in understanding the nature of future war and the tasks of defending the state and preparing it to repel imperialist aggression.

Military doctrine, when adopted and put into effect, acquires the nature of a state law.

The opinions and aims of the Communist Party and the Soviet Government not only on strictly military but also on general socio-political questions are expressed in Soviet military doctrine. This distinguishes in a fundamental way Soviet military doctrine from bourgeois military doctrines which avoid emphasizing the socio-political and economic premises which lie at the basis of any military doctrine.

"Briefly, the essence of Soviet military doctrine," writes Marshall of the Soviet Union R.Ya. Malinovskiy, "comes down to the fact that a future war, if the imperialists succeed in unleashing it, will be a decisive armed clash of two opposing social systems, and in the nature of the weapons used it inevitably will become a thermonuclear war, a war in which nuclear weapons will emerge as the principal means of defeat, and the principal means of delivering them to the targets will be missiles. This war will be characterized by the unprecedented bitterness of the armed conflict, by the dynamic character and high maneuverability of the battle actions, by the absence of continuous stable fronts and of boundaries between the front and the rear and by increased capacities for inflicting surprise attacks of great strength both on the troops and on the deep rears of the fighting countries."*

Soviet military doctrine emphasizes the social and class nature of future war and also points out that in the nature of the weapons used the war will be a nuclear missile war.

Soviet military doctrine also takes into account the cooperation of the countries of the socialist camp in the struggle against imperialist aggression and at the same time has a definite influence on the resolution of the common tasks of these countries. Here it is necessary to point out that the military doctrines of all the socialist states are united in their political section, but in the technological part there are certain differences among them which reflect the various levels of development of the productive forces in these countries and other characteristics.

However, the struggle for peace against the military danger, the defense of the achievements of socialism from imperialist aggression and the strengthening of one's own defensive might is a vital matter for all countries of the socialist camp. In this struggle, every so-

cialist country is making its contribution to the common matter of providing for the security of the whole socialist camp. But in the century of nuclear weapons, the attempt of any socialist country to rely only on its own forces, which are not the same in all countries, for its own defense could be a fatal error.

The Soviet Union, which has huge economic and military power and nuclear missile weapons at its disposal, is a mighty shield standing in the path of imperialist aggression against all countries of the socialist camp and other peace-loving states. It is well known that at the most critical moments, when aggressive circles have put the world at the edge of war, the Soviet Union without hesitation has thrown into the balance the whole of its international authority and its military power to stop the hand of an aggressor raised against a small or large country, geographically far away or close to it.

In disclosing the special role of the Soviet Armed Forces in defending the peace and emphasizing their ever-increasing military technological might, it is necessary to point out that they rest in their development on the achievements of progressive Soviet military science which arose, was formulated and obtained development on quite different principles than bourgeois military science. Soviet military science, whose methodology is dialectical materialism, has absorbed the huge experience of the struggle of the Soviet Army in the years of the Civil and Great Patriotic Wars, has critically reworked and mastered the experience of the old Russian and other bourgeois armies and faithfully reflects the trends in the modern development of military affairs.

Soviet military science is continually developing and improving and is being enriched with new principles and conclusions. It is continuing to develop the principles and rules of military art: tactics,

operational art and its highest sphere -- strategy and its other sections and branches. It also has a great influence on military doctrine.

At the same time, military doctrine, which has been developed on the basis of the data of military science, has a huge organizing and mobilizing effect on the development of the armed forces and all military affairs. The doctrine furthers the preparation of the state and the armed forces to repel a possible attack by an aggressor and promotes the skillful conduct of victorious armed conflict.

THE CONNECTION AND INTERDEPENDENCE OF MILITARY SCIENCE AND MILITARY DOCTRINE

Military science discloses the principles inherent in armed conflict and in all military affairs. It investigates the objective conditions and possibilities of conducting armed conflict. Military science investigates a wider circle of military questions than doctrine. It considers all the possible means and conditions, methods and forms of conducting armed conflict which have been engendered by objective conditions of the development of society and the specific historical situation. But from the whole variety of questions studied by military science, the political leadership selects only those which will further to the greatest degree the attainment of the political goals of war which follow from the political course taken by the given state and which will provide the most successful resolution of the military tasks facing the state. Thus, in this respect, military science is a broader concept than military doctrine.

Military science and military doctrine, as historical experience shows, exist separately, but at the same time they are closely connected and have a specific interdependence. Military history indicates that the more military doctrine relies on the objective evaluations and conclusions made by military science, the more the military doc-

trine itself becomes scientifically based and objective, and consequently, vital. And, on the other hand, the less military doctrine relies in its principles on the evaluations and conclusions of military science, the more elements there are of subjectivism in it. Such a doctrine, as a rule, is not vital, it does not reflect actual reality and trends in the development of military affairs.

Military doctrine in its turn influences the development of military science. But this influence can be either positive or negative. There can be discrepancies between military science and military doctrine which follow from the nature of one or another political and military situation and from the capacities of the country. For example, military science after the first world war made the necessary conclusions concerning the character of the wars of the era of imperialism and the use of the new weapons in war. In particular, it defined the role in armed conflict of the new (for that time) battle equipment: airplanes, tanks and chemical weapons. But these conclusions of military science were insufficiently taken into account by the bourgeois states in developing their doctrines.

The political aspect of the doctrine is always principal and determining, whereas in military science its specific military technological content predominates. But this does not mean that military science does not depend on politics. The dependence of military science on politics is manifested first of all in the political goals in whose interest military science develops and acts and in its world outlook and methodological basis. But politics cannot intrude into the area of science arbitrarily, substituting voluntaristic, subjective positions for objective reality and scientific conclusions and generalizations.

There are specific differences between military science and mili-

0 tary doctrine which are manifested primarily in the correlation of objective and subjective factors. Military science relies in its development on analysis of objective principles which are not dependent on the will of people and on the practice of armed conflict. Military science is the theory of military affairs. Doctrine is based on the theoretical data of military science and the political guiding principles of the state. Science analyzes and discloses objective laws, doctrine rests on the conclusions of science.

The difference between military science and military doctrine consists in the fact that a doctrine developed and adopted by a state represents a single system of opinions, a guide to action free of any special subjective views and evaluations. A conflict of opinions is characteristic of science in its development. In the system of military theories which comprise military science there can be several different viewpoints, different scientific ideas and original hypotheses which are not selected by doctrine for practical application and do not acquire thereby the character of official state opinions on military questions.

0 There is also a difference between military science and doctrine in the time of action of their principles and conclusions and also in their greater or lesser link with the past and in their penetration into the future. Science studies thoroughly the experience of the past, extracting from it everything valuable and useful for the present and future. Doctrine is not concerned with an investigation of the past experience of armed conflict. Military science does this for it. Doctrine primarily exists for the present and near future. It determines the practical problems of military building for some comparatively limited period. But in the course of the development of military affairs new conditions and factors appear and acquire full strength, as

a result of which the old military doctrine begins to lag behind life and has to be replaced by a new doctrine. Science is obliged to pave the way for practice, to foresee the visible future. It directs the development of military affairs to a certain degree.

The connection and dependence of military science and military doctrine also consists in how correctly military science reflects the development of military affairs. If military science distorts objective reality, uses fallacious methodology and lags behind life, this invariably tells on the development of military doctrine.

An interconnection exists also between military doctrine and strategy. Strategy is a scientific theory which develops the principal methods and forms of armed conflict of strategic scales and at the same time carries out the military guidance of war.

The theoretical principles of strategy have an influence on military doctrine and on its scientific development. At the same time, strategy is the direct executor of doctrine and its instrument in the development of war plans and of preparing the country for war. In time of war, military doctrine withdraws somewhat into the background since in armed conflict military political and military strategic considerations, conclusions and generalizations resulting from the conditions of the specific situation primarily rule. Consequently, not doctrine, but strategy guides war and armed conflict.

Soviet military doctrine, relying on the data of military science, believes that a nuclear missile war, if the imperialists unleash it, will be a war of short duration. Nuclear missile weapons, having huge power, can put individual countries out of action in days and even hours. While defining nuclear missile war as short-lived, Soviet military science at the same time believes that the armed forces and country as a whole must be prepared to conduct a possibly more or less

prolonged armed conflict.

Soviet military doctrine believes that a nuclear missile war can be unleashed suddenly, without any warning and without a declaration of war.

It has not been ruled out that a war can also begin by the development of a limited conflict into a world war, more or less gradually. But however the war may begin, the first strikes of nuclear missile weapons can prove to be decisive. Therefore Soviet doctrine considers the beginning period of war as an exceptionally important stage in its conduct. The events of the initial period can have a decisive effect on the future course of the war and its final result.

That is why the efforts of Soviet military science under present day conditions must be directed toward thorough study of the nature of the initial period of war and toward determining the most effective methods and forms of armed conflict in this period.

Soviet military doctrine is of an offensive character. However, the offensive character of Soviet military doctrine has nothing in common with the aggressiveness and predatory tendencies of the military doctrine of the USA and its allies. The Soviet Union and the countries of the socialist camp do not intend to attack anyone, whoever he may be. But if they are attacked they will try to conduct the war which has been thrust on them in the most aggressive manner in order to crush the enemy in the shortest time.

Soviet military doctrine attaches decisive importance in war to nuclear missile weapons. At the same time, it believes that along with nuclear missile strikes of strategic and operational-tactical character the armed forces will use ordinary weapons and conduct broad offensive operations on land, on the sea and in the air for the purpose of conclusively defeating the enemy, his complete capitulation.

Soviet military doctrine considers that success will be achieved in contemporary armed conflict not by any one weapon or type of armed forces, but by the united efforts of all types of armed forces and arms of the service, with strategic missile forces having the leading role. Only as the result of carefully organized cooperation among all types of armed forces and arms of the service, with consideration of the role, place and importance of each of them in the specific situation, will achievement of the strategic goals in the war and success in battle and operations be possible.

In our times, the nature of strategic and operational cooperation is changing radically. In the past, all types of troops cooperating among themselves operated primarily in the infantry, while now they will operate in missile forces. They will be responsible for inflicting the principal damage on the enemy, predetermining the outcome of the war. Missile carrying aircraft and ordinary and reactive artillery will help the missile troops to resolve the tasks. The tasks of tank and motorized artillery units and formations will be to complete the enemy's final defeat and to seize his territories.

All this indicates that the present day Soviet Armed Forces have quite a different qualitative character. In the past, their battle might was determined by numbers or expressed by the number of bayonets and sabers, i.e., in essence, by the number of active fighting men, while now a characteristic of battle might is mainly the number of new powerful weapons: missiles with nuclear warheads, nuclear ammunition in general, missile carrying aircraft, and then by the number of other ordinary means of war: aircraft, tanks and artillery. Considering the properties of contemporary massive armed forces and their tremendously increased fire power, Soviet military doctrine believes that the organization of types of armed forces and arms of the service must be

sufficiently flexible and varied, corresponding to the various conditions of the conduct of armed conflict.

A new important phenomenon in modern war is the development of so-called civil defense.

In modern war the boundaries between the front and the rear are becoming more and more obliterated and battle operations can develop simultaneously on the front and in the deep rear. Nuclear missile attacks by missile forces and aircraft as well as attacks by air forces with ordinary bombs can be inflicted on objectives in the deep rear. The enemy's airborne troops can be landed in the rear and in individual cases large groupings of enemy tank and mechanized troops can break through to the rear. Because of this, the rear must be ready to protect rear objectives from nuclear missile attacks and to repel attacks of airborne and sabotage detachments as well as to conduct battle with the help of their own forces with the enemy tanks which have broken through.

Civil defense is being organized in all large cities and towns - in plants, factories, sovkhoses and kolkhoses. But the chief task of civil defense is to protect the population from enemy nuclear missile attacks, to skillfully and rapidly eliminate the consequences of a nuclear attack, to promote the uninterrupted work of enterprises and organs of administration and supply as well as to conduct battle with the help of troop units with an enemy who has broken through to the rear.

In concluding this chapter it is necessary to emphasize that Soviet military doctrine has great importance for the further strengthening of the defensive capacity of our Motherland and of all other countries of the world socialist camp. However, doctrine is not dogma but a guide to action. The principles set forth in Soviet military

doctrine have the force of law and our military cadres are guided by them in all military activities. The doctrine does not abolish lively, creative organizational work. On the contrary, the doctrine is the foundation which gives purposeful character to organizational work, it provides for unity of opinions and efforts directed toward increasing the military might of the Soviet State and the achievement of victory in war, if imperialist aggressors unleash it. This is why thorough study of military doctrine by all our military cadres and the skillful use of all its principles and aims have huge importance in the training and education of the entire personnel of the Soviet Armed Forces.

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- 447 "Russkiy invalid" ["Russian Disabled Veteran"], 31 December 1911.
- 448⁵ M.V. Frunze. Izbrannyye proizvedeniya [Selected Works], page 142.
- 448** Ibid.
- 451 P.Ya. Malinovskiy. Bditel'no stoyat' na strazhe mira [Vigilantly Guarding the Peace], page 24.

CONCLUSION

The historical process confirms with special force the correctness of Marxist-Leninist theory. All world development is proceeding in precisely the direction and is happening in just the way that was scientifically predicted by the great teachings of Marx, Engels and Lenin. History has repeatedly brought newer and newer triumphs to Marxism.

"But even greater triumph," said Lenin, "will be brought to Marxism, as the doctrine of the proletariat, by the approaching historical era."* These prophetic words of Lenin, written half a century ago, have come true. Capitalism, in accordance with the objective laws of social development, is becoming more and more decrepit and is invariably proceeding to its end, and, on the other hand, socialism is moving forward at a rapid pace. No force exists which can stop the victorious procession of the forces of socialism.

Our confidence in the complete victory of communism is based not only on our wishes. This confidence is based first of all on actual historical facts - on the experience of the building of socialism and communism in the USSR and in a number of other countries of Europe and Asia. The experience of the building of socialism in the USSR is a very graphic example which shows how the workers of our country in forty six years, of which about twenty years went into the severe wars which were thrust upon us, have brought their Motherland to second place in the world in industrial production. And in a few more years, our country, by carrying out the historical resolutions of the Twenty

Second Party Congress, by putting into practice the new Program of the CPSU, will catch up with the USA in economic development and go out into first place in the world in per capita production. And now, when a great socialist camp exists, it has immeasurably greater possibilities for successful resolution of this task, for rapid movement forward on the path of socialist and communist building.

The "secret" of all our past, present and future victories is very simple. It is the advantages of a socialist system. In a speech at a meeting of workers in Vladivostok, N.S. Khrushchev said: "What is the explanation for our great successes? That we are the most intelligent and the most able? If we thought so, we would be thinking quite incorrectly. All people are capable of successfully developing their own economy and culture if they create the normal conditions permitting them to work freely and to display their talents. It is not that we Russians, Ukrainians, Belorussians, Kazakhs, Uzbeks, Georgians, Armenians, peoples of Central Asia and the Baltic, of the South and North of our Soviet Union possess any exceptional properties. It is that our Soviet structure, the socialist system, creates such conditions for people in which they can fully develop their creative efforts and show of what a free human being who does not know the yoke of exploitation and who is the true master of his own country is capable. The success of the Soviet Union is a clear demonstration of the advantage of the socialist system over capitalism."*

There are no forces in the world and no means, peaceful or military, which could block us on the road to communism. As emphasized in the Third Program of the CPSU adopted by the Twenty Second Congress, socialism has won a complete and conclusive victory in our country. The USSR and other socialist countries are confidently continuing to move forward. They have achieved tremendous progress in the develop-

ment of their economy and have created a powerful potential on which, in a war with imperialist aggressors, they can rely to defend their existence and to provide for further development. The Soviet Union and other socialist states have all the necessary means of protection from the schemes of imperialist aggressors.

Today, there are all the conditions for preventing war and for providing a lasting peace in the whole world. Why do we say this? On what is this confidence of ours based? Today, a quite new situation has developed which never existed before. Before the second world war, the USSR was surrounded by capitalist countries, it was the only socialist country in the world, while now a powerful socialist camp is growing and becoming stronger. If the rapid growth of the economy of the Soviet Union and other socialist countries and our increased power is taken into consideration, it will be clear that at the present time it is not easy for the imperialists to start a war against the countries of the socialist camp. The aggressive powers understand that if they unleash this war they themselves can be destroyed in its fire.

But the struggle for peace and peaceful coexistence must not for a minute weaken our readiness to repel any attempt at aggression on the part of imperialism.

In the century of nuclear physics, electronics and the conquest of space, under conditions of the ever-increasing progress of science and technology, the very foundations of military affairs are changing fundamentally, armed forces are being qualitatively reorganized, old types of armed forces and arms of the service are receiving new development and new things are arising and growing rapidly. New methods and forms of conducting armed conflict, operations and battles are being laid down in accordance with these changes. The physical and moral efforts of troops in a nuclear missile war will increase sharply. All

this, of course, extraordinarily complicates the battle training of troops and the operational training of the commanders and staffs, and imposes upon our military cadres very complicated and responsible tasks of all degrees.

Soviet military theoretical thinking is obliged under these conditions to thoroughly interpret the essence of the changes which are occurring, to analyze creatively educational practice on the use and application of modern battle equipment, to study carefully everything new which moves science, technology and military affairs forward and to develop and master the new contemporary methods and forms of conducting armed conflict. Further and even more profound creative development of the general problems of Soviet military science and of the theory of military art as well as of the other sections and branches of military science is required.

Soviet military science has traveled a complex and difficult historical path. At the present stage of its development, it is an orderly scientifically well-founded system of progressive opinions on the nature of war, of principles of the building of armed forces and preparing and conducting military operations of different scales. However, Soviet military science has not come to the end of this development, since military affairs continually go forward and change.

In his speech at a reception for graduating students of the Moscow Military Academies, N.S. Khrushchev pointed out: "After all, life does not stand still, it is continually changing. Science is developing rapidly, techniques and equipment, and methods and forms of armed conflict are being perfected. We must keep pace with life, not lag behind it, look ahead and see the prospects. It is necessary to thoroughly study and develop military science (emphasis ours - Authors), to master in good time the new and latest battle equipment and weapons which

are or will be part of the troops' equipment and to master the new methods of conducting battle and operations under conditions of nuclear missile war for which the aggressive forces of imperialism are preparing."*

These demands of the party lie at the basis of the future development and improvement of Soviet military science. The carrying out of this responsible task demands a creative approach to the matter, initiative and an innovatory basis in the work and in the development of military theoretical thinking. And for this it is necessary to completely overcome elements of dogmatism in the development of questions of military theory. It is well known that he who lives by prepared formulas, does not sense movement and development and does not notice the new, changed conditions, possibilities and requirements of life will inevitably lag behind in his scientific development and, consequently, in practical work.

The new features and properties of contemporary nuclear missile war require from our military cadres thorough detailed study of military affairs and the further development of military theory. A peculiarity of the development of nuclear weapons and the missiles for delivering them to the targets is at the present time the fact that they are being introduced into all types of armed forces and arms of the service, and the missile forces themselves have now grown into an independent, principal type of armed forces. It is precisely the missile equipment with nuclear charges which has changed all our previous notions of the nature of modern war, in particular, of its initial period, of the conduct of battles and operations, of the front and rear from the viewpoint of armed conflict, of the use of space and time for military purposes, of the nature of various theaters of war and of other questions of military science and military art. This requires

from military cadres active creative innovatory work of all kinds. The personnel of our armed forces must not only raise even higher the level of battle readiness of the units, ships and formations, but must work better, understand more thoroughly modern military science and military art and must master our powerful battle equipment even more perfectly.

The task of the Soviet military cadres is to tirelessly perfect and increase their military knowledge and to further advance the development of Soviet military science and all its component parts on the basis of the creative use of Marxist-Leninist theory.

In working out new problems of Soviet military science, it is first of all necessary to represent clearly the character of the change in armed conflict and the means and methods of conducting it and to see and understand its trends in the light of the demands of present day war. The most interesting, theoretically new developments in the theory and practice of military affairs are always connected with the repudiation of biased points of view, with the courageous breaking of old norms and ideas and with the appearance of new concepts and categories reflecting the progress of science and technology. Innovation in military science is inseparably linked with broad creative discussion of military theoretical questions, in solving them through a struggle of opinions and freedom of criticism; innovation in military science assumes the bold independent disclosure of new questions on the basis of changed conditions and possibilities and new experience accumulated in the postwar development of armed forces and the means of modern war.

Soviet military science's organic connection with the development of a socialist economy and with general progress in science and technology comprises one of its characteristics and advantages over bourgeois military science which carries within itself all the flaws of

the capitalist system. Soviet military science is called upon to provide for continual improvement of the armed forces and to boldly solve problems of the conduct of modern armed conflict and of the achievement of victory in it.

In the area of the general theory of military science, theoretically new developments can be expressed first of all in the form of a generalized theoretical characterization of the new features and properties of contemporary armed conflict, its trends and the essence of the new phenomena caused by the changes which are taking place in military affairs.

Another most important task of the general theory of military science in the light of these requirements is the development of fundamental questions of the general theory itself and theoretical principles pertaining to the subject and content of military science as a whole, its component parts and branches.

The natural, historically determined differentiation of scientific knowledge causes the urgent necessity, on the one hand, of the gemination of specific scientific disciplines (in the interests of more detailed development and specialization), and on the other hand, of the inclusion within the framework of military science of new military technological special sciences encompassing new fields of investigation being conducted in the interests of contemporary armed conflict. A clear scientifically well-founded definition of the limits of investigation of one or another military theoretical problem is inseparably linked not only with the clear outlining of the range of the questions, but also with the singling out of the main decisive directions. This has significance for military science, its general theory, the theory of military art, the theory of the training and education of the troops, military historical science and its other component parts and

branches. Such an important question as the classification of military science as a unified system and the classification of its component parts also must belong here.

The study of the military theoretical legacy of V.I. Lenin, the materials of the Twenty Second Congress and the new Program of the CPSU in which many principles of Marxist-Leninist theory were generalized and developed further is bringing before Soviet military thinking the task of a more profound scientific analysis of the dependence of military phenomena, their nature and specifics on present day political, technological-economic and moral capacities.

The extremely dynamic progress of science and technology is introducing much which is new into the nature and content of military science. The technological revolution, the development of missile weapons, automation and mechanization, radioelectronics and the development of cybernetics are essentially changing the qualitative characteristics of the economic and moral potentials and, consequently, the military potential which, of course, cannot help but be taken into account by military science, its general theory, the theory of military art and the military technological sciences. Technological progress has now become the pivot without whose consideration it is impossible to have a really complete qualitative evaluation by military science of the forces and capacities of one's own country and of enemy countries in the interests of victorious conduct of armed conflict.

One of the most important tasks of Soviet military science is the thorough and detailed study and investigation of the experience of past wars, the finding of the new principles characteristic of armed conflict under present day conditions, scientific generalization of the results achieved and the development of precepts and recommendations for the future.

But study, investigation and generalization of historical experience alone are now not enough to provide for the continuous progressive forward movement of Soviet military science. On the contrary, excessive stress on only historical experience alone, the following of established traditions and forms of military actions developed in past wars, can lead not to progress but to backwardness. Historical experience must never be overevaluated, and even more should not be made a fetish of. The history of past wars shows that the blind copying of antiquated historical experience inevitably leads military science to stagnation, and troops to defeat. In order that this does not happen, Soviet military science must approach historical experience critically and take from it only that which is not yet obsolete, which retains its significance under the new historical conditions.

At the same time, Soviet military science must proceed in its working principles and in the development of new ones, as we have already emphasized, from the fact that the level of the technological progress in one or another country acquires great importance in armed clashes of the present day era. Supremacy in equipment, including military, in its quality and quantity and in the methods of its use is one of the decisive conditions for success in military operations of any scale.

Under present day conditions, military science attaches great importance to the thorough investigation of the military possibilities of new means of armed conflict: nuclear weapons, missile technology, radioelectronics and other technological means of war. These types of weapons and equipment are, as we have said previously, the most effective for modern war. The mastery of them and the skillful use in war of these types of weapons and equipment has decisive importance.

Mechanization in all types of armed forces is also acquiring ex-

tremely great importance under present day conditions. Widely used motors, machines and mechanisms increase striking and fire power, create huge speeds and the highest mobility and require a quite different approach to the development of methods and forms of conducting war and battle operations.

The achievements of modern automation in industry are being applied more and more to the area of the technological means of war and to the methods and forms of leading the troops, which must lead to changes in the use of battle equipment and the guidance of battle activities in war.

The future development of Soviet military science must thus be based in an ever-increasing degree on the latest achievements of science and technology. Soviet military science must develop new methods and forms of armed conflict on the basis of the high battle capacities of the present day types of armed forces.

Military science must develop and improve not only on the basis of the achievements of the present day but also on the basis of foreseeing the development of military affairs in the near future.

As historical experience shows, the great deficiency of bourgeois military science was the fact that it could not foresee in what direction military affairs would develop in the future and what character future war would take. The great wars of the twentieth century, the Russo-Japanese, the first and second world wars, confirm this position. These wars showed how cruelly mistaken the general staffs of the armed forces of the capitalist states were in their calculations and plans. Each of these wars took their own special paths, in spite of prewar notions and of calculations and plans developed before the war.

Only Soviet military science, resting on a Marxist-Leninist world outlook and the method of materialistic dialectics, even before the

second world war developed methods and forms of conducting operations and battles which were used in the war. But this does not mean that the methods and forms of battle operations developed by Soviet military science did not undergo any changes in the war. In the course of this war, Soviet military science studied and generalized the experience of the armed conflict, drew specific conclusions from it and developed new methods and forms of conducting military operations. The dialectical development of military art in war was manifested in this.

In our times, Soviet military science can foresee with even greater foundation the character of modern war and develop such methods and forms of its conduct which will correspond in full measure to the requirements of the coming historical era. We derive our confidence in the fact that the solution of such questions is not beyond the powers of our military science from the undoubted achievements of our military theory which have been confirmed by experience, for which Marxism-Leninism, a perpetually vital and developing concept, serves as the granite foundation.

Development of methods and forms of armed conflict which correspond to the demands of modern war is the most important task of Soviet military science.

The technical equipment of contemporary armed forces and the rapid progress in this direction are leaving an imprint on the character of military science which is becoming more and more technical. In the past, the military leaders and commanders were the bearers of military art, and the military technicians and engineers acted, as a rule, in the role of their advisors, consultants and special executors of specific, most often tactical-technical tasks. In our times, the situation has changed radically. The military activities of military leaders and commanders of all ranks are becoming more and more coalesced

and operate in harmonious unity with their engineering and technical activities. A present day commander is at the same time a highly qualified technician or engineer.

This fact obliges Soviet military science to render to the military cadres the necessary help in mastering techniques, as well as to further them in the training of their subordinates in mastering techniques and in using them knowledgeably in military operations of any scale. Skilled people are needed to see that the techniques play in full measure the role assigned to them. "...People are the most important thing in our Armed Forces," says N.S. Khrushchev. "Without them, without their skill any equipment will be at a standstill."*

The great Lenin taught that the moral spirit of the people and army has decisive importance in the matter of the armed defense of the socialist Motherland from enemy invasion. The Communist Party tirelessly instills high moral, political and battle qualities in the Soviet soldiers, implants in them the high principles of the moral code of the building of communism and educates the Soviet soldiers in the spirit of the ideas of Marxism-Leninism and of boundless devotion to the Soviet people and communism.

The whole life and activity of the Soviet people, who are building communism and successfully carrying out the Seven-Year Plan for the development of the USSR economy, is permeated with a spirit of creation and innovation. This spirit of creation and innovation also encompasses the Soviet Armed Forces who are vigilantly guarding the peaceful labor of the Soviet people and tenaciously mastering all types of complex military equipment. Soviet military science is rendering huge assistance to our soldiers in the carrying out of these tasks.

Military science sees its task not only as keeping in step with

the rapid development of military equipment, but also as advancing it, directing creative thought toward further improvement in this area and finding new ways and methods of introducing the new techniques and all the achievements of science into the armed forces.

The use of complex and diverse battle equipment in war, the achievement of victory in a short time and with the least cost requires from the troops high battle training and military education. In the century of atomic energy and missile technology, the troops' battle training is one of the most important factors determining military success in war. In connection with this, the role of the theory of troop training and education is increasing more and more. The methods and forms of troop battle training and political and military education require at the present time thorough scientifically based development.

Many urgent problems in the development of modern military theory face Soviet military science. Life and practice urgently demand that Soviet military science be enriched daily with new theoretical ideas and principles which should raise it to a new higher level and should further the solution of the practical problems facing the Soviet Armed Forces in organizing the protection of the Soviet socialist Motherland from imperialist aggression.

Soviet military science, henceforth, must develop as a living, creative theory, continually moving and changing. Soviet military science must develop in the struggle against dogmatism and stagnation as the most well-founded scientific theory of armed conflict, imbued from beginning to end with the spirit of the Communist Party. A constant condition for its further development and improvement is, especially, conflict of opinions, which drives out everything routine, stagnant and outdated and, on the other hand, advances everything new, advanced

and progressive corresponding to the demands of modern war and the development of military affairs.

Dogmatism and the canonization of some or other principles and practical recommendations and isolation from the conditions of the specific situation must be foreign to our military theoretical thinking. Flexibility of thinking, the capacity to give up old, outdated ~~schemes and ideas~~ not suitable in the new conditions, the finding of new principles which most correspond to the demands of modern war and their successful development, mastery and introduction into the training practice of the Soviet Army and Navy - such is the main requirement of contemporaneity for our military cadres and for Soviet military science.

A sense of the new and the striving to support and secure victory of the new in the struggle with the old and outdated must never desert Soviet military science. In this also lies one of the most important prerequisites of its superiority over bourgeois military science and the necessary condition of that truly great role which Soviet military science played and is playing in the training and education of Soviet military cadres as well as in the achievement of all those worldwide historical victories which our great Motherland and its armed forces gained in the Civil and second world wars.

The heroic path of the struggle and victory of the Soviet Armed Forces is historical confirmation of the position of Marxism-Leninism that socialism will overcome capitalism and that it will create a higher military organization for the protection of its achievements. V.I. Lenin emphasized that "the ruling class, the proletariat, if it wants to and will rule, must prove this by its military organization."* And this has been tested and proved in the course of the entire existence of the Soviet State and its armed forces. The resolutions and ma-

terial of the Twenty Second Congress and the new Program of the CPSU where, with new strength and profound confidence, the invincible defensive might of the Soviet Union was demonstrated, speak of the historical supremacy of the military organization of socialism over the military organization of capitalism.

The historical events developing after the Twenty Second Congress of the CPSU completely confirmed the Marxist-Leninist analysis given by the Congress of the arrangement of class forces in the international arena. This analysis unquestionably confirmed the conclusion that the correlation of world forces has already solidly changed in favor of the peace-loving camp. The high rate of development of the economy of the socialist countries with each year changes the world balance of forces more and more in favor of socialism to the detriment of imperialism. By strengthening their economic and political power, the Soviet Union and the other socialist countries strengthen at the same time their defensive capacity.

"The Soviet people," Comrade N.S. Khrushchev noted in his report at a meeting of the Supreme Soviet of the USSR, "have taken some pains to create the most modern and most powerful means of defense - atomic and hydrogen bombs and missiles, including intercontinental ballistic and global missiles. We have created these weapons, they are the best in the world and we have them in sufficient numbers to respond to an attack of our enemies with a lightning crushing blow which will reduce to ashes both the bases aimed against us wherever they may be and the forces which make the weapons for the armed forces of the aggressor."*

Under the leadership of the Communist Party, Soviet military defense will continually be perfected and will help our people and its armed forces to gain a complete and unconditional victory over the imperialist aggressors if they dare to unleash a new war against our

Motherland and the countries of the socialist camp.

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[Footnotes]

- 461 V.I. Lenin. Soch. [Works], Vol. 18, page 547.
- 462 "Pravda," 8 October 1959.
- 465 "Pravda," 29 June 1960.
- 472 "Pravda," 26 November 1957.
- 474 V.I. Lenin. Soch., Vol. 29, page 133.
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