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TABLE OF CONTENTS

	<u>Page</u>
Military Terminology	1
On the Nature of Modern Warfare	4
Modern Means of Combat and Military Discipline	9
Employment of Aircraft Against Maritime Lines of Communication	15
The Economic and Sociopolitical Basis of the Military Power of the States	23

MILITARY TERMINOLOGY

Following is a translation of an article by
Col M. Strygin in Krasnaya Zvezda (Red Star)
29 November 1960, page 2.

The problem of military terminology as posed by Krasnaya Zvezda, in view of the article by Lt. Col. V. Savkin, published in this newspaper on 21 September of this year, is worthy of serious attention. It is a well known fact that unification of terminology and unification of its interpretation in use is one of the most important conditions for the successful development of any branch of science as well as ties between this science and practice. It obviously follows from the above that selection, interpretation and implementation in theory and practice of military science of new terms cannot be allowed to proceed willy-nilly. This process must be correctly directed. In view of this the following absolutely abnormal phenomenon should be noted. Strange as it may seem, up to the present we have no up-to-date dictionary of military terminology which is unified, developed on a scientific basis and answers the above requirements. The Kratkiy Slovar' operativno-tekhnicheskikh i obshchevovennykh slov (terminov) (Concise Dictionary of Operational-Tactical and General Military Words [terms]) which was published in 1958 by Voenizdat does not fill the gap. In addition it is clearly obsolete and contains many questionable, incomplete and sometimes incorrect interpretations of terms. The lack of a good dictionary of military terms used in Soviet military science and in the armed forces is a serious hindrance to the development of the theory and practice of military science, and leads to various types of misunderstandings. This is why Lt. Col. Savkin made an attempt to define the concept contained for military science in the term "troop mobility."* But was it worth it to him to "break a lance?"

Soviet military science got along up to the end of World War Two and one might say continues to get along without this term. It appeared in the post-war period primarily in translation literature. From these works this word penetrated into certain scientific research works
*(mobil'nost' voysk)

by our authors, sometimes slipping into the speeches of prominent Soviet military leaders, but in the great majority of cases it was used to signify a concept in reference to mobility (maneuverability) of troops. This is quite reasonable, since this use of the word is closer to the definitions of the word contained in official Soviet publications -- the BSE, the Dictionary of Foreign Words and the Anglo-Russian Dictionary (State Publishing House of Foreign and National Dictionaries, Moscow, 1954 and 1960). It is close to the true meaning also because, in basic foreign sources, particularly in British and American, this term is used, as is evident from an explanatory dictionary of the English language, primarily as "the quality or state of mobility." Drawing an end to the polemics with Lt Col. Savkin, we should like to draw the attention of the military community to terms of actual first-rate importance. As an example, we might mention the difference of opinion in the designation of the newest means of armed combat -- nuclear-missile weapons. There is a great variety of designations used in many ways. Sometimes the term "nuclear weapon" * signifies missiles and nuclear warheads together, in other cases -- they speak separately of nuclear and separately of missile weapons, and in still other cases -- they speak of nuclear weapons and those devices which carry them (missiles and conventional airplanes), and in still other cases -- of means of nuclear attack (missiles, conventional planes, and some even include charges for nuclear carbons), etc. The end result is that there is no single opinion as to what should designate what. For example, if we guide ourselves by the experience of the designation of the term "weapon" of certain types of guns in the past, it becomes quite clear that the term "weapon" also includes the launching device, the missile and the nuclear warhead (reyaktivnaya artilleriya). In designating any nuclear device we, for some reason, call the ammunition the nuclear weapon and the means of delivering this weapon -- missiles, airplanes, etc., -- we differentiate. It seems to us that it would be more suitable to speak of a nuclear-missile weapon, meaning nuclear warheads together with the launching system, to speak of nuclear-aviation weapon, meaning nuclear bombs and the planes which carry them. The term "nuclear ammunition" ("yadernyye boyepriprasy") should of course signify missiles, torpedoes, shells, bombs, with nuclear warhead. It is essential to introduce clarity to the concept designated by the term "yadernyy udar" (nuclear strike) since this term is often used for a single ~~unit~~ and also for a series of ~~units~~. We should also pay careful attention to the designation of new concepts for units. For example, in view of the incorporation in land armies of

*(yadernoye oruzhiye)

new technology, in particular, special transport for carrying heavy loads (tanks), there is a tendency to call this special transport "traylery" from the designation used in certain Western armies of "trailers." The question arises as to whether it is necessary to replace the foreign word "traylery" with the Russian word "pritsep," which has the same meaning? Obviously it would be more expedient to call this variety of trailer "bol'shegruznyye pritsepy" (large-load trailers).

All these and similar details should be decided centrally, in the course of working out a unified Armed Forces Dictionary. In drawing up a dictionary of military terms it is necessary to devote proper attention to developing a single system of official abbreviations for various designations. This should be reflected both in the dictionary part itself as well as in a special abbreviation manual, which could be placed either at the end of the dictionary or be published independently. A bad mix-up has ~~already~~ taken place in reference to abbreviations. The fight against distortions which have spread predominantly among the non-military branches of science and culture was extended mechanically to the military field. A sort of fear of abbreviations sprang up, and the use of abbreviations was brought down to a minimum, a fact which is clearly harmful. Under conditions of modern armed combat, when the element of time acquires particular significance, when every second counts, it is essential not to overlook a clear-cut system of abbreviations. The problem of modern military terminology and official abbreviations is extremely important both for the development of theory and practical troop operations. This problem acquires particular significance in view of the broad incorporation into the armed forces of means of small-scale mechanization and complete automation. In order to develop a dictionary of military terms and a system of abbreviations well-trained and responsible persons should be used, and official sources should be placed at the basis of the work of the collective, coordination in selected terminology should be undertaken with those institutions and organizations affected. Publication should be approved at the proper level and should be obligatory for the personnel of the entire armed forces.

ON THE NATURE OF MODERN WARFARE

Following is a translation of Part 6 of the concluding chapter, "General Conclusions", of the book Kratkiy ocherk razvitiya sovetskogo operativnogo iskusstva (Short Outline of the Development of Soviet Operational Art) by Maj Gen (Res) V. A. Semenov, Moscow, Military Publishing House of the Ministry of Defense, 1960, pages 293-297. 7

A definition of the nature of modern warfare presents one of the most important tasks of military science. The correct resolution of this task has a definite significance for the development of the theory and practice of strategy, operational skills and tactics. This is testified to by historical examples. It is sufficient to recall the lessons of the First World War of 1914-1918. At that time bourgeois military science could not furnish a correct prognosis of the maturing world war and develop suitable methods and forms of waging war, military operations and battles. Contrary to the predictions of the strategists of the warring powers and against their will, the armed struggle assumed a completely different nature than that assumed on the eve of the war. Insufficient development of armed forces, weak war potential of operational groups as well as obsolescent military theory on the part of the warring armies were the direct result of an incorrect determination of the nature of a theoretical war and hindered the correct solution of many important problems during the course of the war. We must also add that the military theoreticians of certain bourgeois countries were not able to furnish a correct prognosis of the nature of the Second World War. This also was evident in the quality of their military skills during the war. An example which can be cited for this is France. The French army depended chiefly on the defense doctrine, overestimating the significance of the fortified Maginot Line. This played an important role in the rapid defeat of the French armed forces in May 1940. At that time Soviet military thought had basically been able to penetrate the future, and its prognosis on the

nature of the imminent Second World War was close to actuality. Our failures in the initial period of the war are explained by a combination of other reasons. Some of them have already been discussed.

To determine the nature of modern warfare means to ascertain its characteristics and features which clearly express new laws of armed combat and methods of conducting it, conditioned by the further development of science and technology and the appearance of new types of weapons and techniques of warfare. Military science should study the conditions of a potential armed conflict, the nature of its initial period and subsequent stages, the role of various types of armed forces and striking power in it, the nature of operations at various theatres. A correct evaluation of all these elements is the basis for developing all areas and phenomena of the art of war pertaining to the sphere of strategy, operations and tactics. Military history conclusively affirms the correctness of the Marxist-Leninist tenet but the methods and forms of waging war depend primarily on the level of a society's productive forces, on its socio-economic organization. This tenet has basic significance for Soviet military science, and it is always guided by this both in studying military history and in determining the nature of modern warfare. The development of society and, primarily, of its productive forces has gone on continuously. In view of this, the nature of warfare has changed, more accurately, the methods and forms of waging war. A general natural law has been clearly formed, as a result of the effect of which the scale and intensity of warfare has increased consistently, the dependence of the armed forces on the rear has increased, as well as on the economic and moral-political potential possessed by the state. This tenet of natural law has been manifested most clearly in the epoch of imperialism and proletarian revolutions.

The process of the development of the art of war has proceeded at varying rates of speed during various historical periods. For example, in the epoch of feudalism the art of war was not subjected to substantial changes for a long period of time. Sometimes its basic content was maintained for centuries. This made it possible for a new war to begin and be waged with almost the identical methods as had been used in the preceding war. In the epoch of capitalism the rate of the development of productive forces and the unevenness of this development exerted influence each time also on the development of warfare. Beginning approximately with the last quarter of the nineteenth century, each major war was basically a new stage in the development of the art of war. At the same time, the periods between wars also

were important stages in the development of the theory and practice of preparations for and carrying out of military operations. After World War I the development of the military arts proceeded rapidly and uninterruptedly as never before in history. The rapid development of the productive forces of states, the fabulous progress in science and technology after the Second World War formed completely new conditions for waging war. Since the end of the War all major countries have repeatedly revised their views on the nature of modern warfare and on the methods of waging it, the organization of armed forces, weapons and military technology have changed to a considerable extent. In the history of the art of war there has never been such a short period of peace-time in which the theories of the art of war underwent such basic revisions. In the period between the two World Wars the means of combat which caused a basic change in the theory of waging war were tanks and airplanes. At present these means have been nuclear weapons and other means of mass annihilation, particularly in combination with missile technology. This once again affirms the position that weapons and military technology are the most important factors exerting a decisive influence on the development of the theory of the art of war, on changes in views of the nature of warfare and methods of waging war. Present-day rates of economic development as well as the achievements of science and technology have borne completely new theories of strategy, operations and tactics. The development of these theories is based now on a new and highly developed material basis, formed by the achievements in the field of nuclear weapons, jet, missile and electronic military technology. Formerly new technical developments exerted considerable influence primarily on tactics and operations, as well as on overall strategy, while now this natural law has changed. Modern means of waging war, in the form of nuclear weapons and other means of mass destruction, exert major and direct influence primarily on the development of the theory and practice of strategy and, consequently, on operations and tactics. This makes it necessary for military science to look far in the future at all times, to find more and more new methods and forms of warfare, to consider carefully further progress in the field of science and technology as well as to study deeply all factors influencing the nature of warfare, constantly examining them in movement, in development and in complex interaction. Now no one can doubt the fact that a future war if it is started by the imperialists will differ in all respects from all preceding wars. In the area of a scientific determination of the nature of modern warfare and development of methods of waging war, Soviet military science

is now orienting itself not only and not so much on the study of past wars as on new potentials created by developing means of waging war of a decisive nature. Soviet military science proceeds from the viewpoint that modern warfare is characterized by waging war on land, sea and in the air simultaneously in many theatres of operation. This war will see the broad application of atomic weapons and other means of mass annihilation, jet aircraft flying at great heights, at supersonic speeds and for great distances, as well as varied jet and rocket techniques, including ICBMs. Nevertheless, Soviet strategy has not exaggerated the importance of the newest weapons. The mass application of atomic weapons does not at all eliminate waging future war in the form of land, sea and air operations. Without these forms of armed forces, and without their correct inter-coordination, it is impossible to wage war successfully. In accordance with this, a build-up of Soviet armed forces is being conducted as well as that of their operational-tactical training.

Waging total war inevitably means covering great expanses of territory. This places before Soviet military science the problem of developing the theory and practice of preparations for and carrying out major complex, simultaneous and successive operations of various types and on a varying scale. The material requirements for carrying out these operations are mass destruction weapons (if no agreement is reached on prohibiting their use), mechanization and motorization of land forces, the rapid development of paratroops, jet propelled planes, and a navy with the powerful weapons it now possesses. A new law of modern warfare is the fact that the heartland of a country completely loses its former safety from attack. The long-range striking power of modern means of warfare, particularly ICBMs, ends forever the difference between front and rear. Military operations in modern war are extremely maneuverable. This is aided by modern means of warfare, particularly complete mechanization and motorization of land forces. This view is shared now in almost all the countries of the world. Mobility and maneuverability of land forces on the field of battle will have a decisive significance under operational conditions. However, it would be incorrect to exclude the possibility of waging combat under positional forms. A mutual shift to defense is possible in the future both in secondary and major theatres of military operations (strategic lines). In this case defensive operations will usually be of a temporary and secondary nature, since both sides will endeavor to carry out predominantly offensive operations with a definite goal. The immense scale of modern warfare and the total nature of its goals will exert a

decisive influence on the development of the theory and practice of preparing for and conducting operations. With all the variations, complexity and specific nature of possible operations on land, sea and air, the entire attention of the warring sides will be concentrated on seizing and maintaining the strategic initiative as much as possible throughout the course of the war.

MODERN MEANS OF COMBAT AND MILITARY DISCIPLINE

Following is a translation of an article by
Mar Armd Trps P. A. Rotmistrov in Krasnaya
Zvezda (Red Star), 15 October 1960, page 5.7

The degree of fighting capacity and constant military preparedness on the part of the army and navy are affected both by socio-political and economic factors and purely military, military-technical and military-organizational factors. We should approach the problem of the significance of military discipline among the troops, as well as interpretation and elucidation of each paragraph of the new USSR Armed Forces Disciplinary Regulations from this viewpoint. No army can exist or fight without military discipline. All generals, including the generals of the distant past, have concerned themselves with strengthening discipline in the ranks. It is true that they approached this problem in various ways. The Prussian king Frederic II considered, for example, that discipline was unthinkable without fear of the subordinate before the superior. He asserted that the soldier should fear the stick of his corporal more than the enemy. Our own Russian general, Suvorov, approached military discipline in a different manner. He said that the word "soldier" is a proud word and that it is impossible to defeat the enemy without a brave and well-disciplined soldier with initiative. Differing from the armies of all bourgeois countries, military discipline in the Soviet armed forces is based not on fear of punishment and coercion but on a high degree of political consciousness and deep ideological conviction on the part of the men in the service. The CP has always viewed conscious and firm military discipline at all stages of military development as one of the most important conditions of the undefeatable fighting capacity of the army and navy, as one of the important factors of their victories over imperialist aggressors. The regulations of the new Armed Forces Disciplinary Manual are also infused with the basic directives of the Party and the brilliant leader of the workers, the great proletarian strategist Lenin. Stressing the increasing

significance of discipline, the regulations state: "Its role is particularly great in modern warfare." I should like to go into detail on this Regulation in the Manual, and here is the reason. Many lectures and reports are read on Soviet military discipline among our troops and at military schools. They thoroughly reveal the conscious nature of our discipline and the means of strengthening it further. But when the lectures and reports touch upon the problem of the increased significance of discipline under modern conditions, very often the lecturers and readers limit themselves to general comments. No wonder the audience asks after such short, general statements: but how can you explain the increased significance of military discipline and what examples can you use to demonstrate this? This is no idle question. Each serviceman should not only be deeply conscious of the necessity of a high degree of strong discipline but should understand quite well why the significance of discipline has increased now to such a tremendous extent. Understanding of this will arouse the serviceman to even greater steadfastness in developing within himself a high degree of discipline and follow-through.

The increased significance of military discipline should be examined, proceeding first of all from the unique features of modern combat. We make no secret that a future war, if started by imperialist aggressors, will be a tremendously fierce, intense and destructive war. Naturally in such a war a tremendous moral and physical effort will be demanded from the men in the ranks. This is not difficult to understand if one keeps in mind the following points. In the last war the basic means of directing fire power against the enemy was artillery and the airforce. Courage, daring and iron nerves were required, as well as suitable intelligent reactions in order to stand up under fire and then advance against the enemy and destroy him. In case of a new war the main means of striking against the enemy and defeating him will be nuclear weapons and missiles which possess tremendous destructive capacity. These weapons naturally strike against the enemy with a tremendous wave of destructive force accompanied by radioactive radiation. Naturally, under the conditions of the use of this type of weapon, tenfold daring, courage, steadfastness and discipline will be required of the troops. This seemingly simple truth must be inculcated day by day into the consciousness of each serviceman. These features, it seems to me, should be kept in mind and should be stressed orally in explaining to the troops one of the most important requirements of the Discipline Manual -- the requirement: to "steadfastly accept all hardships and deprivations of military service without stinting one's own blood and life in

carrying out one's military obligation." Only persons who are ideologically convinced, consciously believing in the righteousness of their cause, physically hardened, rugged, exercising complete mastery over their weapons and absolutely loyal to their military obligation can fulfill the requirements of our military discipline with honor and dignity. Our army is full of just such people. The Second World War testifies convincingly to this. Its history is full of heroic deeds by our warriors. For example, I, as a tank man and former commander of the Fifth Guard Tank Army, will never forget Lt Kubayevskiy -- one of many heroes in the tank corps. Carrying out a military order, he wiped out several Fascist artillery pieces with fire from his tank, when this artillery was delaying the forward movement of our tank unit at a very critical spot. The Nazis were successful in igniting Kubayevskiy's tank. It seemed that the order would not be carried out completely and that the unit would once again be forced to sustain losses and bog down. But the unexpected happened. The burning tank rushed forward. It crushed one Fascist artillery piece after another. It was only after the burning tank-torch ran over the third and last remaining Nazi artillery piece that the explosion erupted and a tremendous ball of fire flew up into the sky as if proclaiming to all of us the heroic deed of Lt Kubayevskiy and the members of his tank crew.

There are many such examples of loyalty to military duty, examples of self-sacrifice as the highest manifestations of heroism and discipline. The young men in our army and navy are learning much from them. The strength of a positive example is great. If we are to speak of the increased significance of military discipline, it means that the significance of the heroic example in the observance of the requirements of discipline has also increased. It is a duty of honor for every Soviet fighting man to follow this example. New means of combat and the tremendous increase of technological military equipment have required great attention to be devoted to organizing the control of *chasti*, ships, *soyedineniya*. With the use of missiles and nuclear weapons, which are the basis of the fighting strength of each type of armed forces, the problem of directing troops is one of the basic problems, meaning defeat or victory for the army in war. To achieve clear-cut and flexible control of troops on the battle field means not only to know how to make decisions which are correct and in accordance with the requirements of the circumstances, but to carry out these decisions correctly, rapidly and in a clear-cut manner, to assure one mind and one course of action among the troops. This is possible only on the basis of iron discipline. This significance is in direct

relationship to the complexity, variety and power of the means of combat, and the level of troop mechanization and motorization. Under these conditions the success of the battle, the operations of the podrazdeleniye, chast', warship and soyedineniya will depend greatly on the discipline, follow-through and combat assignment of each crew, platoon, team, post and even of each soldier, sailor, sergeant and officer.

In view of this I should like to mention a statement made by the USSR Minister of Defense, Mar SU R. Malinovsky: "As the existence of an army is impossible without firm military discipline, with the use of new means of combat a high level is required and an exact execution of all orders and directives such as has never been seen in the history of armies." In order to achieve a deeper understanding of the sense of these words, it is necessary to realize how drastically and unexpectedly the combat situation will change with the use of missiles and other nuclear weapons. It will often be required to change the direction of blows, troop movements, and it will be necessary to maneuver troops and weapons during battle rapidly. All of this must be effected in an extremely short period of time under conditions whereby not only hours but minutes and seconds are of great significance. Therefore, modern combat is unthinkable without a strict observance of the time factor and, consequently, without strict discipline in distribution and use of time, without operations calculated down to hours and minutes. Troop training practice has shown that the time for commanders to come to a decision can and must be reduced to a minimum and these periods have been reduced. But even now we sometimes come across exercises where the time factor is underestimated. Certain commanders lose much time in coming to decisions and drawing up orders, and they "eat up" the time allotted for executing these orders and decisions and thus contribute lack of organization into the operations of the units in training. Some are inclined to see in this merely the lack of necessary habits of efficient time use in certain officers. But this is not merely a matter of habits or skills. The fact is that some officers show during training a scandalous lack of discipline in time use, and senior officers do not always eliminate this type of lack of discipline. The discipline manual states that military discipline requires each serviceman to "observe strictly the laws and carry out accurately the requirements of the military oath, military regulations, orders and directives by superiors." To carry out strictly and accurately -- this should be ingrained in all of our fighting men, including senior and junior, officers and subordinates. To carry

out orders and instructions in battle, strictly and accurately, means to carry them out not only to a specific extent and on a specific spot, but in a strictly determined time period. He who does not understand this does not understand the increasing significance of discipline in the organization of modern combat.

As an example, let us suppose that the following circumstance has arisen during combat operations. The command has accurate information that the enemy will deal an atomic blow at a specific time against our troops in X area. The command has given the order to advance rapidly, in a concealed manner, at a strictly designated time in order to deprive the enemy of the opportunity to cause us losses. The order was carried out accurately. But one group was dilatory in carrying out the order and was delayed for a certain time. Under conditions of a conventional bombing raid, the detachment would sustain losses but would continue to operate. After an atomic attack there would probably be nothing left of this detachment. This is the price which might have to be paid for the slightest lack of discipline and follow-through. The problem of the increased significance of discipline under conditions of use of means of mass destruction is a problem of the greatest responsibility for each officer to carry out his professional duties in directing those under him, a problem of great organizational ability, efficiency and operational ability in the work of staff and staff officers and in the operations of commanders of all levels. This is why I want to specially stress this feature. With the development of science and technology, more and more new means of control are being incorporated into military practice, including modern electronic equipment and devices. This naturally facilitates to a great degree the solution of complicated problems of troop control and combat organization. But no matter how absolute means of control are, the decisive role is in the hands of humans as before. Their knowledge, organizational ability and discipline as well as ability to execute governs the success of the use of the newest achievements of military technology and science in the area of directing troops. The slightest lack of organization, negligence and lack of discipline in this has serious consequences. It is quite understandable that a small newspaper article can not illuminate all questions connected with the increased significance of military discipline under conditions of the use of new means of combat. Therefore, I have limited myself to a few of the most important questions in my opinion. The following conclusion can be drawn from the above: modern means of combat with

which our army and navy are equipped dictate an imperative necessity to support in the future and constantly strengthen among the toops firm and conscious military discipline, to explain its increased significance to service men for sustaining victory in battle. All commanders and political workers who are solving tasks of increasing the combat readiness of chasti and warships should remember this.

EMPLOYMENT OF AIRCRAFT AGAINST MARITIME LINES OF COMMUNICATION

Following is a translation of an article by Col I. A. Sidorov in the Polish monthly journal Przegląd Morski (Maritime Review), Gdynia, May 1961, No 5, pages 30-36. This article reprinted in Polish translation from the Russian monthly journal Morskoy Sbornik (Maritime Collection), No 3, 1961.

The significance of maritime communications is determined for many countries by their geographic, economic and political situation. An analysis of navigation shows that the scope of maritime freight transfer increases from year to year. In 1929 the world freight turn-over was 470 million tons and in 1955 it had increased to 820 million tons, a significant portion of which was waterway transport. For example, in 1955 65.5% of all freight transfer was on waterways, while 21.2% was by railroad and 8.2% -- by truck. (Col I. A. Sidorov in Morskoy Sbornik, 1961, No. 3, pg 36-42). Not only the economy of many countries depends on maritime communication, but the displacement of armed forces and waging of war. This is the cause for the fact that in war time fierce battles have been fought over maritime lines of communication. During the First World War the tonnage of sunken ships was about 13 million BRT, which was about 29% of total world tonnage up to the beginning of the war. (United Nations Statistical Year Book, 1956). The majority of losses were caused by submarine operations. At that time airplanes could not play a greater role in controlling communications, for the technological development at that time made it impossible for the broad use of airplanes for such operations. During the Second World War the battle for maritime lines of communication was even fiercer, and losses increased considerably due to this. For example, the merchant fleets of the allied and neutral countries lost about 24 million BRT, which was more than 50% of total world tonnage up to the beginning of the war. Over 20% of all the tonnage of ships sunk on shipping lanes was attributable to aircraft. More operations were character-

ized by the ability to deal rapid blows from one area to another and to carry out a mission independently or jointly with other forces. In the sum-total aircraft occupied second place in ship tonnage losses behind submarines.

In order to estimate the potential of aircraft at present along shipping lanes, it would be expedient to compare the technical characteristics of modern planes and their weapons with the defense potential of ships as well as to determine the probable intensity under combat conditions. For example, in the United States intensive work is being carried out not only in the field of missile development for land, surface vessel and underwater launching, but in addition much attention is being devoted to improving land and carrier-based aircraft, new methods of application and the introduction of various types of guided weapons. Without minimizing the potential of missiles which can be launched from land or surface craft, many foreign specialists are of the opinion that these weapons at the present stage of development could under no circumstances replace conventional aircraft, particularly in operations having as their aim the destruction of maritime lines of communication. Some of them even assert that in view of the development of missiles and the potentials of air-to-surface missilery, the striking force of jet aircraft not only increases but heavy subsonic aircraft "experiencing a second childhood and the area of their application is being doubled." (Interavia, July 1960). Military specialists of the member countries of the aggressive NATO bloc emphasize that although missile units are to a certain extent forcing out conventional aircraft and decreasing their proportionate weight among the armed forces, the role of the airforce is still quite large. Taking into consideration the increased range, speed and ceiling of modern airplanes and the fact that they can be equipped with missiles for attacking moving targets on the seas, many come to the conclusion that in comparison with the scope of the Second World War the potential for modern aviation in sea lanes operations against the enemy has even increased.

According to the opinion of leading Anglo-American military circles, missile weapons in the arsenal of air attack means will in the future certainly play a greater and greater part, but it is doubtful that they will be able to completely replace the airplane. This point of view is shared by leading military circles in the German Federal Republic, who place priority on the airplane. The appearance of new high-speed planes and particularly the awaited appearance of an atom-powered plane is evaluated as a

condition for the possible increase in the power of the airforce and an extension to a certain degree of its potential in independent operations with the aim of cutting off maritime lines of communication. We should note that an analysis of certain theoretical principles and several military exercises conducted abroad testifies to the fact that under new conditions the use of the airforce will, in many cases be equal to its use in the past. Taking into consideration the lines of development of the armed forces of highly industrialized countries, we must assume that in a future war the scope of operations carried out by the airforce against maritime lines of communication will be changed somewhat. In view of the intensive development of missile weapons the use of the airforce will probably be limited to some degree in the destruction of troops in embarking and disembarking ports as well as the destruction of military installations on the territory of the enemy. It will assuredly cover both naval bases and ports where convoy protection forces are based. We shall discuss certain features which are characteristic for the airforce in combat operations against lines of communications, with the destruction of heavily guarded convoys. First of all we should emphasize that these operations will differ basically from other air operations in maritime theatres. The great ocean expanses make it possible for convoys to change route quite often and thus avoid air attack. Pinpointing convoys and sending striking forces against them is difficult, for flights above the ocean, far from shore, limit the possibilities of an airplane determining its own position. Often occurring over the ocean in the lower atmosphere, clouds as well as fog make the use of radar-aiming devices difficult. Particularly unfavorable conditions for the operations of radar-aiming devices exist when convex clouds form over the ocean, consisting of large drops of water, snow or hail. Cloud masses hide the target and make it impossible to locate it by radar. One should also keep in mind that a negative influence on range and accuracy of navigation is caused by atmospheric layer currents, in which air velocity reaches frequently several hundred km/h. Another important weather element for flying are spinning atmospheric movements which cause fluctuation during the flight. In wartime when all international meteorological information exchange is cut off, it is possible to obtain weather information in a short period of time only with the aid of aircraft specially designated for this purpose. During air operations over maritime lines of communication, independent navigation systems are required, which would determine with great accuracy all elements of

the flight. Therefore, not just any aircraft could be used for operations along lines of communication, but special planes equipped for long flights through fog and with low cloud cover. Speaking of the specific features of using the airforce for attacking the enemy's lines of communication, we should not forget the role of aerial reconnaissance. Just as in the Second World War, air reconnaissance is now the main operational and tactical element for sighting targets at sea. These operations can be handled by reconnaissance planes of great range, equipped with suitable technical equipment for observation and reconnaissance. At present the following equipment is used for sighting moving targets on the sea by aircraft: radar units, radar identifying units, aerial photography equipment, illumination devices, etc. We should stress that air reconnaissance with the aid of airplane radar units makes it possible to reveal troop transports and convoy ships any time of the day or night. The image obtained on the radar screen can be transferred to the suitable unit. Assurance is obtained by document data under conditions whereby it is impossible to carry out visual observation and photography. The cover range for ships at sea with the aid of a radar unit depends on the altitude of the plane, weather conditions and ocean surface conditions. Statements in the press indicate (U.S. Naval Institute Proceedings, March 1956) that with the aid of an aircraft radar unit or radar-operated bomb-sighting device it is possible to discover from an altitude of 10 to 12,000 metres a convoy at a distance of from 100 to 120 km. According to the opinion of many foreign military specialists, groups sent out against discovered moving targets can be directed best of all by reconnaissance planes which regularly inform the striking forces on the position of the target, with indication of time, place, nature of the target and movement elements. Under present-day conditions reconnaissance planes also play the major part in checking the results of strikes on the target. This is dictated by the fact that now, in comparison with the last war, the possibilities of reconnaissance aircraft in this area are considerably greater than for planes in the striking force (due to the nature of their weapons, the planes in the striking force can strike from a much greater distance). The specific features of combat operations by the airforce against navigation are also interconnected with the defense potential of the target. Judging from the statements made by foreign military specialists, the basic method of organizing maritime transport will probably continue to be the convoy system. In view of this it is possible to assume that various types of surface craft will be used for

defending transport ships, as well as submarines, fighter planes and anti-aircraft weapons. Doubtlessly all of these will be used to protect the transports throughout the course of the voyage. As shown by the experiences in the Second World War as well as maneuvers by foreign navies in the post-war period, an ocean crossing by a convoy from the port of embarkation to the port of destination usually lasts quite a long time. The speed of modern convoys varies between 10 and 20 knots. This makes it possible to carry out several air attacks on the same convoy. However, the sinking of a modern convoy is connected primarily with the necessity of wiping out the strong anti-aircraft defense.

According to the opinion of foreign military specialists, modern organization of convoy anti-aircraft defense must provide both for active and passive combat. Active methods include the use of fighter planes, anti-aircraft guided missiles, anti-aircraft artillery, as well as the active jamming of radar devices with which the attack force is equipped. Passive methods of combat are basically the same as they were during the Second World War. These include various feints, screening and maneuvering with the aim of avoiding the air attack. Judging from experiences of foreign navies, in order to assure convoy safety in areas of possible air attack, special groupings can be used (other than of those direct defensive forces) including aircraft carriers. (Interavia Air Letter, 1957, No. 3834). The depth of the air radar observation area in threatened areas sometimes reaches several hundred km. The best thing for these purposes is the use of radar observation craft and planes. Modern surface craft radar units can pick up aerial targets at a distance of 350 to 400 km, at an altitude of 9 to 10,000 meters and higher. For example, certain types of cruisers contain radar units capable of picking up planes at a distance of 350 km. If the aircraft carriers maintain a distance of 160 to 230 km from the convoy in the direction of the probable appearance of the striking force the depth of the radar observation strip increases to a considerable extent. Even rough calculations made on the basis of approximate data show that the depth of air observation in the defense system of modern convoys assures carrier-based fighter planes the possibility of meeting the attack force at a rather considerable distance from the target being guarded. Taking into consideration the speed of jet planes and fighters we can assume that the outer interception limit will be several hundred kilometers from the center of the convoy. It has been stated in the foreign military press (Interavia, 1958, No. 11) that in such a case the defensive fighters can intercept under favor-

able conditions a considerable number of the attacking planes and knock out from 25 to 40% of the intercepted targets.

With the aim of increasing the effectiveness of convoy anti-aircraft defense, guard ships now possess guided missiles. Many authors of articles published in the military press consider, probably not without basis, that the number of such ships in the armed forces of the capitalist countries will increase. In spite of the great probability of anti-aircraft missiles hitting the target, the use of these missiles from surface craft is limited by technical considerations at the present time, for the destruction of several aerial targets by missiles launched from one ship is not very probable. In making a resume of conclusions on anti-aircraft defense of convoys, we should stress that it is carefully planned, sufficiently powerful and it is rather difficult to counter. Keeping the above in mind, the successful break-through against anti-aircraft defenses by the planes of the striking force should be prepared by a series of strikes with the aim of weakening the defense. Since night time and poor visibility conditions are at present more favorable for the weapons of attack than defense, strikes against targets at sea should be carried out preferably under these conditions. In comparison with the Second World War, when night raids on lines of communication were made only in exceptional cases (due to the limited level of technical observation and air navigation devices), under modern conditions such operations will probably be the most commonly used. Judging from the numerous operations carried out in recent years by Anglo-American airforces during war games and maneuvers, counter-radar will occupy a prominent position in the total system of combating anti-aircraft defense. In our opinion, this is due to the fact that the effectiveness of modern anti-aircraft weapons depends to a great degree on the accurate operation of radar equipment in the spotting and guidance system.

All changes which have taken place in the modern aerial striking force in comparison with the Second World War (in technology and weapons), as well as changes in fire power, means and methods of defense, will doubtless cause changes in the tactics of air attack. We must assume that first of all the tactics of the combat aircraft were changed, as well as the use of the weapons possessed by the airforce. Probably a single attack along a broad front of several tactical groups dispersed in relation to altitude will to the greatest degree assure a successful break-through against the anti-aircraft defenses. Such an attack, making difficult the interception by fighters, spreads the anti-aircraft defenses. It would be ex-

pedient for the tactics of the small units from which the tactical groups are formed to be decentralized. For example, during the daytime, under difficult weather conditions, the attack group should go into a combat formation "column of planes," lined up in such a manner that the depth of the combat formation would assure the mutual protection of all planes. Under different conditions it would be advantageous to the group to fly in a battle formation of squadron columns echeloned according to altitude. The depth of the battle formation decreases, and this assures a greater massing of planes over the target and facilitates the direction of the group. It is a well-known fact that recently many countries have made rapid developments of guided missiles for planes, designated chiefly for small targets. These new weapons possess great combat effectiveness. They are characterized primarily by a high striking probability and great range. The use of air-to-ground missiles makes it possible for planes to attack a target on the ocean from a distance inaccessible to ship anti-aircraft artillery and some missiles in current use. During an attack on a specific target, using various weapons, the order of weapons use and the order of tactical group operations acquires great significance. Just as in any battle, an attempt should be made for the operations of the individual air groups to complement each other and, as a result, for each proceeding group to face more advantageous conditions for breaking through the defense and using its weapons.

Judging from the results of recent exercises conducted among foreign navies and taking into consideration additional features of air-to-surface missiles, we can assume that during an attack on a convoy both guided and non-guided missiles can be used. In such a case the order of weapon use can change, depending on the situation. For example, in certain cases the first attackers could be the planes armed with missiles, with the mission of striking the transport ships and warships guiding them; after this attack, which considerably weakened the convoy's anti-aircraft defense system, it would be expedient to complete the strike with the aid of planes armed with other types of weapons. Air operations against convoys on maritime lines of communication demand comprehensive consideration of the factors influencing the organization of the attack. Quite important is the organization of active and passive jamming of spotting and aiming radar devices in the region of the strike on the convoy, the carrying out of accurate and continuous air reconnaissance, weather information and other operations insuring favorable conditions for air combat operations. As the experience of the last war showed,

destruction of a large and well defended convoy in a short period of time is a rather difficult undertaking. For its destruction it will be necessary to undertake several successive raids, during the course of a certain period of time. Air operations on maritime lines of communication will, in the majority of cases, be carried out during day by day combat operations independently, and in certain cases jointly with other naval forces. We can assume that the main feature of these operations will be rapidity and great effectiveness of the air strikes. Therefore, priority will be had by small formations of air squadrons and groups, using various types of weapons.

THE ECONOMIC AND SOCIOPOLITICAL BASIS OF THE MILITARY POWER OF STATES

Following is a translation of an article by
V. Uzen'yev in Kommunist Vooruzhennykh Sil
(The Communist in the Armed Forces), Moscow,
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pages 47-54.⁷

The actual level of a country's military might can, of course, not be measured merely by indices characterizing its armed forces. The military might of a state (coalition) is determined by a totality of its maximum economic, moral-political and military potential, and these depend on the nature and level of the development of productive forces, the social set-up and organization of government. Consequently the economy and social-political structure of a state form the basis for its military might. Engels noted that military power and victory in war depend in the final analysis on the state of the national economy, on material means at the disposal of the power, on the quality and quantity of population and on the technology possessed by the warring countries. Lenin, developing this tenet in reference to the conditions which had been formed on the eve of the Great October Socialist Revolution, stressed the decisive significance in modern wars of the social structure, economics and the organization of the economy. The experience of two world wars in which our country also participated is brilliant testimony to the correctness of these tenets of Marxism-Leninism. War is a more complex and deep phenomenon than mere armed combat. A larger and larger number of countries participate in modern world wars. A tremendous and still increasing percentage of the material resources of the warring states are used to supply the armed forces. In wars of the past human and material losses were sustained only by the armed forces, while as early as the First and particularly in the Second World War great losses from military operations were sustained by the civil population and economy of many countries participating in these wars. The United States alone did not suffer losses, the troops of which were fighting far from their own country,

on foreign soil. In a future world war, if the imperialists start it, there will be no such exceptions, for modern nuclear missiles can reach any spot on the territory of the warring states. Lenin stressed that wars are now waged by peoples. This law is manifested with particular force in our time, when armies not only number into the millions, but the people at the rear of the warring countries must devote the major portion of their labor toward supplying the armed forces, and in cases of possible use of nuclear-armed missiles -- measures to defend industry, transport and other branches of the national economy, and for the preservation of human life -- society's basic productive force.

In modern wars, as a rule, one warring side pursues reactionary, predatory goals, while the other is forced to fight for the vital interests of its peoples for their right to freedom and independence. All of these and many other features of modern wars which give them an extremely violent and decisive nature as well as tremendous scope have placed before military science the problem in all its severity of comparing the military might of various countries and coalitions, on the root and deciding bases of this might -- economic and socio-political factors.

It is obvious that the course of military operations as the outcome of the war as a whole depends on the armed forces -- quantitatively and qualitatively -- possessed by each of the warring sides and on the effectiveness of the use of these armed forces. The condition and effectiveness of use of armed forces depends on many reasons, most of all on the policy for which they are a weapon. War is a continuation of politics by other, coercive means, a "continuation of the policies of those powers affected -- and the various classes within them -- at a given time." (V. I. Lenin, Works, Vol. 21, p. 195). The question of where, when, with what goals and with what intensity its armed forces will act depends on the domestic and foreign policies of the ruling class (classes) of the given state. Here are a few examples. At the beginning of World War II there was a period of so-called "strange war," a lull on the Franco-German front. What was the cause of this? It was primarily the policy of the French government. It was afraid to arouse its people to armed combat and was not endeavoring to make use of its armed forces with decisive goals, for, in the first place, it was depending on the firmness of its frontier defenses -- the "Maginot" Line, and in the second place, it continued to cherish a secret hope of turning the Hitler war machine toward the East, against the USSR. As a result, the French soldiers at the front lines were bored from lack of activity and were rais-

ing rabbits. At the same time Fascist Germany was preparing for a decisive advance, which brought France to a national catastrophe within 13 days. Far-reaching political goals and calculations lay at the base of the continued sabotage by the Anglo-American command of the plans to open a second front in Europe. The ruling circles of the United States and England endeavored to draw out the war between the USSR and Germany in order to weaken both sides to the maximum extent, in order to subsequently march forth with fresh troops and dictate their own conditions. In this case, as in the previous one, the nature of the use of armed forces was determined by reactionary policy and conditioned by a fallacious and incorrect evaluation of the actual situation of the sides in general and the real power and potential of the USSR in particular.

More sober considerations lay at the basis of the policies of Fascist Germany. It was able to a considerable extent to appreciate and make use of the weak points and political mistakes of its Western opponents, to make use of the economies of the countries of Europe occupied by it and launched a treacherous and sudden attack by the USSR, assuming that this would eliminate the possibility of opening a second front in Europe. Possessing extensive economic resources and a huge mobilized army, making use of the factor of surprise, the Nazi command counted on rapid victory. However, the war assumed the nature of a lengthy one and ended with the utter defeat of the Fascist armed forces and the unconditional surrender of Germany. The defeat of Germany, the failure of the policy of the ruling circles in the other imperialist states in respect to the USSR were not the result of chance errors and miscalculations on the part of individual political bosses in the imperialist countries. The bourgeois usually uses this excuse nowadays, particularly in West Germany. However, the matter does not lie so much in miscalculations and errors by imperialist strategists, although undoubtedly these did occur. The main reason is the viciousness and proneness for military ventures of the policies of the class which is being forced out of the arena of history, the class which is doing everything it can to turn the wheel of history back, absolutely incapable of comprehending the actual relationship of forces and the potentials of socialism and capitalism. Bourgeois politicians and military strategists do not see the deep sources of the unsurpassed power and invincibility of socialism, which are contained in a truly popular governmental and social structure, a planned economy and an indestructible moral-political unity within the nation.

Armed forces are the basic and decisive instrument

with the aid of which wars are waged, that is, specially organized and trained persons who are equipped with the necessary material means for carrying out combat operations. There are two elements joined in armed forces -- a definite quantity of material means of combat (military technology, weapons, ammunition, etc.) and non-combat (food, supplies, medical supplies, etc.) designation and a definite number of persons who are trained to use military techniques and weapons. Of course each country knows the scope of its own armed forces, and, using various sources of information, has a more or less accurate knowledge of the composition and number of armed forces of the enemy. However, it is extremely complicated to make a preparatory evaluation of the numbers and quality of the armed forces of a probable enemy (or coalition) under total mobilization conditions. The answer to this question is furnished by analytical work, study and determination of the economic, moral and military potential of the given country (coalition). The military might of a state is shown most clearly by war itself. Therefore, in order to determine ahead of time the possible dimensions and quality of the armed forces of individual countries or coalitions of them, for an imminent or already beginning war, it is essential first of all to study the experience of these countries and their armed forces in past wars and to introduce necessary corrections proceeding from the most recent and expected changes in the economy, technology, distribution and balance of forces on the world arena, as well as in the policies of the given country. Everything that can be expressed quantitatively can be calculated with a sufficient degree of accuracy. It is much more complicated to determine such qualitative indices as the moral-political status of the troops, the degree of perfection of the art of war, the organizational potential of government organs. A study of these facets of military might demands a great quantity of the most varied data of a direct and indirect nature, the ability to apply the Marxist-Leninist method of studying social phenomena and tendencies of their development. All past wars, particularly the First and Second World Wars, demonstrated that the ties between war and economics are becoming more and more closely knit. The expenditure of material goods and losses in manpower at the fronts have reached enormous dimensions.

The split-up of the world into two social systems, the increase in aggravation of external and internal contradictions of imperialism, entering the period of decline, as well as other political and economic changes, including the rapid development of the productive forces under the

conditions of the modern scientific-technological revolution -- have led to a drastic change in the nature and scale of modern wars. In the Third World War, if the reactionary circles of imperialist countries begin it, the countries of the socialist camp, being under attack, will emerge in a single coalition against the imperialist aggressor blocs. Both coalitions possess tremendous human resources: the population of the socialist countries comprises more than 1 billion persons, while the population of the imperialist NATO, SEATO, SENTO, ANZIUS blocs -- about 640 million persons. Both coalitions occupy tremendous territories: the countries of the socialist camp -- 34.8 million km², the countries of the imperialist blocs -- 33.3 million km². Both possess a tremendous production apparatus: the socialist countries possess more than one-third of the world's industrial production, while the countries of the imperialist blocs -- somewhat more than half (this relation is changing constantly in favor of the socialist camp). Without any doubt a new world war would be extremely intense and probably quite lengthy, for both coalitions possess immense human and material resources. The armed struggle in such a war would inevitably assume a total nature, for the question would arise: which is it to be, socialism or capitalism? The flames of war would encompass all continents, oceans and seas. The main goals of the armed conflict would be not only the destruction of the armed forces of the enemy but the destruction of political and economic centers, strategic installations far to the rear. A logical question arises: will not the use of missiles and nuclear weapons change the relation between the course and outcome of war and the condition of the economic structure? Will not a situation be formed analogous to wars in past centuries, whereby the course of the war would be determined not by current war production but by the supplies which had been produced on the eve of the war? Doubtlessly the role of material reserves of all types is now increasing sharply. However, not one country, under conditions of modern technology and the scale of a world war, is able under peace-conditions to produce supplies sufficient for the entire period of armed conflict, and military supply warehouses and supply bases are primary targets.

The use of new types of weapons has always caused a rapid increase in material expenditures for waging war. This is confirmed by the entire history of wars. Characteristic in this respect are figures provided by French researchers. According to their calculations, in 1914 an army consumed (weapons, ammunition, food, etc.) 6 kg /day/

person, at the end of the First World War -- up to 10 kg. In 1944 (the investigators are taking only the period of active military campaigns in Africa) the consumption per day per person reached 20 kg. According to the estimate of French military circles, in case of an atomic war armed forces consumption would be no less than 25 kg./man/day. Two World Wars showed another regular characteristic of modern wars: the insignificant increase in the maximum size of the armed forces of the main warring countries from war to war. In the First World War a maximum number was called up, which was impossible to increase without injury to continuous war production in the rear. A certain increase in the maximum number of armed forces which any country can achieve is possible only along with population growth and labor productivity increase. On the other hand, a rapid increase in technical equipment for troops and increased equipment for military campaigns leads to a sharp increase in the number of persons engaged in the various spheres of war production. We should keep in mind that in modern wars, in case of the use of missiles and nuclear weapons, each warring side will require large amounts of goods and manpower in order to replace damage sustained in the rear. Finally, the constant increase of military action at the rear of warring countries causes great losses among the civil population and cuts down on the number of reserves which can be mobilized. An increase in the strength of the armed forces of the warring coalitions is possible only under conditions of a great increase in the number of countries actively participating in the armed conflict.

Karl Marx made a profound deduction in his time: all expenditures of material goods in the interests of war are non-productive and are deductions from the national income which are not caused by the needs of producing material benefits. Persons called into the armed forces are also diverted from productive labor. This means that a definite limit exists, dictated by the requirements of production, beyond which the size of the armed forces cannot be pushed. Depending on the level of development of the country and the nature of its economic and socio-political structure, this limit changes. At any particular moment a country or group of countries can produce a quantity of material goods and human resources to satisfy the needs of the armed forces, beyond the limit of which its removal from the sphere of material production would cause an immediate economic catastrophe. The maximum possible (for a specific date) size of a country's armed forces, equipped with everything necessary for waging war and possessing all the specific qualitative indices, is called

the war potential of a country. This potential is limited to a great degree, according to Engels, by the economic capacity of a country, or the economic potential, as it is usually called now.

A country's economic potential depends on many conditions and is characterized by many indices. Among indices determining economic potential, of first-rate significance are quantity and quality of population (its numbers and density, literacy level, technical level, productivity of public labor, moral qualities, etc.), amount of natural mineral raw materials, industrial apparatus, state of power engineering and transport, means of communication. The economic potential is further characterized by the potentials for producing such products as steel (including special types of steel), rolled steel, non-ferrous and rare earths, metals of the uranium group, fuel and electrical energy, basic types of machinery and machine tools, electro-technical and electronic equipment, sulphuric and nitric acids and other basic chemical products, plastics, synthetic and natural rubber, important organic chemical combinations, cement and other construction materials, grain, meat, potatoes and vegetables, sugar, leather and leather substitutes, textiles. All of these products are basic ones. They are essential both for the production of the tools and means of labor as well as consumer goods and also for the production of the modern tools of war. If we wish to determine the war potential of a specific country, it is first of all essential to ascertain its economic potential, that is, to calculate and evaluate that quantity of production which can actually be produced with a maximum national effort. But the maximum degree of possible productive forces depends on the nature and peculiar features of the social and governmental structure, the class structure of the society. The socialist system with its tremendous advantages before the capitalist system makes it possible to achieve an unparalleled degree of intensity of productive forces. V. I. Lenin, on the eve of the October Revolution, foretold that the socialist reformation of the government and social structure and the economic system of Russia would increase its military might to a higher degree in comparison with any capitalist power. And this was shown in all the wars forced upon the Soviet Union by the imperialists. This is why there is full justification to assert that right now the military might of the Soviet Union with its socialist government and social structure, with its characteristic friendship for other peoples and moral-political unity of the entire nation, the lack of exploitation and antagonistic contradictions, the high moral spirit of the population

surpasses the military might of any capitalist country.

An imperialist state is a monstrous apparatus for oppressing the masses by a small group of predatory monopolists, holding the worker in the yoke of capitalist slavery. It guards the interests of the monopolies and serves their anti-popular goals -- the extraction of maximum profit by cruel exploitation of the workers of that country and a stripping bare of colonial and dependent countries. The policies of an imperial state cannot and do not match the vital interests of the workers, and this undermines and weakens its military might. Great are the advantages of the socialist economic system over the capitalist, as are the advantages of a planned national economy and control over it in strict accordance with the principles of democratic centralism. One of the sources of our strength and invincibility lies in the objective economic laws of planned proportional development of the socialist national economy -- as a counter-weight to the law of competition and anarchy of social production taking place under conditions of capitalism. A planned economy caused by a socialization of the tools and means of production makes it possible to use labor and material-technical resources most expediently both in the interests of building Communism and defending the socialist camp against the aggressive plots by the imperialists. Under the capitalist system, private ownership of the tools and means of production causes competition and production anarchy, a disproportion in the economic system and periodic crises, a growing unloading of the industrial apparatus and increased unemployment. The very nature and essence of the capitalist and socialist structure cause the principle difference in the behavior of the masses during war time. In socialist countries the people have something to defend and the masses know why it is necessary to give up a certain portion of their labor toward strengthening the military might of their country. These conditions cannot be met in countries under imperialist slavery. Preparing for aggressive wars of plunder, the monopolists and their henchmen are doing everything they can to deceive the peoples, to mask the true goals of the wars, to inculcate moral and fighting qualities into their servicemen which are essential for carrying out the criminal plans and intrigues of the imperialists. The military might of a country is determined not so much by the total production which is the maximum obtainable, as that part which expresses the military-economic potential. We have mentioned above that any state can turn a definite maximum of material means toward the requirements of the armed forces. This maxi-

num comprises the military-economic potential (for the same fiscal year). The proportion which is used to divide the basic types of production into two parts (the part used for satisfying the requirements of the armed forces and the part designated for meeting the immediate requirements of the home front) also depends on the social-political structure, the class structure of society, etc. This proportion depends to a great degree on the moral potential, on the readiness of the nation to support the domestic and foreign policies of the government, all economic and military measures taken by the state, and on the preparedness to sustain losses and make sacrifices for victory at the front.

If we take all this into consideration we realize that under modern conditions when the economic potential of the Soviet Union is still less than that of the economic potential of the United States, the military-economic and war potential of the USSR has already exceeded these potentials of the United States -- the most highly developed and powerful capitalist country. In order to elucidate this let us recall that during the Second World War, Germany with a 43.4 million ton steel production capacity per year produced only as much as 34.6 million tons and only 50% of this steel was used for military purposes. The USSR devoted more than 70% of steel production for the Front. Of every 100,000 tons of steel produced, the USSR produced a considerably greater number of tanks, planes and guns than Fascist Germany or the United States. Right now the United States possesses the world's largest steel industry, and its productive capacity (134 million tons of steel in 1959) is much greater than that of the Soviet Union. However, at the end of 1960 more than one-half of this potential was inactive. Right now steel production in the United States is approximately 80 million tons. The Soviet Union (with a smaller production capacity) is producing about 70 million tons. The economic system of the Soviet Union, as the other countries of the socialist camp, is developing at a great rate. The economy of the United States is undergoing crises more and more often and is actually bogged down. This means that in economic competition between the two systems, time is on our side. The economic potential of the USSR is growing constantly, overtaking and for certain indices is already surpassing the economic potential of the United States.

In the modern epoch -- the epoch of great scientific-technical discoveries and achievements, armies are being equipped with newer and more perfected means of waging war. If one side has a more effective weapon, it is possible for this side (all other things being equal) to

hold the upper hand over the enemy which possesses inferior weapons. The quality of arms possessed by each of the states depends on the level of development of its productive forces in general and a fully and comprehensively developed industry in particular. But even in industry the decisive significance for the military-economic potential is not possessed by all branches, but those such as the production of special types of steels and alloys, electro-technical and electronic devices, electricity, machinery building and exact instrument construction, the production of fissionable materials, etc. The quality of military technology is indissolubly joined in addition with technological progress in a country, with the level of scientific development, chiefly its newest branches, and the application of scientific achievements to production. It is a generally accepted fact that if a new World War breaks out it will be a nuclear-missile war. The armed forces of the Soviet Union possess excellent weapons for waging such a war. Our ballistic missiles, which can hit literally any spot on the surface of the earth, are an eminent achievement of scientific-technical thought. In a few years they will evidently be for all practical purposes a weapon against which there is no defense. This is to say nothing of other techniques and branches. In this area also, thanks to the care taken by the Communist Party and the Soviet government, our armed forces possess many indisputable advantages. The Soviet socialist land, advancing in a scientific-technical respect, thanks to the advantages of its social and governmental structure, has all the opportunities to support and consolidate this superiority in the future. The attention devoted in our country to the complete mechanization and automation of production, the technical training of cadres, the development of scientific research, guarantees that we, also in respect to military technology, will be ahead of the capitalist countries until such time as universal and complete disarmament shall take place, which the socialist camp and millions of persons on all continents of the earth insistently demand. In a war fought with missiles and nuclear weapons, the military might of a country is determined also by its capacity to stand up after the first blow. This is connected primarily with the numbers and density of population. A large population, in combination with a good dispersal, makes a country less vulnerable to atomic attack. The mobilization potential of a country, its ability to form contingents of those persons called into the armed forces and to move to the front a greater or smaller number of combat units are determined by the size of national production and the state of transport and communication facilities. Mobilization potential de-

pende also to a great degree on the methods of forming and training the armed forces, conditioned by the type of state and form of government. Wars (as well as military service during peace time) have always placed great demands on the public. The armed forces should be well trained physically, trained with specific knowledge and experience, particularly in the technical field, possess firm discipline and special moral-combat qualities. The bases for these qualities in future fighting men are formed in the young man at home, in the school and on the job. The capacity to absorb specific military knowledge doubtlessly depends on the general level of education, the general technological level on the part of the population, whereby socialist countries again have colossal advantages, where education really is universal, unattainable for capitalist states both in content and scale.

The conclusion of Marxism-Leninism that the rear supplies the front not only with materials but moods and ideas is well known. A person joins the armed forces with a certain backlog of political knowledge and conceptions, with definite convictions and moral qualities. The nature of the social-political structure leaves a primary mark on the moral qualities of the men in the armed forces. The same mark is left by the purposes and tasks faced by the war and the designation of the armed forces, as well as the way the army is run, the nature and level of political education in the army. During war time the moral and psychological state of the serviceman is influenced also by the success or failure of combat operations in which he participates, the way the war is progressing in general, the size of combat casualties, deprivations experienced on the home front, etc. The result of the interaction of all these elements makes it possible to differentiate sharply the moral-political attitudes of the men in socialist armies from armies of capitalist countries. A man is prepared to sacrifice his life only in case he considers the cause of the war to be just, noble and if he is convinced that this cause is identical with the vital interests of the nation. It is clear that an army serving a handful of monopolists cannot engender such convictions. The armed forces of the countries of the socialist camp and the countries fighting for their liberation from colonial slavery and national oppression, as history has shown so convincingly, possess a level of moral-political fighting qualities which are unattainable for the armies of the imperialist states. Countries in the aggressive imperialist blocs possess high population density and a highly developed transport system, facts which facilitate their mobilization. But these advan-

tages in a war fought with missiles and nuclear weapons can be transformed into serious disadvantages and can be fatal for such countries as Great Britain, West Germany, Belgium and France. The general level of technical literacy in the main countries of the imperialist bloc is higher than in certain countries in the socialist camp. But this is compensated for many times over by the incomparable advantages of the countries in the socialist camp, including their inexhaustible moral potential. "Since the bourgeoisie of all countries is forced to compel the working masses to fight for alien military goals, this is achieved with the aid of all kinds of tricks, based either on arousing base instincts of the masses (desire for revenge, fanatical chauvinism, etc.) or on mass delusion" (M. V. Frunze, Izbrannyye Proizvedeniya [Selected Works], Voenizdat, 1957, Vol. 2, p. 15.) The greater the deprivations of war, the more rapidly the masses begin to see clearly and cease to be the submissive tool of aggressors, recognizing the diametrically opposed interests of the masses and the monopolists -- the mortal enemies of the workers.

The deepest source of the military might of the countries of the world socialist system is the truly popular socialist social and governmental structure. It has opened broad expanses for the action of such great moving forces of socialist development as ardent patriotism of those building socialism and Communism, combined with a deeply conscious proletarian internationalism, the indestructible union between the worker class and the peasantry, a fraternal friendship between peoples, an indestructible moral-political unity of the people in each of the socialist countries and the entire socialist camp. The socialist economic system with its characteristic features, the most nearly complete satisfaction of the growing needs of workers, a planned and proportional development of the economy, as well as the primary development of the means of production, a constant increase in labor productivity, international socialist division of labor, coordination of economic plans, specialization and production cooperation -- forms the objective economic basis for the superior military might of the socialist states over the imperialist states. The most important moving force of the USSR and the other socialist countries, as well as the source of their military might, is the leadership of the Communist and worker parties. Loyal to the principles of Marxism-Leninism, they are fighting constantly for consolidation of the unity, friendship and mutual aid among the countries of the socialist camp as well as for the preservation of peace throughout the world, and they are leading their peoples along the path toward Communism.